



**Standard Terms Determination for the designated services of
the mobile termination access services (MTAS) fixed-to-mobile
voice (FTM), mobile-to-mobile voice (MTM) and short messaging
services (SMS))**

Decision 724

Determination under section 30M of the Telecommunications Act 2001

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Date of Determination: 5 May 2011

**CONFIDENTIAL MATERIAL IN THIS DETERMINATION IS CONTAINED IN
SQUARE BRACKETS**

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LIST OF TERMS AND ABBREVIATIONS

2degrees	Two Degrees Mobile Limited
2G	Second generation cellular network, characterised by digital transmission rather than analogue used by the first generation of cellular networks
3G	Third generation cellular network, based on the IMT 2000 set of radio technology standards as recognized by the ITU
Access Seeker	A service provider who seeks access to the MTAS
Act	means the Telecommunications Act 2001
ARCEP	means L'Authorité de Régulation des Communications Électroniques et des Postes (French Regulator)
BAK	Bill and keep
BEREC	Body of European Regulators for Electronic Communications
Commission	means the Commerce Commission in the course of performing its functions under the Act
CMT	means Comision del Mercado de las Telecomunicaciones (Spanish Regulator)
CPP	Calling party pays
Determination Date	means the date of this MTAS services standard terms determination
EC	European Commission
EPMU	Equi-proportionate mark up
FPP	Final pricing principle
FTM	Fixed to mobile
GSMA	Global System for Mobile communications Association
HHI	Herfindahl-Hirschman Index

IMF	International Monetary Fund
IPP	Initial pricing principle
LMNP	Local mobile number portability
LRAIC	Long run average incremental cost
LRIC+	Long run incremental cost plus
MNO	Mobile network operator
MTAS	Mobile termination access service
MTAS services	The FTM, MTM and SMS services collectively
MTM	Mobile to mobile
MVNO	Mobile virtual network operator
NRA	National regulatory authority
NZcpm	New Zealand cents per minute
NZD	New Zealand dollar
OECD	Organisation for Economic Co-operation and Development
Ofcom	Office of Communications (United Kingdom regulator)
Oftel	Former United Kingdom Office of Telecommunications (now part of Ofcom)
PPP	Purchasing power parity
PTS	Post- och telestyrelsen (Swedish regulator)
Pure LRIC	Pure long run incremental cost

RPP	Receiving party pays
RTD	Residual terms determination
SIM	Subscriber identity module or subscriber identification module
SMS	Short message service
STD	Standard terms determination
Telecom	Telecom Corporation of New Zealand Limited
TMG	Telecommunications Management Group
TSLRIC	Total service long run incremental cost
TUANZ	Telecommunications Users Association of New Zealand
UBA	Unbundled bitstream access
UCLL	Unbundled copper local loop
UK	United Kingdom
UKCC	United Kingdom Competition Commission
Vodafone	Vodafone New Zealand
Voice MTAS services (or voice MTAS calls)	FTM and MTM services (or calls) collectively

EXECUTIVE SUMMARY¹

Introduction

- i. The mobile termination access services (MTAS) are three designated access services that provide for the termination on a cellular mobile telephone network of voice calls and the short-message-service (SMS) from either:
 - a fixed telephone network, in the case of fixed-to-mobile (FTM) voice calls; or
 - another cellular mobile telephone network, in the case of the mobile-to-mobile (MTM) voice calls and the SMS service.
- ii. In this standard terms determination (STD), the Commerce Commission has determined the price and non-price terms for the MTAS.
- iii. The Commission has under section 18 taken into account the current state of the New Zealand mobile market in reaching its decisions in this MTAS STD, with the objective of removing the barriers to the efficient expansion of smaller operators found in the MTAS schedule 3 investigation.
- iv. The following features of this market are relevant to the Commission's assessment:
 - there is a high level of concentration;
 - there are significant on-net off-net price differentials;
 - there is very little cross-net traffic;
 - there are regional variances in market share;
 - churn rates are high;
 - prices are high relative to other OECD countries (particularly for prepay customers); and
 - mobile voice usage is low compared to other countries.
- v. The Commission has identified the following competition concerns arising from these market features:
 - above cost mobile termination rates (MTRs) make it difficult for a small operators to set off-net prices that match the incumbents' on-net pricing; and
 - incumbents have an incentive to set high off-net rates in order to reduce the number of calls that the small operators' subscribers receive (making the small network less attractive).

¹ This executive summary does not form part of the Commission's Standard Terms Determination.

- vi. The Commission considers that the decisions made in this MTAS STD are those that are most likely to promote competition for the long term benefit of end-users. The Commission has also considered the efficiencies that will result from its decisions.
- vii. This STD contains sufficient terms on which 2degrees, Telecom and Vodafone (the mobile network operators or MNOs) and any future provider of the MTAS must supply any of the MTAS to an Access Seeker without the need for the Access Seeker to enter into an agreement for provision of the service. The key terms of this MTAS STD are summarised below.

Pricing principle

- viii. The Commission has considered whether a forward-looking cost based price or a Bill and Keep (BAK) or a Hybrid BAK pricing principle will best promote competition for the long-term benefit of end-users in New Zealand. In considering whether a BAK or hybrid BAK pricing principle will, or is likely to, best promote competition, the Commission has taken into account the following factors:
 - whether the net payments that would be required under a price based on benchmarking² are relatively low, due to cross-network traffic being relatively balanced and/or there being a low MTR; or
 - whether calling externalities are significant.

Price for the voice MTAS services

- ix. The Commission has determined in relation to FTM and MTM voice calls (collectively the voice MTAS services) that:
 - all voice benchmarks that meet the Commission's benchmarking criteria should be included in the voice benchmark set. It is not possible, or desirable, to adjust for all factors that drive differences in cost estimates in establishing the voice benchmark set. In confirming its final benchmarking criteria, the Commission has taken account of the views of participants at the MTAS STD Conference that it is preferable to retain a larger benchmark set, and take account of the range of factors influencing MTAS costs in selecting a price point;
 - the 25th percentile of the voice benchmark set is appropriate as the price point as there are a range of comparability factors that suggest the efficiently incurred costs of providing the voice MTAS services in 2011 are below the median of the voice benchmark set. In addition, the 25th percentile benchmarked price is most likely to address the competition concerns identified in paragraph iii above;
 - the median cost path of the voice benchmark set is appropriate, as there is no reason to consider that costs in New Zealand will change at a rate that

² The Commission has benchmarked against cost-modelled rates using the forward-looking total service long run incremental cost standard.

is different to overall international trends, reflected in the cost paths in the voice benchmark set. This is appropriate when considered in combination with the price point of the 25th percentile, which takes into account the impact of factors such as increases in mobile data usage on the costs of the voice MTAS services;

- cost-based MTRs are appropriate, as a forward-looking cost-based price should enable small operators to compete with existing on-net pricing from the larger operators and will also improve competition in the provision of retail FTM and tolls services; and
 - asymmetric MTRs³ are not appropriate as they would be likely to contribute to continuing on-net off-net price differentiation and therefore would not respond to the competition concerns identified in paragraph iii above.
- x. In addition, the Commission has determined that a one year glide path is appropriate for the voice MTAS services. This was a very finely balanced judgment, as having no glide path would more immediately respond to the competition concerns that the Commission is addressing in this MTAS STD. However, the Commission considers that a glide path is appropriate in order to allow operators time to adjust retail prices to the reduction in MTRs under this MTAS STD and that, over the long term, this will best promote competition. Commissioner Mazzoleni has a different view on this point and considers no glide path is more appropriate to address the competition concerns in the New Zealand mobile market, as set out at 602 and 603.
- xi. The glide path adopted is based on a proposal by Telecom that the MTR for 2011 should be based on the medium of the range of regulated outcomes for 2011 put forward by the Commission in its final Schedule 3 report (7.48 cpm), but modified with an additional adjustment on 1 October 2011 of a 50% reduction to 5.88 cpm.
- xii. As a result of the above decisions, the MTRs for the voice MTAS services from 6 May 2011 to 31 March 2015 are:

Effective from	6 May 2011	1 October 2011	1 April 2012	1 April 2013	1 April 2014
MTR for voice MTAS services (NZ cpm)	7.48 {4.28}	5.88 {4.28}	3.97	3.72	3.56

(the figures in { } show the MTR that would have applied if a glide path had not been provided for).

Price for the SMS service

- xiii. The Commission has determined in relation to the SMS service that:

³ Where different MTRs are paid to different MNOs.

- all SMS benchmarks that meet the Commission's benchmarking criteria should be included in the SMS benchmark set, consistent with the approach taken to the voice benchmark set;
 - the lower bound of the SMS benchmark set is appropriate, as this is the most recent benchmark, suggesting the efficient costs of SMS termination are likely to be below the median;
 - while market conditions suggest that a BAK pricing principle is appropriate, in order to mitigate against the risk of SMS spam, the Commission has determined that a forward-looking cost-based price for SMS termination is appropriate; and
 - while the costs of SMS termination are likely to fall over time, in the absence of benchmarked reductions in the costs of providing the SMS termination service over time, no cost-path has been applied to the SMS termination rate.
- xiv. In addition, the Commission has determined that no glide path is appropriate for SMS.
- xv. As a result of the above decisions, the MTR for the SMS service from 6 May 2011 is 0.06cpSMS.

Conditions

- xvi. The Commission has jurisdiction to impose a condition limiting on-net off-net price differentiation under section 30O of the Act as a part of the regulation of wholesale MTRs, if it considers this is necessary in order to address the competition concerns identified in paragraph iii above.
- xvii. On-net off-net price differentiation can be pro-competitive. However, New Zealand market conditions indicate that on-net off-net price differences have had the effect of limiting the expansion of smaller operators and thereby prevent effective competition from evolving in the New Zealand retail market.
- xviii. While cost-based MTRs are likely to reduce the cost-based incentives for on-net off-net price differentiation, the strategic incentive to differentiate between on-net and off-net calls is likely to remain even after MTRs are regulated at cost. However, once MTRs are regulated at cost, the scope for potential anticompetitive behaviour with regard to off-net pricing is likely to be significantly reduced.
- xix. The Commission determines that the most appropriate approach is to monitor the market very closely after the MTAS STD has come into effect and assess trends on a monthly basis to determine whether cost-based MTRs are addressing the competition concerns the Commission has considered in this MTAS STD.
- xx. In a situation where MTRs are regulated at cost, and market forces are effective in delivering more competitive outcomes, the Commission would expect to see (within a reasonably short time):

- an increase in cross-network traffic for voice and SMS to that reflecting a competitive mobile market;
 - a decrease in the difference in prices between on-net and off-net calls and SMS; and
 - a decrease in the customer churn-rate for the smaller operator.
- xxi. Given the significance of on-net off-net price differentiation in the New Zealand market, the Commission intends to publish the results of monitoring of the first two indicators above on a monthly basis. These reports will provide comments on whether the Commission continues to have concerns such that a condition limiting on-net off-net price differentiation may need to be imposed. If such a condition were appropriate, the Commission could conduct a section 30R review to impose a condition relatively quickly.

Service description

- xxii. The Commission has determined that the MTAS services covered by the MTAS STD should:
- not include domestic transit or transport services, as these are available commercially and do not need to be included in the scope of the MTAS STD; and
 - only include web to text SMS that originate from a cellular mobile telephone network and have an associated MTAS reply path. Other forms of SMS, such as SMS that originate on the internet, machine to man and machine to machine SMS, have been excluded from the MTAS STD as these are outside the scope of the regulated SMS service.

Sundry charges and non-price Terms

- xxiii. The Commission has determined that all set-up arrangements should be subject to a price on application charging arrangement. Where there is a dispute over this price, then the set-up build must proceed while the price is subject to a dispute resolution process.
- xxiv. The Commission has also determined the non-price terms for access to the MTAS services. These non-price terms include:
- an artificial inflation of traffic provisions has been reinserted into the MTAS STD, as there was general industry support that this would support existing pro-consumer anti-SPAM limitations set out in legislation; and
 - Access Seekers are prohibited from knowingly using or allowing the use of SIM boxes by members of their Group.

Implementation

- xxv. The Commission has determined that:

- the changes to cost-based MTRs for the voice MTAS services and the SMS service should come into force immediately upon a request for the service by an Access Seeker, with a reconciliation process for any credits required as a result of billing system changes. Where requested by an Access Seeker, any such credit must be refunded by the Access Provider, with interest being payable if the refund is not paid within 20 Working Days; and
- parties should be given a reasonable time to complete any technical or systems changes, or network design changes, necessary to implement the MTAS services - these timeframes are between 45 to 90 Working Days.

Confidential information cited in this determination is subject to the confidentiality order made by the Commission under section 15(i) of the Act and section 100 of the Commerce Act 1986 (the Order).

The Order in relation to the MTAS Services STD process is dated 28 September 2010 and will have effect until 20 working days from the date on which the Commission issues a Determination for the proceedings under section 30M of the Act.

All restricted information (RI) or additional protection information (API), including Commission only information (COI) is subject to the Order and has been extracted from the public version of this determination.

On 14 December 2010 and 20 December 2010 the Commission issued decisions on the classification of information provided for the purposes of this MTAS STD, setting out:⁴

- the categories of information that are RI, subject to the provision of the Order
- the categories of information that are API, subject to the provisions of the Order and the additional API conditions specified in the Commission's decision; and
- the categories of information that are COI
- Key documents are available on the Commission's website at:
- <http://www.comcom.govt.nz/mobile-termination-access-services-std/>

⁴ Commission, *Classification of information provided for the MTAS STD process*, 14 December 2010, and Commission, *Release of MTAS Schedule 3 Investigation quantitative model*, 20 December 2010.

SECTION A. CONTENTS OF THIS MTAS STD DECISION DOCUMENT

Purpose

1. This section outlines the scope of the mobile termination access services (MTAS) that are covered by this standard terms determination (STD) and summarises the contents of this STD decision document.

The MTAS Services STD

2. This STD is in respect of the designated MTAS under subpart 2 of Part 1 of Schedule 1 of the Telecommunications Act 2001 (the Act) and, in particular, the termination on a cellular mobile telephone network of:
 - voice calls originating from a fixed telephone network ie fixed-to-mobile (FTM) voice calls and voice calls originating from another cellular mobile telephone network ie mobile-to-mobile (MTM) voice calls (collectively the voice MTAS services or voice MTAS calls); and
 - the short-message-service (SMS) originating from another cellular mobile telephone network (the SMS service).
 - (collectively the MTAS services)

Contents of this STD decision document

3. The following sections of this STD decision document provide explanations and reasons for the substantive decisions that the Commission has made in relation to the final STD:
 - Section B: Framework for the MTAS STD: This section describes the legal requirements for this STD and provides context on the current state of competition in the New Zealand mobile market;
 - Section C: Framework for selecting a pricing principle: This section sets out the framework for determining which of the options from the initial pricing principle should apply to the voice MTAS services and the SMS service;
 - Section D: Determining the pricing principle, and core prices, for the voice MTAS services: This section determines which initial pricing principle option should apply to the voice MTAS services, discusses issues related to the Commission's benchmarking methodology and determines the benchmark sets for the voice MTAS services. It also addresses whether asymmetry is required in light of New Zealand market conditions;
 - Section E: Determining the pricing principle, and core prices, for the SMS service: This section determines which initial pricing principle option should apply to the SMS service and determines the benchmark sets for the SMS service;

- Section F: Conditions: This section addresses whether an on-net off-net price differentiation condition is required in light of New Zealand market conditions;
 - Section G: Glide path: This section considers whether or not a glide path is appropriate to transition from the current MTRs to the MTRs set under this MTAS STD;
 - Section H: Other issues: This section addresses matters related to the service descriptions, the issue of set-up costs and other issues relating to non-price terms; and
 - Section I: Implementation Plan: This section sets out the timeframes for Access Providers to implement the terms of this STD and addresses the issue of whether a glide path is appropriate.
4. Attached are twelve appendices which support the Commission's reasons, setting out background information that the Commission has considered during the STD process, including the details of the benchmark set, details of the process for the Commission's decision making, summaries of submissions, and a summary of minor drafting changes from the draft MTAS STD.
5. This STD for the MTAS services specifies sufficient terms to allow access to the service without the need for the Access Seeker to enter into an agreement with Access Providers of the services. The operative provisions of this STD are contained in the attached:
- Mobile Termination Access General Terms, which set out the general rights and obligations of Access Providers and Access Seekers for the mobile termination access services; and
 - Schedules to the Mobile Termination Access General Terms, comprising:
 - Schedule 1: Mobile Termination Access Service Descriptions, describing the MTAS services that Access Providers must make available to Access Seekers under the MTAS STD;
 - Schedule 2: Mobile Termination Access Services Price List, which specifies the price that Access Providers will charge Access Seekers for the MTAS services under the MTAS STD;
 - Schedule 3: Mobile Termination Access Services Service-Specific Terms and Conditions, which sets out the specific rights and obligations of Access Providers and Access Seekers for access to each of the MTAS services under the MTAS STD; and
 - Schedule 4: Mobile Termination Access Service Operations Manual, which sets out in detail the operational procedures and technical specifications for supplying all of the MTAS services that Access Providers will make available to Access Seekers under the MTAS STD; and

- Mobile Termination Access Services Implementation Plan, which sets out the implementation plan for the MTAS services to be followed by the Access Providers when the MTAS STD comes into force.
6. In setting the Mobile Termination Access General Terms, Schedules and Implementation Plan, the Commission has considered all of the submissions and cross-submissions it has received from interested parties during the STD process, as well as statements made at the MTAS STD Conference. The Commission has also sought expert advice from external advisers.
 7. In some instances the Commission may have agreed with the general submission made by a party, but did not consider the proposed alternative wording to be appropriate. In such cases, the Commission has made amendments using its own wording.

SECTION B. FRAMEWORK FOR THE MTAS STD

Purpose

8. This section sets out the context for the MTAS STD. In particular, this section:

- sets out the legislative framework for the determination;
- provides a framework for assessing the likely impacts on end-users and efficiency implications associated with the regulation of the MTAS; and
- describes the current state of competition in relevant New Zealand telecommunications markets, in order to provide context for the decisions made in this STD.

Legislative framework

9. This STD concerns the mobile termination access services, which are set out in subpart 1 of Part 2 of Schedule 1 of the Act:

Mobile termination access services (MTAS)

Description of service: Termination (and its associated functions) on a cellular mobile telephone network of any, or any combination, of the following:

- (a) voice calls originating on a fixed telephone network;
- (b) voice calls originating on another cellular mobile telephone network;
- (c) short-message-service (SMS) originating on another cellular mobile telephone network

For the avoidance of doubt, these services include the termination of internationally originated voice calls and SMS, and voice-over-Internet-protocol-originated voice calls, where these are handed over at a mobile switching centre in New Zealand

Conditions: Nil

Access provider: A person who operates a cellular mobile telephone network

Access seeker: A service provider who seeks access to the service

Access principles: The standard access principles set out in clause 5

Limits on access principles: The limits set out in clause 6

Initial pricing principle: Benchmarking against the costs of providing similar services in comparable countries that result from the application of—

- (a) a forward-looking cost-based methodology; or

- (b) if the Commission considers that a forward-looking cost-based methodology does not best give effect to the purpose set out in section 18, whichever of the following methods that the Commission considers best gives effect to that purpose:
 - (i) a pure bill and keep method; or
 - (ii) a pure bill and keep method applied to two-way traffic in balance (or to a specified margin of out-of-balance traffic) and a forward-looking cost-based methodology applied to out-of-balance traffic (or traffic beyond a specified out-of-balance margin)

Final pricing principle: Either—

- (a) TSLRIC; or
- (b) if the Commission considers that TSLRIC does not best give effect to the purpose set out in section 18, whichever of the following methods that the Commission considers best gives effect to that purpose:
 - (i) a pure bill and keep method; or
 - (ii) a pure bill and keep method applied to two-way traffic in balance (or to a specified margin of out-of-balance traffic) and TSLRIC applied to out-of-balance traffic (or traffic beyond a specified out-of-balance margin)

Requirement referred to in section 45 for final pricing principle: Nil

Additional matters that must be considered regarding the application of section 18: Nil

10. The definition of TSLRIC from the Act is:

TSLRIC, in relation to a telecommunications service,—

- (a) means the forward-looking costs over the long run of the total quantity of the facilities and functions that are directly attributable to, or reasonably identifiable as incremental to, the service, taking into account the service provider's provision of other telecommunications services; and
- (b) includes a reasonable allocation of forward-looking common costs.

11. In making this STD, the Commission must consider the purpose set out in section 18 of the Act. Section 18 describes the purpose of Part 2 and Schedules 1, 3, and 3A of the Act:

18 Purpose

- (1) The purpose of this Part and Schedules 1 to 3 is to promote competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand by regulating, and providing for the regulation of, the supply of certain telecommunications services between service providers.
 - (2) In determining whether or not, or the extent to which, any act or omission will result, or will be likely to result, in competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand, the efficiencies that will result, or will be likely to result, from that act or omission must be considered.
 - (3) Except as otherwise expressly provided, nothing in this Act limits the application of this section.
 - (4) Subsection (3) is for the avoidance of doubt.
12. Section 19 of the Act directs the Commission, when making a determination under Part 2, to make the determination that best gives (or is likely to best give) effect to the purpose set out in section 18:

19 Commission and Minister must consider purpose set out in section 18 and additional matters

If the Commission or the Minister (as the case may be) is required under this Part or any of Schedules 1, 3, and 3A to make a recommendation, determination, or a decision, the Commission or the Minister must—

- (a) consider the purpose set out in section 18; and
- (b) if applicable, consider the additional matters set out in Schedule 1 regarding the application of section 18; and
- (c) make the recommendation, determination, or decision that the Commission or Minister considers best gives, or is likely to best give, effect to the purpose set out in section 18.

Statutory requirements for an STD

13. The Commission makes this STD in accordance with sections 30M, 30O, 30P and 30Q of the Act.
14. Section 30O specifies the matters to be included in the final STD, which include:
- the terms on which the service is to be provided by the access provider;
 - the timeframes in which the access provider must make the service available to access seekers;
 - the reasons for the STD (which are set out in this STD decision);
 - the terms and conditions on which the STD is made;
 - any actions that a party to the STD may make or refrain from making; and

- any terms that may be varied under an application made under s30V.
15. The Commission must specify sufficient terms for the service to be provided by an access provider without the need for an access seeker to enter into a separate agreement with the access provider. The Commission may, in reaching a view as to the appropriate terms, take into account existing commercial arrangements between access seekers and access providers.
16. Sub-sections 30O(1)(d) and (e) of the Act provide for the Commission to specify terms, conditions or actions in relation to any STD. These terms, conditions, or actions may impose a wide range of conditions applicable to access seekers, access providers, or the terms of service, provided they are related to and necessary for the MTAS. In specifying any terms and conditions, or actions that a party must take or refrain from taking, the Commission must make the decision that will, or will be likely to, best give effect to section 18 of the Act.⁵

Price terms

17. Section 30P sets out the requirements for the price or prices that must be included in determinations for a designated service under Schedule 1 of the Act. MTAS is a designated service. In this determination, sections 30P(1)(a) and (b) do not apply and, therefore, the Commission has determined the prices in accordance with the applicable initial pricing principles for MTAS under section 30P(1)(c).
18. Section 30P(1)(c) of the Act requires the Commission to determine the price terms for each of the MTAS services according to the Initial Pricing Principle in Schedule 1 of the Act.⁶ The Commission must select the appropriate pricing principle for each of the MTAS services. To do so, the Commission must first consider whether a forward-looking cost-based methodology will best give effect to s 18 of the Act. Such an assessment may be made on a qualitative and or quantitative basis.⁷
19. In accordance with the initial pricing principle (IPP), the Commission is required to determine the price for the FTM, MTM and SMS termination services by benchmarking against the costs of providing similar services in comparable countries that result from the application of a forward-looking cost-based methodology. However, if the Commission considers that a forward-looking cost-based methodology does not best give effect to the purpose set out in section 18 of the Act, the Commission may apply either a pure BAK or a hybrid BAK pricing methodology.

Access Principles

20. Clauses 5 and 6 of Schedule 1 to the Act, which sets out the standard access principles and limits on the standard access principles, apply in relation to

⁵ Act, s19.

⁶ Telecommunications Act 2001, Schedule 1, Part 2.

⁷ See, e.g., the Final Determination on the (Vodafone) application for determination on ‘Interconnection with Telecom’s fixed PSTN’, 28 Sept. 2006, paras. 71-135.

MTAS, and this STD is made on the basis that the Access Provider will provide the MTAS in compliance with the access principles.

Information disclosure

21. As the Mobile Termination Access General Terms are subject to the access principles set out in Schedule 1 of the Act, the Commission may require access providers, in accordance with section 69ZC of the Act, to prepare and disclose information about the operation and behaviour of any part of its business that provides MTAS services. The purpose of such disclosure is to enable monitoring of, and facilitating compliance with, prescribed access principles incorporated into the STD with which the access providers are required to comply.⁸
22. At this stage the Commission does not intend to seek information disclosure pursuant to section 69ZC as part of this determination, but may do so in the future.

Amendments to the MTAS STD

23. The Act provides a range of mechanisms to amend an STD including:
 - a review under section 30R;
 - a Residual terms determination (RTD) under section 30ZB;
 - a pricing review determination under section 51;
 - a clarification under section 58; and
 - a reconsideration under section 59.
24. Section 30R allows the Commission, on its own initiative, to commence a review at any time of all or any of the terms of an STD. After review, the Commission may replace an STD, or vary, add, or delete any of its terms, if it considers it necessary to do so. The review can also address aspects of a service not covered in an initial STD and update the terms of an STD to reflect regulatory or technological change.
25. Apart from the requirements in section 30R, the Commission may conduct the review in a manner and within a timeframe as the Commission thinks fit. This enables the Commission to assess the appropriate form and degree of consultation on a case by case basis.⁹ The Commission will give notice in the New Zealand Gazette.

Variation of terms under a residual terms determination

26. The Commission is required by section 30O(3) of the Act to identify which of the terms (if any) specified in an STD may be varied on an application for a Residual Terms Determination made under section 30V. The purpose of an

⁸ Telecommunications Act 2001, s69ZC(1)(b).

⁹ This can be contrasted with the process under section 59(3) of the Act which requires that a reconsideration determination follow the same process as followed for the initial determination.

- RTD is to allow the Commission to adjust the terms for the supply of a designated access service or specified service that are specified in the STD.¹⁰
27. An RTD is another regulatory tool the Commission may use to address matters that were not addressed in the STD, and to vary any terms that the Commission has identified under section 30O(3) as being allowed to be varied.¹¹
 28. In addition, an RTD provides a mechanism for an Access Seeker to seek changes to the STD that may only apply on a bilateral basis between the Access Seeker and the Access Provider. Advantages of an RTD are that it may lead to a more urgent regulatory response to resolve disputes between parties on a bilateral basis and avoid the need for generic changes to an STD applying to all parties.¹²
 29. The terms and conditions that may be varied are set out in Section E of this STD.

Breach of an STD

30. The MTAS STD¹³ provides a range of dispute resolution procedures. However, the STD does not prevent any party from seeking remedies available to it under the Act.¹⁴ The MTAS is an enforceable matter under subpart 2 of Part 4A of the Act.¹⁵ An access seeker may make a written complaint to the Commission alleging a breach of the STD. After filing a complaint, the access seeker, the Commission, or both may file a complaint with the High Court alleging a breach of the STD.¹⁶
31. On the application of the Commission, the High Court may, in addition to any other remedies, order a pecuniary penalty if there has been a breach of the STD.

Assessment framework

32. In the MTAS STD the Commission is setting regulated prices for FTM, MTM and SMS termination. The IPP for the MTAS requires that the regulated prices must be set in accordance with a forward-looking cost-based pricing methodology (based on benchmarked TSLRIC costs), or either a pure BAK, or hybrid BAK methodology.
33. Regulation of MTAS at the wholesale level will impact on competition in related downstream retail markets, and therefore will have an effect on consumers. The Commission's decision-making for the MTAS STD is guided by the requirement that the Commission make the decision that best gives or is likely to best give effect to the promotion of competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New

¹⁰ Section 30U(1) of the Act.

¹¹ Section 30U(2) of the Act.

¹² Other amendments to an STD can occur via other provisions such as pricing under section 42 of the Act.

¹³ Clause 3 of the draft General Terms.

¹⁴ Clause 32 of the draft General Terms

¹⁵ Telecommunications Act 2001, s156N(b).

¹⁶ Telecommunications Act 2001, s156P(1)

Zealand.¹⁷ Strengthened competition will be likely to deliver a number of benefits to end-users, including lower prices for retail services that use the MTAS.

34. Further, in assessing whether or not or the extent to which the options being considered by the Commission in this STD, such as forward-looking cost-based pricing or bill and keep, will result or will be likely to promote competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand, the Commission is expressly required to consider the efficiencies that will result, or will be likely to result, from its decision.¹⁸ The term ‘efficiencies’ is not defined in the Act.
35. The Commission has assessed a full range of efficiency effects, including productive and allocative efficiencies (sometimes referred to together as static efficiencies) and dynamic efficiencies in this MTAS STD. Discussion of the efficiencies associated with forward-looking cost-based pricing in paragraphs 139 to 139143, the efficiency trade-off associated with asymmetric MTRs is discussed in paragraph 400, and the trade-off between potential short-term distortive effects and long-term dynamic efficiency gains associated with an on-net off-net price differentiation condition is discussed in paragraphs 539 to 541.
36. To the extent that the regulation of MTAS promotes competition for the long-term benefit of end-users, the regulation of MTAS is likely to also increase efficiencies. Efficiencies represent a net gain to the total New Zealand economy, which includes both end-users (as consumers of telecommunications services) and the telecommunications industry (as producers of such services).¹⁹
37. The Commission is not limited to considering efficiencies, and may also consider other relevant factors. The Act does not direct the Commission as to the appropriate weight to be given to efficiencies or to other considerations. The appropriate weight to afford each consideration is, accordingly, a matter for the Commission.
38. In this STD the Commission is required to make the decisions which it believes will best promote competition in telecommunications markets, and encourage efficient investment and innovation over time. The Commission's assessment the various options considered in this STD may be made on a qualitative and or quantitative basis.²⁰ The overall assessment that the Commission is required to undertake in this STD in order to best promote competition is, necessarily reflective of value judgements, not least because of the long-term, forward-looking nature of the Commission's assessment.

¹⁷ See ss 18 and 19 of the Act.

¹⁸ See s 18(2) of the Act.

¹⁹ To the extent that competition is promoted, the efficiency gains from the regulation of MTAS are likely to complement, but are not equivalent to, the direct benefits end-users gain through the price effects of the regulation of MTAS.

²⁰ See, for example, the Final Determination on the (Vodafone) application for determination on ‘Interconnection with Telecom’s fixed PSTN’, 28 September 2006, paragraphs 71-135.

New Zealand market conditions

39. In order to make the determination that is likely to best promote competition for the long-term benefit of end-users of telecommunications services, it is necessary to consider the current state of competition in the relevant markets. In this sub-section the Commission discusses a number of features of the telecommunications markets which are relevant to the wholesale mobile termination access services, in order to provide context for the decisions that are made in this STD.

Current state of the New Zealand market

40. There are currently three mobile network operators (MNOs) in New Zealand: Vodafone, Telecom and 2degrees. 2degrees, which launched its network on 4 August 2009, is the most recent entrant to the market.
41. There have now been three GSM-compatible mobile networks in New Zealand for more than 18 months. However, the available data show no substantial change in the level of on-net discounting, and the very low proportion of cross-net traffic in the New Zealand market. For example, the proportion of on-net voice and SMS traffic in the New Zealand market during the 2010 calendar year remained similar to that observed during the MTAS Schedule 3 investigation.²¹
42. There are a number of features of the relevant telecommunications markets which are indicative of a lack of effective competition in New Zealand. As discussed below, in the retail mobile services market:
- there is a high level of concentration;
 - there are significant on-net/off-net price differentials;
 - there is very little cross-net traffic;
 - there are regional variances in market share;
 - churn rates are high;
 - prices are high relative to other OECD countries (particularly for prepay customers); and
 - mobile voice usage is low compared to other countries.
43. As noted in paragraph 46 below, wholesale MTRs are significantly above-cost. This is likely to have contributed to a number of problems in both the retail mobile services market and the retail fixed-to-mobile and tolls market.
44. Prices and usage of fixed-to-mobile calls also indicate that above-cost MTRs are having a detrimental impact in the provision of retail FTM calls.

²¹ As discussed below, during the 2010 calendar year 87.4% of mobile-to-mobile voice traffic and 88.8% of SMS traffic in New Zealand was carried on-net. This compares to [] CRI of voice traffic and [] CRI of SMS for 2008, as reported in the Schedule 3 investigation.

45. Each of these factors is discussed in detail below.

MTRs are significantly above cost

46. New Zealand is one of the last OECD countries to introduce regulated mobile termination rates.²² Prior to the implementation of this STD, the prevailing MTRs in the New Zealand market were 14.76 cents per minute for voice termination on Telecom's network²³, 17.22 cents per minute for voice termination on Vodafone's network and 9.5 cents per text for SMS termination on each network.²⁴ These termination rates are significantly above the Commission's estimate of forward-looking cost-based rates (benchmarked against TSLRIC models, as discussed later in this STD).²⁵
47. Above-cost MTRs can lead to competition problems in downstream retail markets. The Commission has previously noted that the combination of wholesale MTRs that are above cost and significant on-net discounting creates a barrier that restricts the ability of small operators to compete with the larger MNOs in the retail mobile services market.²⁶
48. Two key competition concerns arise in relation to the combination of above cost MTRs and significant on-net discounting:
 - above cost MTRs make it difficult for small operators to set off-net prices that match the incumbents' on-net pricing; and
 - the presence of "calling externalities" (ie where the benefits of a call are enjoyed not only by the party making (and paying for) the call, but also by the recipient of the call)²⁷ means that incumbents have an incentive to set high off-net rates in order to reduce the number of calls that the small operators' subscribers receive (making the small network less attractive).²⁸
49. Above cost mobile termination rates similarly constrain the ability of fixed-line operators to compete in retail telecommunications markets. Mobile termination rates that are above cost:

²² OECD, *Communications Outlook 2009*, Table 2.11.

²³ Mobile termination rates were previously set in accordance with deeds entered into by Vodafone and Telecom with the Government. The voice termination rates for Telecom and Vodafone are expressed on a second plus second basis, as at 1 April 2011, and were generated by scaling the minute plus second termination rates in the deeds up by 23 percent in order to reach an equivalent second plus second rate (which is consistent with the approach taken during the Schedule 3 investigation).

²⁴ However, Vodafone entered into a commercial interconnection agreement with 2degrees which includes [] **VAPI2 / 2DAP12**.

²⁵ See paragraph 359 below.

²⁶ Commerce Commission, *MTAS Schedule 3 Investigation: Final Report*, 22 February 2010, p 10, paragraph xii.

²⁷ Network externalities, on the other hand, arise where subscribers to a mobile network benefit from being able to communicate with a large number of mobile subscribers. Network externalities and calling externalities are discussed in further detail in paragraphs 147 to 163 below.

²⁸ By setting high off-net calling prices, a large MNO is able to reduce the number of outgoing calls to the subscribers of a small MNO. The customers of the small network are less likely to receive calls as a result, so the utility derived from subscribing to that network is reduced. This has the effect of making the small network less attractive.

- place fixed-line operators (in particular, non-integrated fixed-line operators²⁹) at a competitive disadvantage in the retail FTM/tolls market; and
 - effectively lead to a subsidy from fixed operators to MNOs, skewing competition in favour of mobile operators.
50. As described below, above-cost MTRs have contributed to a number of competition problems in New Zealand telecommunications markets.
- The mobile market is highly concentrated
51. As at 30 June 2010, there were approximately 4.7 million mobile customers in New Zealand, which equates to a penetration rate of 108 percent of the population.³⁰ Vodafone's market share of subscribers is estimated to be 50%, Telecom's market share is 42% and 2degrees' market share is 8%.³¹
52. An MNO's share of total subscribers is only one measure of market share. Market shares based on traffic volumes and revenues are also relevant, and in certain circumstances may be more relevant than subscriber numbers, when considering each operator's share of the mobile market.
53. Market share based on subscribers, traffic volumes and revenues are presented in Table 1 below.

²⁹ This is because a fixed-line operator that does not have its own mobile network is required to pay mobile operators the applicable MTR in respect of all FTM calls supplied to its retail customers. An integrated operator, who operates both a fixed-line network and a mobile network, will only pay the applicable wholesale MTR in respect of off-net FTM calls (i.e. calls from its fixed-line network to another operators' mobile network).

³⁰ Based on a population of 4,367,700 as at 30 June 2010.

³¹ See page 35 of the Commerce Commission 2010 annual telecommunications monitoring report. These market shares are based on subscribers who have been active within the last 90 days. Subscriber market shares as at February 2011 are also included in Table 1 below, however, the February market shares are based on a 30 day active subscriber definition.

Table 1: Market shares

	Subscriber market share (as at 30 June 2010) ³²	Subscriber market share (as at February 2011) ³³	Revenue market share (2010) ³⁴	Voice traffic market share (2010) ³⁵	SMS traffic market share (2010) ³⁶
Vodafone	50.0%	51.5%	[] VNZRI 2	[] VNZRI 2	[] VNZRI 2
Telecom	42.0%	39.0%	[] TNZRI 2	[] TNZRI 2	[] TNZRI 2
2degrees	8.0%	9.5%	[] 2DAPI 2	[] 2DAPI 2	[] 2DAPI 2

Source: Commerce Commission sector monitoring data and MTAS STD information request

- 54. Although 2degrees has been in operation for more than 18 months and has captured more than 8% of mobile subscribers in New Zealand, its share of the market based on both revenues and traffic volumes is significantly less than this.
- 55. The Herfindahl Hirshman Index (HHI)³⁷, which is a standard measure of industry concentration that takes into account both the number of firms in a market as well as differences in their sizes, has been used to estimate the level of concentration of the New Zealand mobile market. The Commission estimates the HHI for New Zealand to be 4,237 based on subscriber market shares (as at 30 June 2010).³⁸
- 56. The HHI for the New Zealand mobile market is compared to that of Australia and the UK in Figure 1 below. This indicates that the New Zealand mobile market is highly concentrated.³⁹

³² Based on cellular mobile telephone subscribers active in last 90 days.

³³ Based on cellular mobile telephone subscribers active in last 30 days.

³⁴ Revenue market shares are calculated based on each operator's share of total outgoing domestic MTM voice and SMS revenues for the 2010 calendar year.

³⁵ Voice traffic market shares are calculated based on each operator's share of total outgoing domestic MTM traffic for the 2010 calendar year. Actual (rather than billed) minutes have been used when calculating market shares based on voice traffic.

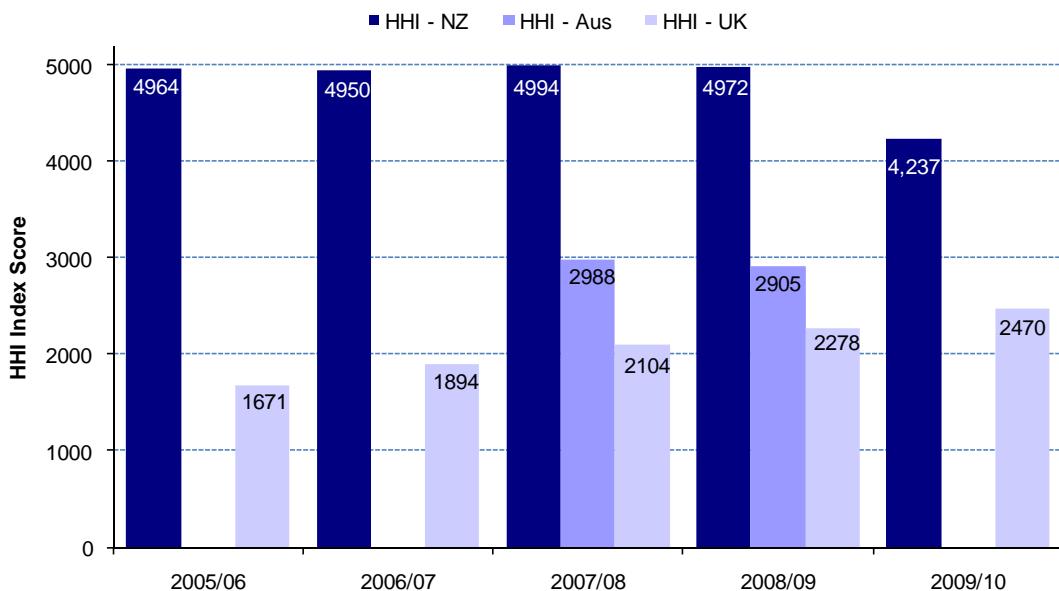
³⁶ SMS traffic market shares calculated are based on each operator's share of total outgoing domestic MTM SMS traffic for the 2010 calendar year.

³⁷ The HHI is defined as the sum of the squares of market shares. A duopoly involving two firms of equal size has a HHI of 5000 (sometimes expressed as 0.5), while a duopoly involving one firm with 75% and the other with 25% has a higher HHI of 6250 (0.625). A monopoly market would have a HHI of 10000 (1.0).

³⁸ The HHI has been calculated based on market shares of retail mobile subscribers as at 30 June 2010, including MVNOs. Subscribers are defined as cellular mobile telephone customers active in last 90 days.

³⁹ A value of the HHI above 1800 is typically considered to refer to high concentration.

Figure 1: Mobile market HHI for New Zealand, Australia and the UK



Source: Commerce Commission 2010 annual sector monitoring report⁴⁰

On-net/off-net price differentials are significant

- 57. An important feature of the New Zealand retail mobile market is the prevalence of on-net discounting. Retail plans that provide low on-net and high off-net pricing are very common. Some of these plans focus on small on-net calling circles (for example, BestMates, TalkZoneZero and MyFavourites), while others apply more broadly to all on-net calls or SMS (such as TXT5000, \$2 for 2 hours, Top Up Bonus, Mega20, Starter2000 and Motormouth).⁴¹
- 58. As an example, Vodafone's most popular plan, "Supa Prepay"⁴², has a number of add-ons available which offer low on-net rates. For \$6 per month, "BestMate 1000" provides up to 1,000 calling minutes and 1,000 text messages to a nominated number on the Vodafone New Zealand network.⁴³ Similarly, the "TXT5000" add-on enables a customer to send 5,000 on-net text messages for \$10 per month.⁴⁴ If the full allocation of 5,000 text messages is used, TXT5000 generates an implied retail price of 0.2 cents per text.⁴⁵

⁴⁰ Commerce Commission, Annual telecommunications monitoring report 2010, April 2011, p 36.

⁴¹ There are also a number of any-net offers available in the market. For example, the majority of plans available on Telecom's XT network provide any-network pricing. Most of 2degrees' offers apply to any-network. Vodafone also offers some any-net plans, such as TXTNZ.

⁴² <http://www.vodafone.co.nz/prepay/supa-prepay.jsp>

⁴³ <http://www.vodafone.co.nz/plans/prepay/best-mates.jsp>

⁴⁴ <http://www.vodafone.co.nz/plans/prepay/txt5000.jsp>

⁴⁵ Similarly, Vodafone's new any-net SMS plan, TXTNZ leads to an implied retail price of 0.48 cents per text.

59. In comparison, the standard off-net calling rate on Supa Prepay is \$0.89 per minute and the standard off-net SMS price is 20 cents per text.⁴⁶
60. The on-net discounts observed in the New Zealand market are likely to influence end-users' choice of network. As BEREC notes:⁴⁷
- With on-net retail prices being priced below off-net calls, customers of the larger network benefit from lower average retail prices compared to customers of smaller networks.
61. Table 2 below includes on-net and off-net average revenue per minute figures for the three mobile operators in New Zealand, while Table 3 includes the industry averages. The level of on-net discounting, calculated by comparing the on-net and off-net average revenue per minute, is also displayed.⁴⁸

Table 2: Average revenue per minute for Vodafone, Telecom and 2degrees

[

] VAPI2/TAPI 2/2dAPI 2

Source: MTAS STD industry data requests

Table 3: Industry average revenue per minute in New Zealand

	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010	2010 Total
Industry						
On-net average revenue per minute	\$0.21	\$0.22	\$0.21	\$0.21	\$0.21	\$0.21
Off-net average revenue per minute	\$0.52	\$0.52	\$0.50	\$0.48	\$0.47	\$0.49
On-net discount for voice	59.2%	57.8%	58.4%	56.0%	54.5%	56.6%

Source: MTAS STD industry data requests

62. On-net and off-net average revenue per SMS figures, as well as the level of on-net discounting for SMS in New Zealand, is also displayed in Table 4 and Table 5 below.⁴⁹

Table 4: Average revenue per SMS for Vodafone, Telecom and 2degrees

[

⁴⁶ However, Vodafone has recently launched a new any-net SMS plan, "TXTNZ", which provides 2,500 text messages to any New Zealand mobile for \$12 per month. In addition, the "Talk100" Supa Prepay add-on offers 100 any-network minutes for \$35 per month.

⁴⁷ BEREC, *Common Statement on Next Generation Networks Future Charging Mechanisms / Long Term Termination Issues*, June 2010, p 33.

⁴⁸ On-net and off-net average revenue per minute figures in Table 2 and Table 3 have been calculated based on domestic on-net and off-net MTM traffic and revenues. Actual (rather than billed) minutes have been used.

⁴⁹ On-net and off-net average revenue per SMS figures in Table 4 and Table 5 have been calculated based on domestic on-net and off-net traffic and revenues.

] VAPI2/TAPI 2/2dAPI 2

Source: MTAS STD industry data requests

Table 5: Industry average revenue per SMS in New Zealand

	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010	2010 Total
Industry						
On-net average revenue per SMS	\$0.02	\$0.02	\$0.02	\$0.02	\$0.02	\$0.02
Off-net average revenue per SMS	\$0.08	\$0.07	\$0.07	\$0.07	\$0.06	\$0.07
On-net discount for SMS	72.6%	72.3%	72.0%	71.8%	67.7%	70.7%

Source: MTAS STD industry data requests

- 63. For the 2010 calendar year, across the three MNOs the average on-net discount for voice was 56.6%, while the corresponding discount for SMS was 70.7%. Vodafone had an average on-net discount for voice of [] VNZAPI2 and a discount of [] VNZAPI2 for SMS over this period. For Telecom the average on-net discount over this period was [] TNZAPI2 for voice and [] TNZAPI2 for SMS, while the corresponding figures for 2degrees are [] 2DAP2 for voice and [] 2DAP2 for SMS.
- 64. Limited information is available regarding the level of on-net discounting in other jurisdictions.⁵⁰ However, data published by CMT shows that the average on-net discount for voice in Spain is 30%, while the average on-net discount for SMS is 23%.⁵¹
- 65. Ofcom has previously noted that except for O2, all UK operators charge the same rate for on-net and off-net calls for prepay customers.⁵² In terms of post-pay tariffs, Ofcom noted that 3, O2 and T-Mobile charge the same for both on-net and off-net calls, so the on-/off-net price differential is zero in these cases. In respect of out-of-bundle minutes, Orange and Vodafone charge a higher rate for off-net calls than on-net calls, however, in most cases the bundle sizes are so large that off-net calls are also effectively unlimited for most customers.⁵³
- 66. In a paper on the theory and practise of on-net pricing, Dr. Jonathan Sandbach has previously presented a simple theoretical model which predicts the level of

⁵⁰ Table 11 below includes the level of on-net discount for Kenya. However, as described in paragraph 78, this is an example of a country that has imposed remedies to address the level of on-net discounting.

⁵¹ CMT, *Telecommunication industry statistics*, III Quarter 2010. On-net discounts have been calculated based on data in tables 61 and 62.

⁵² Ofcom, *Wholesale mobile voice call termination: Preliminary consultation on future regulation*, Annex 9 - Review of mobile tariffs in the UK and US, 20 May 2009, paragraph A1.16.

⁵³ Ofcom, *Wholesale mobile voice call termination: Preliminary consultation on future regulation*, Annex 9 - Review of mobile tariffs in the UK and US, 20 May 2009, paragraphs A1.10-A1.12.

on-net discounting. Assuming that the marginal cost of on-net call termination is approximately one third of the termination rate, Sandbach noted that:⁵⁴

“Ignoring call externality effects, we would...expect to see on-net discounts of around 50%, when averaged across all tariffs offered by an operator. Comparing this value to Chart 4 {graphs showing the level of on-net discounting in each OECD country}, we see that very few MNOs have effective on-net discounts as high as this.”

67. The Commission notes that Table 3 and Table 5 above indicate that the level of on-net discounting in New Zealand is greater than the 50% referred to by Dr. Sandbach for both voice and SMS, suggesting that the level of on-net discounting in New Zealand is high compared to other OECD countries.⁵⁵
68. This indicates that the extent of on-net discounting in the New Zealand retail mobile market is significant compared to other jurisdictions. The resulting on-net/off-net price differentials are likely to influence the traffic flows between networks, end-users choice of network and switching behaviour, as discussed further in the following sections.

Cross-network traffic is low

69. As a consequence of the on-net discounting described above, there is very little cross-network traffic in the New Zealand mobile market. The percentage of on-net voice traffic for each operator is presented in Table 6 below. The industry average percentage of on-net traffic for voice is included in Table 7.

Table 6: Percentage of on-net MTM voice traffic for Vodafone, Telecom and 2degrees⁵⁶

[

] VAPI2/TAPI

2/2dAPI 2

Source: MTAS STD industry data requests

⁵⁴ Dr. Jonathan Sandbach, *Theory and practise of on-net pricing*, Vodafone Policy Paper Series: Number 8, April 2008, p 41.

⁵⁵ Although New Zealand is already included in Chart 4 of the Sandbach paper, the Commission considers that the on-net discounts referred to in Table 3 above are likely to provide a more accurate reflection of the level of on-net discounting in this country. In particular, this is because Table 3 provides industry average on-net discounts, while the Sandbach paper relies on data collected by Teligen regarding a limited number of certain retail plans.

⁵⁶ Voice traffic is based on actual (rather than billed) minutes. This is consistent with the Schedule 3 Final Report.

Table 7: Industry average percentage of on-net MTM voice traffic⁵⁷

	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010	2010 Total
Industry						
Outgoing on-net MTM voice minutes (millions)	653	608	632	619	626	2,484
Outgoing off-net MTM voice minutes (millions)	86	84	85	89	99	357
Total MTM voice traffic national (millions)	740	692	717	708	725	2,842
% voice traffic on-net	88.3%	87.8%	88.2%	87.4%	86.3%	87.4%

Source: MTAS STD industry data requests

70. The percentage of on-net traffic for SMS is also presented in Table 8 and Table 9 below.

Table 8: Percentage of on-net SMS traffic for Vodafone, Telecom and 2degrees

[

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VAPI2/TAPI 2/2dAPI 2

Source: MTAS STD industry data requests

Table 9: Industry average percentage of on-net SMS traffic

	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010	2010 Total
Industry						
Outgoing on-net SMS messages (millions)	2,981	2,956	2,965	2,948	2,891	11,760
Outgoing off-net SMS messages (millions)	291	314	324	375	467	1,480
Total SMS traffic national (millions)	3,272	3,270	3,289	3,324	3,358	13,240
% SMS traffic on-net	91.1%	90.4%	90.1%	88.7%	86.1%	88.8%

Source: MTAS STD industry data requests

71. For the 2010 calendar year, 87.4% of mobile-to-mobile voice traffic and 88.8% of SMS traffic in New Zealand was carried on-net. The proportion of on-net traffic in New Zealand is high relative to a number of European countries. The proportion of on-net MTM voice minutes and on-net SMS messages for the UK, Spain, France and Sweden is presented in Table 10 below.

⁵⁷ Voice traffic is based on actual (rather than billed) minutes. This is consistent with the Schedule 3 Final Report.

Table 10: Proportion of on-net MTM voice minutes and SMS messages in European countries

	UK (2009)	Spain (Q3 2010)	France (Q3 2010)	Sweden (1H 2010)
Proportion of on-net MTM voice minutes	56.4%	58.8%	60.5%	66.5%
Proportion of on-net SMS messages	-	58.6%	-	66.6%

Source: Ofcom⁵⁸, CMT⁵⁹, ARCEP⁶⁰, PTS⁶¹

72. The low level of cross-net traffic in New Zealand reflects the significant impact of on-net discounting on competition in the New Zealand market. The on-net/off-net price differentials which are present have the effect of incentivising on-net calling and texting, whilst suppressing demand for cross-net traffic.

Incentives arising from on-net discounting

73. In the MTAS Schedule 3 investigation, the Commission noted that on-net discounting makes it more attractive for subscribers to belong to a large network. The Commission concluded that the combination of above-cost MTRs and significant on-net discounting creates a barrier that restricts the ability of small operator to compete with larger MNOs.⁶² This is one of the key issues that this STD is seeking to address.
74. A feature of mobile networks cf other networks such as gas or electricity, is any to any connectivity - the ability to connect users on your network to other networks. As noted by Jeon, Laffont and Tirole:⁶³
- “...direct externalities on the rival network’s consumers can create strong incentives for connectivity breakdown, where the latter is defined as a situation in which high reception or calling charges choke off-net traffic.”
75. At the MTAS STD Conference it was noted that on-net discounts can be a pro-competitive tool, but can also be an anti-competitive tool. Professor Haucap noted that in Europe concerns have been raised about the anti-competitive use of on-net discounts because relatively high off-net prices have the effect of decreasing the number of incoming calls received by small networks, making these networks unattractive.⁶⁴
76. The strategic motive for a large network to reduce the number of calls that subscribers on rival networks receive and give rise to tariff-mediated network

⁵⁸ Ofcom, *Communications market report*, 19 August 2010, p 319, figure 5.43.

⁵⁹ CMT, *Telecommunication industry statistics*, III Quarter 2010, table 54 and table 57.

⁶⁰ ARCEP, *Quarterly observatory of the electronic communications market in France: 3rd quarter 2010 - final results*, 6 January 2011, p 29.

⁶¹ PTS, *The Swedish Telecommunications Market First Half Year 2010*, 25 November 2010, Appendix – Report Tables, table 11 and table 14.

⁶² Commerce Commission, *MTAS Schedule 3 Final Report*, 22 February 2010, p 10, paragraphs xi-xii.

⁶³ Jeon, Laffont and Tirole, *On the “receiver-pays” principle*, RAND Journal of Economics Vol. 35, No. 1, Spring 2004, p 89.

⁶⁴ MTAS STD Conference Transcript, 15 March 2011, p 75.

externalities is described by Laffont et al. (1998)⁶⁵, Hoernig (2008)⁶⁶, Armstrong and Wright (2009)⁶⁷ and Harbord and Pagnozzi (2010).⁶⁸ Such tariff-mediated network externalities make larger networks more attractive to existing and potential subscribers than smaller networks.

- 77. Hermalin and Katz (2009)⁶⁹ also observe that the existence of the call externality effect may give the incumbents incentives to reduce the number, and duration of, off-net calls with the sole purpose of making the smaller network of the new entrant less attractive. This generates an incentive for consumers to gravitate towards the larger networks in order to receive the benefits of receiving as well as making calls.
- 78. The proportions of on-net traffic observed in the New Zealand market are comparable to a number of countries that have imposed remedies specifically targeting on-net/off-net price differentials. In its submission on the Draft STD, Telecommunications Management Group (TMG), provided the following table summarising a number of factors influencing ex ante intervention over on-net/off-net price differentials in the countries they reviewed.

Table 11: Summary of factors influencing ex ante intervention over on-net/off-net price differentials in the countries reviewed by TMG

Country	On-net traffic	Off-net traffic	Largest network's market share	Smallest network's market share	On-net/off-net price differentials
Kenya (2010)	96.27%	3.09%	79.4%	2.7%	96%
Singapore (2001)	N/A	N/A	49.55%	16.09%	N/A
Colombia (2009)	~90%	~10%	67.2%	11%	N/A*
Turkey (2007)	89.52%	6.39%	58%	16%	N/A
Slovenia (2005)	72.98%	18.58%	78%	2%	N/A
Portugal (2005)	74.66%	16.28%	44%	20%	N/A*

Note: N/A means not available. Off-net traffic refers to calls terminated on other mobile networks only, except for Colombia where the off-net traffic information provided by the regulator is not sufficiently disaggregated. On-net and off-net traffic for Colombia, Portugal and Slovenia are for 2010, 2009 and 2007, respectively.

*The price differential was deemed significant by the regulatory authority and was taken into account in the analysis of the competitive impact of the pricing practice. However, the actual figures were redacted from the regulatory decision.

Source: TMG Submission⁷⁰

Impact of on-net discounting on voice traffic

- 79. Vodafone, however, has argued that there is no widespread on-net calling issue in the New Zealand mobile market, noting that BestMates is responsible for a

⁶⁵ Network Competition; I. Overview and Nondiscriminatory Pricing, RAND Journal of Economics, 29 (1), page 1-37, Laffont, J.-J., Rey, P., and Tirole, J., 1998.

⁶⁶ Tariff-mediated Network Externalities; Is Regulatory Intervention any Good, CERP Discussion Paper, Number 6866, Hoernig, S., 2008.

⁶⁷ Mobile Call Termination in the UK; A Competitive Bottleneck?, B. Lyons (ed), Cases in European Competition Policy; The Economic Analysis, Armstrong, M., Wright, J., 2009.

⁶⁸ Network-Based Price Discrimination and ‘Bill-and –Keep’ vs. ‘Cost-Based’ Regulation of Mobile Termination Rates, Review of Network Economics, Volume 9, Issue 1, Harbord, D., Pagnozzi, M., 2010.

⁶⁹ Customer or Complementor? Intercarrier Compensation with Two-Sided Benefits, mimeo, Haas School of Business, Hermalin, B. E., Katz, M.,L., 2009.

⁷⁰ TMG, *On-net/off-net price differentiation: Review of international precedent*, 7 February 2011, p 5, Table 1.

third of all minutes on its mobile network.⁷¹ According to Vodafone, BestMates is a simple proposition for 2degrees to compete with, since it only involves calling and texting between two on-net numbers.⁷²

80. In its cross-submission on the Draft MTAS STD, Vodafone provided further data on BestMates usage. Vodafone noted that:⁷³

- “[] VNZCOI.
- [] VNZCOI.
- [] VNZCOI.
- [] VNZCOI.”

81. As the Commission acknowledged during the Schedule 3 Investigation, when viewed in isolation BestMates generally involves relatively small calling circles.⁷⁴ However, Vodafone’s focus on BestMates ignores the presence of other broader on-net offers. The issue of linkages between calling circles was also highlighted by 2degrees at the MTAS STD conference:⁷⁵

I think it's really simplistic to try and look at Best Mates as a specific example saying, you know, we can pick up those customers as 2degrees, there's only two or three of them and there's a small user group; well, they're linked to other closed user groups throughout.

82. Vodafone offers a wide range of other plans that offer on-net discounts in addition to BestMates (for example TXT5000, \$2 for 2 hours, Top Up Bonus, Mega20 and Starter2000). Accordingly, many on-net pricing offers that currently exist in the marketplace are not limited to traffic between certain subscribers who form part of a ‘small’ calling circle.

Impact of on-net discounting on SMS traffic

83. Vodafone’s on-net SMS plans are particularly relevant, given the importance of SMS in the New Zealand market. 2degrees has previously stated that:⁷⁶

A feature of the New Zealand market is the relatively high incidence of SMS relative to voice. Putting aside the fact that this is arguably due to the extremely high cost of voice, SMS has become an accepted and common form of communication. Notably at the more value-based end of the market.

⁷¹ MTAS STD Conference Transcript, 15 March 2011, p 76, lines 25-30.

⁷² Vodafone, *Cross-submission on the Draft MTAS STD*, February 2011, p 21, paragraph 113.

⁷³ Vodafone, *Cross-submission on the Draft MTAS STD*, February 2011, p 21, paragraph 112.

⁷⁴ Commerce Commission, *MTAS Schedule 3 Investigation: Final Report*, 22 February 2010, p 78, paragraph 266.

⁷⁵ Bill McCabe, MTAS STD Conference Transcript, 15 March 2011, p 79, lines 20-23.

⁷⁶ 2degrees, *Cross-submission on the MTAS Schedule 3 Investigation Draft Report*, 18 August 2009, p 29, paragraph 6.1.

84. Historically, Vodafone's texting offers have been almost exclusively on-net. TXT2000, Vodafone's SMS plan which offered 2,000 on-net messages for \$10 per month, applied to text messages sent to Vodafone's entire customer base, whereas the off-net SMS price was 20 cents per text.

Conclusion on impact of on-net discounting

85. This is likely to have led to a situation where many prepay customers regularly call their BestMates, but communicate with the majority of other people via SMS.
86. The Commission is of the view that the low proportions of cross-net traffic exhibited in the New Zealand market demonstrate a lack of any-to-any connectivity and are a symptom of the on-net off-net price differentials described above. Furthermore, many of the on-net offers available in the market, in respect of both voice and SMS, are available for calls and SMS to all subscribers on a network, making it difficult for small operators to compete.

Market shares vary between regions

87. 2degrees has argued throughout both the Schedule 3 Investigation and the MTAS STD process that the on-net/off-net pricing referred to above prevents customers from switching networks, locking them into the dominant network in their city.⁷⁷ A study previously performed by Phoenix Research (on behalf of 2degrees) found that 97% of prepay students in Auckland held Vodafone subscriptions and 88% of prepay students in Dunedin held Telecom subscriptions.⁷⁸
88. Ofcom has presented qualitative research which shows that in the UK, consumers tend to be uninformed about the price of calling a particular network and that on-net offers do not significantly influence their purchasing decision.⁷⁹ However, there is evidence that New Zealand consumers are acutely aware of which network their most frequent call recipients belong to and that these recipients are clustered on particular networks.
89. The Synovate report⁸⁰, submitted on behalf of 2degrees, provides evidence that consumers are aware of the costs to their most frequent calling partners when choosing a particular network. The report also indicates that it may be more common in New Zealand than in other jurisdiction to have multiple active subscriptions.⁸¹
90. At the MTAS STD Conference, Vodafone provided a regional breakdown of its market share, based on the percentage of customers who report that their main

⁷⁷ See for example, paragraphs 7.21 to 7.40 of 2degrees' submission on the Draft MTAS STD.

⁷⁸ 2degrees, *Submission to the Minister on the Commerce Commission's Final Report on Mobile Termination Access Services*, 8 March 2010, p 16, paragraph 3.14.

⁷⁹ Ofcom, *Wholesale mobile voice call termination*, 15 March 2011, page 31, par. 3.60.

⁸⁰ Synovate Research, *Exploring mobile market structure in New Zealand*, January 2011, slide 6.

⁸¹ Ofcom cite evidence that only 11% of adult mobile users have more than one mobile phone or SIM card with different numbers. The Synovate report suggests that the comparable figure for New Zealand is 28%.

consumer mobile connection is with Vodafone. Vodafone's regional market shares are presented in Table 12 below.

Table 12: Vodafone market share by region⁸²

Region	Vodafone market share ⁸³
Northland	66%
Auckland	68%
Waikato	37%
Mid-North Island	27%
Wellington	34%
Tasman/West Coast	32%
Canterbury	21%
Otago/Southland	35%
Total	46%

91. In those areas where Vodafone has a relatively low market share, Telecom's market share is likely to be relatively high.
92. Vodafone argued that although it has a relatively high market share in Auckland and in Northland, the overall market is not characterised by multiple monopolies that do not compete with each other (as suggested by the submissions from 2degrees).⁸⁴
93. Professor Haucap agreed at the conference that there are no regional monopolies in the New Zealand mobile market. However, Professor Haucap highlighted the importance of regional disparities in market share:⁸⁵

...this {the situation in New Zealand} is quite different from most of the other markets that I know about, that in any particular region you have to compete against one large network that has two-thirds of the customers.

Why is this important? Well, in all of the markets that I know about the vast majority of mobile calls are regional or local calls. So, in the end in the Auckland market most calls will be to other Auckland customers even on the mobile network, my suspicion. That is at least from what I know from most European countries, that even the mobile calls are not predominantly long distance calls but predominantly local calls.

So that means in any particular regions there are two-thirds on the other networks, there's the strong incentives to utilise these network effects and use somehow to compete against somebody who has two-thirds of the market already, whoever that is.

That would be a different situation in most European countries where you have four operators and, you know, when I enter the market every single operator, let's say even in a somewhat concentrated market such as Germany where the largest operator has 35%, even that operator knows at all times 65% of the customers are on other networks.

⁸² Market shares are as stated by Vodafone at the MTAS STD Conference. See the Conference Transcript, 15 March 2011, p 78.

⁸³ Market shares as expressed as the percentage of customers who report that their main consumer mobile connection is with Vodafone.

⁸⁴ MTAS STD Conference Transcript, 15 March 2011, p 78, lines 22-27.

⁸⁵ MTAS STD Conference Transcript, 16 March 2011, p154, lines 1-22.

So, this is quite different here. Here you are in a situation where only two-thirds are with the same network and where these network effects can be leveraged. So this is what I think New Zealand makes special when compared to many other countries...

- 94. The market share for Auckland provided by Vodafone above is broadly consistent with the results of the report from Synovate Research, prepared on behalf of 2degrees, which stated that Vodafone's market share in Auckland is 66%. However, the Synovate report also noted that Vodafone's market share rises to 85% amongst youth in Auckland.⁸⁶
- 95. The regional differences in operators market shares suggest that consumers consider the network which their most frequent calling partners belong to as an important factor in making their purchasing decision. Professor Haucap, on behalf of 2degrees, submitted that the strong segmentation of the market into Vodafone and Telecom 'islands' further strengthens the incentive to introduce off-net surcharges. He noted that if customers groups face switching costs or cannot co-ordinate larger groups to switch jointly, high off-net charges serve to lock-in the existing customer base and the entrant will face significant difficulties in attracting customers.⁸⁷
- 96. Regional variances in market shares can potentially make the use of on-net discounting more effective as a tool to hinder expansion for small operators within certain regions. High market shares make it easier to leverage the network effects and decrease the attractiveness of belonging to a smaller network in these regions.
- 97. The Commission considers that the significant on-net/off-net price differentials in the New Zealand market are likely to have influenced and entrenched the regional variances in market share described above, as on-net discounting makes it more attractive for end-users to subscribe to the largest network. The presence of on-net off-net price differentials and regional variances in market share is likely to create a barrier to small operators seeking to attract subscribers to its network.

Churn rates are high

- 98. In relation to mobile networks, a churn rate indicates the percentage of subscribers that cease to use an operator's services in a given time frame. Accordingly, churn rates are able to be used as an indicator of the success of a mobile network.
- 99. A high churn rate indicates that an operator's customers are regularly cancelling their subscriptions. High levels of churn across all operators could be seen as reflective of low barriers to switching, as a high churn rate implies that end-users are able to switch between networks with relative ease. In the Schedule 3 Investigation the Commission concluded that barriers to switching were relatively low in the New Zealand market given the inception of number

⁸⁶ Synovate Research, *Exploring mobile market structure in New Zealand*, January 2011, slide 8.

⁸⁷ Professor Haucap, *A Note on On-net/Off-net Retail Price Differences in the New Zealand Mobile Telecommunications Market*, 7 February 2011, page 6-7, paragraphs 27-28.

portability and the fact that the three MNOs are now all operating GSM-compatible networks.⁸⁸

100. However, as described above there are significant on-net/off-net price differentials in the New Zealand mobile market, and a corresponding low level of cross-net traffic. 2degrees has argued that in the presence of high on-net discounting, consumers need to congregate on one network in order to enjoy the utility of receiving calls and SMS.⁸⁹
101. When a large operator offers low on-net and high off-net prices, subscribers of a smaller network are less likely to receive calls and SMS due to the high off-net rates. A high churn rate for a small MNO may therefore be indicative of a barrier to switching to a small network.
102. When an end-user switches from a large network that engages in on-net discounting to small network, they are less likely to receive calls and SMS from subscribers of the large network. This is likely to result in a reduction in value that the end-user receives from their mobile subscription, generating an incentive to churn back to the larger network.
103. Figure 2 below shows the monthly churn rates for a number of OECD countries, as provided by 2degrees in its submission on the Draft MTAS STD.

Figure 2: Monthly churn for OECD countries (Q3 2010)⁹⁰

- [] 2DCOI
- 104. In 2010, the customer churn for 2degrees averaged [] 2DCOI per month, based on a 90 day customer definition. In its submission on the Draft STD, 2degrees stated that this
[] 2DCOI.⁹¹
- 105. 2degrees further noted that
[] 2DCOI.⁹²
- 106. In relation to churn, Vodafone submitted that that “churn rates in the New Zealand market are somewhat higher than many benchmark countries {and noted that the Commission had} pointed out that barriers to switching in the New Zealand mobile market are low.”⁹³ To illustrate this, Vodafone included a table with churn rates for selected operators, including Vodafone New Zealand, which is reproduced as Figure 3 below.

⁸⁸ Commerce Commission, *Final Report on whether the mobile termination access services (incorporating mobile-to-mobile voice termination, fixed-to mobile voice termination and short-message-service termination) should become designated or specified services*, 22 February 2010, page 88, paragraph 300.

⁸⁹ 2degrees, *Submission on the draft MTAS STD*, 7 February 2011, p 45, paragraph 7.22.

⁹⁰ [] 2DCOI.

⁹¹ 2degrees, *Submission on the draft MTAS STD*, 7 February 2011, p 33, paragraph 5.24.

⁹² The Commission notes that 2degrees’ churn rate may be influenced by a number of factors, such as free SIM and other launch promotions, and international visitors purchasing 2degrees SIM while travelling in New Zealand.

⁹³ Vodafone, *Cross-submission on the draft MTAS STD*, February 2011, page 24, paragraph 119.

Figure 3: Monthly churn rate Vodafone NZ compared to some other operators (April to June 2010)⁹⁴

[] VNZRI

107. The churn rates provided in submissions on the Draft STD demonstrate that the [] 2DCOI. This is likely to reflect the difficulties small operators faces when competing in a market characterised by high on-net/off-net differentials.

Retail prices for mobile voice services are high

108. The OECD has developed a series of consumption baskets to enable cross-country comparisons of retail mobile voice and SMS prices. These consumption baskets are used to benchmark the relative performance of OECD countries in terms of retail mobile pricing.
109. OECD mobile price benchmarking results are presented below. For mobile price comparisons, plans are only included for the two largest mobile operators in each OECD country. The two mobile network operators included for New Zealand are Vodafone and Telecom. Therefore, 2degrees plans are not included in the standard OECD benchmarking results.
110. A summary of New Zealand's performance in the benchmarking for mobile voice and SMS services (including both prepaid and postpaid plans) is included in Table 13. This is based on the February 2011 version of Teligen T-Basket.

Table 13: Summary of OECD mobile voice and SMS benchmarking (both prepay and postpaid plans included)⁹⁵

Basket	Cheapest NZ plan	OECD Ranking ⁹⁶	Price
30 calls basket (low usage)	Vodafone Easy 20	12 out of 34	16% below the OECD average
100 calls basket (medium usage)	Vodafone TXTer 60 + 2 Bestmates	21 out of 34	8% above the OECD average
300 calls basket (high usage)	Telecom Talk&Text 400 + 2 Favourites	26 out of 34	30% above the OECD average
400 messages basket	Telecom OneRate prepaid Txt 2500	19 out of 34	14% below the OECD average

Source: Teligen T-Basket, February 2011

111. As the Commission has previously noted, New Zealand has a higher proportion of prepaid customers than most other markets in the OECD. Approximately 68 per cent of mobile subscribers in New Zealand are pre-pay customers⁹⁷.

⁹⁴ Ibid page 24.

⁹⁵ If 2degrees plans are included in the benchmarking, New Zealand's ranking improves to 11 out of 34 for the 400 messages basket. New Zealand ranking remains unchanged for the other baskets included in Table 13.

⁹⁶ OECD rankings are determined based on the price of filling the various usage baskets in each OECD country. The country ranked 1 out of 34 has the lowest prices in the OECD for filling the relevant usage basket, while the country ranked 34 out of 34 has the highest prices.

112. In order to reflect the importance of prepaid plans in New Zealand, the Commission has previously reported the results of OECD benchmarking separately for prepay plans only. The results of the updated OECD benchmarking using prepaid plans only are presented in Table 14.

Table 14: Summary of OECD mobile voice and SMS benchmarking (prepay plans only)⁹⁸

Basket	Cheapest NZ plan	OECD Ranking ⁹⁹	Price
30 calls basket (low usage)	Vodafone Simply Prepay	31 out of 34	46% above the OECD average
100 calls basket (medium usage)	Vodafone Simply Prepay	33 out of 34	91% above the OECD average
300 calls basket (high usage)	Vodafone Simply Prepay	32 out of 34	117% above the OECD average
40 calls prepaid basket	Vodafone Simply Prepay	32 out of 34	66% above the OECD average
400 messages basket	Telecom OneRate prepaid Txt 2500	9 out of 34	34% below the OECD average

Source: Teligen T-Basket, February 2011

113. This demonstrates that New Zealand's performance in the OECD benchmarking is significantly worse when post-paid plans are excluded from the analysis. New Zealand is ranked in the bottom four of the 34 OECD countries for each of the usage baskets, apart from the 400 messages basket, meaning the pre-pay prices in New Zealand are amongst the highest in the OECD.
114. For the 400 messages basket, New Zealand is ranked 9 out of 34 OECD countries. This suggests that SMS pricing is relatively low compared to other OECD countries.
115. The results of the OECD mobile benchmarking indicate that, in general, the majority of New Zealand (prepay) consumers face relatively high retail prices compared to those available in other countries.

Mobile voice usage is low

116. New Zealand's use of mobile phones for voice calls is relatively low when compared with other countries.
117. Information provided by GSMA (based on publicly available data) indicates that mobile voice traffic per subscriber in New Zealand is amongst the lowest in the

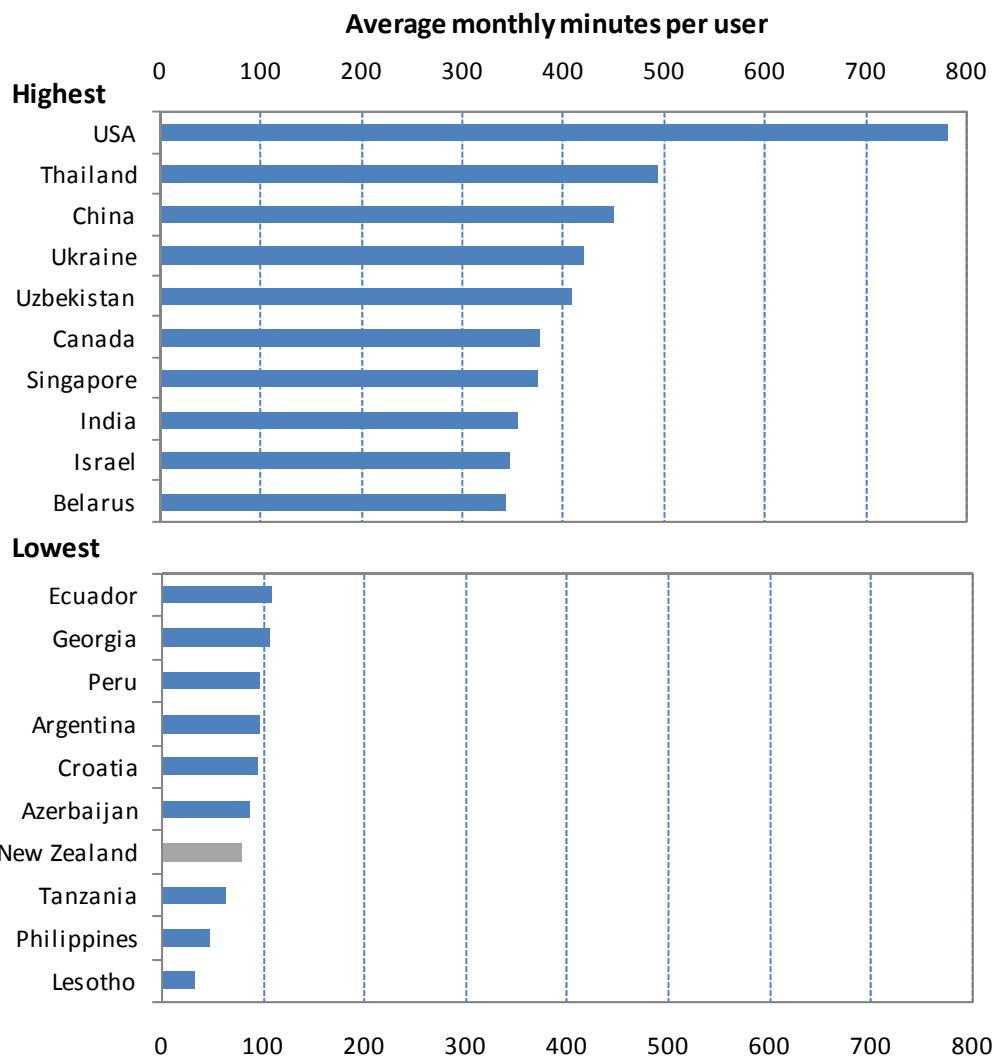
⁹⁷ As at 30 June 2010, based on active in the last 90 days customer definition.

⁹⁸ When 2degrees is included in the prepay benchmarking, New Zealand's ranking improves to 8 out of 34 for the 30 calls basket, 20 out of 34 for the 100 calls basket, 27 out of 34 for the 300 calls basket, 14 out of 34 for the 40 calls prepaid basket and 6 out of 34 for the 400 messages basket. The Commission notes that these benchmarking results do not include Vodafone's "Talk100" prepay add-on and 2degrees' "Everyone100 Pack".

⁹⁹ OECD rankings are determined based on the price of filling the various usage baskets in each OECD country. The country ranked 1 out of 34 has the lowest prices in the OECD for filling the relevant usage basket, while the country ranked 34 out of 34 has the highest prices.

world. Of those countries for which data is available, the 10 with the highest usage and the 10 with the lowest usage are depicted in Figure 4 below.

Figure 4: Mobile voice usage (Q3 2010)¹⁰⁰



Source: Commerce Commission 2010 annual sector monitoring report¹⁰¹

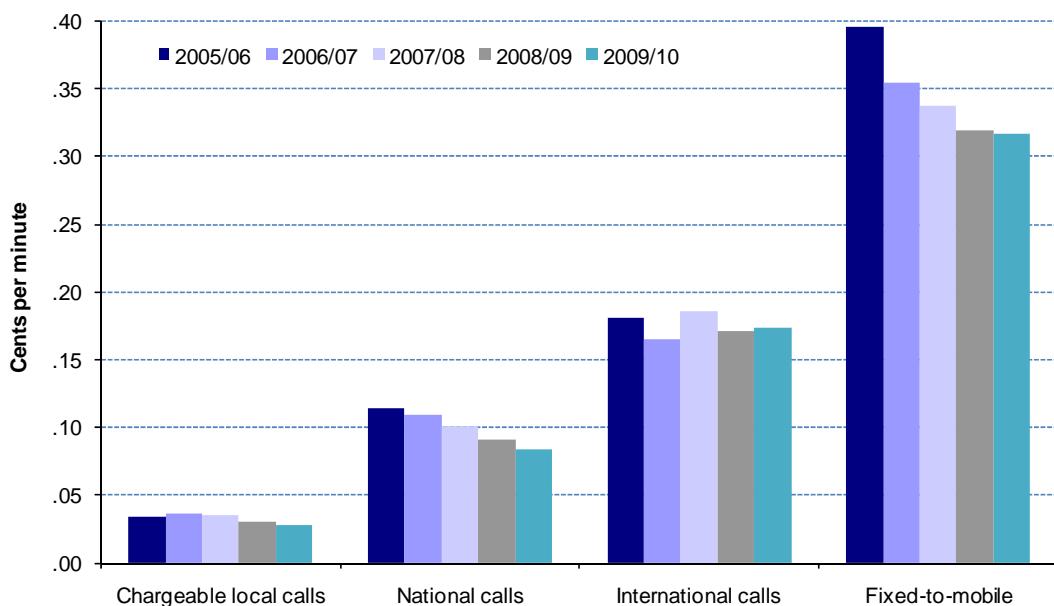
118. The low level of mobile voice usage in New Zealand is likely to be due to the relatively high calling prices faced by the majority of consumers, as discussed above.

Fixed-to-mobile prices are high and usage is low

119. Figure 5 below shows that retail fixed-to-mobile calling prices are relatively high in New Zealand, compared to the prices of other calls originating on fixed-line networks. In 2009/10 the average revenue per minute for fixed-to-mobile calls was approximately 32 cents per minute. This compares to approximately 8 cents per minute for national calls and 17 cents per minute for international calls.

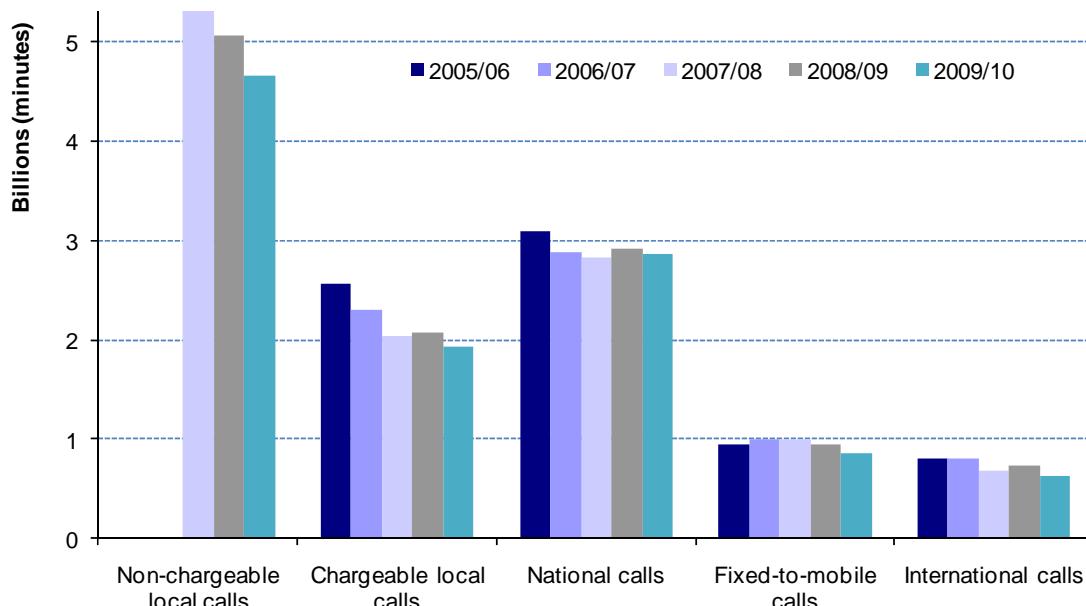
¹⁰⁰ Average usage per subscriber for New Zealand is as at 30 June 2010. The number of subscribers is based on users who have been active within the last 90 days.

¹⁰¹ Commerce Commission, *Annual telecommunications monitoring report 2010*, April 2011, p 40.

Figure 5: Fixed-line voice average revenue per minute in New Zealand

Source: Commerce Commission 2010 annual sector monitoring report¹⁰²

120. Fixed-line calling volumes are also displayed in Figure 6 below. The low volume of fixed-to-mobile calls in New Zealand reflects the relatively high prices described above.

Figure 6: Fixed-line voice calling volumes in New Zealand (minutes)

Source: Commerce Commission 2010 annual sector monitoring report¹⁰³

121. The fixed-to-mobile termination service is an essential input into the provision of retail fixed-to-mobile calls. Therefore, above-cost FTM termination rates are

¹⁰² Commerce Commission, *Annual telecommunications monitoring report 2010*, April 2011, p 21.

¹⁰³ Commerce Commission, *Annual telecommunications monitoring report 2010*, April 2011, p 20.

likely to have contributed to the relatively high retail fixed-to-mobile prices in New Zealand.

Conclusion

122. The discussion above shows that the New Zealand market displays characteristics indicative of highly constrained mobile competition.
123. In particular, significant on-net/off-net price differentials have led to a situation where the majority of mobile-to-mobile traffic is carried on-net. During the 2010 calendar year, 87.4% of mobile-to-mobile voice traffic and 88.8% of SMS traffic in New Zealand was on-net.

SECTION C. FRAMEWORK FOR SELECTING A PRICING PRINCIPLE

Purpose

124. This section sets out the Commission’s framework for determining which pricing principle should apply to the MTAS services. In particular, this section:
- sets out the requirements of the initial pricing principle (IPP) for the MTAS;
 - discusses the Commission’s general approach to determining whether a forward-looking cost-based methodology, pure bill and keep (BAK) or hybrid BAK is likely to best promote competition for the long-term benefit of end-users; and
 - describes the factors which the Commission believes are most likely to indicate whether a form of BAK (either pure BAK or hybrid BAK) is likely to best give effect to the section 18 purpose.
125. In the following sections, the Commission then applies this framework to the voice and SMS termination services in order to determine the applicable pricing methodology for each of these services.

The Initial Pricing Principle

126. For each of the MTAS services, the Commission is required¹⁰⁴ to determine the price terms according to the IPP set out in the Act (as set out in paragraph 9).
127. In accordance with the IPP, the Commission is required to determine the price for the FTM, MTM and SMS termination services by benchmarking against the costs of providing similar services in comparable countries that result from the application of a forward-looking cost-based methodology. However, if the Commission considers that a forward-looking cost-based methodology does not best give effect to the purpose set out in section 18 of the Act, the Commission may apply either a pure BAK or a hybrid BAK pricing methodology.

General approach to determining which of the pricing principle options in the IPP should be applied to the MTAS services

128. The Commission considers that the IPP should reflect the final pricing principle (FPP), as the IPP is designed to be a cost-effective and timely proxy for the price for the service that would result under the FPP. The FPP is either TSLRIC, or where TSLRIC will not best give effect to section 18 of the Act, either a pure BAK or hybrid BAK method.
129. During the HomeZone determination, Vodafone noted that “the Act specifically recognises bill and keep as an alternative pricing principle, available where the Commission considers that a forward-looking cost-based pricing principle does not give effect to the Act’s section 18 purpose” and that “parliament chose not to

¹⁰⁴ Section 30P(1)(c) of the Act.

link the use of bill and keep as a pricing principle with the free local calling option in the TSO".¹⁰⁵

- 130. Vodafone summarised numerous reasons why a forward-looking cost-based pricing principle would not best give effect to the purpose of the Act, in the context of the HomeZone determination, which have relevance here:¹⁰⁶
 - "Telecom would face higher termination costs that would need to be passed on to its retail customers, impairing Vodafone's ability to attract customers to its local service,
 - Forward-looking cost-based pricing would create incentives that are likely to lead to an imbalance of interconnection traffic, and
 - The parties would have strong incentives to game the pricing structure and target (and possibly cross-subsidise) particular customer groupings, such as those that have large inbound one-way traffic streams."
- 131. In determining whether a forward-looking cost-based (TSLRIC) methodology, pure BAK or hybrid BAK will best give effect to section 18 of the Act in the context of this MTAS STD, the Commission considers that the appropriate starting point is that an MTAS price that reflects the efficiently incurred costs of supply is consistent with the promotion of efficient competition in the downstream markets. In general, a forward-looking cost-based price is likely to be the economically efficient price when setting regulated rates for wholesale access services.
- 132. However, the Commission notes that there may be justifications on welfare grounds for departing from efficient costs, as determined by benchmarking forward-looking cost-based MTRs, either on the basis of network externalities (in which case the welfare maximising MTR may exceed the cost-based MTR) or calling externalities (where the welfare-maximising MTR may be below cost).
- 133. Network externalities arise where subscribers to a mobile network benefit from being able to communicate with a large number of mobile subscribers, while calling externalities arise where the benefits of a call are enjoyed not only by the party making (and paying for) the call, but also by the recipient of the call. The use of BAK as an efficient pricing principle is likely to depend on the relative magnitude of these externalities.
- 134. The Commission has also considered other circumstances where BAK may be an appropriate pricing principle. For example, there may be a case for BAK where the net payments that would be required under a price based on TSLRIC benchmarking are relatively low, due to cross-network traffic being relatively balanced and/or there being a low MTR.

¹⁰⁵ Vodafone, *Cross submission on Vodafone's interconnection application*, 11 July 2006, p 3, paragraph 15.

¹⁰⁶ Vodafone, *Cross submission on Vodafone's interconnection application*, 11 July 2006, p 2, paragraph 11.

Forward-looking cost-based pricing is the appropriate starting point

135. The Commission considers that the appropriate starting point in analysing possible pricing principles is that the price for the MTAS should reflect the cost of supplying the termination service. A forward-looking cost-based price will by definition enable access providers of the MTAS to recover efficiently incurred costs (consistent with productive efficiency), and will maintain incentives for efficient investment over time (dynamic efficiency).
136. Vodafone's cross-submission on the Draft STD stated that:¹⁰⁷

‘A properly estimated forward looking cost-based price is the economically efficient price.’
137. This is consistent with previous submissions made by Vodafone. In its cross-submission on the Commission’s Draft Report for the MTAS Schedule 3 Investigation, Vodafone argued that it is crucially important that the Commission:¹⁰⁸

‘... sets an access price for the MTAS that best promotes competition and efficiency more generally in all relevant markets. We agree with the Commission that such a pricing principle is TSLRIC.’
138. Similarly, at the MTAS Schedule 3 Investigation Conference Telecom referred to the consensus that had been reached on a number of important principles, including that "everyone agrees with the principle of TSLRIC price termination rates".¹⁰⁹
139. Given that a forward-looking cost-based price reflects efficiently incurred costs, any departure from the economically efficient price (either above or below) will create distortions and may result in a reduction in economic welfare. As WIK-Consult note:¹¹⁰

It is a general conclusion from economic analysis that whenever prices deviate from efficiently determined cost (after having taken into account possible externalities) the deviations have distortive effects on market outcomes.
140. For example, below cost pricing of termination, such as BAK, may incentivise mobile network operators (MNOs) to attract customers who tend to make more calls than they receive, in order to replace the lost termination revenues on inbound calls with higher revenues on outbound services. Off-net calls may also be encouraged, as the MNO faces no cost for termination of calls on another network under BAK, whereas it incurs its own termination costs in respect of on-net calls that remain on its own network.
141. Encouraging MNOs to behave in such a manner is likely to be inefficient, as such behaviour is not driven by the underlying costs of supplying termination. Off-net volumes could be stimulated, largely as a result of such calls effectively

¹⁰⁷ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 5, paragraph 25.

¹⁰⁸ Vodafone, *Cross-submission on the MTAS Draft Report*, 18 August 2009, paragraph 217.

¹⁰⁹ MTAS Schedule 3 Conference Transcript, 3 September 2009, p 231.

¹¹⁰ WIK Consult, *Support to the Commerce Commission in its current Standard Terms Determination for the MTR*, 1 November 2010, p 12.

receiving a subsidy. Although there is a real cost of terminating such calls, BAK sets the termination rate to zero, and hence the party originating these calls does not face the cost of delivering the calls.

142. Similarly, above cost termination rates are also likely to create distortions in the opposite direction. In this case, MNOs are likely to be incentivised towards subscribers who receive a proportionately large volume of calls, due to the termination profits that can be earned from other parties. On-net calls will now be less costly to deliver than off-net calls, as the MNO only faces its own costs of termination for on-net calls, whereas it faces a higher termination cost for off-net calls.
143. The Commission's view is therefore that the appropriate starting point when considering the appropriate pricing principle is to establish rate that reflects the efficiently-incurred costs of supplying the MTAS. A forward-looking cost-based price meets this objective. Such an approach should minimise any distortions by ensuring that MNOs and their subscribers are not faced with artificially inflated or deflated prices.

Externalities as a potential justification for departing from efficient costs

144. There may be a welfare justification to depart from the price for the MTAS being set at the level of efficiently-incurred costs where externalities are present. The issue of calling and network externalities is important in terms of assessing the circumstances in which BAK might be an efficient pricing arrangement for mobile termination, and considering any movement above or below the cost-based termination rate.
145. At the MTAS STD Conference, Dr John Small from Covec stated:¹¹¹

...the only thing that I think we can agree on is that that's the right starting point, that you look at what is the cost of termination and then, to the extent that we can think of good reasons or we've got good evidence of externalities that push it in one direction or the other, then my view is that you would make adjustments from that point based on good evidence.

146. Similarly, Dr Aaron Schiff stated that "from an economic perspective cost-based pricing is what we usually think of as our first port of call as to what is efficient and then we depart from that if we have strong evidence in terms of the externalities".¹¹²

Network externalities

147. Positive network externalities arise where subscribers to a mobile network benefit from being able to communicate with a large number of mobile subscribers. Mobile subscribers therefore generate a private benefit (that accrues to themselves) from being able to make and receive calls, as well as an external benefit that accrues to others from being able to contact and be contacted by them. However, in deciding whether or not to subscribe to a mobile network,

¹¹¹ MTAS STD Conference Transcript, 15 March 2011, p 38-39.

¹¹² MTAS STD Conference Transcript, 15 March 2011, p 70, lines 19-22.

customers generally take their own private benefit into account but not the external benefit. This difference is the source of a network externality.

148. A potential consequence is that the level of mobile subscription may be lower than the socially optimal level. This is because some customers may choose not to join a network as their private benefits do not cover the cost to them of becoming a subscriber, even though total welfare would be enhanced if they did subscribe.
149. One possible way of addressing this is to increase the mobile termination rate above cost (ie include a network externality surcharge), in order to make it more profitable for MNOs to attract or retain subscribers to its network. In effect, the above-cost termination rate would allow MNOs to cross-subsidise subscription services and stimulate subscription levels. This allows the positive network externalities that result from these additional subscribers joining (or remaining on) the network to be realised.
150. Ofcom has previously allowed for a network externality surcharge when setting regulated mobile termination rates.¹¹³ However, Ofcom's decision was subsequently reversed by the UK Competition Commission (UKCC), which found that it was no longer appropriate to include such a surcharge on the basis that the resulting termination profits were not necessarily used to reduce subscription prices for marginal customers (which the surcharge was designed to do).¹¹⁴ The Ofcom determination had been one of the few examples where a regulator had added a network externality surcharge to the cost-based MTR.
151. Furthermore, at high levels of penetration network externalities are likely to be relatively insignificant. This is because the marginal external benefit from additional subscribers is likely to be limited where mobile networks are mature.¹¹⁵ As the current mobile penetration rate in New Zealand is approximately 108 per cent¹¹⁶, network externalities are unlikely to be a significant factor in the New Zealand market.

Calling externalities

152. Positive calling externalities arise where the benefits of a call are enjoyed not only by the party making (and paying for) the call, but also by the recipient of the call. In a similar manner to that described above, the party making the call will typically take into account their own private benefit when deciding how many calls to make (and their duration). To the extent that the receiving party also benefits, the level of calling may be too low from a societal perspective.

¹¹³ Ofcom, *Mobile call termination: Statement*, 27 March 2007.

¹¹⁴ UKCC, *Mobile phone wholesale voice termination charges: Determination*, 16 January 2009, paragraphs 4.150 and 4.160.

¹¹⁵ Albon, R, and R York, *Mobile termination: Market power, externalities and their policy implications*, Telecommunications Policy 30 (2006).

¹¹⁶ See paragraph 51 above.

153. In this case, it might be appropriate to reduce the termination rate below cost, in order to lower call prices and increase demand for calls and realise the positive calling externality effect. For example, Harbord and Pagnozzi note that:¹¹⁷

...once it is recognised that both parties to a call receive benefits from it, it is surprisingly easy to demonstrate that this fundamentally changes the analysis of welfare-optimal prices and termination rates, and that bill-and-keep is likely to be the efficient charging regime.

154. DeGraba (2003) noted that it is efficient for each customer to bear the proportion of the incremental cost of a call equal to the proportion of the value of the call he receives, and that BAK is efficient when customers shared equally in the value of a call.¹¹⁸
155. Similarly, Berger (2004) compared bill and keep with cost-based access pricing within the framework of a simple model where two symmetric networks compete in nonlinear and discriminatory prices in the presence of call externalities. Berger argued in favour of bill and keep, showing that such an arrangement is welfare improving compared to cost-based access pricing in these circumstances.¹¹⁹
156. It was agreed at the MTAS STD Conference that calling externalities exist. For example, Professor Haucap stated:¹²⁰

It is, I think, quite obvious that receiver benefits exist; people hand out their mobile phone number in order to be called, so that suggests that people receive a benefit from being called regularly.

157. Similarly, Dr Aaron Schiff from Covec stated:¹²¹
- ...I can't deny that people enjoy receiving calls, I think that's obvious. So the question is the extent to which those benefits are internalised by the caller...
158. There was some debate about whether or not these receiver benefits are internalised. However, the economic experts all agreed that measuring the size of any uninternalised call externalities is difficult.¹²²
159. Dr Schiff described a number of possible reasons why calling externalities are internalised by end-users. Dr Schiff noted that:¹²³

...one way that this could be internalised is through the reciprocity between the two parties so that any individual call or text is part of a bigger conversation between the two parties and they both jointly pay for the costs of that and both jointly get the benefits.

In addition to that I think there's an even simpler story about how in many cases these calling externalities can be internalised and that's just simply that, especially among friends

¹¹⁷ Harbord and Pagnozzi, *Network-based price discrimination and ‘Bill-and-Keep’ vs. ‘Cost-Based Regulation of mobile termination rates*, 2010, p 26.

¹¹⁸ DeGraba, *Efficient inter-carrier compensation for competing networks when customers share the value of a call*, 2003, p 20.

¹¹⁹ Berger, *Bill-and-Keep vs. Cost-Based Access Pricing Revisited*, Journal of economic literature, p 4.

¹²⁰ MTAS STD Conference Transcript, 15 March 2011, p 64, lines 16-19.

¹²¹ MTAS STD Conference Transcript, 15 March 2011, p 71, lines 9-10.

¹²² MTAS STD Conference Transcript, 15 March 2011, p 64-76.

¹²³ MTAS STD Conference Transcript, 15 March 2011, p 71, lines 13-24.

or within families the caller cares about the person that they're calling. So, for example, when I'm calling my mother, I probably talk to her for a lot longer than is optimal for me personally, because I care about her welfare I know that when she talks to me she's happy and I care about that and so I internalise the benefits to her explicitly. This won't be true in all cases but I think in many cases it could be.

160. Similarly, WIK-Consult has previously noted that:¹²⁴

It is usually not the case that always one person calls and pays and the other only benefits. Most often the calling relationship is reciprocal so that over time the optimal solution is actually achieved, i.e. the externality is being internalised. In actual cases where one person most often calls and pays and the other almost never calls and pays, this happens on purpose because, for example, the calling party is the better off financially and gladly takes on the corresponding cost.

161. Professor Haucap, on the other hand, argued that calling externalities are significant in the context of the New Zealand market. Specifically, Professor Haucap stated that:¹²⁵

I would think that they rather exist or they do not exist, meaning there's no proof in a sense but the evidence suggests to me that it's more likely that these call externalities are significant than they are not significant.

162. In reaching this view, Professor Haucap argued that given the relatively low mobile voice usage in New Zealand, it is unlikely that the level of calling is at the socially optimal level, especially when compared to the level of calling in other countries where on-net off-net differentials are not as high.¹²⁶ Professor Haucap also noted that Vodafone has a large number of customers that do not make any calls, and only hold a SIM card in order to receive calls.¹²⁷ According to Professor Haucap, this suggests that these customers do not take into account the benefit of receiving calls on the other side, suggesting that internalisation of calling externalities is unlikely in this case.¹²⁸
163. The presence of calling externalities in the New Zealand market is discussed in further detail in paragraphs 375 to 378 and 463 to 466 (in respect of voice and SMS services, respectively).

Pure BAK pricing

164. Pure BAK is a pricing scheme for the two-way interconnection of networks under which the reciprocal call termination charge is zero. That is, each network agrees to terminate calls from the other network at zero cost.¹²⁹
165. According to the European Commission, there is no record of bill and keep being imposed by a regulatory authority. Rather, the EC notes that BAK

¹²⁴ WIK-Consult, *Support to the Commerce Commission in its current Standard Terms Determination for the MTR*, 1 November 2010, p 11.

¹²⁵ MTAS STD Conference Transcript, 15 March 2011, p 66, lines 31-33.

¹²⁶ MTAS STD Conference Transcript, 15 March 2011, p 65, lines 14-27.

¹²⁷ MTAS STD Conference Transcript, 15 March 2011, p 58.

¹²⁸ MTAS STD Conference Transcript, 15 March 2011, p 65-66.

¹²⁹ OECD, *Access Pricing in Telecommunications: Glossary of Terms*, 2004, p 213.

generally results from voluntary commercial agreements between interested parties, particularly where the net financial settlements are close to zero.¹³⁰

166. 2degrees submitted that BAK has occurred commercially in New Zealand in the past, including between Telecom and TelstraClear for local calls and between Telecom and Vodafone for MTM calls, as well as having been mandated by the Commission in the Homezone decision.¹³¹

Potential benefits of a BAK regime

167. There are a number of potential benefits of BAK as a pricing approach for mobile interconnection services. As noted by the European Commission, it has been argued that bill and keep leads to lower retail prices for call origination and appears to increase usage due to the price elasticity of demand. Furthermore, proponents of bill and keep argue that it facilitates the development of innovative offers, such as flat-rate offers that promote increased usage.¹³² As explained above, a below cost termination rate such as BAK may also be welfare enhancing where calling externalities are significant.
168. Pure BAK also has some advantages in terms of avoiding direct costs associated with setting a cost-based termination rate. These costs include the resources expended in developing cost models, as well as implementation costs associated with the metering and billing for termination services.
169. The level of avoided costs associated with a pure BAK regime would depend on:
 - whether BAK applies only to one form of traffic (such as MTM) or to all forms of traffic. If BAK does not apply to FTM calls, MNOs would still incur implementation costs for FTM termination, such as billing and number identification systems. These costs may be avoided only where BAK is applied in respect of all mobile termination services;
 - whether the costs of billing and number identification systems have already been incurred. Joan Obradors of Analysys Mason, at the MTAS STD Conference, stated that:¹³³

...one of the advantages without doubt for bill-and-keep is that you have - you save costs in terms of the billing systems, but I think that this is a theoretical advantage because the point is that, as of today all the networks do have billing systems in place...
 - whether these costs relate to ongoing operational costs associated with billing (where the billing systems are already in place), for example, costs associated with systems maintenance and employment of staff to manage

¹³⁰ European Commission, *Commission staff working document accompanying the commission recommendation on the regulatory treatment of fixed and mobile termination rates in the EU: Explanatory note*, 7 May 2009, p 30.

¹³¹ 2degrees, Submission on draft MTAS STD, 7 February 2011, page 68, paragraph 12.6(h)(i).

¹³² European Commission, *Commission staff working document accompanying the commission recommendation on the regulatory treatment of fixed and mobile termination rates in the EU: Explanatory note*, 7 May 2009, p 30.

¹³³ MTAS STD Conference Transcript, 15 March 2011, p 26, lines 22-25.

the billing process. These operational costs would be avoided under a pure BAK regime; and

- whether billing systems are required for other ongoing operational reasons, such as the monitoring of traffic levels. These costs would be incurred irrespective of which pricing principle is in place.

Potential detriments of a BAK regime

170. The potential advantages of BAK could be offset to some extent by a number of factors. For example, the European Commission has noted that:¹³⁴

...setting the price of any service at zero may cause distortionary behaviour, bring arbitrage opportunities, lead to inefficient traffic routing and inefficient network utilisation. For instance, a potentially problematic issue might be inefficient routing of traffic from operators not participating in the Bill and Keep scheme.

171. BAK could result in substantial changes to the level and structure of retail prices. The wholesale termination revenue on incoming calls to subscribers would be eliminated under BAK,¹³⁵ which could result in a number of significant consequences, as previously noted by the UKCC:¹³⁶

“At the same time, under {BAK} MNOs would no longer receive any revenue from the caller’s MNO to cover the cost of terminating M2M calls. This could have a number of detrimental consequences:

- (a) MNOs may become less willing to serve customers who receive more calls than they make because a CPP system combined with {BAK} would make them less valuable. The impact on the pre-pay sector in particular could be significant.
 - (b) There may be pressure to move to an RPP system, where customers are charged for receiving calls by their own network, which Ofcom currently considers to be detrimental to consumers in the UK. Whilst we have not received evidence on this point (H3G arguing rather that {BAK} will not lead to RPP), no argument has been advanced that Ofcom’s assessment was incorrect in this respect. Again, we note that this is likely to have a significant effect on the pre-pay sector in particular.
 - (c) Alternatively, MNOs may increase the prices of other services or subscription fees. The former is likely to depress the consumption of such services below efficient levels, and the latter is likely to reduce demand for subscription, again with the pre-pay sector likely to be particularly affected.”
172. In New Zealand, approximately 68 per cent of New Zealand mobile customers are on pre-pay plans.¹³⁷ Therefore, any adverse consequences of a move to BAK on the pre-pay customer segment could be particularly significant in the New Zealand market. However, 2degrees has previously indicated that it would be

¹³⁴ European Commission, *Commission staff working document accompanying the commission recommendation on the regulatory treatment of fixed and mobile termination rates in the EU: Explanatory note*, 7 May 2009.

¹³⁵ The Commission notes that while the elimination of termination payments between operators could reduce the value ascribed to a mobile subscriber (as wholesale revenues earned on incoming calls would be removed), there is likely to be some offsetting reduction in termination costs on outgoing calls, which will tend to mitigate the loss in termination revenues.

¹³⁶ UKCC, *Mobile phone wholesale voice termination charges: Determination*, 16 January 2009, paragraph 14.79. NPZ is “net payment zero”, which is a form of BAK.

¹³⁷ As at 30 June 2010, based on active in the last 90 days customer definition.

happy to take mobile customers from Telecom and Vodafone in the event that the larger mobile operators increased their retail mobile prices:¹³⁸

‘We will lower the price for prepaid customers and if other people put their prices up we are very happy to take them from them if they find our offer more attractive.’

173. Similarly, TUANZ has previously submitted that the entry of 2degrees and possibly mobile virtual network operators (MVNOs) should reduce the likelihood of other prices increasing to offset lower MTRs.¹³⁹ Furthermore, the Commission notes that the introduction of BAK would only affect a relatively small proportion of total traffic in the New Zealand mobile market, given that the vast majority of traffic is currently carried on-net.¹⁴⁰
174. As indicated above, a potentially significant implication of BAK is that it may lead to the introduction of retail charges for receiving calls. New Zealand currently operates a calling party pays (CPP) billing system, whereby an end-user making a call or sending a text message pays associated retail charges. At the wholesale level, the originating fixed or mobile operator makes a termination payment to the terminating mobile network, in order to cover the costs of terminating the call or SMS.
175. In most bill and keep countries, however, mobile network operators have adopted receiving party pays (RPP) at the retail level (for example, Canada, Singapore, Hong Kong and the United States).¹⁴¹ This enables MNOs to recover part of their overall costs, including termination costs, from their own retail customers via charges for receiving calls. The EC has previously noted that RPP pricing may evolve as a response to a bill and keep system.¹⁴²
176. Vodafone has argued that the potential for RPP pricing is a reason not to adopt BAK. Specifically, Vodafone has stated that:
 - BAK would mean that receiving party end-users would have to pay for inbound calls or texts, either in the form of a charge per minute or per text, or higher fixed monthly access charges;¹⁴³
 - the introduction of RPP would be “contrary to consumer interests – not least because all available empirical evidence shows that it is the form of pricing that (European) consumers find least attractive”,¹⁴⁴ and

¹³⁸ MTAS Schedule 3 Conference transcript, page 87. See also MTAS Schedule 3 Conference transcript, page 12.

¹³⁹ TUANZ, *Submission on the MTAS Schedule 3 draft report*, 28 July 2009, page 4.

¹⁴⁰ Approximately 12.6% of MTM voice traffic and 11.2% of SMS traffic in New Zealand was cross-net during the 2010 calendar year. See paragraph 71 above.

¹⁴¹ Harbord and Pagnozzi, *Network-based price discrimination and ‘Bill-and-Keep’ vs. ‘Cost-Based’ Regulation of mobile termination rates*, 2010, p 35-36.

¹⁴² European Commission, *Commission recommendation on the regulatory treatment of fixed and mobile termination rates in the EU: Explanatory note*, 7 May 2009, p 31.

¹⁴³ Vodafone, *Cross-submission on the Draft MTAS STD*, February 2011, p 6, paragraph 29.

¹⁴⁴ Vodafone, *Comments on the draft final report by Tera Consultants and Hogan Lovells on future of interconnection charging methods*, p 1, paragraph 4.

- that there is an overwhelming global trend away from receiving party pays¹⁴⁵, which provides evidence that end-users do not value receiving incoming calls to the extent they believe they should pay for them.¹⁴⁶
177. Harbord and Pagnozzi, however, note that as an empirical matter, it is unclear that adoption of bill and keep would necessarily lead to the imposition of significant reception charges for mobile calls.¹⁴⁷
178. Ofcom, in its recent decision on MTRs, concluded that MNOs:¹⁴⁸
- "… ability and incentive to move towards RPP will be constrained by consumers' antipathy towards such a system, and the complication of introducing such a system, given the present calling party pays (CPP) arrangements."
179. There are a number of other potential detriments associated with a BAK regime. For example, BAK could:
- Generate arbitrage opportunities: If BAK applied to MTM voice termination, but a forward-looking cost-based price applied to FTM termination, fixed operators may face incentives to route traffic through mobile gateways in order to avoid paying the cost-based termination rate;¹⁴⁹
 - Lead to increases in spam: It has been argued that BAK would increase the number of unwanted and nuisance calls and SMS messages because the costs of calling consumers for marketing and sales would be reduced.¹⁵⁰ This argument has primarily been raised in relation to SMS termination; or
 - Impact on quality of service: There is a risk that under a BAK regime, operators would not allocate sufficient capacity to incoming calls, given these calls would not generate any additional revenue.¹⁵¹

Potential detriments of BAK may be mitigated if there are balanced traffic flows between networks

180. The Commission notes that many of the potential adverse consequences of adopting BAK may be mitigated where traffic flows between networks are balanced. As noted by WIK-Consult:¹⁵²

¹⁴⁵ Vodafone noted that at least 27 countries have changed from RPP to CPP since 1991, and only the US, Canada, Hong Kong, Singapore and China still work on a receiving party pays basis.

¹⁴⁶ Vodafone, *Cross-submission on the Draft MTAS STD*, February 2011, p 6, paragraph 31.

¹⁴⁷ Harbord and Pagnozzi, *Network-based price discrimination and 'Bill-and-Keep' vs. 'Cost-Based' Regulation of mobile termination rates*, 2010, p 38.

¹⁴⁸ Ofcom, *Wholesale mobile voice call termination statement*, 15 March 2011, Page 117, paragraph 7.59. Ofcom's statements were in the context of its assessment of whether to apply LRIC+ (TSLRIC) or LRIC pricing, having previously determined not to apply BAK pricing. However, the general principles are similar as Ofcom were considering whether a significant reduction in MTRs would be likely to incentivise changes to retail pricing structures.

¹⁴⁹ This is discussed in further detail in paragraphs 379 to 386 below.

¹⁵⁰ Analysys Mason, *Draft standard terms determination analysis: Report for NZ Commerce Commission*, 4 February 2011, p 41.

¹⁵¹ This is discussed further in paragraphs 184 to 190 below.

The imposition of BAK should in general be judged on whether the savings in transaction costs and the possible other benefits justify the competitive distortions that are caused by this regime... As we pointed out in our earlier reports, these distortive effects may be small when traffic volumes are balanced between operators.

181. Where traffic is balanced between operators, the reduction in wholesale termination revenues on incoming traffic for any one mobile operator under BAK will be offset by the reduction in wholesale termination costs on outgoing traffic. This indicates that the net position of the mobile operator would be unaffected by the introduction of BAK, and that existing retail prices and pricing structures might be sustained.

182. However, Laffont and Tirole argue that even if traffic is balanced between networks, so that the net interconnection payment is zero, the introduction of a bill and keep arrangement is not neutral. This is termed the “bill and keep fallacy”:¹⁵³

This “bill-and-keep” arrangement amounts to setting an access charge equal to zero. It is correct that a change in the access charge need not affect the (absence of) net payment between the operators, but the access charge affects each network’s perceived marginal cost and therefore retail prices. It is, therefore, not neutral, even if traffic is balanced.

183. The Commission notes that the prevailing SMS termination rate in New Zealand is 9.5 cents per text, yet mobile operators offer any-net texting plans which provide retail prices as low as 0.48 cents per text.¹⁵⁴ Therefore, each network’s perceived marginal cost appears to be very low when traffic is expected to be in balance (or roughly in balance) even if the termination rate is significantly above-cost. This suggests that the adverse consequences of a BAK regime are likely to be relatively limited where the cost of termination is low and traffic flows between networks are balanced.

184. WIK Consult has noted that there are two possible detrimental effects of BAK to be kept in mind even if traffic would appear to be balanced. In particular, WIK Consult noted that there is the incentive for operators under a BAK regime to offer more favourable terms to their customers for outgoing calls since these are now less expensive, given that they use less of their own network resources than on-net calls. Furthermore, WIK Consult noted that operators may have a low incentive to cater for incoming calls, given that these will generate no income.¹⁵⁵

185. Accordingly, WIK Consult advised that:¹⁵⁶

Because of the low commercial interest in these {incoming} calls, there is the risk that operators do not allocate the capacity to them which would assure for them the same QoS as

¹⁵² WIK Consult, *Support to the Commerce Commission in its current Standard Terms Determination for the MTR*, 1 November 2010, p 12.

¹⁵³ Laffont and Tirole, *Competition in telecommunications*, p 190.

¹⁵⁴ Telecom's "Text anyone 2500" add-on offers 2,500 text messages to any New Zealand mobile network for \$12 per month, while 2degrees' "\$10 text pack" provides 2,000 text messages to any network in New Zealand. Vodafone has also recently launched an any-net SMS plan, "TXTNZ", which provides 2,500 text messages to any New Zealand mobile for \$12 per month.

¹⁵⁵ WIK Consult, *Support to the Commerce Commission in its current Standard Terms Determination for the MTR*, 1 November 2010, p 12.

¹⁵⁶ WIK Consult, *Support to the Commerce Commission in its current Standard Terms Determination for the MTR*, 1 November 2010, p 12.

for on-net and outgoing services. The consequence may be that from the point of view of users, calls to other networks, since they receive there less than adequate handling, will in time be seen as having lower quality and, ceteris paribus, tend to be used less frequently.

186. Vodafone has previously highlighted similar concerns. As part of its cross-submission on the Draft STD, Vodafone attached a report that it prepared for the European Commission setting out its views on a move to BAK. In that report Vodafone noted that mandated BAK allows networks to terminate traffic off-net at zero cost, and provides networks with a viable strategy to increase the costs of their competitors (and/or generate congestion on rival networks) with retail pricing that generates off-net calls.
187. By contrast, Vodafone noted that networks will face a non-zero marginal cost for all calls terminated on-net, which will give networks a strong incentive to favour off-net call termination over on-net termination (since both incur the same origination cost).¹⁵⁷ It was also noted that whereas networks have complete control over the quality of their on-net calls (eg in terms of congestion), they have limited (or no) control over the quality of off-net calls (since the quality of the call is determined by the quality on its weakest segment).¹⁵⁸
188. Vodafone argued that this leads to a clear dichotomy:¹⁵⁹
 - on-net calls will be relatively more expensive but will have high quality/low congestion; and
 - off-net calls will be cheaper but may suffer from lower quality/high congestion if the terminating network is not prepared to match the same quality of service.
189. However, the Body of European Regulators for Electronic Communications (BEREC) has previously noted that BAK is not expected to result in lower quality of service because the terminating operator has an incentive to deliver reasonable service for calls received by its customers.¹⁶⁰ According to BEREC:

The direct impact of BaK is that the operator that offers termination cannot collect revenue for extra QoS. One could conclude from this that sufficient or extra QoS will not be provided any more. However, regarding voice interconnection the receiving operators have a non-financial reason to deliver the requested QoS because this also serves their own customers that receive the traffic. These customers would not be satisfied if they received poor quality incoming traffic. Therefore, receiving operators have a strong incentive to offer sufficient QoS for voice services.
190. This indicates quality of service for incoming calls is unlikely to differ significantly under a forward-looking cost-based pricing methodology or BAK.

¹⁵⁷ Vodafone, Appendix to cross-submission: *Vodafone comments on the draft final report by Tera Consultants and Hogan Lovells on future of interconnection charging methods*, p 2, paragraph 8.

¹⁵⁸ Vodafone, Appendix to cross-submission: *Vodafone comments on the draft final report by Tera Consultants and Hogan Lovells on future of interconnection charging methods*, p 2, paragraph 9.

¹⁵⁹ Vodafone, Appendix to cross-submission: *Vodafone comments on the draft final report by Tera Consultants and Hogan Lovells on future of interconnection charging methods*, p 2, paragraph 10.

¹⁶⁰ BEREC, *Common Statement on Next Generation Networks Future Charging Mechanisms / Long Term Termination Issues*, June 2010, p 50.

Hybrid BAK pricing

191. Hybrid BAK involves applying a pure BAK pricing approach to traffic in balance (or to a specified margin of out-of-balance traffic) and a benchmarked price to out-of-balance traffic (or traffic beyond a specified out-of-balance margin).
192. The implementation of hybrid BAK requires the calculation of the benchmarked price and the measurement of call traffic volumes, even when call traffic is within the in-balance thresholds. As a consequence it is at least as costly to administer as a benchmarked price regime, and does not deliver the theoretical cost savings associated with a pure BAK approach.
193. Hybrid BAK may be considered appropriate in situations where a BAK pricing principle is likely to best promote competition for the long-term benefit of end-users, but there is a risk of significant traffic imbalances arising or gaming over traffic volumes.
194. In the event that a hybrid BAK pricing principle was adopted, the Commission would be required to specify a margin of out-of-balance traffic beyond which a forward-looking cost-based methodology would apply. Vodafone has previously provided an example of a hybrid BAK arrangement with an international SMS hub called Sybase 365 whereby if out-of-balance traffic exceeds 5% or 25,000 SMS per month, then a paid arrangement applies.¹⁶¹

Circumstances where BAK may best give effect to section 18 of the Act

195. As discussed earlier, the Commission's view is that the appropriate starting point when considering the pricing methodology is establishing a rate that reflects the efficiently-incurred costs of supplying the MTAS. A forward-looking cost-based price meets this objective.
196. However, if the Commission determines that a forward-looking cost-based approach will not best give effect to section 18 of the Act, the Commission must then choose between pure BAK and hybrid BAK to determine which method will, or is likely to, best give effect to section 18 of the Act.
197. In the Draft STD, the Commission's view was that the following factors were most likely to indicate whether BAK (pure BAK or Hybrid BAK) was likely to best give effect to the section 18 purpose:¹⁶²
 - the net payments that would be required under a price based on TSLRIC benchmarking were relatively low, due to cross-network traffic being relatively balanced and/or there being a low MTR; or
 - calling externalities were significant.
198. Vodafone submitted that it is not clear how these two tests would establish that a cost-based price is less appropriate than bill and keep in terms of section 18.

¹⁶¹ MTAS Schedule 3 Conference Transcript, 2 September 2009, p 109.

¹⁶² See paragraph 56 of the Draft STD.

Vodafone noted that under a BAK regime, a firm that is a net recipient of traffic will be required to give other operators termination services for free to the extent of any imbalance, and that this gives rise to the bizarre result that it costs the originating network less to terminate a call on the terminating network than on the originating network itself.¹⁶³

199. For the reasons set out above, the Commission's view remains that where the net payments that would be required under a price based on TSLRIC benchmarking are relatively low, due to cross-network traffic being relatively balanced and/or there being a low MTR, many of the adverse consequences of BAK are likely to be mitigated to some extent. This is because to the extent that the net financial position of a mobile network operator is relatively unaffected by implementing a termination rate of zero, the impact of a move to bill and keep is likely to be minimised. Therefore, this is one potential indicator that BAK may be an appropriate pricing principle.
200. BAK may also be an appropriate pricing principle when calling externalities are significant.¹⁶⁴ When un-internalised calling externalities are present, to the extent that these outweigh any network externalities, it might be appropriate to reduce the termination rate below cost. This would be expected to lead to lower call prices and increase demand for calls, thereby realising the positive calling externality effect.
201. At the MTAS STD Conference, Professor Haucap acknowledged that:¹⁶⁵

...there are downsides to bill-and-keep and the question whether these downsides can be more than compensated depends on the nature or the extent of the call externalities that are present in the New Zealand market...

But if the externalities are very strong, then bill-and-keep may be a very good principle. If the externalities are not so strong, I would rather go for cost-based, some other cost-based - incremental cost-based standard.

202. As described above, although it was agreed at the MTAS STD Conference that calling externalities exist, there was some debate about whether these externalities are internalised in the context of the New Zealand market.
203. The Commission is of the view that the factors set out in paragraph 197 are most likely to indicate whether BAK is likely to best give effect to the purpose statement set out in section 18 of the Act. However, the Commission considers that it is important to assess the potential benefits and drawbacks of BAK in the context of each of the MTAS services.

Conclusion

204. This section has discussed the Commission's approach to selecting a pricing principle for MTAS services. The Commission is required to consider whether forward-looking cost-based pricing, pure BAK or hybrid BAK is likely to best

¹⁶³ Vodafone, *Cross-submission on the Draft MTAS STD*, February 2011, p 5-6, paragraph 28.

¹⁶⁴ See, for example, Harbord and Pagnozzi (2010), DeGraba (2003) and Berger (2004) as described in paragraphs 153 to 155 above.

¹⁶⁵ MTAS STD Conference Transcript, 15 March 2011, p 37, lines 13-19.

- promote competition when setting regulated termination rates for voice and SMS.
205. The Commission considers that the following factors are most likely to indicate that BAK (pure BAK or Hybrid BAK) may best give effect to the section 18 purpose:
- the net payments that would be required under a price based on TSLRIC benchmarking are relatively low, due to cross-network traffic being relatively balanced and/or there being a low MTR; or
 - calling externalities are significant.
206. However, there are number of potential downsides of a BAK interconnection regime that may arise in the context of voice and SMS termination services. In the following sections the Commission applies the framework set out in this section in order to determine what pricing principle should apply for the voice MTAS services and the SMS service.

SECTION D. DETERMINING THE PRICING PRINCIPLE, AND CORE PRICES, FOR THE VOICE MTAS SERVICES

Purpose

207. This section sets out the Commission's approach to selecting the pricing principle and determining the core prices for the voice MTAS services.
208. In accordance with the IPP, the Commission is required to determine the price for the FTM and MTM voice termination services by benchmarking against the costs of providing similar services in comparable countries. However, if the Commission considers that a forward-looking cost-based methodology does not, or is not likely to, best give effect to the purpose set out in section 18 of the Act, the Commission may apply either a pure BAK or a hybrid BAK pricing methodology. As discussed above, the Commission may make its assessment of whether a forward-looking cost-based methodology will best give effect to section 18 of the Act on a qualitative and or quantitative basis.¹⁶⁶
209. In selecting the pricing principle that is likely to best promote competition for the long-term benefit of end-users, the Commission has assessed the forward-looking costs of providing the voice MTAS, based on benchmarking of similar services in comparable countries. From the resulting benchmark set, the Commission has selected a price point and cost path in order to reach a forward-looking cost-based price for the service. The Commission has then considered whether a form of BAK (either BAK or hybrid BAK) would better meet the section 18 purpose than the cost-based price, and whether asymmetric MTRs are appropriate in light of the competition concerns identified in paragraphs 48 to 49. Each of these steps are discussed in turn in the following subsections:
 - benchmarking the forward-looking costs of the voice MTAS services;
 - selecting a price point for the voice MTAS services;
 - identifying a cost-path for the voice MTAS services;
 - assessing whether a forward-looking cost-based methodology or BAK best gives effect to the purpose set out in section 18 of the Act; and
 - assessing whether asymmetric MTRs are also required to address existing barriers to competition.
210. Appendix 1 summarises the Commission's benchmark sets. Appendix 3 summarises submissions on the Commission's approach to benchmarking. A summary of submissions on the pricing principle for voice termination, price point selection, cost-path and asymmetry for voice is included in Appendix 4.

Benchmarking the forward-looking costs of the MTAS for voice

211. The IPP requires the Commission to benchmark against the costs of providing **similar** services in **comparable** countries that result from the application of a

¹⁶⁶ See paragraph 38 above.

forward-looking cost-based methodology. This subsection discusses the Commission's approach to benchmarking the costs of supplying MTAS services, in accordance with the IPP, and covers:

- benchmarking criteria applied in the final STD. These cover three areas:
 - similar services;
 - comparable countries; and
 - forward-looking costs;
- proposals to add specific countries to the benchmark set;
- the appropriateness of the Vodafone cost model as a cross-check of benchmarking results;
- adjustments to the benchmark set, specifically the Commission's approach to:
 - adjusting data points to account for inflation; and
 - currency conversion; and
 - benchmark results for voice.

Benchmarking criteria applied in the final STD

212. This subsection discusses the criteria the Commission has applied to its benchmarking for the purpose of this STD under the three separate considerations of similar services, comparable countries and forward looking costs. It then presents the Commission's general conclusions on its benchmarking criteria.

Similar services

213. The Commission must consider whether, and the extent to which, the overseas services are similar to the service for which regulation is being considered. The Commission's draft benchmark set included cost models developed for 2G only, mixed 2G and 3G, and 3G only networks. In its draft STD the Commission noted that:¹⁶⁷
 - MTAS is a relatively standardised service across different jurisdictions; and
 - it was satisfied that the cost-based benchmarks included in the benchmark set relate to mobile termination services that are similar to the MTAS that are the focus of this STD.

¹⁶⁷ Commerce Commission, *Draft Standard Terms Determination for the designated services of the mobile termination access services (MTAS) fixed-to-mobile voice (FTM), mobile-to-mobile voice (MTM) and short messaging services (SMS)*, page 18, paragraph 74.

214. In relation to benchmarking for similar services, submitters raised concerns regarding the inclusion of 2G only cost models in the benchmark set, and the treatment of transit costs. These are discussed below.

Inclusion of 2G only cost models in the benchmark set

215. Some submitters proposed that the Commission exclude 2G only services, as all three operators in New Zealand use 3G technology for at least a portion of their networks, and the termination costs of 2G-only network operators are significantly different to those of 2G/3G or 3G-only networks.¹⁶⁸
216. Limiting the benchmark set to only 2G/3G models, or 3G only models would exclude three out of the twelve countries in the draft benchmark set (Australia, Hungary, and Malaysia). Given the already small size of the Commission's benchmark set, it is not clear that excluding 2G only models would improve the usefulness of the benchmarking results as a basis for selecting a price point. This was noted at the MTAS STD Conference. For example, James Mellsop of NERA, for Telecom, commented that:¹⁶⁹

the trade-off with the 2G thing is that, once again you are taking out - you're making the sample smaller. But why pick on 2G, why not pick on something else, GDP or whatever, so there's just trade-offs involved.

217. The relative efficiency of 3G and 2G technologies depends, among other things, on volumes of voice and data traffic, and on whether the network is designed for capacity or coverage. 3G becomes the more efficient technology once data volumes are sufficiently large. Mobile data volumes are growing rapidly in New Zealand. However, WIK Consult has noted that, given relatively low data volumes in New Zealand, the efficient cost for voice termination in New Zealand may still be represented by the cost of a 2G network.¹⁷⁰
218. The Commission is not satisfied that cost estimates based on 2G networks should be excluded from the benchmark set. Given the relatively low data volumes in New Zealand, the efficient cost for voice termination may still be represented by the cost of a 2G network.¹⁷¹ The Commission has therefore retained 2G only models in the benchmark set.

¹⁶⁸ See for example Emma Lanigan, *International benchmarking of mobile termination rates—comments on the Commerce Commission’s Draft STD for MTAS*, 7 February 2011, 7 February 2011, section 3, page 9; Network Strategies, *Final report for TelstraClear: Draft Standard Terms Determination for mobile termination access services—A review of the Commerce Commission’s Draft Determination* 23 December 2010, 7 February 2011, pages 16, 53.

¹⁶⁹ *MTAS STD Conference Transcript Day One*, page 100, lines 24-26.

¹⁷⁰ WIK Consult, *WIK Consult’s assessments regarding submissions of interested parties related to the Draft Standard Terms Determination regarding Mobile Termination Access Services*, 9 March 2011, page 23.

¹⁷¹ WIK Consult, *WIK Consult’s assessments regarding submissions of interested parties related to the Draft Standard Terms Determination regarding Mobile Termination Access Services*, 9 March 2011, page 26.

Treatment of transit costs

- 219. The Commission has determined at paragraphs 607 to 609 that the services covered by this MTAS STD should exclude transit or transport services, and that these services should be provided commercially.
- 220. In its submission on the draft STD, Network Strategies suggested that costs included in the benchmark set include costs of transit. Network Strategies suggested the Commission should adjust benchmarked costs downwards to ensure transit costs are excluded from benchmarking results.¹⁷²
- 221. The Commission is not satisfied that any of the cost models in the Commission's benchmark set includes transit, or transport services, in the cost of mobile termination. Therefore the Commission has not adjusted the benchmark set for transit or transport costs.

Conclusion on similar services

- 222. The Commission has retained 2G only models in the benchmark set, and has not attempted to adjust benchmark results for transit or transport costs.

Comparable countries

- 223. In the MTAS Schedule 3 Investigation, the Commission considered a range of comparability factors and concluded that requiring that the benchmark set only include countries with urbanisation rate of 60 to 100 percent was appropriate.¹⁷³ In its draft STD, the Commission found that this urbanisation criterion remained appropriate—countries with urbanisation rates between 60 and 100 percent were included in the draft benchmark set. This subsection addresses the range of alternative criteria proposed in consultation, then discusses submissions on the Commission's urbanisation criterion.

Alternative comparability criteria

- 224. Submissions on the draft STD cited a large number of macro-economic factors and other cost drivers that could produce differences in cost estimates between New Zealand and benchmarked countries. For example, Analysys Mason, in its report for Vodafone, noted that TSLRIC models tend to use geo-demographic parameters, such as the distribution of population density, and are very sensitive to a number of other factors, including a range of traffic- and cost-related issues.¹⁷⁴ NERA, on behalf of Telecom, provided a similar list of relevant cost

¹⁷² Network Strategies, *Final report for TelstraClear: Draft Standard Terms Determination for mobile termination access services—A review of the Commerce Commission's Draft Determination 23 December 2010, 7 February 2011*, section 3.3, pages 24–25; Network Strategies *Additional information for MTAS STD: Report for TelstraClear*, 2 March 2011, section 2, pages 1–2.

¹⁷³ Commerce Commission, *Final Report on whether the mobile termination access services (incorporating mobile-to-mobile voice termination, fixed-to-mobile voice termination and short-message-service termination) should become designated or specified services*, 22 February 2010, pages 111–114, paragraphs 437 to 458.

drivers in its report,¹⁷⁵ and acknowledged at the MTAS STD Conference that “this is, once again, a frustrating area for the Commission because you’re not going to get a perfect benchmark set; there are so many cost drivers”.¹⁷⁶

225. However, at the MTAS STD Conference on 15 March 2011, most parties acknowledged that it was preferable to limit the number of criteria used in establishing the benchmark set, to ensure an adequately large set of benchmarked costs, and that it was for the Commission to take account of other factors, and apply its expert judgement, in setting the price point. For example, Anton Nannestad of Telecom stated that “we actually think it’s better to have more observations in the sample to take some of these things into account when you’re selecting the price point”.¹⁷⁷ He went on to state:¹⁷⁸

So, I’m probably not a fan of actually removing any of the data points, acknowledging that none of them are perfect ... I would actually suggest {having a narrow group} raises the uncertainty. The smaller the sample the greater the uncertainty.

226. Joan Obradors of Analysys Mason (for Vodafone) stated that:¹⁷⁹

So, if we reduce the dataset, ... then we will be benchmarking against perhaps three data points that are very different among themselves and they may be very different from the situation in New Zealand. ...

if we start removing models,... then we will end up with very few benchmarks, so we are increasing the uncertainty.

227. There are a large number of factors driving differences in benchmarked costs for MTAS services, as Analysys Mason, NERA, and other submitters have noted. In order to benchmark MTAS costs, consistent with the IPP, the Commission has distinguished between:

- comparability criteria the purpose of which is to filter out jurisdictions that are clearly not at all comparable to New Zealand, and/or do not have services similar to the MTAS; and
- factors that directly drive the costs of MTAS services. While a range of cost drivers clearly impact on the estimates of MTAS costs, accounting for the full range of cost drivers would be a complex exercise. To do so properly would require construction of a TSLRIC cost model, which would be inconsistent with the requirements of the IPP.

228. In making this distinction, the Commission is mindful of the purpose of benchmarking in the context of the IPP, which is to provide a cost-effective and timely proxy of prices that would result under the FPP. It is not practical to account for all possible sources of difference between countries and cost models in establishing a benchmark set, nor does the Act require such a detailed analysis

¹⁷⁵ NERA Economic Consulting Review of Draft STD for MTAS—Telecom New Zealand, section 2.4, pages 5-6.

¹⁷⁶ Comment by James Mellsop, Commerce Commission, *MTAS STD Conference Transcript Day One*, 15 March 2011 (*MTAS STD Conference Transcript Day One*), page 100, lines 19–21;

¹⁷⁷ *MTAS STD Conference Transcript Day One*, page 102, lines 31–32.

¹⁷⁸ *MTAS STD Conference Transcript Day One*, page 103, lines 8-9, 24-25.

¹⁷⁹ *MTAS STD Conference Transcript Day One*, page 98, lines 24–26 and page 101, lines 24–25.

for benchmarking.¹⁸⁰ Attempting to do so would significantly reduce the size of the benchmark set, without increasing the accuracy of the benchmark set, or making the decision on where to set the price within the benchmark set easier.¹⁸¹ Nor is such an approach appropriate in the context of applying the IPP.

229. In considering the weight to give to different cost drivers in identifying comparable countries, the Commission has taken account of previous analysis by WIK Consult. WIK Consult ran three models based on a small densely populated country (SD), a medium sized densely populated country (MD) and a large sparsely populated country (LS). It found that that country-specific factors, such as those listed above, can explain only a small proportion of the full variation in estimated costs:¹⁸²

The WIK bottom-up model was applied to two very different types of countries, one small and densely populated, the other very large and sparsely populated, where one should expect that the latter has conditions making for substantially higher costs. When keeping other things equal except these truly exogenous conditions, the results are that the costs for the large and sparsely populated country are in fact higher than those for the small and densely populated country, but they are higher by no more than 30%.

230. The variation in the benchmarks used by the Commission is much greater than the 30 percent variation that would be expected due to country-specific differences. WIK Consult suggest that the differences are therefore more due to different degrees of competition in the benchmarked countries, and differences in the regulatory approach, such as a tendency for regulators to be “guided by the motive of ‘prudence’”¹⁸³. Accordingly, the Commission has avoided adjusting benchmarked data points for additional exogenous factors, as the risk of unintentionally biasing the benchmark results outweighs any potential benefit of increased comparability.
231. The Commission has previously, in the context of the MTAS Schedule 3 Investigation, considered a range of comparability factors, including population per cell site, GDP per capita, general population and land area, and market share, and concluded that these factors are unlikely to provide accurate signals of cost

¹⁸⁰ WIK Consult, *WIK Consult's assessments regarding submissions of interested parties related to the Draft Standard Terms Determination regarding Mobile Termination Access Services*, 9 March 2011, page 12.

¹⁸¹ WIK Consult, *WIK Consult's assessments regarding submissions of interested parties related to the Draft Standard Terms Determination regarding Mobile Termination Access Services*, 9 March 2011, page 2.

¹⁸² WIK Consult, *Commentary on issues raised in submissions regarding the Commerce Commission's MTAS investigation and during the conference on 2 and 3 September 2009*, 13 November 2009, page 8, cited in Commerce Commission, *Final Report on whether the mobile termination access services (incorporating mobile-to-mobile voice termination, fixed-to-mobile voice termination and short-message-service termination) should become designated or specified services*, 22 February 2010, page 113, paragraphs 449–450.

¹⁸³ WIK Consult, *WIK Consult's comments and evaluations regarding submissions of interested parties related to the raft Report of the Commerce Commission on Mobile Termination Access Services*, 28 August 2009, pages 50-52.

comparability.¹⁸⁴ The Commission's views on key alternative comparability criteria proposed by submitters are:

- population density: population density, taken together with urbanisation rates, influences the proportion of coverage driven network elements in a mobile network.¹⁸⁵ The Commission has taken this factor into account in selecting the price point, based on the results of its benchmarking (see paragraphs 333 to 334 below);
- average traffic per node B site / BTS: this measure was proposed by Telecom.¹⁸⁶ Other submitters agreed that, while this approach might be desirable in principle, it is impractical as the necessary data is not readily available for all countries in the benchmark set.¹⁸⁷ The Commission has not pursued this suggestion, due to these practical considerations;
- population per cell site: the Commission has previously found that mobile subscribers per cell site is a more relevant measure, as population per cell cite assumes that the entire population is served by a single network.¹⁸⁸ The Commission has taken subscribers per cell site into account in selecting the price point, based on the results of its benchmarking (see paragraph 332 below);
- GDP per capita / purchasing power: higher GDP does not necessarily imply lower costs, and low GDP does not necessarily imply higher costs, for example India and Bangladesh have low GDP and high mobile traffic volumes (with correspondingly low termination costs).¹⁸⁹ As WIK Consult have noted, high income makes for large demand in European countries, but low prices make for large demand in countries where

¹⁸⁴ Commerce Commission, *Final Report on whether the mobile termination services (incorporating mobile-to-mobile voice termination, fixed-to-mobile voice termination and short-message-service termination) should be designated or specified services*, 22 February 2010, pages 111-114, paragraphs 437-458.

¹⁸⁵ Commerce Commission, *Final Report on whether the mobile termination access services (incorporating mobile-to-mobile voice termination, fixed-to-mobile voice termination and short-message-service termination) should become designated or specified services*, 22 February 2010, page 113, paragraph 452.

¹⁸⁶ Telecom, *Submission on the Commerce Commission's Draft Standard Terms Determination on Mobile Termination and Access Services*, 7 February 2011, paragraphs 48-52.

¹⁸⁷ TelstraClear, *Cross-submission on the Commerce Commission's Draft Standard Terms Determination for Mobile Termination Access Services*, 24 February 2011, Section C.1, page 4; Network Strategies, *Cross-submission for Draft Determination for mobile termination access services*, 23 February 2011, pages 11–12.

¹⁸⁸ Commerce Commission, *Final Report on whether the mobile termination access services (incorporating mobile-to-mobile voice termination, fixed-to-mobile voice termination and short-message-service termination) should become designated or specified services*, 22 February 2010, page 112, paragraph 446.

¹⁸⁹ Commerce Commission, *Final Report on whether the mobile termination access services (incorporating mobile-to-mobile voice termination, fixed-to-mobile voice termination and short-message-service termination) should become designated or specified services*, 22 February 2010, page 114, paragraph 457.

income is relatively low.¹⁹⁰ High-level factors such as income measures are therefore not useful in assessing comparability.

Submissions on the Commission's urbanisation criterion

- 232. Some submitters questioned the relevance of urbanisation as a comparability criterion. For example Analysys Mason, for Vodafone, stated that “In our opinion the urbanisation rate is not a key driver on its own in any mobile TSLRIC model that we have reviewed (e.g. models built by the Commission’s consultant, WIK, or NERA) or that we have actually built.”¹⁹¹
- 233. Analysys Mason and Telecom also raised concerns regarding reliability of UN urbanisation data, in particular that the definitions used to calculate urbanisation vary from country to country.¹⁹²
- 234. Haucap and Lanigan, however, agreed that it was reasonable to focus on the group of more highly urbanised countries as being substantially more comparable with New Zealand than less urbanised countries.¹⁹³
- 235. Participants at the MTAS STD conference acknowledged that the Commission’s urbanisation criterion was an appropriate basis on which to filter out countries that were not comparable with New Zealand, and supported retaining the 60 to 100 percent band (partly to account for the data concern noted above). For example, Emma Lanigan, on behalf of 2degrees stated that:¹⁹⁴

I did tend to think that urbanisation was a pragmatic approach and I don't think I suggested any other specific measures. You know, it's not going to be perfect, but I think it sort of filters out a lot of countries that just aren't comparable to New Zealand.

- 236. Anton Nannestad of Telecom commented that urbanisation is “an appropriate kind of cutter between things that fit in and things that don’t” and noted that, due to concerns with the quality of urbanisation data “I’d really be reluctant to peg it to anything more than perhaps the 60-100 that the Commission’s suggested. To be perfectly frank, I think what the Commission’s done is fine and I’d be reluctant to disturb that personally”.¹⁹⁵

¹⁹⁰ WIK Consult, *WIK Consult's assessments regarding submissions of interested parties related to the Draft Standard Terms Determination regarding Mobile Termination Access Services*, 9 March 2011, page 3.

¹⁹¹ Analysys Mason, *Draft standard terms determination analysis: Report for NZ Commerce Commission*, 4 February 2011, page 12.

¹⁹² Analysys Mason, *ibid*, page 13; Telecom, *Submission on the Commerce Commission's Draft Standard Terms Determination on Mobile Termination and Access Services*, 7 February 2011, paragraph 56; Joan Obradors, *MTAS STD Conference Transcript Day One*, page 97, lines 19 to 28; Anton Nannestad, *MTAS STD Conference Transcript Day One*, page 104, lines 10–15.

¹⁹³ Professor Justus Haucap and Emma Lanigan, *Response to submissions on the Commerce Commission's Draft Standard Terms Determination for Mobile Termination Access Services*, 24 February 2011, page 3.

¹⁹⁴ *MTAS STD Conference Transcript Day One*, page 99, lines 29–32.

¹⁹⁵ *Ibid.*, page 104, lines 3–4, 16–18.

237. John Small, on behalf of Vodafone said he “would be reluctant to narrow up that band” in light of New Zealand’s “skewed” population density.¹⁹⁶
238. Urbanisation is a useful criterion to identify countries where MTAS cost drivers are likely to be similar to those in New Zealand, as urbanisation is a proxy for the relative weighting between coverage driven cell sites and capacity driven cell sites in a mobile network. Underlying costs are generally lower in largely urbanised countries because it is less costly for a mobile operator to provide coverage across an urbanised population. The cost of providing coverage in relatively non-urbanised countries is higher because infrastructure (cell sites, transmission, and other necessary infrastructure investments) cover comparably fewer customers.¹⁹⁷ Coverage driven costs are therefore likely to be significantly higher, and therefore relatively non-urbanised countries would not be comparable for the purposes of benchmarking.
239. For similar reasons, the Commission also used urbanisation as a comparability factor in its UCLL STD. The Commission has adopted the same range in this STD.
240. In light of the concerns raised regarding the quality of UN urbanisation data, the Commission has considered whether there is merit in using an additional criterion, to exclude countries that are clearly not comparable to New Zealand from the benchmark set. Specifically, the Commission has considered:
 - adding a requirement that only developed countries should be included in the benchmark set, as suggested by Emma Lanigan;¹⁹⁸ or
 - limiting the benchmark set to only European countries.¹⁹⁹
241. An additional requirement that the benchmark set only include developed countries would exclude two countries from the Commission’s draft benchmark: Israel and Malaysia.²⁰⁰ Restricting the set to only European countries would also eliminate Australia from the set. The Commission is mindful of the views expressed by participants at the MTAS STD Conference, who suggested reducing the size of the benchmark set is undesirable (see paragraphs 225 to 226).
242. The Commission also notes that, as part of a project for the regulator in Vanuatu, Covec recently undertook econometric benchmarking using a range of variables to control for comparability. Covec found that urbanisation was the only

¹⁹⁶ Ibid., page 105, lines 1-5.

¹⁹⁷ WIK Consult, *Commentary raised in submissions regarding the Commerce Commission’s MTAS investigation and during the conference on 2 and 3 September 2009*, pages 9-10.

¹⁹⁸ MTAS STD Conference Transcript Day One, page 105, lines 13–19.

¹⁹⁹ Analysys Mason surveyed other countries that set MTAS rates based on benchmarking exercise and found that in most of the researched countries use data from European countries. See Analysys Mason, *Draft standard terms determination analysis: Report for NZ Commerce Commission*, 4 February 2011, section 3.2, page 27.

²⁰⁰ This is based on country classifications set out in the document United Nations, World Urbanization Prospects: The 2009 Revision Highlights, available at http://esa.un.org/unpd/wup/Documents/WUP2009_HIGHLIGHTS_FINAL.PDF

variable that was found to be statistically significant.²⁰¹ While this work related to a different set of countries than the benchmark set under consideration here, Covec's advice provides further support for the Commission's view that urbanisation is a reasonable indicator of comparability.²⁰²

Conclusion on comparable countries

243. The Commission has retained urbanisation as a comparability criterion. Countries with urbanisation rates between 60 and 100 percent are included in the benchmark set. The Commission will take the other cost drivers and comparability factors identified by submitters into account as appropriate in selecting the price point.

Forward looking costs

244. The Commission included in its draft benchmark set only cost estimates that are based on a TSLRIC methodology, prepared using bottom-up cost modelling, based on forward-looking costs. The Act defines TSLRIC in relation to a telecommunications service as:²⁰³

the forward-looking costs over the long run of the total quantity of the facilities and functions that are directly attributable to, or reasonably identifiable as incremental to, the service, taking into account the service provider's provision of other telecommunications services; and ... includes a reasonable allocation of forward-looking common costs.

245. Consistent with this definition, the Commission has accepted models based on a LRIC+ or LRAIC methodology as being equivalent to TSLRIC, on the basis that these methodologies estimate forward looking costs over the total service increment, and include a reasonable allocation of common costs.
246. In its submission, Analysys Mason presented a table setting out the key characteristics of cost models included in the Commission's benchmark set, as well as additional cost models that Analysys Mason identified for consideration.²⁰⁴ Appendix 1 reproduces this table, for countries included in the benchmark set.
247. Submissions on the draft STD raised concerns in relation to four key areas:
- the appropriate cost concept to use in selecting benchmarked cost models;
 - benchmarking of costs rather than regulated MTRs;
 - inclusion of cost models with an historic cost element; and

²⁰¹ Dr. Aaron Schiff, *MTAS STD Conference Transcript Day One*, page 96 line 25 to page 97 line 6.

²⁰² Dr. Aaron Schiff of Covec noted at the MTAS STD Conference that the regulator in Vanuatu also considered real GDP per capita to be a relevant comparability factor, and so used this and urbanisation in combination. However, the Commission understands the decision to add GDP per capita was based on the regulator's judgement rather than Covec's econometric analysis. (See *MTAS STD Conference Transcript Day One*, page 97 lines 4–7.)

²⁰³ Schedule 1, Part 1, Subpart 1.

²⁰⁴ Analysys Mason, *Draft standard terms determination analysis: Report for NZ Commerce Commission*, 4 February 2011, section 2.3, pages 10-11.

- inclusion of older cost estimates the benchmark set.

The appropriate cost concept to use in selecting benchmarked cost models

248. Emma Lanigan, in her submission on behalf of 2degrees, argued that ‘pure’ LRIC was a more appropriate cost concept than TSLRIC to use as a basis for setting MTRs for MTAS. Ms. Lanigan noted that three of the countries in the Commission’s benchmark set have adopted ‘pure’ LRIC models, following the European Commission’s recommendation on termination costing methodologies.²⁰⁵
249. Ms. Lanigan submitted that, for countries where pure LRIC estimates are available the Commission should use those estimates. She suggested that the Commission add a mark-up for common costs to modelled estimates of LRIC costs, to achieve consistency with the legislative definition of TSLRIC. However, as Ms. Lanigan herself acknowledges, such an approach is by its nature difficult.²⁰⁶
250. Ms. Lanigan further suggested that, “there are good reasons to conclude that a zero mark-up is efficient and in the interests of end users and given its consistency with those objectives it would be considered ‘reasonable’.”²⁰⁷ NERA disputed this in cross-submissions, noting that a pure LRIC approach appears inconsistent with outcomes in competitive markets, and that it is not clear why mobile termination should not contribute to common costs.²⁰⁸ Network Strategies cross-submitted that Ms. Lanigan’s proposal would add more uncertainty to the benchmark estimate.²⁰⁹
251. In applying the IPP, the Commission considers that the forward looking cost benchmarks should reflect the cost concept embodied in the FPP, namely TSLRIC. The Commission does not consider benchmarking ‘pure’ LRIC cost estimates would be consistent with the definition of TSLRIC in Schedule 1 of the Act, as ‘pure’ LRIC does not explicitly provide for “a reasonable allocation of forward-looking common costs”. The Commission does not consider Ms Lanigan’s proposal is justified where alternative estimates of TSLRIC, which include allocations of common costs based on country-specific data, are available.

Benchmarking of costs rather than regulated MTRs

252. Vodafone suggested that the Commission should benchmark regulated cost-based MTRs rather than the cost of providing MTAS.²¹⁰ This was disputed by

²⁰⁵ See Emma Lanigan, *International benchmarking of mobile termination rates—comments on the Commerce Commission’s Draft STD for MTAS*, 7 February 2011, Section 2, pages 2–8.

²⁰⁶ Emma Lanigan, *International benchmarking of mobile termination rates—comments on the Commerce Commission’s Draft STD for MTAS*, 7 February 2011, page 7.

²⁰⁷ Emma Lanigan, *International benchmarking of mobile termination rates—comments on the Commerce Commission’s Draft STD for MTAS*, 7 February 2011, page 7.

²⁰⁸ NERA, *Review of Draft STD for MTAS—Telecom New Zealand*, 7 February 2011, section 4, page 8.

²⁰⁹ Network Strategies, *Cross-submission for Draft Determination for mobile termination access services*, 23 February 2011, page 10.

²¹⁰ Vodafone, *Submission to the Commerce Commission: Draft Standard Terms Determination for the Designation of the Mobile Termination Access Services*, February 2011, pages 33-34, paragraph 147.

TelstraClear and Network Strategies in cross submissions on the basis that MTRs “may be influenced by various country-specific factors unrelated to costs, such as market, political or social considerations”.²¹¹

- 253. The IPP specifies that the Commission must benchmark against the costs of providing similar services in comparable countries that result from the application of forward-looking cost-based methodology, or apply some form of BAK. Accordingly the Act requires the Commission to benchmark costs, and not regulated MTRs.
- 254. This focus on benchmarking costs is appropriate, as regulated MTRs are likely to be influenced by a range of country-specific factors including political considerations and regulatory culture, and therefore might not accurately reflect the forward looking costs of providing the MTAS.

Inclusion of cost models with an historic cost element

- 255. Some submitters proposed that models including an historic cost element should be excluded from the benchmark set:
 - Emma Lanigan submitted that Hungary should be excluded from the benchmark set because it relies on some historic costs;²¹² and
 - several submitters stated that France should be excluded from the benchmark set, as the benchmarked cost estimate is derived from an historic cost figure.²¹³
- 256. In general, forward-looking cost models are based on the current prices of inputs. However, it is not unusual for forward-looking cost models to utilise historic cost inputs, where current prices cannot be obtained.²¹⁴ In the case of concession costs, alternative objective sources for this information are not readily available. A similar issue can arise in estimating input prices for spectrum in forward-looking cost models.²¹⁵

²¹¹ TelstraClear, *Cross-submission on the Commerce Commission’s Draft Standard Terms Determination for Mobile Termination Access Services*, 24 February 2011, page 5, paragraph 24(b); see also Network Strategies, Cross-submission for Draft Determination for mobile termination access services, 23 February 2011, section 2.2, page 9.

²¹² Emma Lanigan, *International benchmarking of mobile termination rates—comments on the Commerce Commission’s Draft STD for MTAS*, 7 February 2011, section 3, page 10. 2degrees and Lanigan also submitted that Hungary should be excluded because it is a 2G-only cost model. 2degrees submission on the draft MTAS STD, page 38, paragraph 6.18, Emma Lanigan, *ibid*. section 3, pages 9-10. The Commission has concluded that 2G only models should be retained in the benchmark set, for the reasons set out in paragraphs 215 to 218 above.

²¹³ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, page 5, paragraph 24; NERA, *Review of Draft STD for MTAS—Telecom New Zealand*, 7 February 2011, section 2.3, page 3; Network Strategies, *Final report for TelstraClear: Draft Standard Terms Determination for mobile termination access services—A review of the Commerce Commission’s Draft Determination 23 December 2010*, 7 February 2011, section 3.6, page 36. See Appendix 3 for further detail.

²¹⁴ The Commission has prescribed a similar approach in Telecom’s accounting separation requirements implemented under Part 2B of the Act.

²¹⁵ WIK Consult, *WIK Consult’s assessments regarding submissions of interested parties related to the Draft Standard Terms Determination regarding Mobile Termination Access Services*, 9 March 2011, page 28.

- 257. In Hungary the regulator uses a LRIC+ bottom up cost model to estimate termination costs. However, the concession costs are included in the model on a historic cost basis. The Commission considers that this is acceptable, given that the alternative of attempting to estimate the current cost value of the concession is unlikely to be practical.
- 258. The Commission has previously considered the question of whether the French model should be excluded from the benchmark set, as the cost modelled rates published by the French regulator (ARCEP) are based solely on historical costs.²¹⁶
- 259. In 2006 ARCEP conducted two cost modelling exercises, one based on historical cost and one based on current costs and found a cost difference between the two models of 2 percent.²¹⁷ The small difference between the two models was attributed to the relatively new capital stock in France. In its draft STD the Commission adjusted the most recent historical cost based estimate for France, by increasing the estimate by 2 percent.
- 260. Submissions on the draft STD on this point have presented no new evidence that would cause the Commission to change its approach. Network Strategies submitted that “{in} a more recent 2010 decision, ARCEP claims that for mobile networks there is only a small difference, of the order of a few percentage points, between historical and current costs.”²¹⁸ The document cited by Network Strategies provides no further detail, and no specific updated estimate of the difference. In light of this, the Commission considers that adding an uplift of 2 percent to the 2011 historical cost based estimate for France is still appropriate, and makes the resulting data point compatible with a current cost approach.

Inclusion of older cost estimates the benchmark set

- 261. The Commission’s benchmark set contains cost estimates relating to several different years, from 2008 to 2010/11. As the Commission noted in its draft STD, it is likely that MTAS costs have fallen rapidly over recent years. This is evident in lower cost estimates from models that have recently been updated, which better reflect the uptake of 3G data services.²¹⁹
- 262. Some submitters supported limiting the benchmark set to only recent cost estimates.²²⁰ Network Strategies, in its cross-submission, noted that for practical

²¹⁶ WIK Consult, *Commentary on issues raised in submissions regarding the Commerce Commissions MTAS investigation and during the conference on 2 and 3 September 2009*, February 2010, paragraph 6.

²¹⁶ Commerce Commission, *Final Report on whether the mobile termination access services (incorporating mobile-to-mobile voice termination, fixed-to-mobile voice termination and short-message-service termination) should become designated or specified services*, 22 February 2010, page 106, paragraph 111-112.

²¹⁷ ARCEP, *Décision n° 08-1176 de l’Autorité de régulation des communications électroniques et des postes en date du 2 décembre 2008*, p.10.

²¹⁸ Network Strategies, *Final report for TelstraClear: Draft Standard Terms Determination for mobile termination access services—A review of the Commerce Commission’s Draft Determination 23 December 2010*, 7 February 2011, section 3.6, page 36.

²¹⁹ Commerce Commission, Draft MTAS STD, pages 22-23, paragraphs 99-101.

²²⁰ For example Emma Lanigan, *International benchmarking of mobile termination rates—comments on the Commerce Commission’s Draft STD for MTAS*, 7 February 2011, section 4, pages 10-11.

reasons the benchmark set must include slightly older data, but that the benchmark set should be limited to cost models encompassing the period in question. For this reason, Network Strategies recommended that Malaysia be excluded from the benchmark set.²²¹ Network Strategies also argued that the cost estimate for Malaysia was over-stated, as it was based on traffic forecasts that proved to under-estimate mobile traffic growth.²²²

- 263. Rather than excluding Malaysia from the benchmark set, and thus reducing the size of the set, the Commission has included this data point in the set. Decisions on selecting the price point take into account the possibility that cost estimate for Malaysia is inflated.
- 264. Participants at the MTAS STD Conference generally did not support limiting the benchmark set only to recent cost estimates. For example Joan Obradors of Analysys Mason, on behalf of Vodafone states that:²²³

I think that we should - I mean, the age of the benchmark, it may not be as relevant as to the assumption regarding what are the traffic volumes in those models. I mean, it may be more appropriate, the cost model that was developed in 2008 but that is representative of the New Zealand market rather than one that was developed in 2010 but that it has data traffic that is four times what we are seeing in the New Zealand market.

Conclusion on forward looking costs

- 265. For the purpose of benchmarking forward looking costs, consistent with the IPP, the Commission has accepted models developed using a bottom-up methodology and calibrated with data from operators, and models that include some historical costs. The Commission does not consider that 'pure LRIC' is consistent with the Act, and accordingly has benchmarked cost estimates developed using a TSLRIC methodology (including LRIC+ or LRAIC models).
- 266. The Commission's general approach, in benchmarking costs of MTAS services, is to retain a larger benchmark set, rather than removing data points to improve comparability. Accordingly the Commission has not limited the benchmark set to only recent cost estimates. The Commission will take account of the timing of benchmarked cost estimates in selecting the price point.

Conclusions on final benchmarking criteria

- 267. In benchmarking the costs of MTAS services, the Commission is mindful that estimating the costs of telecommunications services always involves an element

²²¹ Network Strategies, Cross-submission for Draft Determination for mobile termination access services, page 6.

²²² Network Strategies, *Final report for TelstraClear: Draft Standard Terms Determination for mobile termination access services—A review of the Commerce Commission's Draft Determination 23 December 2010, 7 February 2011*, page 41. The Commission notes that the MTR set based on Malaysia's cost modelling expired in 2010. The regulator has set an interim rate, but new cost estimates do not appear to be available yet.

²²³ *MTAS STD Conference Transcript Day One*, page 121, lines 14-20.

of judgement. As Mr. Feasey of Vodafone noted at the MTAS Schedule 3 Conference in September 2009:²²⁴

... I think generally what regulators do is to say what is a TSLRIC price likely to look like, and they start with a range. There is no single number that spits out, but they make a judgment within that.

268. Determining the approach to take to benchmarking involves a trade-off between:

- applying strict criteria to ensure the benchmarking set is closely comparable to the New Zealand context. The benchmarking results would appear to be more precise, but would be based on a smaller benchmarking set; and
- taking a less strict approach to establishing the benchmark set, and thus obtaining a larger set of values. Under this approach differences between New Zealand and benchmarked jurisdictions, that are not accounted for in the benchmarking exercise, can be accounted for in selecting the price point.

269. Some submitters acknowledged this trade-off in consultation. For example NERA, on behalf of Telecom, submitted that:²²⁵

The sheer variability in country characteristics makes benchmarking difficult. This leaves the Commission with two options:

- Carry out a much more rigorous analysis, e.g., using econometrics, resulting in a more rigorous point estimate; or
- Stick with a non-rigorous benchmarking study, but be much more cautious in choosing the point estimate – see section 3 of our report.

Given that the Telecommunications Act provides for a final pricing principle process, our view is that that latter approach is the most appropriate one.

270. Parties at the conference generally accepted this approach. For example, at the MTAS STD Conference, Network Strategies stated:²²⁶

Now, the Commission can use its expert judgment to pick a price point that takes into account these other factors, again using its expert judgment.

...it's a matter of the Commission deciding where New Zealand sits in relationship to what's left in that benchmark set. In our view, it should use its ability to change the price point in order to do that.

271. Vodafone also acknowledged that the Commission must use its judgment in selecting a price point based on the benchmarking results.²²⁷

²²⁴ Commerce Commission, *Mobile Termination Access Service Conference*, 2 September 2009, page 135, lines 11-13.

²²⁵ NERA *Review of Draft STD for MTAS—Telecom New Zealand*, 7 February 2011, page 7, section 2.5.

²²⁶ Dr. Suella Hanson, *MTAS STD Conference Transcript Day One*, page 110, lines 17–18, page 111, lines 1–3.

²²⁷ Hayden Glass, *ibid.*, page 120, lines 10–11, 13–14.

272. It is not possible, or desirable, to adjust for all factors that drive differences in cost estimates in establishing the benchmark set (see paragraphs 225 to 226). In confirming its final benchmarking criteria, the Commission has taken account of the views of participants at the conference that it is preferable to retain a larger benchmark set, and take account of the range of factors influencing MTAS costs in selecting a price point. Accordingly, the Commission has used the following criteria in establishing its final benchmark set:
- similar services: the Commission has accepted cost models developed for 2G only, mixed 2G and 3G, and 3G only networks;
 - comparable countries: countries with urbanisation rates between 60 and 100 percent are included in the benchmark set; and
 - forward looking costs: the Commission has benchmarked bottom-up, forward-looking cost models, applying a TSLRIC methodology (or equivalent, such as LRIC+ or LRAIC);
273. In addition to the specific benchmarking criteria above, the Commission required that, for a benchmark to be included in the set, it must meet the following general requirements:
- the results of the cost model must be publicly available; and
 - the model must be developed by a regulator (and accordingly subject to public scrutiny). Models developed by other parties, such as mobile network operators, were not included in the draft benchmark set.
274. These requirements ensure that the data points in the benchmark set have been subject to public scrutiny. This provides a greater level of accountability and transparency than would be the case for a model developed by another party, such as a mobile network operator.
275. Further, it is important that there is some degree of public transparency around a benchmarked cost model, and the resulting cost estimate, for the Commission to use the estimate as a benchmark in the New Zealand context. The Commission has therefore retained these general requirements in establishing its final benchmark set.

Proposals to add specific countries to the benchmark set

276. Submissions on the draft STD identified a number of additional countries for consideration.²²⁸ The Commission has assessed whether these countries meet the Commission's finalised criteria for inclusion in the benchmark set. Table 15 summarises the results of this assessment.

²²⁸ See Appendix 4 for further detail.

Table 15: Assessment of countries proposed for inclusion in the benchmark set

Country	Submitter	Urbanisation rate (%)*)	Cost model details	Conclusion
ECTEL countries**	Analysys Mason	Range between 14.1 to 48.9	n/a	Not eligible for inclusion
Dominica	Analysys Mason, Network Strategies***	67.1	LRIC+ model developed by the dominant operator in the ECTEL countries, not by a regulator.****	Not eligible for inclusion
Macedonia	Analysys Mason	59.2	n/a	Not eligible for inclusion
Romania	Analysys Mason	56.9	n/a	Not eligible for inclusion
Slovenia	Analysys Mason	49.6	n/a	Not eligible for inclusion
Bahrain	Network Strategies***	88.6	Bahrain's current model is top-down. A bottom-up model is currently being developed, but results are not yet available.****	Not eligible for inclusion
Turkey	Network Strategies***	69.2	The Commission is not aware that the Turkish regulator has published a model that meets the Commission's criteria. No publicly available information is readily available.	Not eligible for inclusion

* Urbanisation rates sourced from United Nations, World Urbanization Prospects: The 2009 Revision Highlights, available at

http://esa.un.org/unpd/wup/Documents/WUP2009_HIGHLIGHTS_FINAL.PDF.

** Excluding Dominica. Dominica was proposed as a separate candidate, and so the Commission has assessed it separately.

*** Network Strategies noted that these countries appear to meet the Commission's criteria, but did not explicitly endorse their inclusion. The Commission has assessed them for completeness.

**** Source: WIK Consult, WIK Consult's assessments regarding submissions of interested parties related to the Draft Standard Terms Determination regarding Mobile Termination Access Services, page 17

277. Haucap and Lanigan stated that the cost model used in Dominica was commissioned by the Eastern Caribbean Telecommunications Authority (although they did not support adding Dominica to the benchmark set). In light of WIK Consult's advice that the model was developed by the dominant operator, the Commission has not added Dominica to the benchmark set.

278. Haucap and Lanigan in cross-submissions noted that “Macedonia is on the cusp of the urbanisation range and is an example of where the Commission will need to use its judgement as to whether Macedonia is a country that would likely to have comparable cost to New Zealand.” They went on to state that Macedonia is classified as a developing country, based on its low Gross National Income, and accordingly, in their view “should not be considered comparable with New Zealand”.²²⁹ Network Strategies noted that alternative sources give Macedonia’s urbanisation rate as over 60 percent (for example the figure from the World Bank is 65 percent), but that “it seems inappropriate to choose an alternative source for this one data point to ensure that it is within the Commission’s threshold”.²³⁰

Appropriateness of the Vodafone model as a cross-check of benchmarking results

279. Vodafone submitted an LRIC model used by the Vodafone group and calibrated by Vodafone to New Zealand conditions. Vodafone suggested that this model should be used as a cross-check of the results of the Commission’s benchmarking, stating that:²³¹

This modelling supports the view that the Commission’s benchmarking approach is producing unrealistically low estimates of cost, and the Commission’s discretion around its benchmarking process should be exercised accordingly.

280. Interested parties commented on the appropriateness of using Vodafone’s model as a cross-check of the Commission’s benchmarking results, in cross-submissions and at the MTAS STD Conference. Network Strategies noted the sensitivity of such models to key assumptions and input costs, emphasising the need for thorough verification of these, should the Commission take the Vodafone model into consideration.²³² Emma Lanigan and James Mellsop of NERA made similar comments at the MTAS STD Conference.²³³ 2degrees submitted that “{the} cost-model presented by Vodafone is not relevant to the current benchmarking exercise. We consider that it has no evidential weight and must be ignored.”²³⁴
281. With respect to Vodafone’s proposal that the Commission use its model as a cross-check of its benchmarking, Network Strategies also noted that:²³⁵

²²⁹ Haucaup and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, section 2, page 5.

²³⁰ Network Strategies, *Cross-submission for Draft Determination for mobile termination access services*, page 7.

²³¹ Letter from Hayden Glass, GM Public Policy, Vodafone to Shane Kinley, 28 February 2011.

²³² See for example Network Strategies, *Review of Vodafone Cost Model Documentation: Report for TelstraClear*, 7 March 2011.

²³³ *MTAS STD Conference Transcript Day One*, page 85 line 32 to page 86, line 7, and page 87, lines 9–11.

²³⁴ 2degrees, *Cross-submission to the Commerce Commission on the Draft Standard Terms Determination for the designated services of the mobile termination access services (MTAS (fixed-to-mobile voice (FTM), mobile-to-mobile voice (MTM) and short messaging services (SMS)), 24 February 2011, page 3, paragraph 1.8.*

²³⁵ Network Strategies, *Review of Vodafone Cost Model Documentation: Report for TelstraClear*, 7 March 2011, page 7.

it is very unusual for a cost model to be used as a sanity check for a regulatory benchmarking exercise, given that the development of a cost model is a more complex undertaking than benchmarking. Typically benchmarking would be used as a sanity check for a regulatory cost model.

282. James Mellsop, on behalf of Telecom noted that given the level of uncertainty in the Commission’s benchmarking set, it would be useful to be able to take into account another information point.²³⁶
283. The Commission has concluded that it would not be appropriate to take account of Vodafone’s model as part of its benchmarking exercise. As discussed above, the Commission’s benchmarking criteria include the general requirement that, the model must be developed by, or on behalf of, a regulator. This requirement ensures cost estimates included in the benchmark set have been subject to public scrutiny and debate. The same cannot be said for Vodafone’s cost model. Accordingly, Vodafone’s model does not meet the Commission’s benchmarking criteria.

Adjustments to the benchmark set

284. The Commission has adjusted the benchmark set to account for inflation, where required, and to convert the data points to New Zealand dollars. The Commission’s approach is described below. Appendix 1 provides further detail.

Inflation adjustment

285. The Commission has benchmarked cost estimates in nominal terms, as at the year to which the estimate applies. A number of cost estimates in the benchmark set were expressed in real terms, using different base years.²³⁷ The Commission converted these to nominal cost estimates, using inflation rates based on central bank inflation targets for the jurisdictions in question.²³⁸
286. In submitting on the draft STD, Network Strategies noted that there are three options available for determining the appropriate inflation rate:²³⁹
 - actual rates;
 - forecast rates; and
 - central bank targets.
287. The Commission has considered these three options in light of the nature of the costs being benchmarked. Given that the Commission is required to benchmark

²³⁶ *MTAS STD Conference Transcript Day One*, page 87, lines 6-7.

²³⁷ These countries are: Belgium, Norway, the UK, Sweden, France, and Israel.

²³⁸ This adjustment was made for benchmarks sourced from models constructed by Analysys, which expressed cost estimated in real terms. Where central bank inflation targets are expressed as a range, the Commission used the midpoint of the range. Appendix 1 provides further detail.

²³⁹ Network Strategies, *Final report for TelstraClear: Draft Standard Terms Determination for mobile termination access services—A review of the Commerce Commission’s Draft Determination 23 December 2010, 7 February 2011*, section 3.1.1, page 11.

forward-looking costs, it is appropriate to use some form of predicted inflation rate, not actual rates.²⁴⁰

288. In deciding whether to use forecast inflation rates or central bank target rates, the Commission has had regard to the nature of the service being regulated. The supply of MTAS is a wholesale service, involving long term investments. Accordingly it is appropriate to take a long term view in selecting the appropriate inflation rate. The Commission considers that central bank target rates are therefore the most appropriate option out of the three available.

Currency conversion

289. The Commission has identified three options for converting benchmarked cost estimates from their home currency to New Zealand dollars:
- exchange rates based on purchasing power parity (PPP);
 - market exchange rates; and
 - a blend of PPP and market exchange rates.
290. In its draft STD, the Commission used a blend of PPP and 10 year average market exchange rates. This is consistent with the Schedule 3 Investigation, and with the approach used in all STDs since the UCLL STD.²⁴¹
291. Network Strategies submitted that no theoretical justification for ‘blending’ PPP rates and averaged market exchange rates (given that PPP rates already adequately reflect the effect of world market prices of imported products that are not subject to the PPP adjustment) and accordingly the Commission should use a PPP rate to convert benchmarked cost estimates to New Zealand dollars.²⁴²
292. The Commission’s use of blended PPP and market exchange rates in converting benchmarked cost estimates into New Zealand dollars is based on the fact that the provision of MTAS requires both tradable inputs (such as capital equipment) and non-traded inputs (such as labour). The inclusion of PPP rates account for the country specific properties of non-traded goods of each benchmarked country. The inclusion of PPP rates adjusts the pure exchange rate to account for these differences. However, tradeable capital inputs also account for a significant portion of the costs of providing MTAS. Accordingly the Commission considers it would not be appropriate to rely solely on PPP rates. Rather, a blended approach best accounts for the constituent elements that make up the costs of providing MTAS.

²⁴⁰ WIK Consult, *WIK Consult's assessments regarding submissions of interested parties related to the Draft Standard Terms Determination regarding Mobile Termination Access Services*, 9 March 2011, page 42.

²⁴¹ Commerce Commission, Draft Schedule 3 Report, pages 136-137, paragraphs 579-586; Commerce Commission, *Standard Terms Determination for the designated service Telecom's unbundled copper local loop network*, 7 November 2007, pages 59-60.

²⁴² Network Strategies, *Final report for TelstraClear: Draft Standard Terms Determination for mobile termination access services—A review of the Commerce Commission's Draft Determination* 23 December 2010, 7 February 2011, section 3.1.2, pages 13-14.

293. The Commission used IMF data as the source for PPP rates in its draft STD.²⁴³ However, the IMF does not recommend this series for use as a primary source of PPP data. Accordingly the Commission considers that it cannot use the IMF PPP rates for setting the Final STD. The Commission has considered three alternative sources of PPP data:
- the World Bank PPP for GDP, 2009;²⁴⁴
 - the World Bank PPP for private consumption, 2009;²⁴⁵ and
 - the Penn World Tables PPP for GDP.²⁴⁶
294. The OECD also publishes PPP data. However the OECD series does not include all of the countries in the Commission's benchmark set. Accordingly the Commission excluded the OECD PPP series from its consideration.
295. In selecting the appropriate source for PPP rates, it is necessary to take into account the type of cost being converted—the cost of providing mobile termination services, at a wholesale level. Measures of PPP for GDP are more relevant to product and service cost benchmarking exercises, because they cover both final consumption expenditure (household and government) and gross capital formation. The Commission does not consider the World Bank PPP for private consumption series is appropriate for a comparison of termination costs.²⁴⁷
296. As Figure 7 and shows, the PPP for GDP data series available from Penn World Tables and the World Bank yield benchmark results that differ slightly from those determined using IMF PPP values. However, the three measures produce very similar results. On average the benchmarking results using the Penn World series are 3.8 percent lower than using the IMF series. Results calculated using the World Bank for GDP series are, on average, 1.7 percent lower than results using the IMF series. The biggest discrepancy in absolute terms occurs for Hungary, where the Penn World series produces a result that is NZ0.63 cents per minute lower than the IMF series. The biggest discrepancy in the case of the World Bank series occurs for Belgium, where the result is NZ0.26 cents per minute lower than the IMF result.

²⁴³ Sourced from the World Economic Outlook Database, October 2010 Edition, <http://www.imf.org/external/pubs/ft/weo/2010/02/weodata/index.aspx>; data series implied PPP conversion rate (National currency per current international dollar), for the year 2009. Downloaded 20 March 2011.

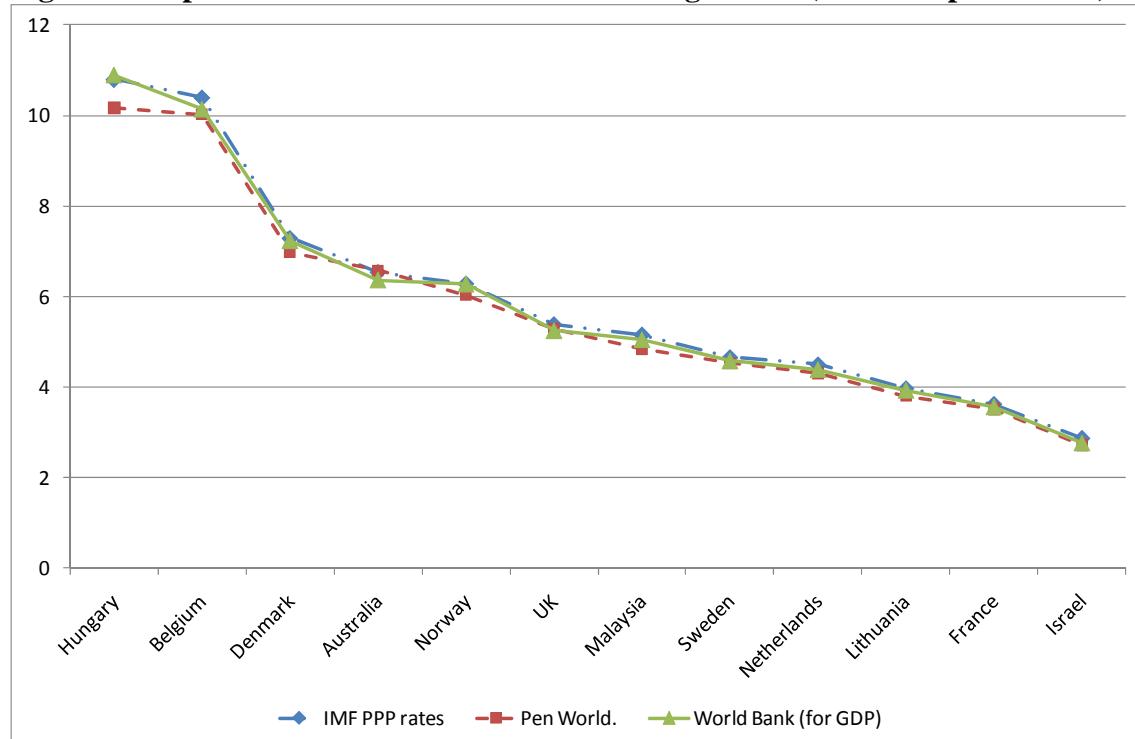
²⁴⁴ Sourced from the World dataBank, <http://databank.worldbank.org/ddp/home.do>; data series PPP conversion factor, GDP (LCU per international \$), indicator code PA.NUS.PPP, for the year 2009. Downloaded 21 March 2011.

²⁴⁵ Sourced from the World dataBank, <http://databank.worldbank.org/ddp/home.do>; data series PPP conversion factor, private consumption (LCU per international \$), indicator code PA.NUS.PRVT.PP, for the year 2009. Downloaded 21 March 2011.

²⁴⁶ Sourced from the Penn World Table PWT 7.0, http://pwt.econ.upenn.edu/php_site/pwt_index.php; data series PPP, for the year 2009. Downloaded 21 March 2011.

²⁴⁷ PPP over consumption is typically used for international comparisons of household wealth and for poverty studies.

Figure 7: Impact of PPP sources on benchmarking results (NZ cents per minute)



297. There are no clear technical reasons for preferring either one of these sources in the context of inter-country comparisons of telecommunication input costs. The Commission has elected to use the World Bank PPP for GDP rates, because it is the central series of the three compared in Figure 7.
298. The final benchmark set has been converted to NZ dollars using a blended exchange rate made up of the ten average market exchange rate to 31 March 2011, and World Bank PPP for GDP (as at April 2011). Table 16 shows the impact of this change on the range of the benchmark set, and on key analytical results (compared to results using IMF PPP rates).

Table 16: Impact of change in PPP source on benchmarking results

Measure	Using IMF rates	Using World Bank for GDP rates
Maximum of benchmark set (Hungary)	10.79	10.89
Minimum of benchmark set (Israel)	2.88	2.77
75th percentile	6.73	6.58
Median	5.28	5.15
Median of 2011	4.66	4.58
25th percentile	4.37	4.28

Benchmark results for voice

299. Some benchmarked jurisdictions have updated their estimates of MTAS costs since the Commission released its draft STD in December 2010. While

recognising that regulators are likely to update cost estimates on an ongoing basis, the Commission considers that its final decision on MTRs should be based on data that is as current as possible, provided that the updated cost estimates continue to meet the Commission's benchmarking criteria. The Commission has included the following updates to benchmarked costs since its draft STD:

- the cost estimate for the UK has been updated to GBP 0.0198 per minute, reflecting Ofcom's finalised LRIC+ cost model results;²⁴⁸
 - the ITST, Denmark's regulator, has estimated the LRAIC of providing voice MTAS to be DKK 0.33 per minute in 2011 (in 2011 prices). Prices based on this estimate will apply from 1 May 2011 until 31 December 2011;²⁴⁹
300. The Swedish regulator, PTS is consulting on a revised cost model. The draft LRAIC+ cost estimate for a blended 2G/3G network is SEK0.1249 (in 2010 SEK). This is substantially lower than the previous estimate of SEK0.2423. As the revised model has not yet been finalised, the Commission has retained the previous cost estimates in its final benchmark set.²⁵⁰
301. Table 17 shows the final benchmark set for voice MTAS. In addition to updating cost estimates for the UK and Denmark, the Commission has updated the blended foreign exchange rates applied. Appendix 1 provides further detail on the calculations used to arrive at the final benchmarked cost estimates.

²⁴⁸ Ofcom, *Mobile Termination Review Statement*, 15 March 2011, Modelling Annexes, Figure A10.2, page 143 (available at <http://stakeholders.ofcom.org.uk/consultations/mtr/statement>).

²⁴⁹ Network Strategies, *Final report for TelstraClear: Draft Standard Terms Determination for mobile termination access services—A review of the Commerce Commission's Draft Determination 23 December 2010*, 7 February 2011, section 3.6, pages 32-33; Further information is available from the ITST website at <http://www.itst.dk/tele-og-internetregulering/smp-regulering/engrospriser/lraic-1/lraic-priser/mobil/2010/endelige-afgorelser-om-fastsettelse-af-maksimalprisen-etter-lraic-metoden-pa-markedet-for-mobilterminering-marked-7/>.

²⁵⁰ Information on the revisions to Sweden's cost model is available from the PTS website, at <http://www.pts.se/sv/Dokument/Remisser/2011/Samrad-om-kalkylmodell-och-prismetod-for-mobilnat/>

Table 17: Final benchmark set for voice MTAS

Country	Similar services: Network modelled	Comparable countries: Urbanisation rate	Forward-looking cost: Cost standard	Cost estimate (home currency, unadjusted)	Year to which estimate applies	Benchmarked cost estimate (NZ cpm)
Hungary	2G	68%	LRIC+	11.86Ft	2008	10.89
Belgium	Blended	97%	LRIC+	0.0531€	2010	10.13
Denmark	Blended	87%	LRAIC	kr0.33	2011	7.23
Australia	2G	89%	TSLRIC+	\$0.058	2008	6.37
Norway	Blended	79%	LRAIC	kr0.30	2011	6.27
UK	Blended	80%	LRIC+	£0.0198	2011/2012	5.25
Malaysia	2G	71%	TSLRIC	R0.0873	2008	5.05
Sweden	Blended	85%	LRIC+	0.2423kr	2011	4.58
Netherlands	Blended	82%	LRIC+	€0.0237	2010/2011	4.39
Lithuania	Blended	67%	LRAIC	0.056Lt	2009	3.93
France	Blended	85%	LRIC+ (hybrid)	0.0181€	2011	3.57
Israel	Blended	92%	LRIC+	ILS 0.0687	2011	2.77
				75th percentile		6.58
				Median		5.15
				25th percentile		4.28

Notes: The “Cost estimate (home currency)” column shows the raw data for each benchmarked cost estimate, without adjusting for inflation. The “Final benchmark NZ cents per minute” column shows final figures, including the adjustments discussed above.

302. As discussed in paragraph 261 above, estimates of telecommunications costs are decreasing over time. This is reflected in the final benchmark set. Table 18 shows the benchmark results for 2011 benchmarks only. While the range of 2011 benchmarks is relatively wide, the median of NZ4.58 cents per minute for 2011 benchmarks is substantially below the median for the full set (NZ5.15 cents per minute). As already noted above, this is one of the various factors the Commission has taken into account in setting the price point (see paragraphs 329 to 330 below).

Table 18: Benchmark results for voice (2011 benchmarks only)

Country	Cost estimate (home currency terms)	MTR (NZ cents)
Denmark	kr 0.33	7.23
Norway	kr 0.30	6.27
UK	£0.0198	5.25
Sweden	0.2423 kr	4.58
Netherlands	€0.0237	4.39
France	0.0181 €	3.57
Israel	ILS 0.0687	2.77
	Median of 2011 benchmarks	4.58

303. Table 19 compares the final benchmark set to the benchmark set used in the draft STD. With the exception of the cost estimates from the UK and Denmark, the changes benchmarked cost estimates are due to:

- changes to the exchange rate used (see paragraphs 293 to 298 above); and
- correction of errors identified in the draft benchmark calculations (see Appendix 1).

Table 19: Changes in the benchmark set compared to the draft STD

Country	Draft benchmark (NZ cpm)	Final benchmark (NZ cpm)	Increase / (decrease) from draft benchmark set
Hungary	10.86	10.89	0.03
Belgium	10.08	10.13	0.05
Denmark	9.75	7.23	(2.52)
Australia	6.54	6.37	(0.17)
Norway	6.31	6.27	(0.04)
UK	4.68	5.25	0.57
Malaysia	5.21	5.05	(0.16)
Sweden	4.68	4.58	(0.10)
Netherlands	4.52	4.39	(0.13)
Lithuania	3.99	3.93	(0.06)
France	3.64	3.57	(0.07)
Israel	2.91	2.77	(0.14)
75th percentile	7.34	6.58	(0.76)
Median	4.95	5.15	0.20
Median of 2011	4.68	4.58	(0.10)
25th percentile	4.39	4.28	(0.11)

Selecting a price point for the voice MTAS services

304. In line with the IPP the Commission is required to determine a forward-looking cost-based voice MTR that lies within the range of benchmarked results. There are a number of options available when selecting a price point. For example, when setting regulated access prices the Commission has commonly used either:

- the median;
- a price point above the median, such as the 75th percentile; or
- a price point below the median, such as the 25th percentile.

305. In the draft STD the Commission noted that given increases in call volumes, mobile data, and equipment price trends, the median of the benchmark set may overstate the current costs of providing the voice MTAS services in New Zealand. However, the Commission was also of the view that the 25th percentile is likely to underestimate the costs of providing the voice termination service. Accordingly, the Commission's preliminary view was that the 37.5th percentile

is appropriate as it is most likely to reflect the cost of providing the MTAS in New Zealand in 2011, and promote dynamic efficiency in the long run.²⁵¹ This view was informed by the value of 2011 cost estimates in the draft benchmark set.

306. No submissions supported the use of the 37.5th percentile. Analysys Mason submitted that the 37.5th percentile is an arbitrary figure and it has serious reservations about the selection of this price point.²⁵² Network Strategies submitted that it can find no evidence of this particular statistic being used previously for telecommunications regulatory benchmarking.²⁵³
307. This subsection sets out the Commissions approach to selecting the final price point for voice MTAS services. In selecting the price point, the Commission has considered:
 - risks from selecting a price point that is either 'too high' or 'too low';
 - comparability of cost estimates in the Commission's benchmark set; and
 - competition concerns in New Zealand's mobile sector.

Risks from selecting a price point that is either 'too high' or 'too low'

308. In selecting the appropriate price point, it is important to have regard to the risks of setting an access price that is too high or too low and, in particular, the likely impacts on investment incentives and competition in downstream retail markets. For example, if MTRs are below cost, there is a risk that this could reduce the incentives for mobile operators to invest in their networks. Alternatively, if MTRs are above cost, this could restrict competition in the retail markets.
309. Vodafone and Telecom have argued that the Commission should select a price point above the median.²⁵⁴ They consider that if the Commission selects a price point that is too low, so that the resulting MTR is below-cost, this would have the effect of reducing the incentives for mobile network operators to invest further in their networks.
310. NERA (on behalf of Telecom) submitted that the risks associated with selecting a price point are asymmetric, as "the negative welfare consequences of setting the rate above cost are lower than those from setting the rate below cost".²⁵⁵ On this basis, Telecom supported the adoption of the 75th percentile as the price point.²⁵⁶

²⁵¹ Commerce Commission, *Draft MTAS STD*, 23 December 2010, page 23, paragraphs 102-105.

²⁵² Analysys Mason, *Draft standard terms determination analysis: Report for NZ Commerce Commission*, 4 February 2011, page 7.

²⁵³ Network Strategies, *Final report for TelstraClear: Draft Standard Terms Determination for mobile termination access services—A review of the Commerce Commission's Draft Determination* 23 December 2010, 7 February 2011, section 3.5, page 26-27.

²⁵⁴ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 4; and Vodafone, *Cross-submission on the Draft MTAS STD*, February 2011, page 11, paragraph 64.

²⁵⁵ NERA, *Review of Draft STD for MTAS Telecom New Zealand*, 7 February 2011, section 3.4

²⁵⁶ John Wesley-Smith, MTAS STD Conference Transcript Day One, page 107, lines 15-19.

Our starting point is, what we're doing is regulating, that alone means we should have pause for thought and make sure that we're not over-regulating. Ally that to the fact that we've got an IPP and an FPP process in the Act and that, from our perspective, suggests that you deal with uncertainty by acting conservatively, and you should go for the 75th.

- 311. In addition, NERA submitted that the variation in the benchmarks implies that caution is required when selecting a price point, particularly when combined with the small sample size, the uncertainty about the comparability of New Zealand with the benchmark sample, the likely waterbed effects and investment risks of below cost pricing.²⁵⁷ At the MTAS STD Conference, James Mellsop from NERA supported the use of the 75th percentile on the grounds that there was a “huge amount of uncertainty in the sample”.²⁵⁸
- 312. Similarly, Analysys Mason submitted that a more prudent approach (than the 37.5th percentile), such as using the 75th percentile or the median, is appropriate, noting that these approaches have been taken on previous occasions by the Commission itself and by other regulatory bodies who have regulated wholesale prices using international benchmarking.²⁵⁹
- 313. At the MTAS STD Conference, Professor Haucap argued that the risks associated with setting a price that is too low (referred to in paragraphs 309 to 312 above) are minimal in the context of the New Zealand market:²⁶⁰

I think while there are of course some risk of welfare cost if the price is too low, one is that the operators could not receive their - recover their common cost.

However, I think this risk is fairly low in the current situation of the New Zealand mobile telecommunications market, in the market structure as we see it, especially the risks that Vodafone or Telecom are not able to recover their common costs given the market share that they have in the retail market and all the frictions that are natural in this kind of market, meaning that consumers are not easily instantaneously switching back and forth usually in this type of market, or there are plenty of opportunities to recover common costs through other type of retail prices usually. Even if it's difficult to - even if the rate would be below cost and does not contribute, the retail rate would not contribute to the recovery of common cost.

- 314. Similarly, the EC has previously noted that given the two-sided nature of call termination, not all related termination costs must necessarily be recovered from the wholesale charge levied on the originating operator.²⁶¹
- 315. 2degrees and TelstraClear, on the other hand, have argued that the Commission should select a price point below the median. 2degrees argued that it would be more efficient and pro-competitive for the Commission to err in favour of a lower price point (as recommended by WIK-Consult) than risk the benefits of competition being forestalled for a further period pending a lengthy, inefficient and costly FPP process in the event a rate above-cost is applied.²⁶²

²⁵⁷ NERA, *Review of Draft STD for MTAS*, 7 February 2011, page 7.

²⁵⁸ MTAS STD Conference Transcript Day One, page 107, lines 25-31.

²⁵⁹ Analysys Mason, *Draft standard terms determination analysis*, 4 February 2011, page 8.

²⁶⁰ MTAS STD Conference Transcript Day One, page 112, lines 9-20.

²⁶¹ European Commission, *Commission recommendation on the regulatory treatment of fixed and mobile termination rates in the EU: Explanatory note*, 7 May 2009, page 17.

²⁶² 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, page 12, paragraph 3.40.

316. In their cross-submission on the draft STD, Professor Haucap and Emma Lanigan stated that they do not see why the negative welfare consequences of above-cost rates exceed those of below-cost rates. Rather, they argued that:²⁶³

...the negative welfare consequences of above-cost MTRs are likely to exceed the negative welfare consequences of below-cost MTRs, as above-cost MTRs will stifle competition and also investment by entrant operators.

317. Haucap and Lanigan stated that in the long-run, they expect more investment and innovation to emerge in a market with three intensely competing operators than under the previous duopoly market structure in New Zealand.²⁶⁴
318. At the MTAS STD Conference, Professor Haucap referred to a number of risks associated with setting an access price that is too high, to the extent that the resulting MTR is above cost:²⁶⁵

...first of all it means that it does not only not correct for the calling externalities that there may be, but it may even further deteriorate this problem because a calling externality would justify a discount or a below cost rate; so this would mean that this problem gets worse as opposed to what it already - or compared to what it is.

It may also mean that, the second risk that it stifles sufficient competition and expansion of an entrant, and also that the entrant and also the fixed-line networks have to contribute over-proportionally to the common costs of the incumbent.

The third is that, well, in the very extreme there's a risk that an entrant may not be able to sustain its business, and then you have to compare what is the risk of a long run duopoly situation, or how easy is it to reverse the situation of market exit. I think that's much more difficult to reverse than the situation if we find out that prices are too high and have to lower them, and the risk - and too high prices are more likely to jeopardise the entrant's business than too low prices in this particular context.

I also point out what WIK have pointed out in their report, that in the set of benchmarks there are a number - or it's likely that in a number of countries the termination rates have been influenced by political consideration that usually tend to drive prices up rather than too low. So, WIK at least points that out in the report to you, so I think this is a valid point.

The fifth is that, well, there is this double mark-up. So, even if we set the mobile termination rate that is below cost, that does not mean that the retail price also have to be at below cost because you can add a mark-up, or we typically set a mark-up and the mark-up will typically be set, especially in the situation where there is no fixed fee for many customers. And that means that the below cost termination rate does not imply a below cost retail rate, so there is another opportunity to recover costs and also to reach efficient prices in the retail market.

319. Professor Haucap concluded that the cautious approach in the context of the New Zealand market is to adopt the 25th percentile rather than the 75th percentile.²⁶⁶

The relevance of two-way termination in selecting the price point

320. The MTAS relates to interconnection between mobile networks where an access provider of the service will also be an access seeker in respect of termination on

²⁶³ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, page 8.

²⁶⁴ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, page 8.

²⁶⁵ *MTAS STD Conference Transcript Day One*, page 112-113.

²⁶⁶ *MTAS STD Conference Transcript Day One*, page 113, lines 25-26.

other mobile networks. The Commission has previously noted that this creates a greater balance between the investment incentives of the access seeker and access provider than exhibited in the context of one-way access services (such as UCLL and Sub-loop).²⁶⁷

- 321. Accordingly, in the draft STD, the Commission's preliminary view was that the two-way nature of interconnection was likely to limit the risks associated with selecting a price point that is too low.
- 322. NERA submitted that this argument ignores the "bill and keep fallacy" whereby the access charge affects each network's perceived marginal cost and therefore retail prices.²⁶⁸ Haucap and Lanigan, on the other hand, argued that a hypothetical below cost MTR is less of a concern on the basis of the two-way nature of interconnection. Haucap and Lanigan noted that if traffic between networks is balanced the net termination payment is zero:²⁶⁹

In that case, an above-cost MTR cannot directly contribute to the recovery of joint cost, but only indirectly by driving up retail prices.

...even a below-cost MTR may be sufficient to recover an operator's joint and common cost. This is exactly because, following the above line of reasoning, MTR revenues amount to zero if calling patterns are balanced and MTRs symmetric. Hence, termination revenues do not directly contribute to the common cost in that case, but only indirectly. Depending on the degree of market power (possibly due to product differentiation or consumer switching costs) above-cost retail prices can easily emerge even if termination rates are below costs.

- 323. Emma Lanigan reinforced this point at the MTAS STD Conference:²⁷⁰

...in the case of two-way access I think the issue is that, because all of the networks are facing the same price, that they can still - facing the same access price, they can still recover any unrecovered costs at the retail level because the retail price isn't being competed down in the same way that it is in the one-way access.

- 324. In relation to the two-way nature of interconnection, Vodafone suggested that there is a relevant distinction between fixed-to-mobile and mobile-to-mobile. For mobile-to-mobile termination, the MTR set in this MTAS STD will apply to both the access seeker and access provider of the service. However, at the MTAS STD Conference, Vodafone stated that it is most concerned about the impact on fixed-to-mobile. Vodafone stated:²⁷¹

It seemed to me really clear that the impact on mobile competition and mobile investment from cutting the fixed-to-mobile termination rates is obviously negative; it must be for all operators if we're going to cut - say, we've estimated \$290 million out of the mobile market.

...certainly the impact that we're most concerned about is the fixed-to-mobile, and that seems to me to be much more analogous to the one-way story than the two-way story.

- 325. In respect of fixed-to-mobile, although the Commission is setting the FTM termination rate in this MTAS STD, fixed termination rates are agreed

²⁶⁷ Commerce Commission, *MTAS Schedule 3 Final Report*, 22 February 2010, page 117, paragraph 473.

²⁶⁸ NERA, *Review of Draft STD for MTAS Telecom New Zealand*, 7 February 2011, Section 3.4

²⁶⁹ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, page 8.

²⁷⁰ MTAS STD Conference Transcript Day One, page 111, lines 24-27.

²⁷¹ Comments by Hayden Glass, *MTAS STD Conference Transcript Day One*, page 114, lines 20-32.

commercially, and the Commission is not able to set the MTF termination rate in the context of this determination.²⁷² This indicates that the risks associated with setting an MTR that is too low may be greater for fixed-to-mobile termination than mobile-to-mobile termination, because the FTM termination rate does not apply on a reciprocal basis.

Comparability of cost estimates in the Commission's benchmark set

326. As NERA has submitted, in general the risk of regulatory error generally suggests that a price point above the median is appropriate. However, there are a number of factors affecting the Commission's benchmarking that suggest the median of the benchmark set is higher than efficient costs of providing voice MTAS services in 2011. In selecting the price point the Commission has taken account of:
- a potential for upward bias in the benchmark set;
 - the timing of cost estimates included in the benchmark set;
 - the possibility that the cost-estimate for Malaysia is over-inflated;
 - subscribers per cellsite;
 - population density;
 - current New Zealand market shares; and
 - the inclusion of 2G only cost models in the benchmark set.

327. The subsections below discuss these considerations in turn.

A potential for upward bias in the benchmark set

328. The Commission's advisors, WIK Consult, argue that benchmarked cost estimates are likely to be biased upward, based on regulators' tendency to be cautious in pricing determinations. To the extent that this is the case, the asymmetric risk identified by NERA (paragraph 310 above) is already incorporated in the benchmarking results.

The timing of cost estimates included in the benchmark set

329. TelstraClear submitted that given the marked downward trend in MTRs in most benchmarked countries, it is appropriate that the Commission sets an initial price point below the median of the benchmark set.²⁷³

²⁷² Fixed termination rates are currently set on a commercial basis, although fixed interconnection is a regulated service in Schedule 1 of the Act. The Commission has previously issued a bilateral determination between Telecom and TelstraClear in relation to fixed termination, however, this determination is no longer in force.

²⁷³ TelstraClear, *Submission on the Draft MTAS STD*, February 2011, page 4, paragraph 15.

330. The available data supports this view, and suggest that the median of the Commission's benchmark set is likely to be above the efficient costs of supplying MTAS in 2011. Specifically:

- more recent cost estimates in the benchmark set are lower than older estimates. This is illustrated in Table 17 and Table 18 (see page 71), where the median for 2011 estimates only is NZ 4.58 cents per minute (compared to the median of NZ 5.15 cents per minute for the full benchmark set);
- recent updates in cost estimates tend to be lower than earlier estimates. For example Denmark has recently updated its cost model resulting in a reduction of estimated MTAS costs from DKK0.44 to DKK0.33 per minute. The Swedish regulator is currently consulting on a revised cost model, which produces a draft cost estimate of SEK0.1249 (compared to the existing estimates of between SEK0.2263 per minute and SEK0.2582 per minute).²⁷⁴

The cost estimate for Malaysia may be over-inflated

331. As discussed in paragraphs 262 to 263, the Commission has retained Malaysia in the benchmark set. However, based on the concerns raised by Network Strategies it seems reasonable to conclude that the cost estimate for Malaysia is inflated. This provides further support for a price point below the median of the Commission's benchmark set.

Subscribers per cell-site

332. As the Commission discussed in its Final Schedule 3 Report, Vodafone New Zealand has a relatively high number of subscribers per cell-site, when compared to Australia, the Netherlands, and the UK. This suggests that the costs of providing the MTAS in these three countries are likely to be higher than in New Zealand.²⁷⁵ In the Commission's final benchmark set the cost-based MTRs for these countries are 6.33 NZcpm, 4.39 NZcpm, and 5.35 NZcpm respectively.

Population density

333. WIK Consult has previously advised the Commission that the WIK cost estimates for Australia should be considered an upper value for the likely cost of the MTAS in New Zealand. This was based on WIK Consult's analysis of the country-specific differences between New Zealand and Australia, in particular, New Zealand has a higher degree of population density than is found in Australia, but a similar rate of urbanisation.

²⁷⁴ The UK cost estimate has increased since the Commission's Draft Decision, from GBP 0.018 per minute to GBP 0.0198 per minute. This is due to revisions to Ofcom's model following consultation, rather than to changes in underlying costs over time.

²⁷⁵ Commerce Commission, *Final Report on whether the mobile termination access services (incorporating mobile-to-mobile voice termination, fixed-to-mobile voice termination and short-message-service termination) should become designated or specified services*, 22 February 2010, page 113, paragraphs 447–448.

334. This implies that Australian networks will be less efficient than networks in New Zealand because there will be proportionally more coverage-driven network elements, increasing average costs for a given level of coverage. Having a greater proportion of coverage-driven network elements in Australia will also result in average link distances being higher in Australia, resulting in higher costs in Australia.²⁷⁶

Current New Zealand market shares

335. WIK Consult has also advised that the Australian model estimates the cost of an efficient operator, based on a 31 percent market share. This is significantly below the current market share for the incumbents in the New Zealand market—as at June 2010, Vodafone and Telecom had markets shares of around 50 percent and 42 percent respectively.²⁷⁷ Modelling conducted by WIK Consult shows that increasing the market share to 44 percent and 50 percent decreases costs in the Australian model by 6 percent and 10 percent respectively.²⁷⁸
336. It is notable that all of the models in the Commission's benchmark set assume a market share of 33 percent or lower (see Appendix 1). This suggests the overall benchmarking results are likely to be high relative to costs in New Zealand.

The inclusion of 2G only cost models in the benchmark set

337. The Commission's benchmark set includes three 2G only cost models (see paragraphs 215 to 218 above). These are Australia, Hungary, and Malaysia. These three countries produce relatively high cost estimates compared to the rest of the benchmark set (they are ranked 1st, 4th, and 6th highest out of the 12 countries benchmarked). However, it is not clear whether this is due to the fact that these are 2G cost models, or to other factors.
338. Some submitters noted that there are significant differences in unit costs between 2G and 3G mobile networks, depending on volumes of data traffic.²⁷⁹ For example, Emma Lanigan, at the MTAS STD Conference, noted that "if you look at the Ofcom model and documentation, it shows that 2G costs are higher than the hybrid operators or 3G especially going forwards as you would expect because you don't get the economies of scope with data services".²⁸⁰
339. The impact of including 2G cost models in the benchmark on the appropriate price point is unclear. In particular the Commission does not have sufficient

²⁷⁶ Commerce Commission, *Final Report on whether the mobile termination access services (incorporating mobile-to-mobile voice termination, fixed-to-mobile voice termination and short-message-service termination) should become designated or specified services*, 22 February 2010, pages 113, paragraphs 451–452.

²⁷⁷ Market shares calculated on percentage of subscribers. See Table 1 in Section B.

²⁷⁸ Commerce Commission, *Final Report on whether the mobile termination access services (incorporating mobile-to-mobile voice termination, fixed-to-mobile voice termination and short-message-service termination) should become designated or specified services*, 22 February 2010, pages 114, paragraphs 453.

²⁷⁹ For example, Network Strategies, *Final report for TelstraClear: Draft Standard Terms Determination for mobile termination access services—A review of the Commerce Commission's Draft Determination* 23 December 2010, 7 February 2011, pages 16 - 17.

²⁸⁰ MTAS STD Conference Transcript Day One, page 100, lines 5–8.

evidence to conclude that New Zealand has reached the point where 3G networks are more efficient. Accordingly, the Commission has given little weight to this factor in its decision.

Conclusions on comparability of cost estimates in the Commission's benchmark set

340. Taken together, the above comparability factors suggest that the efficient costs of providing voice MTAS services in New Zealand, in 2011, are below the median of the Commission's benchmark set. This suggests a price point below the median will best give effect to section 18.

Implications of NZ market conditions for price point selection for voice

341. In selecting the price point, the Commission has taken account of factors specific to the New Zealand market, and in particular the implications for allocative, productive, and dynamic efficiency from existing barriers to competition. Section B of this report discusses the state of the mobile market in New Zealand, highlighting empirical and theoretical evidence of the current state of competition. The Commission has concluded that there are barriers to the expansion of competition in the New Zealand market. Particular problems are:
- wholesale MTRs are significantly above cost; and
 - significant on-net/off-net price differentials have led to a situation where the majority of mobile-to-mobile traffic is carried on-net.
342. The combination of these factors creates a barrier that restricts the ability of small operators to compete with the larger MNOs in the retail mobile services market. The available data show no significant decreases in these barriers, despite the fact that there have now been three GSM-compatible mobile networks in New Zealand for more than 18 months.
343. The extent to which calling externalities are internalised is unclear. However, economic literature suggests that if un-internalised calling externalities exist, a below cost termination rate, such as BAK, may increase economic welfare.²⁸¹
344. Further, while setting a MTR that is 'too low' may affect incumbent's investment decisions, to the extent that a lower MTR encourages greater competition, this is likely to promote investment incentives. In particular, the reduction of impediments to entry and expansion by smaller MNOs should encourage investment. Similarly lower MTRs for FTM calls may lead to greater investment in fixed networks.²⁸²

²⁸¹ See paragraphs 152 to 155.

²⁸² For example, cost-based FTM termination rates would eliminate the subsidy from fixed-line to mobile operators that occurs under above-cost MTRs. This should lead to a more efficient structure of retail prices and assist in promoting inter-modal competition between fixed-line and mobile networks.

Conclusion on implications of NZ market conditions for price point selection for voice

345. These factors provide further support for the view a price point below the median will best promote competition for the long term benefit of end users, consistent with section 18.

Conclusion on price point selection

346. The Commission has made a qualitative assessment of the appropriate price point, taking into account:

- the risks from setting a price point that is ‘too high’, or ‘too low’;
- factors suggesting the benchmarked median is higher than efficient costs in 2011; and
- the particular competition problems the Commission has identified in the New Zealand mobile sector.

347. On balance these factors suggest the median of the benchmark set is above the efficient costs of providing the voice MTAS services in New Zealand. Taking these factors together, the Commission considers that the 25th percentile of the benchmark set (4.28 NZcpm) is most likely to reflect the efficient costs of providing the voice MTAS services in New Zealand in 2011.

348. The following section considers whether a cost path is appropriate, to ensure expected reductions in costs in future years are reflected in the MTR.

Identifying a cost-path for the voice MTAS services

349. In the Draft STD the Commission noted that a cost-path is required in order to reflect expected reductions in the cost of providing the MTAS over time. There are reasons to expect that the costs of MTAS in New Zealand will reduce going forward, for example:²⁸³

- scale effects will create downward pressure on cost-based prices over time, as volumes of MTAS increase and the cost of the MTAS service is spread across a greater volume of services; and
- growth in mobile data volumes will reduce the cost of the MTAS service as a larger share of common and joint network costs are recovered from mobile data services.

350. The Commission’s preliminary view was to set a cost path based on the median of annual benchmarked reductions, where cost model results are available for future years.

²⁸³ Commerce Commission, *Draft Standard Terms Determination for the designated services of the mobile termination access services (MTAS) fixed-to-mobile voice (FTM), mobile-to-mobile voice (MTM) and short messaging services (SMS)*, page 24, paragraphs 110-111.

Views of submitters

351. Telecom argued that decisions on a price path need to be taken together with decisions on the price point. Telecom's concern was that, if the Commission "adopts a low price point in anticipation of future efficiency gains and on the presumption that costs are overstated" and then applies a cost path "the proposed 6% annual discount would double count efficiencies already banked when setting the price point and would perpetuate a below cost MTR".²⁸⁴
352. NERA submitted that the arguments for choosing the 75th percentile are even more compelling when selecting a cost path than when selecting a benchmark, due to the small sample size, and correspondingly high degree of uncertainty.²⁸⁵ Similarly, Analysys Mason submitted that, given the limited number of benchmarks for the calculation of the cost path, a benchmarking approach is not appropriate for setting the cost path.²⁸⁶
353. In contrast, Woosh argued that, due to rapid increases in mobile data traffic, the true cost of voice termination as a percentage of joint network and common costs will fall faster than provided for under the Commission's proposed cost path. Accordingly Woosh recommended that the cost-path be adjusted to account for the increases in mobile data usage outlined above.²⁸⁷

Commission's assessment

354. Out of the Commission's benchmark set cost-path information is available for Sweden, Israel, France and the UK. Table 20 sets out the benchmarked cost paths, based on the Commission's benchmark set, expressed:
 - in a common currency (NZ cents per minute); and
 - as annual percentage reductions in cost.

²⁸⁴ Telecom Submission, paragraphs 32 – 33.

²⁸⁵ NERA Economic Consulting *Review of Draft STD for MTAS—Telecom New Zealand*, 7 February 2011, Section 4, pages 10 – 11.

²⁸⁶ Analysys Mason, *Draft standard terms determination analysis: Report for NZ Commerce Commission*, 04 February 2011, Section 2.6, page 17.

²⁸⁷ Woosh Wireless, *Submission in relation to the Commerce Commission's draft standard terms determination for the designated services of the mobile termination access services: fixed-to-mobile voice (FTM), mobile-to-mobile voice (MTM) and short messaging services (SMS)* dated 23 December 2010, 7 February 2011, Section 2.3, page 2.

Table 20: Benchmarked cost path for voice

Benchmarked cost (NZ cents per minute)				
Country	2011	2012	2013	2014
Sweden	4.58	4.14	3.80	
Israel	2.77	2.61	2.48	2.37
France	3.57	3.12	2.83	2.70
UK	5.25	5.00	4.74	4.53
Annual decrease (percent)				
Country	2011	2012	2013	2014
Sweden	-	9.6%	8.2%	
Israel	-	5.9%	4.9%	4.4%
France	-	12.7%	9.2%	4.7%
UK	-	4.7%	5.2%	4.5%
Median	-	7.7%	6.7%	4.5%

- 355. There is no reason to consider that costs in New Zealand will change at a rate that is different to overall international trends. The Commission therefore considers that applying a cost path that is consistent with those calculated by the benchmarked countries appropriately reflects the IPP.
- 356. The Commission has taken account of the impact of factors such as increases in mobile data usage on the cost of providing the MTAS when selecting the price point for the voice MTAS. Therefore, making a further downwards adjustment when setting the benchmarked cost-path, as suggested by Woosh, would risk addressing the same issue twice.
- 357. Accordingly, when considered in combination with the price point of the 25th percentile, the Commission considers it appropriate to base the cost path for voice MTAS on the median of the benchmark set.
- 358. If it becomes apparent that benchmarked rates are changing at a rate significantly different from the cost path set out below, or if additional cost-path information becomes available, the Commission may review the cost path under section 30R of the Act.

Overall results of TSLRIC benchmarking for the voice MTAS services

- 359. The Commission has applied the cost-path set out in Table 20 to the 25th percentile of the benchmark set (4.28 cents per minute) in order to determine the forward-looking cost-based voice termination rates for the period from 6 May 2011 to 31 March 2015. The final cost-path for voice termination is included in Table 21 below.

Table 21: Final cost path for voice (NZ cents per minute)

	6 May 2011 to March 2012	April 2012 to March 2013	April 2013 to March 2014	April 2014 to March 2015
Cost path for voice	4.28	3.97	3.72	3.56

360. The Commission has considered whether a gradual reduction to these cost-based rates via a glide-path is appropriate in Section G of this STD.

Assessment of whether a forward-looking cost-based methodology or BAK best gives effect to the purpose set out in section 18 of the Act

361. Having benchmarked a TSLRIC price for voice termination, the Commission has considered whether a forward-looking cost-based pricing principle, pure BAK or hybrid BAK is likely to best promote competition for the long-term benefit of end-users.

Forward-looking cost-based pricing

362. As described in Section C, the Commission's view is that the appropriate starting point when considering the pricing methodology is establishing a rate that reflects the efficiently-incurred costs of supplying the MTAS. The Commission considers that a forward-looking cost-based price meets this objective.
363. In the Draft STD the Commission noted that voice services contend for network capacity, imposing material and significant costs on the network. Accordingly, the Commission concluded that a forward-looking cost-based price was likely to be the economically efficient price.²⁸⁸
364. A reduction in MTRs from current levels to TSLRIC can be expected to significantly improve competition in telecommunications markets, leading to lower retail prices and increased usage. In particular, a forward-looking cost-based price will:
- enable small operators to compete with on-net pricing offers from larger networks²⁸⁹; and
 - address the concerns in respect of the retail FTM/tolls market, by eliminating the subsidy from fixed-line to mobile operators that occurs under above-cost MTRs.
365. The Commission has previously noted that the combination of wholesale MTRs that are above cost and significant on-net discounting creates a barrier that

²⁸⁸ Commerce Commission, *Draft MTAS STD*, 23 December 2010, p 27, paragraph 123.

²⁸⁹ Assuming that the on-net prices of the incumbent are not predatory.

restricts the ability of small operators to compete with the larger MNOs in the retail mobile services market.²⁹⁰

- 366. As explained in the Schedule 3 Investigation, in order to attract subscribers a small mobile operator is likely to have to offer lower retail prices than the incumbent operators. For example, the Commission noted that small operators may decide to set its off-net prices equal to the on-net prices of a larger operator, in order to attempt to break into the closed calling circles of consumers on the incumbent's network.²⁹¹
- 367. However, as the EC notes:²⁹²

Late entrants argue that due to large traffic imbalances and on-net/off-net price differentiation they cannot compete effectively at the retail level. A large proportion of calls originated on late entrant networks is terminated on other networks, i.e. off-net. If new entrants pay a regulated termination charge in excess of actual costs they effectively give a transfer to the large network. As a result, their ability to offer retail rates comparable to the retail rates of an established operator, which terminates a majority of its calls on-net, is impeded.
- 368. On the other hand, if termination prices are cost-based, then an efficient entrant should be able to offer competitive on-net/off-net pricing, as there will be no difference in the cost of terminating an on-net call and an off-net call. As long as on-net prices from larger networks cover the costs of delivering such calls (including the cost of originating and terminating the call), small operators facing a forward-looking cost-based termination rate should be able to offer on-net and off-net calling services at a price that is comparable to the incumbent's on-net service.
- 369. A cost-based FTM termination rate is also likely to result in more efficient outcomes in the downstream retail FTM and tolls market. Cost-based MTRs will allow fixed-only operators to compete more vigorously with integrated fixed and mobile operators in the supply of FTM calls, as fixed-only operators would no longer be faced with above-cost termination prices for calls to mobile networks.
- 370. In addition, cost-based pricing will eliminate the subsidy from fixed-line to mobile operators that occurs under current above-cost MTRs. This should lead to a more efficient structure of retail prices and assist in promoting inter-modal competition between fixed-line and mobile networks.
- 371. However, as discussed in Section F below a reduction in MTRs (to either a forward-looking cost-based rate or BAK) will not necessarily prevent a larger network operator from imposing off-net surcharges at the retail level in order to reduce the attractiveness of a smaller network.

²⁹⁰ Commerce Commission, *MTAS Schedule 3 Investigation: Final Report*, 22 February 2010, p 10, paragraph xii.

²⁹¹ Commerce Commission, *MTAS Schedule 3 Investigation: Final Report*, 22 February 2010, p 138, paragraph 582.

²⁹² European Commission, *Commission recommendation on the regulatory treatment of fixed and mobile termination rates in the EU: Explanatory note*, 7 May 2009, p 7.

Bill and keep

372. Starting from the view that, in general, forward-looking cost-based pricing best meets the long term interests of end users, and is consistent with economic efficiency, the Commission considers that BAK (pure BAK or Hybrid BAK) may be likely to best give effect to the section 18 purpose where:
- the net payments that would be required under a price based on TSLRIC benchmarking are relatively low, due to cross-network traffic being relatively balanced and/or there being a low MTR; or
 - calling externalities are significant.
373. Where these tests are met, the Commission then needs to consider the practical consequences of implementing BAK, such as the potential for BAK to generate arbitrage opportunities and lead to retail charges for receiving calls.

BAK may be appropriate where cross-network is relatively balanced

374. When cross-network traffic is relatively balanced, interconnection payments cancel out and the net payments that are required under a cost-based rate would be relatively low. The Commission collected data from Vodafone, Telecom and 2degrees during this investigation in order to examine the historic levels of MTM voice traffic between these parties. However, the Commission was unable to reconcile the data received from these parties, and as the Commission has determined for other reasons that a forward looking cost based methodology is likely to best give effect to the purpose set out in section 18 of the Act, voice traffic flows are not examined further in this STD.

BAK may be appropriate where calling externalities are significant

375. As noted paragraphs 152 to 162 above, it was agreed at the MTAS STD Conference that calling externalities exist. Although various possible explanations were provided regarding whether calling externalities are likely to be internalised, the economic experts at the MTAS STD Conference all agreed²⁹³ that measuring the strength of any un-internalised call externalities is difficult.²⁹³
376. Given the difficulties associated with measuring the strength of call externalities, Dr Suella Hansen from Network Strategies noted that there is a risk that adjusting for externalities when setting a regulated price runs the risk of compensating for externalities that have already been internalised. Specifically, Dr Hansen stated:²⁹⁴

I would say that if a pricing solution is going to be proposed to address a failure to internalise any alleged externalities, there has to be quite a lot of certainty about exactly what we are addressing, because we could end up with a situation where externalities that are already internalised are being internalised again, if you like, through imposing a pricing solution; so that's one danger that's possible.

²⁹³ MTAS STD Conference Transcript, 15 March 2011, p 64-76.

²⁹⁴ MTAS STD Conference Transcript, 15 March 2011, p 68, lines 21-25.

377. Dr Schiff argued that in the absence of clear evidence in terms of the strength of un-internalised calling externalities, cost-based pricing is efficient. Dr Schiff stated:²⁹⁵

...measuring these externalities is difficult, I think all of us have said that. In that situation, from an economic perspective cost-based pricing is what we usually think of as our first port of call as to what is efficient and then we depart from that if we have strong evidence in terms of the externalities.

378. In summary, although calling externalities exist, there is no clear evidence to suggest that these are not internalised in the context of the New Zealand market.

BAK could generate arbitrage opportunities

379. There are two forms of the voice mobile termination service: fixed-to-mobile termination and mobile-to-mobile termination. The FTM termination service applies to voice calls that originate on a fixed-line network and terminate on a mobile network, while the MTM termination services applies to calls that originate on one mobile network and terminate on another mobile network.
380. The FTM termination rate is regulated in accordance with this MTAS STD. However, the termination rate for traffic flowing in the other direction (i.e., voice calls that originate on a mobile network and terminate on a fixed network) is currently set on a commercial basis.²⁹⁶
381. As described earlier, BAK is a pricing scheme for the two-way interconnection of networks under which the reciprocal call termination charge is zero. Given that there is currently a non-zero termination rate for mobile-to-fixed (MTF) traffic, it would be inappropriate to apply BAK for FTM traffic. In the event that BAK was applied to FTM termination, fixed-line networks would be able to terminate calls on mobile networks at no cost, while mobile networks would incur a non-zero charge for terminating calls on fixed-line networks.²⁹⁷ This would lead to a wealth transfer from mobile network operators to fixed network operators, and would distort competition between fixed and mobile markets.
382. Accordingly, for the FTM voice termination service, a forward-looking cost-based pricing methodology is likely to best promote competition for the long-term benefit of end-users.
383. If FTM termination rates are based on forward-looking costs, a BAK pricing principle for MTM voice termination would raise a number of concerns. In

²⁹⁵ MTAS STD Conference Transcript, 15 March 2011, p 70, lines 18-22.

²⁹⁶ Although fixed interconnection is a regulated service in Schedule 1 of the Act, there is currently no determination in place. The Commission previously released a bilateral determination on fixed interconnection between Telecom and TelstraClear.

²⁹⁷ In the event that BAK was considered to be an appropriate pricing principle for FTM termination, the Commission could launch a separate STD process in order to set the MTF termination rate on a reciprocal basis. However, this is outside the scope of the current MTAS STD.

particular, having a different pricing principle apply to FTM and MTM termination could generate arbitrage opportunities²⁹⁸.

- 384. The French regulator, ARCEP, previously adopted BAK for MTM termination, but a non-zero price for FTM termination. This led to a situation where fixed operators routed calls through mobile gateways, in order to avoid paying the FTM termination rate.
- 385. By 2004, up to 80-90 percent of FTM calls of alternative fixed operators were routed through mobile gateways. This ultimately led to the French regulator abandoning BAK for MTM termination.²⁹⁹
- 386. The MTAS STD prohibits the use of SIM boxes, which could mitigate the risk of arbitrage to some extent. However, there may be practical difficulties in identifying the use of SIM boxes and compliance costs associated with ongoing monitoring of traffic.

Could BAK lead to retail charges for receiving calls?

- 387. As described earlier, New Zealand currently operates a calling party pays (CPP) billing system, whereby an end-user making a call or sending a text message pays the associated retail charges. At the wholesale level, the originating fixed or mobile operator makes a termination payment to the terminating mobile network, in order to cover the costs of terminating the call or SMS.
- 388. A potentially significant implication of BAK is that it may lead to the introductions of retail charges for receiving calls. As noted in paragraph 175 above, most bill and keep countries operate a receiving party pays system at the retail level, enabling MNOs to recover termination costs from their own retail customers.³⁰⁰
- 389. Vodafone has argued that since BAK involves no payment between network operators, all costs of terminating inbound calls must be recovered from end-users. Vodafone submitted that although customers value receiving calls, the overwhelming global trend away from receiving party pays is evidence that end-users do not value receiving incoming calls to the extent that they believe they should pay for them.³⁰¹
- 390. However, Ofcom has noted that ability and incentive for MNOs to move towards RPP will be constrained by consumers' antipathy towards such a system, and the complication of introducing such a system, given the present calling party pays arrangements.³⁰² Accordingly, the Commission considers it unlikely that BAK would lead to the introduction of charges for receiving calls.

²⁹⁸ In the event that there was a cost-based rate for FTM termination, but BAK for MTM termination, fixed networks operators would have an incentive to disguise FTM calls to make them appear as though they originated on a mobile network, as this would avoid paying the FTM termination rate.

²⁹⁹ NERA, *MTAS – Applicability of Bill and Keep*, 13 February 2009, p 5.

³⁰⁰ For example, Canada, Singapore, Hong Kong and the United states are bill and keep countries that operate under a receiving party pays system.

³⁰¹ Vodafone, *Cross-submission on the Draft MTAS STD*, February 2011, p 6, paragraphs 29-31.

³⁰² See paragraph 178 above.

Conclusion on whether a forward-looking cost-based price or BAK for the voice MTAS services is likely to best give effect to the purpose set out in section 18 of the Act

- 391. For the reasons set out above, the Commission considers that a forward-looking cost-based pricing methodology for voice termination is likely to best promote competition for the long-term benefit of end-users. A forward-looking cost-based price should enable small operators to compete with existing on-net pricing from the larger operators and will also improve competition in the provision of retail FTM and tolls services.
- 392. The Commission is not satisfied that there are sufficient un-internalised calling externalities in the context of the New Zealand market to justify a move to BAK for voice termination. In addition, BAK could generate arbitrage opportunities.
- 393. Accordingly, the Commission considers that a forward-looking cost-based methodology is likely to best give effect to the purpose set out in section 18 of the Act.

Assessment of whether asymmetric MTRs are required to address existing barriers to competition

Introduction

- 394. Asymmetric termination rates enable a small network operator to charge more for terminating incoming calls than its competitors. The aim of such an asymmetry in termination rates would be to compensate for any disadvantages that the small network faces, for example spectrum allocation or a lack of scale.
- 395. In the Draft STD the Commission's preliminary view was that moving quickly to cost-based MTRs will address the competition concerns in the MTAS market, and consequently, asymmetric rates in favour of a new entrant were not appropriate.
- 396. However, 2degrees has argued that if the Commission is not minded to impose a non-discrimination condition, or is minded to impose a non-discrimination condition only on certain MTAS services, there remain strong grounds for asymmetric termination rates to be applied in favour of a new entrant for both fixed-to-mobile and mobile-to-mobile voice services.³⁰³

International experiences regarding asymmetry

- 397. Asymmetric termination rates have typically been implemented in European jurisdictions in order to allow time for a smaller operator to reach "minimum efficient scale", which is defined as 15-20 percent market share. However, the EC's view is that termination rates should normally be symmetric and that asymmetry requires an adequate justification.
- 398. The European Regulators Group (now BEREC) notes that factors that impact on the length of time taken to reach the minimum efficient scale include the

³⁰³ 2degrees, *Request for additional information and further comments prior to MTAS STD Conference*, 2 March 2011, p 5.

maturity of the market, the level of competition, the efficient rate of customer acquisition, and the fluidity of the market and churn rates.³⁰⁴

399. In special cases, the EC considers that National Regulatory Authorities (NRAs) can permit a new network operator a transitional period of up to four years in order reach minimum efficient scale. The EC also notes that:³⁰⁵

A key argument frequently used in support of the authorisation of temporary asymmetric rates in favour of later entrants, and in the absence of any verifiable objective cost differences, is that it forms part of an overall entry assistance policy which is aimed at promoting new entry and longer-term competition in fixed and mobile markets.

400. This implies that there is an efficiency trade-off when considering implementing asymmetric rates. The rationale for asymmetry is that it will encourage entry and investment in the mobile market, leading to dynamic efficiency gains in the long-term. However, it may also be expected that consumers will end up paying higher retail prices than would otherwise be the case in a situation with cost-based symmetric termination rates.³⁰⁶
401. Table 22 below summarises the implementation of asymmetric MTRs in a number of European jurisdictions. Asymmetric MTRs have typically been implemented in the context of above-cost termination rates, and symmetric termination rates are generally being implemented as MTRs reach a cost-based level.

Table 22: Summary of asymmetric MTRs in benchmarked countries³⁰⁷

	Length of asymmetry	% difference between lowest and highest MTR
Belgium	10 years (2003 - 2012)	In 2003, when the second operator was assessed as having SMP, the regulator allowed an asymmetric rate 24% above that of the incumbent. In 2004 and 2005 the difference between the two regulated MTRs was 32%. In late 2006 a third operator was designated with SMP status and was afforded asymmetry. The difference between the highest and lowest regulated MTRs for 2007, 2008 and 2009 were 54%, 58% and 59% respectively. The NRA then set prices for 2010 through to the beginning of 2013, when symmetry will be introduced and the level of asymmetry will fall from 26% to 0%.

³⁰⁴ European Regulators Group, *ERG's common position on symmetry of fixed call termination rates and symmetry of mobile call termination rates*, 28 February 2008, p.93-94.

³⁰⁵ European Commission, *Commission recommendation on the regulatory treatment of fixed and mobile termination rates in the EU: Explanatory note*, 7 May 2009, p 18.

³⁰⁶ European Commission, *Commission recommendation on the regulatory treatment of fixed and mobile termination rates in the EU: Explanatory note*, 7 May 2009, p 18.

³⁰⁷ Sources for the information contained in this table are included in Appendix 1.

	Length of asymmetry	% difference between lowest and highest MTR
Denmark	3 years (May 2008 - April 2011)	From May 2006 the three incumbent operators have had symmetric MTRs. A fourth operator was assessed as having SMP in May 2008 and was subject to regulated MTRs. The NRA allowed for asymmetric rates and allowed the fourth operator an MTR 48% above the incumbents. ³⁰⁸ By May 2010 the asymmetry fell to 16% and in May 2011 all asymmetry will be eliminated.
France	FTM - 11 years (2002-2012), MTM - 7 years (2005-2012)	MTRs for fixed-to-mobile were first regulated in France at the end of 2001 and prices were set for 2002 – 2004. During this time two operators were considered to have SMP and were regulated at symmetric rates. In December 2004 the NRA deemed a third operator as having SMP and at this stage asymmetric MTRs were implemented (between the two incumbents and the third operator) with prices being set for 2005, 2006 and 2007. Levels of asymmetry were set at approximately 20% for each period. A review of MTRs was conducted in 2007, which set prices for 2008, 2009 and 2010. Over this period asymmetry was set at approximately 30% in 2008 and 2009 and 13% in 2010.
Netherlands	3 years (2007 - 2010)	MTRs in the Netherlands were subject to voluntary reductions by operators until 1 December 2006, when the NRA regulated MTRs. The NRA implemented asymmetric rates on the basis of differences in spectrum costs/allocations. On 1 December 2006 the regulator implemented MTRs that allowed for asymmetry of 13% for four of the six operators. On 15 August 2007 the regulator removed asymmetric rates for a further two operators and allowed the remaining two operators asymmetric rates 14% above the other operators in the market. On 1 July 2008 this asymmetry was increased to 16%. On 7 July 2010 the regulator increased the asymmetry to 27% for approximately three months before removing asymmetry altogether on 1 September 2010.

³⁰⁸ A fifth operator was attributed SMP status in May 2009. However, this operator exited the market in 2010 and for the time it was active in the market it had the same regulated MTR as the fourth operator.

	Length of asymmetry	% difference between lowest and highest MTR
Norway	5 years (2003-2008) between the two incumbents, 5-6 years (2007/2008-2013) for third entrant	In its May 2007 SMP decision the Norwegian regulator imposed glide paths on the two incumbent MNOs to reach symmetric MTRs from 1 July 2008. A third network operator entered the market in 2007/2008 and the regulator has allowed for asymmetric rates for 5-6 years where the level of asymmetry (between highest and lowest MTRs) will vary between 80% and 200%. A single cost-based rate will apply for all MNOs from 1 January 2013.
Sweden	3 Years (July 2004 - July 2007)	Sweden implemented asymmetric rates for a new entrant who entered the market in 2004. The regulator initially allowed for asymmetry of 51% and reduced it to 38% in 2005 and 21% in 2006 with symmetry achieved in 2007.
UK	7 Years (2004 - 2011)	The regulator in the UK issued a mobile termination statement on 1 June 2004 setting separate MTRs for operators with 900MHz and 1800MHz spectrum and operators with only 1800MHz spectrum. Operators with only 1800MHz spectrum were granted asymmetric rates 12% above the MTRs application to operators with access to both frequencies of spectrum. On 27 March 2007 the regulation of MTRs was extended. An additional operator was considered to have SMP and for the period 1 July 2007 to 30 June 2008 this operator was given an asymmetric rate 60% above the lowest MTR. By 2010/2011 the level of asymmetry fell to 16%. As a result of the most recent decision on MTRs in the UK, asymmetry will be removed from 2011/2012.

402. The trend in Europe is now towards removing asymmetries. The European Commission's recommendation on the regulatory treatment of mobile termination rates states that termination rates should be set at a symmetric level by 31 December 2012.³⁰⁹

New Zealand situation

403. Although asymmetric MTRs are being phased out in Europe, the EC recognises that in certain exceptional cases asymmetry might be justified.³¹⁰ Specifically, asymmetric MTRs may be considered appropriate where there are:³¹¹

³⁰⁹ European Commission, *Commission recommendation on the regulatory treatment of fixed and mobile termination rates in the EU*, 7 May 2009, p 8.

³¹⁰ European Commission, *Commission recommendation on the regulatory treatment of fixed and mobile termination rates in the EU: Explanatory note*, 7 May 2009, p 9.

- objective and justifiable cost differences outside the control of operators (for example, differences in spectrum allocation³¹²); or
 - impediments to retail market entry and expansion, or late entry meaning, for a transitional period, a new entrant may face higher unit costs than other operators.
404. 2degrees' market share is less than the 15-20% "minimum efficient scale" referred to by the EC, suggesting that the New Zealand market may be at a similar stage of development to a number of European jurisdictions that have adopted asymmetric MTRs in the past.

Spectrum allocation

405. According to Vodafone, spectrum allocation is not a problem in New Zealand.³¹³ However, at the MTAS STD Conference, Bill McCabe from 2degrees stated:³¹⁴

Telecom are going 3G only, I think that's their public position on the CDMA so it's going to be an XT only network. And I do note that they have 15 MHz at the 850 band, as do Vodafone have, they have 15 MHz paired at the 900 spectrum. We have 10 MHz at the 900 spectrum, and 10 MHz - and I haven't gone into a huge amount of detail on this, but I understand it's quite hard to run both 2G and 3G with only 10 MHz of spectrum at that level.

So, there may be efficiency gains that the other guys have at having higher amounts of spectrum at that level.

406. Spectrum is allocated relatively evenly amongst the three mobile operators in New Zealand, with all operators having access to 850/900MHz and 2100MHz spectrum. Accordingly, the Commission considers that spectrum allocation does not justify asymmetric termination rates in the New Zealand market.

Does a new entrant face higher unit costs?

407. As a new entrant in the market, 2degrees does not have a comparable customer base to those of Vodafone and Telecom, and therefore is unlikely to be at the minimum efficient scale unless it has lower build costs or other offsetting factors. 2degrees had a subscriber market share of 9.5 percent as at February 2011.³¹⁵ However, its market share based on revenues and traffic volumes is significantly less than this. 2degrees' market share based on revenues is estimated to be [] 2DAPI, while its market shares based on voice and SMS traffic volumes are estimated to be [] 2DAPI and [] 2DAPI respectively.

³¹¹ European Commission, *Commission recommendation on the regulatory treatment of fixed and mobile termination rates in the EU*, 7 May 2009, p 6, paragraphs 16-17.

³¹² Different spectrum licenses may provide a basis for sustained asymmetric termination charges because where there is limited availability of radio spectrum for new entrants with similar propagation properties as that held by the incumbent operators (for example, 1800 MHz vs 900 MHz spectrum), costs for the new entrant would be higher.

³¹³ Vodafone, Comments on MTAS implementation issues, 2 March 2011, p 12, paragraph 71.

³¹⁴ Commerce Commission, MTAS STD Conference Transcript Day Two, 16 March 2011, p 202-203.

³¹⁵ See Table 1 above. Vodafone's market share of subscribers is approximately 51.5%, while Telecom's market share is approximately 39%.

408. This suggests that 2degrees' may face significantly higher unit costs compared to Vodafone and Telecom when terminating traffic.
409. WIK-Consult has estimated the likely differences in termination costs between 2degrees and a hypothetical operator with 33 percent market share. Specifically, WIK used its cost model for Australia to estimate the cost differential between:
- a small operator with a relatively low market share and a network covering only 50 percent of the population (similar to 2degrees); and
 - an operator with a market share of 33 percent covering essentially all populated areas.
410. Based on this comparison, WIK noted that a smaller operator such as 2degrees may have costs that are higher by about 30 percent.³¹⁶
411. Vodafone, however, has submitted that there is no need for asymmetry in rates for 2degrees in this case because:
- 2degrees continues to grow its customer base quickly, with an estimated market share of [] VNZRI. This is [] VNZRI the 15-20 percent market share that the EC considers a reasonable benchmark for the end of any cost argument for asymmetry;
 - [] VNZAPI2
 - 2degrees argued in the mobile co-location process that its network costs were lower than other operators, which supports the Commission's observation that entrants may face lower costs to build their mobile network (given their ability to use the most up-to-date and lowest cost technology); and
 - an asymmetry in MTAS rates would blunt 2degrees' incentives to compete and to grow, since growing market share would lead to a removal of the asymmetry and reduce its profits from termination of calls to its existing customer base.³¹⁷
412. An efficient new entrant may face lower costs to build their physical network, due to lower equipment prices and the ability to install the most efficient modern network technology. These cost savings are likely to be offset where a new entrant faces higher costs related to site sharing and the placement of antennas on roof tops, but these additional costs will be relatively minor or incremental compared to the relative cost benefits a new entrant will enjoy from building their network using the most developed network technology. This could suggest new entrants should have lower, rather than higher, MTRs.

³¹⁶ WIK-Consult, *Support to the Commerce Commission in its current Standard Terms Determination for the MTR*, 1 November 2010, p 14.

³¹⁷ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 54-55, paragraph 235.

413. TelstraClear submitted that since MTRs are to be based on efficient forward-looking costs (rather than actual costs), there is no justification for asymmetric application. TelstraClear noted that the EC has previously stated that symmetric application of MTRs based on efficient costs will promote allocative and productive efficiency, which will ultimately benefit consumers.³¹⁸

Would asymmetric MTRs address the competition problems identified in the New Zealand market?

414. Symmetric MTRs promote productive efficiency as operators with costs above the MTR must overcome any inefficiencies or they will be forced to exit the market in the long term. As noted by the ERG:³¹⁹

Economic principles tend to recommend a unique and uniform termination rate, determined with reference to costs incurred by an hypothetic efficient operator, i.e. a termination rate which does not depend on costs effectively incurred by the operators or on their market shares. This efficient termination rate level indeed is the right signal to give incentives for productive efficiency, less efficient operators trying to overcome their inefficiency (in lowering their costs to avoid losses which ultimately result in market exit) and more efficient operators realizing profits over regulated prices, investing and innovating. Gains in productive efficiency put pressure on final services' prices and contribute to end-users welfare.

415. Similarly, the EC notes that it is important that MTRs are based on the costs of an efficient operator.³²⁰

If the regulation of termination charges was based on the actual costs of the operator, this would not provide the right incentives for operators to innovate and increase efficiency, as their inefficiency would be covered by their competitors.

416. Asymmetric MTRs in favour of 2degrees would mean that Vodafone and Telecom face higher costs for terminating off-net traffic (compared to on-net traffic). At the MTAS STD Conference James Mellsop from NERA stated:³²¹

I've been a bit perplexed thinking about this idea of an asymmetric rate, because on the one hand the concern that we're discussing here is that Vodafone or Telecom will crank up their off-net prices and make it unattractive for customers to shift to 2degrees. Yet, if we have an asymmetric MTR, that actually promotes that because a Telecom customer effectively has a higher cost to call a 2degrees network than vice versa.

So, you know, it just seems to me to be actually flying in the face of all the other - the strategic incentive discussion we've had.

417. This has previously been acknowledged by the EC, which stated that:³²²

³¹⁸ TelstraClear, *Submission on the Draft MTAS STD*, February 2011, p 5, paragraph 16.

³¹⁹ ERG, *Common Position on symmetry of fixed call termination rates and symmetry of mobile call termination rates*, 28 February 2008, p 4-5.

³²⁰ European Commission, *Commission recommendation on the regulatory treatment of fixed and mobile termination rates in the EU: Explanatory note*, 7 May 2009, p 7.

³²¹ MTAS STD Conference Transcript, 16 March 2011, p 203, lines 9-16.

³²² European Commission, *Commission recommendation on the regulatory treatment of fixed and mobile termination rates in the EU: Explanatory note*, 7 May 2009, p 20.

...asymmetric wholesale pricing is likely to reinforce the asymmetric pricing observed at retail level. That is, the off-net retail prices of the incumbents will likely rise to compensate for the increased cost of off-net wholesale termination to the new entrants.

418. The Commission agrees that asymmetric rates in favour of 2degrees could, in the absence of an on-net/off-net price differentiation condition, contribute to off-net surcharges from larger operators, exacerbating the competition problems outlined earlier.³²³

Conclusion on asymmetry

419. Given that asymmetric MTRs would increase the cost that the larger operators face in providing off-net calls to subscribers of small operators, asymmetry could contribute to the high on-net off-net price differentials observed in the New Zealand market. Accordingly, the Commission's view is that asymmetric termination rates would not best promote competition for the long-term benefit of end-users, and therefore, should not be implemented.

Conclusion on the pricing principle and core prices for the voice MTAS services

420. In this section the Commission has determined the core prices for voice termination. The Commission has determined that:
- a forward-looking cost-based methodology for voice termination is likely to best promote competition for the long-term benefit of end-users;
 - the 25th percentile of the benchmark set is most likely to reflect the costs of providing voice termination in New Zealand in 2011;
 - a cost-path is appropriate to reflect expected reductions in the cost of providing the MTAS over time. The cost-path has been established based on the median cost-paths observed in the benchmarked countries; and
 - asymmetric MTRs would be likely to contribute to the high on-net off-net price differentials currently observed in the New Zealand market and therefore should not be implemented.

³²³ The Commission notes that on-net/off-net price differentials do not appear to have been a significant concern when implementing asymmetric MTRs in other jurisdictions. This is likely to be because the level of on-net discounting and proportion of on-net traffic is more significant in New Zealand than many other countries.

SECTION E. DETERMINING THE PRICING PRINCIPLE, AND CORE PRICES, FOR THE SMS TERMINATION SERVICE

Introduction

421. As with voice termination, the Commission is required to determine the price for the SMS termination service by benchmarking against the costs of providing similar services in comparable countries. If the Commission considers that a forward-looking cost-based methodology does not, or is not likely to, best give effect to the purpose set out in section 18 of the Act, the Commission must apply either a pure BAK or a hybrid BAK pricing methodology.
422. This section sets out the Commission's approach to selecting the pricing principle and determining the core prices for the SMS termination service. Specifically, the following sub-sections:
 - set out the results of the Commission's benchmarking of forward-looking cost-based prices for the SMS termination service;
 - select a price point within the benchmark set;
 - discuss whether it is appropriate to implement a cost-path to reflect expected future trends in termination costs; and
 - consider, in the context of SMS termination, whether a forward-looking cost-based price (based on international benchmarking), pure BAK or hybrid BAK is likely to best promote competition for the long-term benefit of end-users.
423. A summary of submissions on the pricing principle for the SMS termination service is included in Appendix 5.

Establishing a benchmark set for SMS

424. The Commission has benchmarked the cost of providing the SMS termination service against the cost of providing similar services in comparable countries that apply a forward-looking cost-based methodology. Consistent with the approach to voice termination, the cost of SMS termination has been benchmarked against TSLRIC SMS termination rates.
425. The Commission's approach to benchmarking MTAS is discussed in detail in Section D - Determining the pricing principle, and core prices, for the voice MTAS services. The resulting benchmarking criteria apply to benchmarking of both voice and SMS services.
426. There are few countries in which SMS termination has been regulated, and for which forward-looking cost estimates are available. As a result, the Commission's benchmark set includes only three jurisdictions that have modelled the forward-looking costs of providing MTAS for SMS: Denmark, Malaysia, and Israel.

427. Vodafone and Analysys Mason recognised this difficulty. Analysys Mason provided a survey of various methodologies used by regulators to calculate SMS termination rates by some regulators (see Appendix 5). Analysys Mason also presented benchmarked SMS termination rates from six European countries, as a cross-check for the Commission’s own benchmarking results.³²⁴ The resulting average MTR was NZD0.60 per SMS (ie 6 cents per SMS)—substantially higher than the Commission’s benchmarked cost estimates.
428. Based on its research, Analysys Mason suggested that the Commission calculate a benchmark for SMS termination by either:
- applying an average rate drawn from Analysys Mason’s benchmark of MTRs, amounting to 6 cents per text; or
 - using the Qatari method, whereby regulated SMS termination rates were determined by dividing the Qatari voice MTAS rate by a factor of 2.06. This factor was arrived at by calculating “the average SMS-MTAS coefficient between the EU15 SMS termination rates and MTAS rates”.
429. As Vodafone acknowledged, Analysys Mason’s estimate is based on current SMS termination rates, and not on modelled forward looking cost estimates.³²⁵ Analysys Mason’s proposal to use its benchmarking of European MTRs to set an MTR for SMS in New Zealand is inconsistent with the requirements of the IPP. Rather, in accordance with the IPP, the Commission has restricted its benchmarking to jurisdictions that have developed bottom-up models of the forward-looking costs of providing MTAS (see paragraphs 252 to 254).
430. Similarly, the Qatari method is based on termination rates for voice and SMS MTAS, not on the forward-looking costs of providing the services, and as such does not meet the requirements of the IPP. This approach is a second best option that would only be appropriate where a benchmark set was not available.
431. Table 23 sets out the Commission’s final benchmark set for providing MTAS for SMS. These benchmarks indicate that the cost of SMS termination is very low, with a TSLRIC rate between NZ0.06 cents per SMS and NZ0.48 cents per SMS.

Table 23: Final benchmark set for SMS

Country	Home currency	Year of estimate	NZc/SMS
Denmark	0.0220	2009	0.48
Malaysia	0.0027	2008	0.16
Israel	0.0017	2011	0.06
		Median	0.16

432. One reason for the low cost of SMS termination is that the SMS termination service does not compete for network capacity with real time services such as

³²⁴ Analysys Mason, *Draft standard terms determination analysis: Report for NZ Commerce Commission*, 4 February 2011, Section 3.3.1, pages 32–33.

³²⁵ Vodafone, *Submission on the Draft Standard Terms Determination for the Designation of the Mobile Termination Access Services*, February 2011, page 46.

voice calls.³²⁶ An incoming SMS is always handled when the network has idle capacity and therefore does not require additional dimensioning.

433. Vodafone has argued that there are real and significant costs associated with SMS termination. Vodafone noted that:³²⁷

If there is a significant increase in SMS traffic then there may be insufficient idle capacity to maintain quality of service for SMS. We see this regularly with special events where traffic spikes and delivery of SMS is sharply affected, leading to extra efforts to provision the network to cope with the increased load. But it also happens as traffic grows over time under normal usage.

434. However, there was general agreement at the conference that the costs of SMS termination are low when compared to voice termination. Analysys Mason agreed that SMS has lower costs because it is used when there is idle capacity in the network.³²⁸

Price point selection for the SMS termination service

435. In the draft STD the Commission's preliminary view was that given the limited number of benchmarks for SMS, the median of the benchmark set is the appropriate price point when determining a forward-looking cost-based termination rate.³²⁹ Given the limited number of SMS benchmarks, there is uncertainty associated with moving away from the median of the benchmark set and a greater potential that a price point above or below the median could over-estimate or under-estimate the true costs of SMS termination.
436. No submissions were received regarding price point selection for SMS.
437. In selecting a price point for voice, the Commission has taken account of:
- the risks from setting a price point that is 'too high', or 'too low';
 - factors suggesting the benchmarked median is higher than efficient costs in 2011; and
 - the particular competition problems the Commission has identified in the New Zealand mobile sector.
438. These factors are also relevant to the selection of a price point for SMS. Of particular relevance to the benchmark set for SMS, the higher two of the three estimates in the benchmark set for SMS are older estimates. Taken together with the competition concerns the Commission has identified in the New Zealand market, this suggests a price point below the median, will best promote competition for the long term benefit of end users, consistent with section 18.

³²⁶ WIK-Consult, *Support to the Commerce Commission in its current standard terms determination for the MTR*, 1 November 2010, page 26.

³²⁷ Vodafone, *Submission on the Draft MTAS STD*, February 2011, page 50, paragraph 211.

³²⁸ Joan Obradors, *MTAS STD Conference Transcript Day One*, page 26, lines 17-18.

³²⁹ Commerce Commission, *Draft MTAS STD*, 23 December 2010, page 39, paragraph 194.

439. Balancing the above factors, the Commission has selected the lower bound of the benchmark set as the price point, which is the most recent cost-estimate available. The resulting benchmarked SMS termination rate is NZ0.06 cpSMS.

Assessment of whether a forward-looking cost-based methodology or BAK best gives effect to the purpose set out in section 18 of the Act

440. Having benchmarked a TSLRIC price for SMS termination, the Commission has considered whether a forward-looking cost-based pricing principle, pure BAK or hybrid BAK is likely to best promote competition for the long-term benefit of end-users.

Forward-looking cost-based pricing

441. As described earlier, the Commission's view is forward-looking cost-based pricing is the appropriate starting point when considering regulated MTRs. Forward-looking cost-based pricing is efficient, and avoids any potential distortions or reduction in economic welfare associated with above or below cost pricing.
442. Vodafone submitted that cost-based pricing is economically efficient, and the Commission has not demonstrated that there is a clear reason to depart from a forward-looking cost-based rate for SMS. Vodafone stated:³³⁰

A cost-based approach is the best method for setting SMS prices. Cost-based prices provide incentives for the efficient use of services. To move below cost requires special circumstances, since it generates unusual and unwelcome incentives. In the case of SMS, we believe there are good arguments to price a little above cost in order to minimise SMS spam, a significant negative call externality.

443. The Commission agrees that cost-based pricing sends appropriate signals, leading to efficient use of services.

Bill and keep

444. In the Draft STD the Commission's preliminary view was that pure BAK is the appropriate pricing principle for the SMS termination service. The Commission noted that:

- data on traffic flows indicates that SMS traffic is relatively balanced between the three mobile networks in New Zealand;
- the TSLRIC cost of SMS termination is very low; and
- pure BAK is likely to lead to lower transaction costs due to the avoidance of measuring and billing systems.³³¹

445. 2degrees³³², Woosh³³³, CallPlus and Kordia supported pure BAK for SMS. CallPlus and Kordia submitted that the SMS service carries a marginal

³³⁰ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 44, paragraph 184.

³³¹ Commerce Commission, *Draft MTAS STD*, 23 December 2010, p 44, paragraphs 216-218.

³³² 2degrees, *Submission on the Draft MTAS STD*, 7 February 2011, p 3, paragraph 1.2.

termination cost close to zero which makes it an ideal candidate for a pure BAK structure.³³⁴

- 446. In its submission on the Draft STD, Telecom stated that it is of the view that it is appropriate to depart from benchmarking as an IPP for MTAS where any cost-based rates for termination are likely to fall below a certain minimum point, and where traffic is expected to be roughly in balance in the ordinary course of events. Accordingly, Telecom submitted that it would support a move to some form of bill and keep for SMS.³³⁵ However, Telecom later revised its position to support a cost-based MTR for SMS, noting that pure BAK will have the effect of exacerbating and encouraging SMS spam.³³⁶
- 447. At the MTAS STD Conference there was some support amongst the economic experts for BAK as the pricing principle for SMS. For example, Professor Haucap stated:³³⁷

...bill-and-keep would be a very appropriate pricing principle, especially for SMS. This has to do with the very low cost of terminating SMS which have been estimated by the Commission's own experts, WIK, to be 0.15 NZ cents.

...the revenues resulting from SMS termination are also comparatively low when you compare this with voice termination revenues. So, if we try to relate revenues to the transaction costs of, first of all, billing at the party side but also of regulating, finding the appropriate cost, my impression would be that the cost of finding the correct cost-based rate and the cost of implementing billing systems may well outweigh the benefits that there may be with finding a very very small but correct rate.

So, yes, I agree with what you said, especially for SMS bill-and-keep it's very appropriate billing principle.

- 448. Similarly, James Mellsop from NERA noted that, in the context of SMS, he is less concerned about bill and keep because the transaction costs argument becomes relatively more important.³³⁸
- 449. Dr John Small from Covec and Dr Suella Hansen from Network Strategies expressed concerns that BAK for SMS would lead to increased levels of spam. However, it was acknowledged that these concerns could be addressed through other means, such as a clause which prevents the artificial inflation of traffic.³³⁹
- 450. In the framework for selecting a pricing principle section (see paragraph 205 above) the following factors were identified as indicators of the extent to which BAK (pure BAK or Hybrid BAK) is likely to best give effect to the section 18 purpose:

³³³ Woosh, *Submission on the Draft MTAS STD*, 7 February 2011, p 1.

³³⁴ CallPlus and Kordia, *Submission on the Draft MTAS STD*, 7 February 2011, p 4.

³³⁵ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 16.

³³⁶ Telecom, *Cross-submission on the Draft MTAS STD*, 24 February 2011, paragraph 33.

³³⁷ MTAS STD Conference Transcript, 15 March 2011, p 24, lines 4-21.

³³⁸ MTAS STD Conference Transcript, 15 March 2011, p 26, lines 7-11.

³³⁹ MTAS STD Conference Transcript, 15 March 2011, p 24-26.

- the net payments that would be required under a price based on TSLRIC benchmarking are relatively low, due to cross-network traffic being relatively balanced and/or there being a low MTR; or
 - calling externalities are significant.
451. Where one or more of these factors are present and support a move to a BAK approach, the Commission's view is that in determining whether BAK will best give effect to the section 18 purpose that it must also take into consideration the potential consequences associated with a BAK regime for SMS termination. For example, it has been argued that BAK:
- will lead to increases in spam; and
 - may not generate savings in transaction costs, given that billing systems are already in place.
452. The following sections discuss these four factors in the context of the SMS termination service.

BAK may be appropriate where cross-network traffic is relatively balanced

453. Where cross-network traffic is relatively balanced, termination payments between network operators net out, and any adverse consequences associated with a move to BAK would be minimised. The Commission has collected data from 2degrees, Telecom and Vodafone as part of this determination in order to examine the current levels of SMS traffic between these parties.
454. The ratio of incoming and outgoing SMS messages between each of the MNOs (for the period from October 2009 to September 2010) is shown Table 24, Table 25, and Table 26 below.³⁴⁰

Table 24: SMS traffic balance between 2degrees and Vodafone³⁴¹

[]

VAPI 2 / 2dAPI 2

Source: 2degrees and Vodafone interconnection invoices

Table 25: SMS traffic balance between 2degrees and Telecom³⁴²

[]

] TAPI2 / 2dAPI 2

Source: 2degrees and Telecom interconnection invoices

³⁴⁰ These traffic balance figures are based on invoices provided by 2degrees, Telecom and Vodafone.

³⁴¹ A figure greater than 100% means that 2degrees had more incoming than outgoing text messages; a figure less than 100% means that 2degrees had more outgoing than incoming text messages.

³⁴² A figure greater than 100% means that 2degrees had more incoming than outgoing text messages; a figure less than 100% means that 2degrees had more outgoing than incoming text messages.

Table 26: SMS traffic balance between Telecom and Vodafone³⁴³

[

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VAPI 2 / TAPI2

Source: Telecom and Vodafone interconnection invoices

- 455. For SMS the level of traffic imbalance is relatively low. The average level of imbalance between Vodafone and 2degrees for the 12 months from October 2009 to September 2010 was [] VAPI 2 / 2dAPI 2. For Telecom and 2degrees the average level of imbalance for the same period was [] TAPI 2 / 2dAPI 2, and between Vodafone and Telecom the average level of imbalance was approximately [] VAPI 2 / 2dAPI 2.
 - 456. The observation that SMS traffic is relatively balanced between the three mobile networks is supported by the nature of SMS communication. The two-way nature of text messaging, where both parties send messages back and forth to each other, suggests that SMS traffic is more likely to be balanced than voice traffic.
 - 457. This observation was made in submissions from parties during the MTAS Schedule 3 Investigation. In particular, at the MTAS conference John Small stated that:³⁴⁴
- ‘...what happens when somebody sends a text is that they get one back... I understand the possibility is something like 90%.’
- 458. Vodafone also stated in its submission on the Draft Report during the Schedule 3 Investigation that if an SMS is sent off-net, an SMS will be sent in return with a probability of [] VRI.³⁴⁵
 - 459. At the MTAS STD Conference, Hayden Glass from Vodafone stated:³⁴⁶

As Network Strategies and everybody else agrees, SMS is not an expensive service. But, if we were having to terminate 50 million of them for free every month, we would find that, even though a very small cost per SMS, that's still a significant competitive burden, and there doesn't seem to me that there's any particular reason to abandon cost-based pricing in this case...

- 460. In order to assess the possible impact that a move to pure BAK pricing principle (as opposed to a cost-based termination rate) would have on each of the MNOs, the Commission has considered the overall level of SMS traffic imbalance observed for each operator over the period from October 2009 to September 2010. This is shown in Table 27 below.

Table 27: Overall SMS traffic imbalance for each MNO (October 2009 to September 2010)

³⁴³ A figure greater than 100% means that Telecom had more incoming than outgoing text messages; a figure less than 100% means that Telecom had more outgoing than incoming text messages.

³⁴⁴ MTAS Schedule 3 Investigation, *Conference Transcript*, 2 September 2009, p 71.

³⁴⁵ See paragraph 377 of Vodafone’s submission on the MTAS Schedule 3 Investigation Draft Report.

³⁴⁶ MTAS STD Conference Transcript, 15 March 2011, p 27-28.

[

] VAPI 2 / TAPI 2 / 2dAPI 2

Source: Vodafone, Telecom and 2degrees interconnection invoices

461. For the period from October 2009 to September 2010, Vodafone was a net [] VAPI 2 of SMS messages. Vodafone terminated [] VAPI 2 messages on its network that it sent to other networks. Telecom and 2degrees, on the other hand, were net [] TAPI 2 / 2dAPI 2 of SMS. Telecom sent [] TAPI 2 messages than it received, while 2degrees sent [] 2dAPI 2 SMS than it received.
462. Based on a forward-looking cost-based termination rate of 0.06 cpSMS, Vodafone would have [] VAPI 2 over the 12 month period. The Commission considers that this value is relatively insignificant compared to overall revenues and investment in the mobile market. As Telecom and 2degrees were net [] TAPI 2 / 2dAPI 2 of text messages between October 2009 and September 2010, under pure BAK they would have [] TAPI 2 / 2dAPI 2 of [] TAPI 2 and [] 2dAPI 2 respectively.³⁴⁷

BAK may be appropriate where calling externalities are significant

463. Positive calling externalities arise where the benefits of a call are enjoyed not only by the party making (and paying for) the call, but also by the recipient of the call. The party making the call will typically take into account their own private benefit when deciding how many calls to make (and their duration). To the extent that the receiving party also benefits, the level of calling may be too low from a societal perspective.
464. As noted by WIK-Consult:³⁴⁸

If such an asymmetric calling pattern exists all the time, i.e. the one person calls and pays while the called persons benefits but does not pay, the result may be that a smaller number of calls will be initiated due to the fact that the person that pays all the time finds that the price will exceed his/her willingness to pay. If both persons were made to share in the price of calls, more calls would be placed and both would benefit.
465. SMS is a two-way form of communication where parties send messages back and forth between each other, thereby sharing the cost of the conversation. As noted above, when an SMS is sent, there is a high probability that one will be received in return (approximately 90%). As a result, parties are likely to internalise any calling externality associated with SMS communication.
466. Accordingly, the Commission considers that, in the context of SMS termination, calling externalities are not present to the extent that they justify a departure from a forward-looking cost-based methodology.

³⁴⁷ These are the net SMS termination payments that would have been made by Telecom and 2degrees under a cost-based price of 0.06 cents per SMS.

³⁴⁸ WIK-Consult, *Support to the Commerce Commission in its current Standard Terms Determination for the MTR*, 1 November 2010, p 11.

BAK could lead to an increase in spam

- 467. Spam is the main issue that has been raised in relation to BAK for SMS. Vodafone, Telecom and TUANZ in particular have raised concerns around the potential for BAK to lead to increases in SMS spam.
- 468. The Unsolicited Electronic Messages Act 2007 (UEMA) provides for limits on spam. The provisions of the UEMA are reflected clause 5.6 of Annex 3 to Schedule 3 of the MTAS STD.³⁴⁹
- 469. Despite the provisions of the UEMA, Vodafone submitted that a low cost-based rate should be used to address concerns regarding spam. Vodafone stated that:³⁵⁰

Pricing SMS at zero cost will encourage firms specialising in unsolicited commercial messaging. Operators need to have protections against the arbitrage opportunities that setting termination prices at zero create. The arbitrage risks are real and even easier to exploit than for email, where spam accounts for more than 90% of traffic received by Vodafone New Zealand and destined for its customers.

- 470. Vodafone provided a number of examples of other countries where SMS spam has become problematic. Vodafone noted that while pure BAK pricing in itself is not the cause of growing SMS spam in all these countries, moving from cost based pricing to pure bill and keep will inevitably open up greater commercial opportunities for firms specialising in spam.³⁵¹
 - 471. TUANZ submitted that it is very concerned about SMS spam and its growing impact on customers. TUANZ submitted that in its view, some of the decisions outlined in the Draft STD (i.e. pure BAK for SMS) would make it easier for SMS spam to be sent than is the case today.³⁵²
 - 472. As described above, although Telecom supported pure BAK in its submission on the Draft STD, it then later revised its position due to the potential impact that on the level of SMS spam. Telecom now favours a cost-based rate for SMS termination.³⁵³
 - 473. Dr Suella Hansen from Network Strategies stated she would be comfortable with BAK for SMS, provided that there is some other means to deal with the potential for spam:³⁵⁴
- Our position is that the costs are very very low for SMS traffic and on that basis bill-and-keep would seem to be appropriate. The one concern that we did have was spam. But as Ross said, if that could be addressed somehow independently then we would have no concerns about bill-and-keep for SMS traffic.
- 474. 2degrees noted in its cross-submission that "neither Vodafone or Telecom has explained exactly how concerns around spam (or network congestion) would

³⁴⁹ See clause 5.6 of the STP.

³⁵⁰ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 48, paragraph 207.

³⁵¹ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 49-50, paragraphs 208-210.

³⁵² TUANZ, *Submission on the Draft MTAS STD*, 7 February 2011, p 2.

³⁵³ Telecom, *Cross-submission on the Draft MTAS STD*, 24 February 2011, paragraph 33.

³⁵⁴ MTAS STD Conference Transcript, 15 March 2011, p 26, lines 13-16.

arise and/or where existing legislation directed at preventing spam is insufficient".³⁵⁵

- 475. The Commission considers the potential for SMS spam is likely to able to be solved practically, for example through the use of an artificial inflation of traffic (AIT) provision in the STD.³⁵⁶ Furthermore, operators are free to charge a positive rate for SMS in the retail market, which is likely to alleviate concerns about spam to some extent. As noted by 2degrees, this is a key distinction between e-mail and SMS spam.³⁵⁷
- 476. However, at the MTAS STD Conference, Hayden Glass from Vodafone argued that "setting a price below cost is in itself something unusual that you wouldn't normally do because of the incentive effects" and that "it's nice and simple to solve this problem just with a low cost-based rate".³⁵⁸
- 477. The Commission agrees that a forward-looking cost-based rate for SMS termination would directly address any distortions associated with a BAK regime, such as the potential for increased spam.

BAK may not generate savings in transaction costs

- 478. In reaching the preliminary view that pure BAK is likely to best promote competition for the long-term benefit of end-users, the Commission noted that pure BAK leads to lower transaction costs through the avoidance of measuring and billing systems.³⁵⁹
- 479. Submissions on the Draft STD argued that this is may not be the case. For example, Vodafone noted that billing systems are already in place, and the ongoing monitoring of SMS traffic is likely to be required even under a BAK regime.³⁶⁰ Similarly, Analysys Mason noted at the MTAS STD Conference that the cost-savings associated with pure BAK are likely to be theoretical.³⁶¹
- 480. The Commission notes that there will be ongoing operational costs associated with billing even though the systems are already in place. For example, there are likely to be costs associated with systems maintenance and staff need to be employed to manage the billing process.

BAK could emerge commercially if a TSLRIC rate is provided in the MTAS STD

- 481. 2degrees noted at the conference that if a cost-based rate was set in accordance with the IPP, it is possible that BAK would emerge through commercial negotiations in order to avoid the costs of billing. Bill McCabe from 2degrees stated:³⁶²

³⁵⁵ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 7, paragraph 2.11.

³⁵⁶ This is discussed further in paragraphs 624 to 631.

³⁵⁷ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 7, paragraph 2.13.

³⁵⁸ MTAS STD Conference Transcript, 15 March 2011, p 27, lines 11-12 and 32-33.

³⁵⁹ Commerce Commission, *Draft MTAS STD*, 23 December 2010, p 44, paragraph 217.

³⁶⁰ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 46, paragraph 196.

³⁶¹ MTAS STD Conference Transcript, 15 March 2011, p 26, lines 22-29.

³⁶² MTAS STD Conference Transcript, 15 March 2011, p 29, lines 1-13.

...when you start getting into whether, if it's 0.1 or 0.16 of a cent, then it's simpler to go to bill-and-keep. As we've discussed separately, the SMS spam issue is dealt with by many operators around the world, and I think there are probably systems in place here, I don't know; but even if it was 0.1 cent or bill-and-keep, which I don't regard bill-and-keep as free, I'd regard it as a zero price where you gain reciprocity. So it's not - it's a price of zero but it's not for free because you get something in return.

So, I think, whether it's bill-and-keep or it's a very very low price which is reflected in cost, there's probably not much difference between us. I think if we were to pick a rate of 0.15 as the Commission has proposed, I think you will find that most of the operators around the room would implement bill-and-keep to avoid the costs of billing at the end of the month. So, you might find that you achieve bill-and-keep even if you regulate a price.

482. Telecom agreed that it is possible that in the event that a cost-based regulated rate was set for SMS termination, BAK may result from commercial negotiations:³⁶³

We'd be very comfortable with 0.15, 0.25 of a cent as a termination rate. We thought we were comfortable with bill-and-keep as an option as well, although in the last month as we have thought some more about that and as our experience managing the Text Me Race promotion has deepened, we've now got a preference for a small charge for SMS termination that, as Bill says, you know, if in time we decide we don't need it we can move commercially to the bill-and-keep model.

483. Vodafone has also noted that pure BAK would be a natural outcome of commercial agreements if it would avoid operators from incurring unnecessary costs.³⁶⁴ At the conference Paul Partridge from Vodafone stated that "I think parties will certainly consider bill-and-keep and, if it's sufficiently economically efficient for them to do so".³⁶⁵

Conclusion on whether a forward-looking cost-based price or BAK for SMS termination is likely to best give effect to the purpose set out in section 18 of the Act

484. The benchmarking exercise undertaken above demonstrates that the cost of SMS termination is very low. Furthermore, data on traffic flows indicates that SMS traffic is relatively balanced between the three MNOs in New Zealand, suggesting that BAK is an appropriate pricing principle for SMS termination.
485. However, submissions on the Draft STD indicated that there is concern amongst the industry that a BAK pricing principle would lead to increases in spam, which could have an adverse impact on consumers.
486. In order to mitigate against the risk of SMS spam, the Commission considers that a forward-looking cost-based price for SMS termination is appropriate. In the event that SMS spam concerns do not eventuate, and where a move to BAK for SMS termination would lead to a significant reduction in transaction costs, then BAK may emerge through commercial negotiations in the future.

³⁶³ MTAS STD Conference Transcript, 15 March 2011, p 32, lines 3-9.

³⁶⁴ Vodafone, Submission on the Draft MTAS STD, February 2011, p 47, paragraph 201.

³⁶⁵ MTAS STD Conference Transcript, 15 March 2011, p 30, lines 9-10.

Identifying a cost-path for the SMS termination service

487. Cost path in the context of voice termination is discussed in paragraphs 349 to 358 above. The Commission has been unable to identify a benchmarked cost-path for the SMS termination service, as none of the three SMS benchmark countries have forward estimates of the costs of SMS termination.
488. The Commission is of the view that it is likely that the costs of SMS termination will fall over time (as is the case with voice termination). However, in the absence of benchmarked reductions in the costs of providing the SMS termination service over time, no cost-path has been applied to the SMS termination rate of NZ0.06 cpSMS.

Conclusion on the pricing principle and core prices for the SMS termination service

489. In this section the Commission has determined the core prices for SMS termination. The Commission has determined that:
- in order to mitigate against the risk of SMS spam, the Commission considers that a forward-looking cost-based price for SMS termination is appropriate;
 - the lower bound of the benchmark set is most likely to reflect the costs of providing SMS termination in New Zealand in 2011; and
 - no cost-path is to be applied for the SMS termination service, as no benchmarked cost-paths were identified.

SECTION F. CONDITIONS

Purpose

490. The purpose of this section is to set out the Commission’s views on whether any conditions (including any terms and conditions on which the STD is made, or any actions a party must take – or refrain from taking – in relation to the STD) are necessary to remove any remaining barriers to expansion for small operators.
491. Specifically, this section considers whether a limitation or prohibition of on-net off-net price differentials, such as an end-user “non-discrimination” condition, is appropriate. Such a condition would restrict the Access Provider’s ability to set a lower price per minute and per SMS to subscribers on its own network compared to subscribers on other mobile networks,³⁶⁶ thereby ensuring that smaller Access Seekers can use the regulated MTRs to effectively compete.
492. In determining whether a condition should be imposed the Commission has considered whether the cost-based MTRs implemented by this MTAS STD are likely to effectively address the competition issues identified in paragraphs 48 to 49 above.
493. This section addresses the following questions in relation to on-net off-net price differentiation:
- is there jurisdiction to impose an on-net off-net price non-differentiation condition?
 - is on-net off-net price differentiation pro-competitive or anti-competitive?
 - is a non-discrimination condition appropriate?
 - what are the options for implementing an on-net off-net price differentiation condition?

Conditions applicable to on-net off-net price differentiation

Statutory provisions providing jurisdiction to impose conditions

494. Sub-sections 30O(1)(d) and (e) of the Act provide for the Commission to specify terms, conditions or actions in relation to any STD. Sub-sections 30O(1)(d) and (e) state:

- 30O Matters to be included in standard terms determination: general
- (1) A standard terms determination must—
...
 - (d) specify the terms and conditions (if any) on which the standard terms determination is made; and

³⁶⁶ For the purpose of this MTAS STD the Commission uses the term on-net off-net price differentiation to describe this type of retail pricing.

- (e) specify the actions (if any) that a party to the standard terms determination must take or refrain from taking.
495. In specifying any terms and conditions, or actions that a party must take or refrain from taking, the Commission must make the decision that will, or will be likely to, best give effect to s18 of the Act.³⁶⁷
496. In making an STD, the Commission must reach a decision that will best give effect to s18. In regulating a wholesale service, section 30O grants the Commission a wide range of measures to do so, including setting the terms and conditions of supply, the timeframes in which a service must be supplied, additional terms and conditions on which the decision is made, and the acts parties must take or refrain from taking.

Basis for conditions

497. 2degrees have requested that the Commission impose a three-year retail price “non-discrimination” provision in the MTAS STD in order to prevent Telecom and Vodafone from using substantial differences in the price of on- and off-net calls and texts to deter customers from changing service providers.³⁶⁸
498. In the Commission’s Homezone determination,³⁶⁹ Vodafone requested that the Commission impose a similar obligation “preventing Telecom from price discriminating against calls to Vodafone local customers”.³⁷⁰ Vodafone described the obligation as a “condition surrounding retail pricing behaviour”,³⁷¹ that was necessary because otherwise “Telecom will be in a position to deter customer switching and therefore lessen the ability for the determination to promote competition for the long-term benefit of end-users.”³⁷²
499. In HomeZone, the effect of Vodafone’s proposal was that voice calls from Telecom’s residential customers to Vodafone local customers within the same local calling area would not attract a calling charge – that is, free local calling would apply to any call to a local phone number, regardless of the network operator providing a local calling service to that customer.
500. In its cross-submission on the Homezone determination Vodafone stated that:³⁷³

‘a retail price discrimination condition is appropriate to prevent Telecom from using its market power in the local services market to prevent Vodafone’s market entry. Section 30 in the Telecommunications Act 2001 permits, and in this instance obliges, the Commission to impose this type of condition. This is not retail price control’; and

³⁶⁷ Act, s19.

³⁶⁸ See, e.g., 2degrees submission on the Commission’s Draft STD for the MTAS, which are discussed variously in sections 2-5, and 7-8.

³⁶⁹ Commerce Commission, *Final Determination under section 26 of the Telecommunications Act 2001 in the matter of application for determination of designated access services under section 27 of the Act by Vodafone New Zealand Limited*, 28 September 2006 (the **Homezone determination**).

³⁷⁰ Vodafone, *Application for Determination for Designated Access Service*, 13 January 2006, para. 156.

³⁷¹ Vodafone, *Application for Determination for Designated Access Service*, 13 January 2006, para. 155.

³⁷² Vodafone, *Application for Determination for Designated Access Service*, 13 January 2006, para. 155.

³⁷³ Cross-submission on Vodafone’s interconnection application,(Homezone), 11 July 2006, page 2, paragraph 6 and page 9, paragraph 48.

'the non-discrimination requirement is not retail price regulation as Telecom argues. The requirement simply pegs the price to call a Vodafone local number to the price of calls to third party networks, which Telecom remains entirely free to determine.'

501. The Commission concluded that:³⁷⁴

The introduction by Telecom of a retail premium specifically for local voice calls made to Vodafone local numbers, compared to local voice calls to other networks, would be detrimental to competition in the local access market, and thus would deny end-users some of the benefits from increased competition. Given that such calls will not involve interconnection payments, and will not result in Telecom incurring costs beyond those caused by other local voice calls, any such discriminatory charge cannot be justified.

502. The Commission noted that a premium for local calls to Vodafone local numbers would reduce Vodafone's ability to compete,³⁷⁵ as 2Degrees has noted in the present proceedings. However, there were additional considerations supporting the retail price non-discrimination provision:

- Telecom's local calling plans did not differentiate between calls to different local numbers;³⁷⁶
- end-users would not necessarily recognise that their local calls might be subject to a fee;³⁷⁷ and
- local voice service is often associated with take-up of other services (broadband, value-added services like voicemail and call waiting, etc.), and the commensurate loss of service from those switching would mean that Telecom would have a significant incentive to deter switching.³⁷⁸

503. In the Homezone determination , the Commission imposed an absolute ban on retail price differentiation of calls related to the determined service:³⁷⁹

The Commission requires that Telecom does not impose any charge on its retail customers that would discriminate between local voice calls made by those customers to Vodafone local numbers and local voice calls made to Telecom's and any other carriers' local numbers. This requirement applies to calling which is part of a retail bundle as well as to calls which are charged for on a usage basis.

504. The Commission has considered a number of limitations, conditions, and express terms and conditions that impose regulation at the retail level, including a ban on end-user porting out fees in the local mobile number portability (LMNP) determination, and to refund bitstream customers for partial billing period in the determination of TelstraClear's wholesale bitstream application.³⁸⁰
505. In the MTAS STD process, Vodafone and others have made various requests for provisions that will extend regulation to the retail level, some of which have

³⁷⁴ HomeZone Determination, para. 170.

³⁷⁵ HomeZone Determination, para. 150.

³⁷⁶ HomeZone Determination, paras. 148-149.

³⁷⁷ HomeZone Determination, paras. 151, 153.

³⁷⁸ HomeZone Determination, para. 152.

³⁷⁹ Homezone Determination, para. 172.

³⁸⁰ Draft determination on the application for determination for access to an interconnection with Telecom's fixed PDN service 'Bitstream Access', 21 April 2005.

been agreed by the Commission and incorporated into the STD General Terms, including:

- a prohibition on the “artificial inflation of traffic”, which was originally raised in relation to Vodafone’s concern with a 2degrees retail promotion;
- a ban on the use of SIM boxes by retail customers; and
- a ban on SMS spam.

Conclusion on jurisdiction to impose conditions

506. Consistent with the Commission’s previous decisions in Homezone and in the LMNP determination, the Commission considers that s30O authorises, and if necessary to best give effect to section 18 requires, the Commission to impose conditions to an STD which have an impact on retail markets where the Commission is of the view those conditions are necessary to best give effect to the regulation of the wholesale services in the STD.
507. The Commission is satisfied that it has jurisdiction to impose an appropriately worded provision that would have a direct effect at the retail level where that provision is incidental to, and necessary to support, regulation of the wholesale service(s) that are the subject of an STD.
508. The question is whether such a provision is necessary in this STD to best give effect to the section 18 purpose.

Overview of the competitive benefits and detriments of on-net off-net price differentiation

Introduction

509. On-net / off-net price differentials occur when a mobile network operator charges lower prices for calls to phones on the operator’s own network than for calls to recipients on a different (fixed or mobile) network. As discussed in paragraphs 57 to 59 above, and in further detail below, this form of price discrimination is prevalent in the mobile telecommunications sector in New Zealand.³⁸¹ It is also common in developing markets around the world³⁸² and throughout the European Union.
510. Price discrimination is often pro-competitive and welfare enhancing. A paper submitted by Vodafone noted that the economic literature and pricing practices

³⁸¹ Some of the retail plans that provide low on-net / high off-net rates focus on small on-net calling circles (for example, BestMates, TalkZoneZero, MyFavourites), while others apply more broadly to all on-net calls or SMS (such as TXT5000, \$2 for 2 hours, Top Up Bonus, Mega20, Starter2000 and Motormouth).

³⁸² Telecommunications Management Group, *On-net off-net Price Differentiation; Review of International Precedent*, 7 February 2011.

observed in mobile markets globally show that both small and large MNOs use on-net discounts strategically to compete for subscribers, stating:³⁸³

on-net/off-net price differentiation can be used as an effective tool in competition for subscribers – particularly to construct a calling circle base ... but it is just as effective in the hands of a small networks... {which} can introduce aggressive on-net discounts ... without forsaking significant revenue, whereas a large network faces substantial revenue losses from large on-net discounts.

511. A counter viewpoint is provided by the Mobile Challengers group, which stated in an issues paper from 2007:³⁸⁴

Even when Challengers provide on-net offers, they do not succeed in competing with larger operators. Each time, the conclusion is the same: due to a large customer base and the network effect this creates, **larger operators are better placed to provide on-net offers and Challengers are unable to effectively compete against this pricing strategy and to react commercially with the provision of this kind of offers.**

512. Furthermore, in competitive markets, cost-based MTRs are likely to prevent a dominant service provider from using price differentiation in a way that will undermine competition.
513. However, as was acknowledged at the MTAS Conference, in some circumstances price discrimination can have an anti-competitive effect if it hinders entry and/or expansion. In the early stages, when a new entrant tries to get a foothold in the market, the degree of on-net off-net price differentiation may prevent effective competition from evolving.
514. Under these circumstances constraints on price differentiation may be necessary, as a temporary measure, to allow market competition to develop to the point where cost-based MTRs can, on their own, eliminate the possibility of this anti-competitive effect.

Benefits of on-net off-net price differentiation

515. The main benefits to customers of on-net off-net price differentiation are:
- increased numbers of customers may purchase mobile services where those services are available at a lower price. Once these additional customers have been ‘priced into the market’ they may contribute to positive network externalities; and
 - consumers may receive significant value from calling plans based on discounted on-net rates. For example, Vodafone charges \$6 per month for

³⁸³ *Vodafone comments on the draft final report by Tera Consultants and Hogan Lovells on future of interconnection charging methods*, 25 February 2011, page 7, paragraphs 35-36. Paper attached to Vodafone cross-submission on the draft MTAS STD.

³⁸⁴ Mobile Challengers, *The Mobile Challengers call for a regulation that takes into account the anticompetitive effect of larger operators’ on-net offers - A position paper on the abuse made by large operators of the on-net effect to lock in their customers*, December 2007, page 4 (emphasis in original).

the BestMate add-on, advertising that “on average, Vodafone Prepay customers save \$300 a month on call & TXTing with BestMate”.³⁸⁵

516. On-net off-net price differentiation also provides the following benefits to MNOs:

- price discrimination is conducive to increasing producer surplus - a firm that can extract from each consumer the maximum amount they are willing to pay will maximise its revenues; and
- as Ordover (2008) explains, price discrimination can be a means for firms to recover joint and common costs efficiently by placing the largest mark-up on prices for services or sub-services where demand is inelastic thereby minimising distortions and contributing to social welfare.³⁸⁶

Detriments of on-net off-net price differentiation

517. High off-net calling prices imposed by a large operator can create switching barriers in the retail mobile market, potentially limiting the expansion of small operators.
518. Harbord and Pagnozzi note that a key insight from the literature regarding the impact of calling externalities and network effects is that mobile networks’ incentives to implement on-net off-net differentials derive from both:³⁸⁷
- high mobile-to-mobile termination charges which exceed marginal termination costs; and
 - a strategic incentive to reduce the number of calls that subscribers on rival networks receive, reducing the attractiveness of rival networks, and hence their ability to compete.
519. The first of these can be addressed by setting a benchmarked TSLRIC price. Therefore, cost-based MTRs are likely to go some way towards reducing on-net off-net price differentials.
520. Ofcom has noted that on off-net price differentials in the UK have significantly decreased over time as MTRs have reduced.³⁸⁸ Specifically, Ofcom has previously stated that:³⁸⁹

...mobile-only users may expand their usage as a consequence of falling per minute charges. In Section 6 of the May 2009 consultation we concluded that as a result of a decline in MTRs over the last few years, the differential between on- and off-net MTM call prices has declined significantly. We believe this has partly been achieved via a reduction of the off-net charges which are directly affected by the level of MTRs (unlike on-net calls). Figure 52

³⁸⁵ See <http://www.vodafone.co.nz/plans/prepay/best-mates.jsp>.

³⁸⁶ Recovering Fixed and Common Costs for Mobile Network Operators in Europe, Compass LexEcon, J. A. Ordover, 2008.

³⁸⁷ Harbord and Pagnozzi, *Network-based price discrimination and ‘Bill-and-Keep’ vs. ‘Cost-Based’ Regulation of mobile termination rates*, 2010, p 5.

³⁸⁸ Ofcom, *Wholesale mobile voice call termination: Statement*, 15 March 2011, p 109, paragraph 7.27.

³⁸⁹ Ofcom, *Wholesale mobile voice call termination: Market review*, Volume 3 - Supporting Annexes, 1 April 2010, p 212, paragraph A13.139.

shows that off-net MTM minutes per subscriber have significantly increased relative to on-net call minutes (although they are still lower), which may partly be the result of narrowing retail price differentials between the two types of calls, encouraged by falls in MTRs. This may suggest that historically a decline in MTRs has led to an expansion of calls. In addition, in the May 2009 consultation (annex 5) we provided data showing that usage per capita tends to be higher in countries with low MTRs.

- 521. However, a forward-looking cost-based termination rate will not prevent a larger network operator from imposing off-net surcharges at the retail level in order to reduce the attractiveness of a smaller network. Therefore, the strategic incentive for high off-net pricing, which results from the presence of calling externalities, is not addressed through the implementation of a cost-based pricing methodology.
- 522. This point was emphasised by Professor Haucap at the MTAS STD Conference. Professor Haucap stated:³⁹⁰

There's very little that another operator can do in order to attract calls if the two large networks make it very expensive to call outside their own network.

I don't know exactly how he could attract the calls because he cannot set the price of the outgoing network, obviously. That wouldn't be a problem if there would be no call externalities and people wouldn't be bothered and they wouldn't want to be called anyway. But my suspicion is that people want to be called as well, so it makes - that's also what the evidence suggests, that people find it unattractive to join a network where they don't receive calls and SMS, and that's something that cannot be controlled no matter how low the termination rate is, because the retail price of the incumbent networks will in the end determine how many calls will leave their own network.

And when that is very expensive, no calls will end up in the small network and is something outside the control of the small network, so that's something that cannot be regulated by lowering termination rates, and the strategic incentives will remain in the market.

- 523. Consequently, although the Commission expects a reduction in MTRs to a forward-looking cost-based level to reduce on-net off-net price differentials in the New Zealand market, any competition concerns associated with the strategic incentive for large network operators to impose high off-net prices will not be directly addressed through the introduction of cost-based termination rates.
- 524. Even a move to BAK would be unlikely to eliminate on-net off-net price differentials in the retail mobile services market per se. As noted by 2degrees, reducing MTRs (even to BAK) does not address the strategic incentive large networks have to use off-net surcharges to make a small network unattractive to end-users.
- 525. Therefore, unless the introduction of cost-based MTRs leads to a significant reduction in on-net off-net price differentials, high off-net calling prices are likely to continue to limit the expansion of small operators and thereby prevent effective competition from evolving in the New Zealand retail market.

³⁹⁰ MTAS STD Conference Transcript, 16 March 2011, p 153, lines 13-27.

Conclusion on the competitive benefits and detriments of on-net off-net price differentiation

526. The welfare implications of on-net off-net price differentiation can be difficult to quantify, as acknowledged by most parties and experts at the MTAS Conference.
527. Operators have both a cost-based and a strategic incentive to price off-net voice and SMS differently, as discussed in paragraphs 518 to 525.
528. The cost-based incentive is directly linked to the underlying costs of providing the relevant services. This incentive is likely to diminish as MTRs become cost-based and smaller operators are able to achieve the same cost-advantages (for example, due to economies of scale) as the larger operators by expanding its own network. Cost-based MTRs will allow the smaller MNO to offer any-net rates that can undercut the high-off net rates of the larger MNO. This is likely to trigger a response from the incumbent operators and they are likely to reduce their off-net rates.
529. However, the strategic incentive for larger incumbent operators to make subscribing to a smaller network operator less attractive, by setting high off-net surcharges, will remain even in a situation where MTRs are regulated at cost. The negative effects on competition from this type of strategic behaviour are likely to be more severe than when cost-based incentives drive the degree of differentiation, because it has the effect of artificially reducing the volume of off-net calls thereby causing a decrease in consumer surplus.
530. If the operators continue to act on this incentive even after MTRs are regulated at cost, this is likely to limit the expansion of small operators in the market and prevent effective competition from developing.

Does evidence from the NZ market suggest that on-net off-net price differentials have created a barrier to competition?

531. The Commission has assessed whether on-net off-net price differentiation is likely to have detrimental effects on competition in the New Zealand market. As part of this assessment the Commission has looked at a range of market characteristics. The following New Zealand market features identified in the Section B of this MTAS STD decision are likely to indicate that on-net off-net price differentiation is responsible for retaining the barrier to expansion:
 - high price differences between on-net and off-net calls and SMS: for the 2010 calendar year the average on-net discount was 56.6% in aggregate for voice and 70.7% for SMS;³⁹¹
 - low cross-network traffic: cross-network traffic as a proportion of total mobile originated traffic is on average 12.6% for voice calls and 11.2% for SMS in aggregate for the 2010 calendar year;³⁹²

³⁹¹ See paragraph 63 above.

³⁹² See paragraph 71 above.

- regional concentrations of market share: Vodafone has high market shares in Northland and Auckland, and by implication Telecom has high market shares in all other regions;³⁹³ and
 - high churn rates: New Zealand's overall churn rates are higher than other countries' churn rates, and
[] 2DCOI.³⁹⁴
532. These factors also need to be considered in light of the market conditions in jurisdictions where NRAs have imposed a non-discrimination provision of some form which affects retail pricing. The countries identified by Telecommunications Management Group, on behalf of 2degrees, have market conditions that include:³⁹⁵
- a high proportion of voice and/or SMS traffic originated and terminated on-net;
 - high price differences between on and off-net calls and/or SMS; and
 - a high degree of national market concentration and/or high degree of regional concentration of market share.
533. Offsetting these factors, both Vodafone and Telecom submitted that 2degrees' ability to attract subscribers in the New Zealand market, and willingness to invest in its business, mean that there are no barriers to competition.³⁹⁶ In its 22 March 2011 press release, 2degrees announced that it had attracted 580,000 customers in its 19 months of operation in New Zealand.
534. Recent data that the Commission has collected shows that more than 18 months after launch the market share of 2degrees in terms of total traffic volume and revenue is still small compared to the incumbent MNOs, and is growing at a significantly slower rate than its subscriber numbers.

Conclusion on whether on-net off-net price differentiation is a barrier to competition

535. Smaller operators in the mobile market are expected to face a range of potential barriers to expansion due to the early mover advantages of the incumbents, such as for instance higher population and regional network coverage, established distribution channels and higher market awareness of their services/brands.
536. Despite relatively strong growth in subscriber market share that 2degrees have experienced over the 18 months they have been in the market³⁹⁷, its market share in terms of traffic volume (total originated mobile calls) and total revenues is small compared to the incumbent MNOs, and [] 2DCOI as

³⁹³ See paragraphs 87 to 97 above.

³⁹⁴ See paragraphs 98 to 107 above.

³⁹⁵ Telecommunications Management Group, *On-net/Off-net Price Differentiation: Review of International Precedent*, 7 February 2011.

³⁹⁶ 2degrees has announced an intention to invest \$100m in expanding its network and plans to open 30 additional retail stores, <http://www.investinnz.co.nz/news/new-zealand%20%80%99s-mobile-provider-2degrees-plans-invest-100-million-its-network-over-next-two-years-7b94>

³⁹⁷ [] VNZRI. See Vodafone submission on draft MTAS STD, 7 February 2011, page 21, paragraph 92.

discussed at paragraphs 103 to 104 above. This suggests that 2degrees' growth measured by these parameters is likely to have been impeded, at least to some extent, by high on-net off-net price differentials (on average 56.6% for voice and 70.7% for SMS), and that these differentials makes 2degrees' attempt to attract high-usage and high-value customers more difficult.

537. At the MTAS STD Conference James Mellsop of NERA on behalf of Telecom acknowledged that if the specific market characteristics observed in New Zealand do not change after a relatively short time following the Commission's final decision, the anti-competitive effects of on-net off-net differentiation are present.³⁹⁸

Is a condition limiting on-net off-net price differentiation appropriate?

Introduction

538. The market conditions described above suggest that on-net off-net price differentiation is being used to, and having the effect of, constraining competition in New Zealand's mobile markets. The Commission needs to consider whether a reduction in the MTR to cost is likely to remove the anti-competitive impact of on-net off-net price differentiation. If not, then the Commission needs to consider whether a limit or prohibition on on-net off-net price differentiation is necessary and appropriate to address these market conditions.
539. Hoernig considered the merits of a limit on/off-net differentials or off-net margins. Hoernig noted that:³⁹⁹

“...there is a trade-off between total welfare and consumer surplus, at least in the short run. Increasing efficiency by reducing off-net call prices also lowers the competitive intensity in the market, with networks charging higher fixed fees. This already implies that the sectoral regulator's objectives need to be precisely defined in order to decide whether intervention is warranted or not.

Imposing limits on the on/off-net differentials of both networks not only lowers the off-net price, but also increases the on-net price. That is, while one inefficiency is reduced a different one arises. We show with the help of an example that as a result “anything goes”: Depending on the shape of demand and other parameters of the model, the imposition of uniform pricing or unregulated price discrimination may be optimal, or even the imposition of some intermediate limit on price discrimination.

If networks are asymmetric, then the imposition of a limit on the on/offnet differential of only the large network raises total welfare and reduces competitive intensity, increasing both networks' profits but lowering consumer surplus. Thus it is a measure that could be used in order to protect consumers in the long run, but it has costs in the short run.”

540. Sauer stated that:⁴⁰⁰

³⁹⁹ Hoernig, S., *Tariff-mediated network externalities: Is regulatory intervention any good?*, CEPR Discussion Paper No. 6866, June 2008, p 1-2.

⁴⁰⁰ Sauer, D., *Welfare implications of on-net/off-net price discrimination*, 27 January 2011, pages 4 and 19.

“Given these quite negative results of on-net/off-net price discrimination (connectivity breakdown, scope for predatory behavior, etc.), the question arises whether forbidding firms to price discriminate would be welfare enhancing. ...

Consumers benefit from price discrimination in all settings considered. High off-net prices resulting in an increased average calling price charged by networks in the presence of externalities seem to be bad for consumers at a first glance. However, price discrimination does not harm consumers since it is accompanied by lower on-net prices and fixed fees which overcompensate the rising average calling price. Allowing firms to charge different on-net and off-net prices thus has a pro-competitive effect serving consumers.

The desirability of price discrimination thus depends on the aim of regulation.”

541. If a forced reduction in off-net prices reduces the intensity of competition between operators this will lead to a reduction in total welfare. In determining whether a condition limiting or prohibiting on-net off-net price differentiation is appropriate, the Commission will need to consider the potential trade-off between the effects on competition and dynamic efficiencies related to the long term evolution of the market, and the short-term distortive effects and skewing of calling patterns due to high off-net prices.

Benefits of imposing a condition limiting on-net off-net price differentiation

542. A condition limiting on-net off-net price differentiation would directly address the competition issues identified by 2degrees and described by the Commission in the paragraphs 48 to 49 above.
543. 2degrees submitted that the following New Zealand market conditions support providing a non-discrimination condition:
 - increasing competition has not addressed on-net / off-net differentials and associated competition problems, suggesting that market tipping points have been passed;⁴⁰¹
 - current pricing structures have softened competition and created a barrier to new entry and expansion;⁴⁰²
 - more New Zealanders are influenced by the network used by family and friends than in other countries;⁴⁰³
 - on-net call prices influence more New Zealanders’ choice of providers than consumers in other countries;⁴⁰⁴ and
 - more New Zealanders have multiple mobile phones than in other countries.⁴⁰⁵
544. 2degrees also submitted that as a result of the current structure of the mobile market in NZ, a reduction in MTRs would not be enough. It further pointed out that the importance of market structure is missing from the Commission’s analysis.

⁴⁰¹ 2degrees submission on the draft MTAS STD pages 3-4, par. 1.8-1.11

⁴⁰² 2degrees submission on the draft MTAS STD page 5, par. 1.18-1.19

⁴⁰³ 2degrees submission on the draft MTAS STD page 5, par. 1.21

⁴⁰⁴ 2degrees submission on the draft MTAS STD page 5, par. 1.22

⁴⁰⁵ 2degrees submission on the draft MTAS STD page 5, par. 1.23

Detriments of a condition limiting on-net off-net price differentiation

- 545. A condition limiting on-net off-net price differentiation risks distorting price signals and preventing the emergence of flexible and innovative pricing structures that could achieve more effective responses from subscribers. The importance of innovation with regard to pricing is likely to be particularly important in a dynamic market with rapid technological development, like the retail markets for mobile voice and data services.
- 546. In addition to the potential harm caused by restricting retail pricing and raising the average calling prices for a substantial number of subscribers that benefit from the relevant plans today, a prohibition of on-net off-net price differentiation may also affect the investment incentives of MNOs. Vodafone noted in its submission that a (temporary) non-discrimination ban may set a precedent for future regulation which could retard efficient entry and investment.⁴⁰⁶ If a non-discrimination condition discourages investment by the existing MNOs or by a new entrant in the future this will have an adverse effect on dynamic efficiency.
- 547. Regulators overseas have recognised the potential anti-competitive behaviour and anti-competitive effects which large on-net off-net price differentials may create, and have intervened to prevent this type of behaviour. Intervention has generally occurred in those situations where a low MTR or other wholesale remedy has proven to be, or is likely to be, ineffective in addressing the constraints on competition that arise when a large operator uses high on-net off-net price differentials to prevent switching.

International experience

- 548. In the European Union regulators have traditionally taken the view that the competitive detriments of on-net off-net price differentials are closely linked to the level of MTRs. The primary means to ensure small MNOs can compete is to implement a significant reduction in MTRs, including under the recent Framework Directive a shift to LRIC pricing.⁴⁰⁷ These reductions are expected to significantly reduce the prevalence of on-net and off-net price differentials, and to limit the scope for anti-competitively using off-net surcharges. WIK Consult state that “in Member States with low MTRs, or in countries where MTRs are altogether absent, on-net off-net price discrimination manifests itself quite differently than in most European Member States today”.⁴⁰⁸
- 549. European regulators have generally avoided regulating retail prices, in order to reduce the risks of distorting price signals and preventing the emergence of flexible and innovative pricing structures that could achieve more effective responses from subscribers. Imposing controls on retail prices can also result in a decrease in competition and prevent the market from achieving efficient outcomes.

⁴⁰⁶ Vodafone cross-submission to the Commerce Commission on the draft STS, 24 February 2011, page 30, par. 152.

⁴⁰⁷ The focus on wholesale regulation may also be found in the Universal Service Directive, Recital 26 and Article 17.1(b).

⁴⁰⁸ WIK Consult, Competitive Implications of On-net Off-net price differentiation, December 2009.

550. A non-discrimination provision of some form which affects retail pricing has, however, been imposed by NRAs in jurisdictions with market conditions similar to those in New Zealand, as identified in the Telecommunications Management Group Report.⁴⁰⁹

Conclusions on whether a condition limiting on-net off-net price differentiation is appropriate

551. The strategic incentive to differentiate between on-net and off-net calls is likely to remain even after MTRs are regulated at cost. However, once MTRs are regulated at cost, the scope for potential anti-competitive behaviour with regard to off-net pricing is likely to be significantly reduced.
552. This suggests that time should be allowed for the impact of regulation of MTRs to be observed, before a condition affecting on-net off-net price differentiation pricing is introduced.
553. If market forces following the setting of MTRs at cost do not address the anti-competitive effect of on-net off-net price differentiation, there are a range of conditions relating to on-net off-net price differentiation that could be imposed.⁴¹⁰

Options for implementing a condition limiting on-net off-net price differentiation

Introduction

554. There are three options available to the Commission for addressing the perceived discriminatory effects of on-net off-net price differentiation in New Zealand:
- imposing a condition limiting or prohibiting such conduct now. Such a condition could take one of the following forms:
 - a prohibition on on-net off-net price differentiation;
 - an off-net price cap; or
 - a combination of an on-net price floor and an off-net price cap;
 - imposing the form of a “non-discrimination” condition now, but leaving the condition inoperable until the Commission determines it should come into effect; or
 - monitoring the impact of cost-based MTRs on the promotion of competition, and imposing such a condition later if required, as part of a section 30R review.

⁴⁰⁹ Telecommunications Management Group, *On-net/Off-net Price Differentiation: Review of International Precedent*, 7 February 2011.

⁴¹⁰ These include a) a prohibition on on-net off-net price differentiation, b) off-net price caps or a combination of on-net price floors and off-net price caps, and c) a wholesale requirement under which the downstream (retail business) units be charged the same MTR as is charged for off-net calls and SMS.

Imposing a condition now

- 555. Imposing an on-net off-net price differentiation condition now would immediately (upon the effective date of the operative condition) eliminate the anti-competitive effects of price differentiation, thereby removing this as a barrier to switching and allowing smaller MNOs to take full advantage of the pro-competitive benefits of the MTRs set by this STD.
- 556. Such a condition is likely to have a significant impact on a large number of consumers, by affecting the on-net offers which they currently receive, and create a period of retail price restructuring by MNOs.
- 557. In order to respond to the New Zealand market conditions identified in Section B (as summarised in paragraph 531), significant tariff rebalancing and changes to retail plans are likely to have to occur. However, there could be some benefits to these changes being initiated by the MNOs themselves rather than being imposed through a condition.

Imposing a non-operative condition now

- 558. Specifying the form and wording of a non-operative on-net off-net price differentiation condition in the MTAS STD, as proposed by TelstraClear,⁴¹¹ would increase predictability and certainty for the MNOs with regard to the kind of retail pricing behaviour that would be considered acceptable.
- 559. There is, however, a risk that a non-operative condition may deter investment, if the condition affects a MNOs cost-benefit assessment of the investment. Also, MNOs may not introduce new retail prices or approaches, which would otherwise benefit consumers, if the MNOs are concerned these prices or approaches will lead to the condition being activated.
- 560. There is also a risk that the form of a non-operative condition may not address the competition issues accurately at the time it becomes operative. Market dynamics may lead to a different market situation and different competition problems being present when the condition becomes operative.

Monitoring the impact of cost-based MTRs on on-net off-net differentiation

- 561. Monitoring the market outcomes that result from the introduction of regulated cost-based MTRs would enable an assessment of whether cost-based MTRs have resulted in a sufficient reduction in on-net off-net price differentials, as overseas evidence suggests is possible, to address the competition concerns.
- 562. The monitoring approach would have the benefit that the Commission would not be at risk of inappropriate intervention. In addition it would provide MNOs with flexibility in pricing, so long as new prices or approaches to pricing do not evidence strategic behaviour to discourage off-net calling and reinforce barriers to competition. There would be significant incentives for MNOs in this case to exercise caution in their behaviour, as the Commission would be able to

⁴¹¹ TelstraClear, *TelstraClear submission to the Commerce Commission on the Draft Standard Terms Determination for Mobile Termination Access Services*, February 2011, page 11, paragraph 40.

implement a condition under a section 30R review, should monitoring demonstrate a condition is required, in a relatively quick timeframe.

563. As noted above, at the MTAS STD Conference James Mellsop of NERA on behalf of Telecom acknowledged that if the specific market characteristics observed in New Zealand do not change after a relatively short time following the Commission's final decision, the anti-competitive effects of on-net off net differentiation are present.⁴¹²

Commission's determination on the implementation of a condition limiting on-net off-net price differentiation

564. The Commission determines that the most appropriate approach is to monitor the market very closely after the MTAS STD has come into effect, and assess on a monthly basis whether cost-based MTRs are addressing the competition concerns the Commission has considered in this MTAS STD.
565. In a situation where MTRs are regulated at cost, and market forces are effective in delivering more competitive outcomes, the Commission would expect to see (within a reasonably short time):
 - an increase in cross-network traffic for voice and SMS;
 - a decrease in the difference in prices between on-net and off-net calls and SMS; and
 - a decrease in the customer churn-rate for small operators.
566. Given the significance of on-net off-net price differentiation in the New Zealand market, the Commission intends to publish the results of monitoring of the first two indicators above on a monthly basis. These reports will provide comments on whether the Commission continues to have concerns such that a condition limiting on-net off-net price differentiation may need to be imposed. If such a condition were appropriate, the Commission could conduct a section 30R review to impose a condition relatively quickly

Monitoring information required

567. In order to assess whether on-net off-net price differentiation continues to undermine the pro-competitive benefits of the regulation of MTRs the Commission determines under section 30O that Access Providers of the MTAS must provide to the Commission, within 20 Working Days of the close of each calendar month, the following information:
 - on-net and off-net traffic volumes for MTM calls and SMS;
 - total customer numbers and customer churn-rates; and
 - revenue and average prices for on-net and off-net MTM calls and SMS.
-

568. This information must be provided in a report in the form set out in the tables in Appendix 11, and must comply with the attribution guidelines specified in Appendix 11.
569. The report must be certified as compliant by a Director or the Chief Executive Officer of the Access Provider. The certificate of compliance must specifically certify that the data submitted is accurate and accords with these requirements.

I, {NAME}, certify, as {Named position eg Director or Chief Executive Officer}, that to the best of my knowledge after making reasonable inquiry, the data provided to the Commission is accurate and complies with the requirements of the information requested by the Commission in Decision 724.

This certificate is given in my capacity as an officer of {NAMED ENTITY}] and on the basis of the information provided to me by persons within {NAMED ENTITY's} business.

570. During the MTAS STD process 2degrees, Telecom and Vodafone provided inconsistent responses to the same information requests, including in relation to the information required to be provided under paragraph 567. The Commission does not expect to see the same level of inconsistency in information responses in the future, particularly given the requirement that the information must be certified as compliant by a Director or the Chief Executive Officer of the Access Provider.
571. These monitoring requirements are made under s30O of the Act, and are a part of this STD made under s30M. These obligations therefore constitute an enforceable matter under Part 4A of the Act, and any breach may be enforced and may be subject to pecuniary penalties.

SECTION G. GLIDE PATH

Purpose

572. This section considers whether or not a glide path is appropriate to transition from the current MTRs to the MTRs set under this MTAS STD, taking into account:
- the Commission's decisions that TSLRIC based prices are appropriate for both the voice MTAS services and the SMS service; and
 - the competition concerns that the Commission is addressing in this STD regarding the impacts of above cost MTRs and significant on-net discounting (as discussed at paragraphs 48 to 49 above).
573. Glide paths are commonly implemented by regulators in order to smooth the transition from current MTRs to regulated MTRs. A glide-path sets out one or more interim reductions in the price over a period of time, in order to reach the regulated termination rate.

Commission's preliminary view on whether a glide path was appropriate

574. The Commission's preliminary view in the draft MTAS STD was that:
- as a consequence of the unique New Zealand features, the importance of removing the barrier to expansion in the mobile market is such that moving immediately to cost-based MTRs is likely to best meet the purpose of promoting competition for the long-term benefit of end-users. The benefits that will arise to consumers from moving immediately to cost-based MTRs, as a result of the removal of competitive barriers associated with the combination of above-cost MTRs and high levels of on-net traffic and on-net discounting in New Zealand, outweigh the detriments to MNOs; and
 - while a significant reduction in the existing MTRs is needed to reach TSLRIC-based MTRs, MNOs had been aware of the Commission's concerns about the potential detrimental effects of on-net discounting since 2006, and it could be inferred the incumbents would have prepared for a significant lower level of MTRs from the date their undertakings would have been effective and would have taken these rates into account in their business planning.

Views of submitters

575. Telecom argued that a glide path was appropriate. It submitted that implementing a relatively short glide path of one year between current MTRs and Telecom's suggested cost-based MTR would best meet the section 18 purpose of promoting competition for the long-term benefit of end-users.⁴¹³ To this end, Telecom proposed two options which it believed reflect a sensible trade

⁴¹³ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 103.

off between the need to deliver significant regulatory changes quickly, and enabling businesses and markets to assimilate significant price changes:

- make the 2011 rate the mid-point between the current regulated rate of about 18cpm and the target IPP rate for voice; or, alternatively
- take as a starting point the view that parties could have expected some reductions in MTRs in 2011. The glide path rate for 2011 could then be the medium of the range of regulated outcomes for 2011 put forward by the Commission in its final Schedule 3 report (7.48cpm).⁴¹⁴

576. Vodafone proposed that no glide path was required for MTM and SMS termination rates, but that a glide path should be implemented for the reduction in the FTM termination rates as:⁴¹⁵

- the main benefit to end-users from reduced termination rates, according to the Commission, is to promote competition in the mobile market. Following the Commission's logic, this implies a need to cut mobile-to-mobile voice and perhaps SMS termination rates quickly;
- the Commission's logic does not require such sharp or immediate reductions to fixed-to-mobile rates. The Commission has not looked at the impacts on a new entrant such as 2degrees from sharp reductions in fixed-to-mobile termination rates, but clearly it will promote competition in the mobile market if these rates reduce on a reasonable glide path over time, rather than having hundreds of millions of dollars immediately taken from operators' revenues and transferred to the fixed-line market;
- there are other good reasons to use a glide path in reducing fixed-to-mobile rates. Immediate sharp cuts to fixed-to-mobile voice termination rates could lead to negative competition impacts in the retail mobile market for customers who tend to receive more calls than they make; and
- there is no point in cutting fixed-to-mobile termination rates if those reductions will not be passed through into retail fixed prices anyway. International experience gives little cause for optimism on this score.

577. Vodafone's proposed glide paths are set out in Table 28 below.

Table 28: Vodafone's proposed glide paths⁴¹⁶

	2011/ 2012	2012/ 2013	2013/ 14	2014/ 2015
FTM voice	12.0	9.0	7.0	5.5
MTM voice	7.4	6.5	5.9	5.5
SMS	1.0	1.0	1.0	1.0

⁴¹⁴ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 104.

⁴¹⁵ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 6, paragraph 23.

⁴¹⁶ Vodafone, Submission on the Draft MTAS STD, February 2011, page 5, extract from table at paragraph 21. Vodafone's proposed prices for the FTM and MTM voice services were based on the results from Vodafone's cost model, while the price for SMS was based on a low flat rate.

578. Analysys Mason, for Vodafone, presented a summary of the different approaches taken by national regulatory authorities when setting mobile termination rates since they have been regulated. This included a benchmarking exercise comparing the total duration of the glide path and the average reduction per semester. In benchmarking the length of glide paths, Analysys Mason noted that the minimum is Portugal with a glide path of 19 months, the maximum is the UK with five years, and the average is around three years.⁴¹⁷
579. Covec, on behalf of Vodafone, submitted that it is standard practice for regulators to use a glide path when implementing regulated reductions in mobile termination rates. Covec benchmarked the way that regulators around the world have implemented glide paths, and concluded that the approach in the draft STD is extreme compared with a wide range of countries and a wide variety of reasons for regulation.⁴¹⁸
580. Given that the Commission is proposing in the draft STD to reduce termination rates by around 70%, Covec submitted that a more typical glide path profile would involve five equal drops in absolute terms over a period of about 2.6 years.⁴¹⁹
581. 2degrees⁴²⁰, TelstraClear⁴²¹, CallPlus and Kordia⁴²² argued that a glide path is not required in the context of the New Zealand market. For example, TelstraClear submitted that:⁴²³

In the circumstances, it is appropriate to immediately transition to cost-based MTRs, given the significant benefits associated with doing so and the lack of any material detriment.

Benefits of providing a glide path

582. A glide path may be considered appropriate in order to allow operators time to adjust retail prices where a rapid or sudden drop in MTRs may lead to distortions in the market.⁴²⁴ For example, there is a possibility that a drop in MTRs of the magnitude that is needed to reach a cost-based rate in New Zealand may lead to either an increase in retail charges for some customer groups, or a slowing in the reduction in retail charges in the short run (sometimes known as the ‘waterbed effect’).
583. There may also be a change in the relative balance between wholesale revenues, and monthly subscription prices and handset prices. For instance an immediate significant reduction in MTRs could lead operators to increase subscription prices and/or reduce handset subsidies for the post-paid customer segment. The steeper the drop in termination rates, the more pronounced these effects may be.

⁴¹⁷ Analysys Mason, *Draft standard terms determination analysis*, 4 February 2011, p 38.

⁴¹⁸ Covec, *Mobile termination glide path benchmarking*, 7 February 2011, p 1.

⁴¹⁹ Covec, *Mobile termination glide path benchmarking*, 7 February 2011, p 9; and
Covec, *Updated mobile termination glide path benchmarking*, 1 March 2011, p 3.

⁴²⁰ 2degrees, *Submission on the Draft MTAS STD*, 7 February 2011, p 68, paragraph 12.7.

⁴²¹ TelstraClear, *Submission on the Draft MTAS STD*, February 2011, p 5-6, paragraph 17-23.

⁴²² CallPlus and Kordia, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 3.

⁴²³ TelstraClear, *Submission on the Draft MTAS STD*, February 2011, p 5, paragraph 17.

⁴²⁴ Glide-paths are also used internationally to allow an operator an asymmetric rate for a period of time upon market entry to reduce and eliminate the asymmetry over time.

584. It has also previously been argued that a significant drop in MTRs will negatively affect the investment incentives of some MNOs.⁴²⁵

Detriments of providing a glide path

- 585. A glide path would delay the introduction of cost-based MTRs, thereby prolonging the competition problems arising from above cost MTRs, discussed in paragraphs 48 to 49 above. A longer glide path, as proposed by Vodafone, would result in longer delays in addressing these competition problems.
- 586. A glide path would provide an opportunity for larger operators to take advantage of the difference between the glide path rate and the cost based rate to, in conjunction with on-net discounting, limit the ability of smaller operators to compete.⁴²⁶ This may limit the effectiveness of the regulated MTRs impact in reducing the levels of on-net off-net price differentiation during the length of the glide path.
- 587. Therefore, the use of a glide-path is likely to delay the expected benefits to consumers resulting from the introduction of regulated mobile termination rates. In their cross-submission on the draft MTAS STD, Haucap and Lanigan noted that there are various reasons why immediate reductions to cost would maximise efficiency, including that an immediate reduction to cost-based rates would intensify competition immediately and generate the largest consumer surplus.⁴²⁷
- 588. The use of a glide path may also negatively affect the investment incentives of those operators that are required to pay above-cost MTRs during the period of the glide path (for example, fixed network operators).

Assessment of whether a glide path is appropriate

- 589. The Commission has considered four options in relation to whether a glide path should be implemented:
 - no glide path;
 - a short glide path of one year, as proposed by Telecom;⁴²⁸
 - a modified glide path of one year, which provides for a further reduction in MTRs on 1 October 2011; or
 - a glide path for three years implemented for the reduction in the FTM MTRs only, with no glide path for the MTM or SMS services, as proposed by Vodafone.

⁴²⁵ Commerce Commission, MTAS Schedule 3 Final Report, 22 February 2010, p 122, paragraph 506.

⁴²⁶ Final Report, page 138, para 582, and Reconsideration Report, page 25, para 84.

⁴²⁷ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 10.

⁴²⁸ The Commission has assessed the second option proposed by Telecom (ie the medium of the range of regulated outcomes for 2011 put forward by the Commission in its final Schedule 3 report - 7.48cpm), as it considers Telecom's comment that parties could have expected some reductions in MTRs in 2011 is reasonable. See Telecom submission on the draft MTAS STD paragraph 104.

590. These options have been assessed taking into account the competition concerns that the Commission is addressing in this STD regarding the impacts of above cost MTRs and significant on-net discounting (as discussed at paragraphs 48 to 49 above).
591. In combination with the Commission's decisions on the cost path for the voice MTAS services, these possible glide paths are set out in Table 29 below.

Table 29: Glide path options (nominal cpm)

	May-11	Oct-11	Apr-12	Apr-13	Apr-14
No glide path	4.26		3.97	3.72	3.56
Telecom proposed glide path	7.48		3.97	3.72	3.56
Modified one year glide path	7.48	5.88 ⁴²⁹	3.97	3.72	3.56
Vodafone proposed glide path	7.40		6.50	5.90	5.50

Commission's determination on whether a glide path is appropriate

592. For reasons discussed in paragraphs 383 to 385 above, the Commission considers it desirable to treat MTM and FTM termination rates consistently. Accordingly, the Commission considers the same approach to the glide path is required for all voice MTAS services and Vodafone's proposal for a glide path for FTM only is not appropriate.
593. Further, the Commission does not consider that a glide path of three years, as proposed by Vodafone, is appropriate, given New Zealand market conditions and the importance of removing the barriers to expansion in the mobile market. Three years is simply too long a period to defer the benefits to consumers of a reduction to cost-based MTRs.
594. Retaining above cost-MTRs for MTM calls could limit to some extent the ability of smaller MNOs to compete with the low on-net rates of the larger MNOs during the period of any glide path.
595. In respect of FTM traffic, additional payments would be made by fixed operators to the MNOs under each of the glide path option set out in Table 29 above (compared to a situation where no glide path is imposed). These additional payments would represent a foregone opportunity for fixed operators to reduce the price of FTM calls. MNOs would however receive a corresponding amount of additional revenue during the length of the glide path, which could assist their ability to adjust to the reduction in MTRs.
596. Having no glide path would mean that cost-based MTRs would come into effect immediately, directly responding to the competition concerns that the Commission is addressing in this MTAS STD, but would give limited weight to the concerns raised by Telecom and Vodafone regarding their ability to adjust retail pricing to allow for the reduction in MTRs. While operators have had considerable notice that MTRs are likely to fall, and so have had the opportunity

⁴²⁹ This additional step in the modified glide path option is a 50% reduction from the 7.48cpm in the Telecom proposed glide path option towards the 4.28cpm in the no glide path option.

to plan in anticipation of reduced MTRs, the final level of the MTR has been uncertain up until now.

- 597. Although the possibility remains that a significant one-off reduction in MTRs might amplify the waterbed effect, it is unlikely that this would happen in practice, because an increase in retail mobile prices by either Vodafone or Telecom would also constitute an opportunity for a small operator such as 2degrees to gain market share.⁴³⁰
- 598. A decision whether to apply a glide path is finely balanced given the circumstances of the New Zealand market. The Commission accepts the rates being applied deliver a significant drop in wholesale rates which are greater than the market may have anticipated. Telecom and Vodafone have submitted, as discussed in paragraphs 575 and 576, that time is needed to rebalance retail plans. However, the Telecom proposed glide path does not reduce MTRs to the cost-based level quickly enough.
- 599. In the Commission's view, a modified glide path involving an immediate reduction in MTRs to 7.48 cpm, with a further drop to 5.88 cpm on 1 October 2011 will give recognition to the legitimate concerns of incumbent operators, while not unduly impacting on the competitive benefits of cost based MTRs.
- 600. The Commission determines that the modified version of a one year glide path, with an additional adjustment on 1 October 2011, represents an appropriate balance. This glide path has been included in the final MTAS STD in relation to the voice MTAS services.
- 601. In addition, the Commission determines that no glide path is appropriate for the SMS service.

Different view of Commissioner Mazzoleni

- 602. I concur with this decision entirely other than for the application of a glide path for voice. The circumstances and reasons for glide paths are well articulated in this report - they smooth changes in both the reduction of MTRs and the removal of asymmetric rates. This is prudent, and to set aside such a precedent should not be done lightly. However the application of the available remedies before us cannot be solely precedent based. They must each be applied proportionately to the problem at hand. Here we are required to set the STD terms that facilitate the long term benefit of New Zealand mobile users. In the current New Zealand mobile market the specific competition problem that we are required to remove is the barrier to efficient expansion of small operators. This problem cannot be underestimated, it is acute, and it has worsened in the brief period since the MTAS schedule 3 investigation, resulting now in only an average of 13% cross net traffic for voice in the NZ market and 11% for SMS. This is a very long way from any to any connectivity which is a feature of competitive mobile markets. This problem requires an apposite solution.

⁴³⁰ MTAS Conference Transcript 2 September 2009 pages 12 and 87

603. I see no adverse consequences from not having a glide path. It has been asserted that dislocation may occur in the retail market if there is no glide path. However, this is difficult to understand when some MNOs consistently argue that lowering termination rates will have no effect in the retail market. Those that consider it will have an effect in the retail market consider that vigorous competition, unrestrained by barriers such as prolonged above cost MTRs, will fully mitigate any potential short term disruption in the retail market. However there are adverse consequences from having a glide path. The glide path looks *de minimis* in both the difference in rate and period, however the effect is in the millions of dollars. Furthermore the proposed glide path retains the barrier to entry for an equivalent period, and restrains vigorous competition for potentially a longer period. This is contrary to the objective of this STD and to section 18. I cannot see any basis, in the mobile market circumstances we have in New Zealand, for maintaining MTRs 75% above cost for a further 6 months and then 40% above cost for a further 6 months. This is particularly so given that an average of approximately 87% of voice calls are already charged at actual cost, as they are made on an MNO's own network. Consequently the direct effect of the glide path serves only to retain the barrier to efficient expansion for small operators, who could otherwise vigorously compete for such traffic.

SECTION H. OTHER ISSUES, INCLUDING SERVICE DESCRIPTIONS, SUNDRY CHARGES AND NON-PRICE TERMS

Purpose

604. This section provides the Commission's decisions in relation to other issues, including service description, sundry charges, and non-price terms where substantive changes, deletions or additions have been made to the draft MTAS STD. Where not submitted on and otherwise not reconsidered, the Commission has adopted its preliminary view from the draft MTAS STD.
605. Appendix 12 provides a summary of the Commission's response to submissions on the draft MTAS STD.

Service Description

FTM service

606. The draft MTAS STD provided that the FTM service comprised:⁴³¹
 - (a) acceptance of all FTM Calls handed over from the Access Seeker Network to the Access Provider Network in accordance with the FTM Call Handover Obligation for which an Access Provider Mobile Number is provided, and delivery or offer of delivery of each such FTM Call to the Designated Destination in respect of that FTM Call; and
 - (b) transmission of an Answer Line Signal to the Access Seeker Network in respect of FTM Calls handed over from the Access Seeker Network to the Access Provider Network in terms of these Mobile Termination Access Terms and answered by the called party or by some other means, ...”

Should transit or transport be included in the FTM call service description?

607. Submissions from 2degrees, TelstraClear, Telecom and Vodafone proposed that the FTM service should not include transit or transport services.⁴³² Vodafone provided a range of examples of how transit and transport services are currently commercially provided, including the payment arrangements that apply, with the Access Provider billing the party that hands the call over to them.⁴³³
608. At the workshop to discuss service description, non-price terms and implementation issues (the 11 March 2011 Workshop), there was general agreement that the FTM service should not include transit or transport services. Parties also indicated that commercially agreed prices would be expected to reflect any change in the MTAS STD price.
609. The Commission has determined that the definition of the FTM service from the draft MTAS STD is appropriate and has confirmed this definition in Annex 1 to Schedule 1 to the Mobile Termination Access General Terms.⁴³⁴ Other

⁴³¹ *Annex 1 to Schedule 1 to the Mobile Termination Access General Terms*, page 57.

⁴³² See Appendix 4, paragraphs xx to yy for a full summary of submissions on this point.

⁴³³ Vodafone submission on the draft MTAS STD pages 57-62, paragraphs 240-261.

⁴³⁴ Amendments are shown in italics.

consequential amendments have been made to the Mobile Termination Access General Terms to exclude references to transit or transport services, in relation to the FTM service, the MTM service and the SMS service, given the strong view expressed by interested parties that these services were being commercially provided on reasonable terms.

Differentiation between the FTM call and MTM call service descriptions and possibility of technical exclusions of comparable calls from the coverage of the MTAS STD on technical grounds

610. CallPlus and Kordia submitted that there should be no artificial differentiation of calls by origination, whether by geography, technology or network of origination.⁴³⁵ At the 11 March 2011 Workshop CallPlus reiterated concerns that there were a number of technical matters in the definitions that excluded different call types for example calls without A-numbers, 000 number calls and non-geographic numbers, even though they were no different from other calls that required the termination service.
611. Vodafone submitted that calls by inbound roamer and international mobile calls should either be excluded from the coverage of the MTAS STD, or included in the definition of FTM calls if they were to be covered, in part so as to not generate imbalances in call traffic if different prices or pricing principles were to be adopted for FTM and MTM calls.⁴³⁶
612. At the 11 March 2011 Workshop Vodafone acknowledged that technical billing system limitations meant that some call types may not be able to be differentiated or may be treated differently for billing purposes, however, the location of these call types, in either the definition of FTM or MTM calls, was not an issue where the same TSLRIC prices were applied for both FTM and MTM calls.
613. The Commission considers that while it is appropriate to maintain the distinction between FTM and MTM calls in the MTAS STD, clauses in the draft STD that would exclude certain types of calls based on technicalities are inappropriate. The Commission has accordingly made drafting changes in response to CallPlus and Kordia's submissions on this point.
614. If a situation were to arise where calls of a similar nature were being excluded from the definition of either FTM or MTM calls by technicalities, or where the technical nature of a call was being manipulated to artificially bring it within the scope of the MTAS, then the Commission could consider whether either a review or clarification of the MTAS STD under section 30R or 58 of the Act was appropriate.
615. As the Commission has determined in paragraphs 383 to 385 above that a common TSLRIC price should apply to both FTM and MTM calls at the present time, the location of calls by inbound roamer and international mobile calls in either FTM or MTM calls will not impact on the price an Access Seeker pays to

⁴³⁵ CallPlus and Kordia submission on the draft MTAS STD pages 9-11, section j.

⁴³⁶ Vodafone submission on the draft MTAS STD page 57, paragraph 244 and pages 64-65, paragraphs 276-291.

terminate these call types. Accordingly an Access Provider may include these call types in either the FTM or MTM call types, so long as they are available under one of these call types, to avoid the need for potentially costly billing system changes that would not have any practical impact. This issue will be reviewed if at any time in the future, the Commission determines that different prices or pricing principles are appropriate for FTM and MTM calls.⁴³⁷

SMS service

Scope of the SMS call service description

- 616. 2degrees and Vodafone proposed various drafting changes to limit the scope of web-to-text SMS and “machine to machine” or “machine to man” (M2M) messages. CallPlus and Kordia proposed amendments to clarify the allowable web-to-text SMS. InternetNZ submitted that they would prefer to see a broader range of web-to-text SMS included if possible.⁴³⁸
- 617. The Commission has determined that only web-to-text SMS messages that originate from a “...cellular mobile telephone network” and have an associated MTAS reply path should be included in the SMS service description and has made drafting changes reflecting this. Broader proposals to provide more generally for the MTAS STD to cover SMS that originate on the internet, accessed through any network other than a cellular mobile network, are outside the scope of the service description in the Act, which applies only to SMS originating on cellular mobile telephone networks.

Sundry Charges – Set-up costs

- 618. Where a new Access Seeker requests a standard set-up arrangement, the Commission’s preliminary view was that the set-up costs should be minimal and that for standard set-up arrangements no charge or a nominal fixed charge would be appropriate.⁴³⁹
- 619. Where an Access Seeker requests a non-standard set-up, the Commission’s preliminary view was that it is appropriate that the Access Seeker pays the reasonable costs of any changes to the Access Provider’s systems.⁴⁴⁰ To ensure transparency over these costs, the Commission added provisions for a Price On Application (POA) approach to the Draft MTAS STD General Terms and Price List. Prices must relate solely to the set-up of the MTAS services and not more generally to the set-up of interconnection arrangements.
- 620. At the 11 March 2011 Workshop parties concurred with the proposal for a POA approach with provision for build to proceed if there was a dispute over the POA

⁴³⁷ Similarly, Vodafone’s concerns that transited MTM calls should be included in the definition of MTM could be addressed at that time. In addition, if parties commercially agree to different treatment of FTM and MTM calls, then the Commission expects that these issues could be addressed as part of that commercial agreement.

⁴³⁸ See Appendix 4, paragraphs xx to yy for a full summary of submissions on this point.

⁴³⁹ Draft MTAS STD Decision document p50, para 244.

⁴⁴⁰ ibid para 245.

price and the matter was referred to dispute resolution, subject to there being adequate security for the amount in dispute.

- 621. The Commission considers this approach will enable Access Providers to recover their true and reasonable costs and Access Seekers to not be delayed in building their networks. Access Seekers will also have certainty over the potential maximum cost of set-up at the outset.
- 622. The Commission therefore determines that the POA pricing approach for standard and non-standard set-up arrangements is appropriate, and that it should include a provision for set-up build to proceed should the price be referred through the dispute resolution process, subject to sufficient security being provided or payment in advance into escrow. There should also be repayment to the Access Seeker if the resolution of a dispute results in a lower price to the Access Seeker.
- 623. The draft MTAS STD provided that an Access Seeker shall be responsible for provisioning uni-directional Interconnect Links and that responsibility of provisioning bi-directional Interconnect Links is to be agreed between the parties. The Commission's preliminary view was that there should be an obligation for the party responsible for connecting a link to do so within 20 working days, reflecting the timeframe provided for decommissioning a link.⁴⁴¹ The Commission carefully considered submissions on this matter and is of the view that there is no reason for a change from the position set out in the draft MTAS STD.

Artificial inflation of traffic

- 624. Artificial inflation of traffic (AIT) is generally understood to mean the manipulation of calls or SMS to inflate termination revenues or for other purposes outside of the provision of legitimate services for end-users. 2degrees, Telecom, and Vodafone each provided examples of potentially manipulative traffic.⁴⁴² Telecom and Vodafone have also argued that a restriction on AIT is necessary to prevent SPAM. AIT is not currently provided for in commercial interconnection agreements, or prior Commission determinations on interconnection.
- 625. The Commission's preliminary view was that AIT to an Access Provider's own network is likely to be a problem only where the price of MTAS is above cost and that a cost-based MTR should remove any incentive to artificially inflate traffic.⁴⁴³ The draft MTAS STD accordingly provided for no prohibition.
- 626. There was disagreement in submissions over whether AIT was a problem that warranted a prohibition. Telecom⁴⁴⁴ and Vodafone⁴⁴⁵ continued to argue for a prohibition, whilst 2degrees⁴⁴⁶, CallPlus⁴⁴⁷ and TelstraClear⁴⁴⁸ argued against.

⁴⁴¹ Draft MTAS STD Decision p50, para 247.

⁴⁴² See, e.g. 2degrees cross-submission, pp16-17 paras 4.16-4.21. Vodafone submission, para 326.

⁴⁴³ ibid p53, para 260.

⁴⁴⁴ Telecom's submission para 123.

⁴⁴⁵ Vodafone's submission paras 322-329.

⁴⁴⁶ 2degrees' cross-submission p6. Para 2.7 and p28 under para 7.6.

2degrees noted that a restriction would prevent retail product innovation, thereby undermining one of the benefits of competition.

- 627. At the 11 March 2011 Workshop there was general acknowledgement that a prohibition with a narrower definition of AIT that would not capture legitimate commercial activity would not be a problem, and could prevent abusive or illegitimate practices. The Commission requested that Vodafone, in consultation with interested parties, provide a revised definition of AIT that would not restrict legitimate commercial activity.
- 628. Vodafone consulted with interested parties on a revised definition of AIT that was based on, and nearly identical to, that used by BT in the UK⁴⁴⁹ (to which Telecom and CallPlus suggested amendments). 2degrees indicated that it considered the revised definition proposed by Vodafone continued to inappropriately restrict retail products and services that could be offered to end-users, although no specific drafting proposal was provided. CallPlus was of the view that it is impractical for a small Access Seeker to ensure that upstream carriers and end users of upstream carriers do not engage in AIT. CallPlus provided alternative drafting that excluded an obligation on Access Seekers to ensure that end users of third parties do not engage in AIT.
- 629. With respect to industry concerns over SPAM, the Commission has taken note of the Unsolicited Electronic Messages Act 2007, which is intended to prevent or eliminate SPAM.
- 630. The Commission has determined that a prohibition on AIT is appropriate. The Commission accepts a cost-based pricing principle will likely reduce incentives to AIT, but is of the view that a prohibition will support existing pro-consumer anti-SPAM limitations set out in legislation and any industry codes.
- 631. The Commission has inserted an appropriate prohibition on AIT within a narrower definition that it considers will not unduly restrict legitimate commercial activity, taking into consideration Vodafone's proposal and the comments of parties.

SIM Boxes

- 632. A SIM Box, also known as a GSM Gateway, is a device which uses a MNO's SIM cards to present calls or SMS as if they originated on the MNO's network.
- 633. The Commission's preliminary view was a prohibition on the use of SIM boxes is reasonable, given its limited application to Access Seekers and member of their Group.⁴⁵⁰

⁴⁴⁷ CallPlus/Kordia's submission p11 & cross-submission pp7-8.

⁴⁴⁸ TelstraClear's submission p11.

⁴⁴⁹ See:

https://www.btwholesale.com/pages/static/Pricing_and_Contracts/Contract_Reviews/Artificial_Inflation_of_Traffic_AIT_Review.html.

⁴⁵⁰ Draft MTAS STD p54 para 268.

- 634. At the 11 March 2011 Workshop there was general acceptance of a prohibition on the ‘knowing’ use of SIM boxes.
- 635. The Commission has determined that Access Seekers are prohibited from knowingly using or allowing the use of SIM boxes by members of their Group.

Hand over / Points of Interconnection

- 636. The Commission’s preliminary view was that Access Seekers should terminate calls and SMS at the MSC in Christchurch, Auckland, and/or Wellington. In addition, the Commission proposed that the MTAS services should not at this time include a transit service, as these are available commercially. An Access Seeker should therefore be able to continue to interconnect at Telecom’s current 24 LICA handover points and purchase a commercial domestic transit service to the handover points specified in the STD without the determination of supporting transit services by the Commission.
- 637. The Commission’s final determination is that apart from minor drafting changes, there will be no changes to the draft MTAS STD in the STD relating to Handover / Points of Interconnection.

Security requirements

- 638. The Commission’s preliminary view in the draft MTAS STD was that security at the same level as provided for in other STDs is appropriate for the MTAS STD. In other STDs, the Commission specified a security of the greater of \$100,000 or two months’ charges (based on a forward-looking estimate or prior actual charges), and the security is adjusted every six months.⁴⁵¹
- 639. At the March 11 March 2011 Workshop there was general acceptance that the draft MTAS STD security requirements should remain but that wording be added to record an expectation that the Access Provider gives due consideration to a request from the Access Seeker who has been in a long-standing interconnection service relationship with the Access Provider for a relaxation of the credit security requirement. This provision has been added in the STD.
- 640. The Commission determines that credit security of greater of \$100,000 or 2 months charges (based on a forward-looking estimate or prior actual charges), and that security is adjusted every 6 months shall be specified. In addition, where the Access Provider and Access Seeker have had an on-going interconnection service relationship without default on payment, the Commission determines that the Access Provider must give reasonable consideration to a request from the Access Seeker for a relaxation of the credit security requirements.

Due Date

- 641. Vodafone⁴⁵² proposed that the ‘due date’ timeframe by which invoices must be paid should be 20th month and not less than 20 working days after the date of

⁴⁵¹ ibid p59 para 290.

⁴⁵² Vodafone’s submission para 335.

the invoice. CallPlus/Kordia disagreed. To ensure consistency with previous STDs, the Commission is of the view that no change to the ‘due date’ is appropriate.

Liability caps

642. In previous STDs the Commission has set liability caps dependent on the nature of the service. The Commission’s preliminary view was that, similar to other STDs where the Access Seeker is accessing a switching facility (a substantial and critical investment of the Access Provider) the liability cap associated with the co-location of an Access Seeker’s equipment into the buildings of an Access Provider should be the greater of:
 - \$1,000,000; or
 - if liability is calculated based on 12 months of charges, a maximum of \$5,000,000 in aggregate for all events occurring in any 12 month period.
643. The Commission’s preliminary view was that the liability cap in all other circumstances should be \$500,000 in aggregate for all events occurring in any 12 month period.⁴⁵³
644. The Commission has adopted Vodafone’s suggested additional wording to clarify that liability caps operate for the benefit of both the Access Provider and Access Seeker.⁴⁵⁴
645. The Commission determines that the liability caps from the draft MTAS STD are appropriate, with the addition of the clarification indicated in the previous paragraph.

Billing disputes

646. The Commission’s preliminary view was that where an Access Seeker disputes an invoice on the grounds of it containing a Manifest Error the costs of an independent telecommunications expert (the Expert) are to be borne by the Access Seeker if there is found to be no Manifest Error and by the Access Provider if there is a Manifest Error.⁴⁵⁵ This change was not reflected in the draft MTAS STD.
647. The Commission determines that the costs of the Expert shall be paid by the Access Seeker if there is found to be no Manifest Error or where as a result of a Manifest Error the amount of the invoice is increased after correction, and by the Access Provider if there is found to be a Manifest Error, and the amount of the invoice is reduced after correction.

⁴⁵³ Draft MTAS STD p50 para 297.

⁴⁵⁴ Vodafone submission para 363.

⁴⁵⁵ See for example, Sub-loop Services General Terms clause 36.8(k).

Termination and suspension

648. The Commission's preliminary view was that changes are appropriate to the suspension, force majeure and termination provisions to provide for consistency with other STDs:
- the removal of the provisions relating to fundamental obligation, so there is a simplified suspension and termination regime;
 - an Access Provider can only terminate the supply of the MTAS services where the Access Seeker has made five or more material breaches in any period of 12 months;
 - suspension must be lifted as soon as is reasonably practical;
 - both an Access Seeker and an Access Provider should be entitled to rely on the force majeure provisions; and
 - neither an Access Seeker nor an Access Provider should be entitled to rely on the force majeure provisions in relation to industrial action involving its own employees, unless that party has taken reasonable actions to prevent that industrial action from occurring.
649. In addition to these changes, the Commission's preliminary view was that termination due to material breaches should be limited to situations where the actions of the party that has committed the breaches have involved a material transgression of the MTAS with an adverse impact on the other party.
650. The Commission's preliminary view was that it is appropriate to provide for an Access Seeker to be able to terminate their rights and obligations under the MTAS STD on two months notice.⁴⁵⁶
651. While there were a range of submissions on termination and suspension matters, the Commission considers that the provisions from the draft MTAS STD strike an appropriate balance between the rights of Access Seekers and rights of Access Providers. The Commission has determined that apart from minor drafting changes for the purposes of consistency with other STDs or within the MTAS STD, the provisions of the draft MTAS STD will be adopted.

Changes to operational procedures and technical specifications

652. The Commission's preliminary view was that the provisions in the STP for changes to operational procedures and technical specifications did not balance the rights of Access Providers and Access Seekers.⁴⁵⁷ Amendments were made to ensure consistency with the provisions of other STDs.
653. Vodafone proposed an alternative process whereby the Access Provider proposes a change and notifies all Access Seekers of the proposed change.⁴⁵⁸

⁴⁵⁶ See, for example, Sub-loop Services General Terms clauses 1.1, 14.1-14.4 and 33.1-35.12.

⁴⁵⁷ Draft MTAS STD p 64 para 319.

⁴⁵⁸ Vodafone submission para 391.

The Commission does not agree with Vodafone's proposal because it would remove the Commission's role in approving any changes to operational procedures, and the right of Access Seekers to propose changes to operational procedures.

654. The Commission determines that the provisions regarding changes to the operational procedures and technical specifications should remain as in the draft MTAS STD.

Disclosure of information

655. The Commission determines that all parties must disclose confidential information to the extent that they are bound to do so in relation to that request or requirement (in accordance with the preliminary view in the draft MTAS STD).

Post implementation review

656. The Commission's preliminary view was that a broad approach to monitoring the impact of the MTAS STD is appropriate. The Commission proposed requiring that Access Providers submit information on a quarterly basis to the Commission relating to retail mobile subscriber numbers, average revenue per subscriber, volumes for MTAS voice calls and SMS, average prices for MTAS voice calls and SMS, and on-net / off-net price differentials. No specific obligations were, however, included in the draft MTAS STD General Terms.
657. TUANZ submitted that there should be a post-implementation review of pricing and of the MTAS determination's impact on retail prices in order to evaluate 'pass through' of savings to users.⁴⁵⁹ Vodafone submitted that the Commission could extend its monitoring to include retail FTM prices, to assess whether MTR reductions impact on retail prices as expected. Vodafone also suggests that the Commission should monitor negative impacts for low-use mobile customers from FTM.⁴⁶⁰
658. The Commission has determined that monitoring is appropriate in relation to on-net off-net price differentiation, as discussed in paragraphs 564 to 566. In light of those requirements, the Commission does not consider that any further monitoring is required under this MTAS STD. However, the Commission will be monitoring the impact of this MTAS STD as a part of its general monitoring function. The Commission is able under its general monitoring function to monitor the range of impacts that the MTAS STD will have, and the suggestions of TUANZ and Vodafone will be taken into account in determining the information to be collected for that general monitoring.

Terms that may be varied

659. The Commission is required by section 30O(3) of the Act to identify which of the terms (if any) specified in an STD are allowed to be varied on an application for a Residual Terms Determination (RTD) made under section 30V. An RTD

⁴⁵⁹ TUANZ submission p2.

⁴⁶⁰ Vodafone submission p18-19.

is an alternative to a private bilateral agreement between an Access Seeker and Access Provider, or change to the STD that has general application to all parties.

- 660. The Commission has previously considered the terms that may be varied in a number of proceedings. Consistent with the views reached in those STDs, the Commission proposed that all terms of the STD may be varied except for a specified list.⁴⁶¹
- 661. The Commission considers its approval of an RTD sufficient protection with regard to the concerns raised by 2degrees and therefore proposes no amendment to the list of terms that may not be varied.
- 662. The Commission determines that all of the terms of the MTAS STD may be amended with the exception of:

General Terms

- the Standard Access Principles – clause 2.31
- Dispute resolution – clause 3
- Charging principles – clause 17
- Rights not excluded – clause 32
- Amendment – clause 31

Schedule 1 Service Descriptions

- FTM Call Termination Service – Annex 1
- MTM Call Termination Service – Annex 2
- Text Message Termination Service – Annex 3

Schedule 2 Price List

- Annex 1 – clause 1
- Annex 2 – clause 1
- Annex 3 – clause 1

Implementation Plan

- All provisions of the Mobile Termination Access Services Implementation Plan.

⁴⁶¹ Draft MTAS STD pp 65-66, para 326.

SECTION I. IMPLEMENTATION PLAN

Purpose

663. This section sets out the Commission's determinations in relation to the Implementation Plan.

Changes to timeframes proposed in the draft MTAS STD Implementation Plan

Commissions' preliminary views re timeframes for the Implementation Plan

664. In the draft MTAS STD the Commission made a number of changes to the timeframes in the Implementation Plan submitted by Vodafone in accordance with the notice to provide the STP.⁴⁶² These changes reflected the Commission's preliminary view in the draft MTAS STD that:

- the changes to cost-based MTRs for the voice MTAS services should come into force immediately, with a reconciliation process for any credits required as a result of billing system changes;
- the change to pure BAK pricing for the SMS service should come into force immediately;
- for existing Access Seekers, where physical changes are not needed to the Access Providers network, then parties should be given 45 working days to complete any technical or systems changes necessary to implement the MTAS services;
- for existing Access Seekers, where physical changes are needed to the Access Providers network, then parties should be given 65 working days to complete any technical or systems changes necessary to implement the MTAS services;
- changes to network design should not be a pre-requisite for the implementation period to commence. Within the timeframes for completing changes, an Access Provider was required to propose an outline of network changes within five working days, with a further five working days for an Access Seeker to accept the proposal or submit a counter-proposal. If a counter-proposal was submitted, then the parties were required to make reasonable efforts to confirm the network changes within five working days of the counter-proposal;
- new Access Seekers can not request the MTAS services for three months after the date of this determinations;
- where a new Access Seeker requests the FTM and / or MTM services only, then those services are to be delivered within 65 working days; and

⁴⁶² Draft MTAS STD pages 68-69, paragraph 338.

- where a new Access Seeker requests the SMS service and the FTM and / or MTM services, then those services are to be delivered within 90 working days.

Submissions on timeframes for the Implementation Plan

665. Telecom and Vodafone submitted that a number of timeframes in the draft Implementation Plan did not reflect the work that was required, and proposed a number of changes to reflect the work that they considered was required. By contrast, CallPlus and Kordia submitted that the timeframes did not reflect the work required, and made a number of other suggested changes that would shorten the overall timeframes for implementation. Vodafone also submitted that a credit rather than refund for any overpayments identified during the reconciliation process would be appropriate.
666. At the 11 March 2011 Workshop Telecom and Vodafone reiterated their views that the timeframes did not reflect the work available, and 2degrees indicated that it considered the timeframes in the draft Implementation Plan were reasonable, although acknowledged that the timeframes for the reconciliation process were challenging.
667. At the 11 March 2011 Workshop there was general agreement that:
 - a credit should be provided for any overpayment identified as part of the reconciliation process after changes are made to billing systems to reflect the prices and pricing principles determined in this MTAS STD, with the Access Seeker having the right to request that the overpayment be refunded to them; and
 - if the timeframes for any reconciliation process were to remain at 20 Working Days, an Access Seeker requested a refund rather than a credit, and the Access Provider that was required to pay a refund but could not calculate and pay the refund within the 20 Working Days, the Access Provider should be required to pay interest on the amount refunded for the period from the end of the 20 Working Days until the refund was made.

Commission's determination on timeframes for the Implementation Plan

668. The Commission considers that the changes in relation to the reconciliation process agreed at the 11 March 2011 Workshop reflect a reasonable balance between the rights of Access Seekers and Access Providers, and has adopted this approach in the Implementation Plan.
669. The Commission considers that the changes proposed by Telecom to the timeframes for the network design process are reasonable, given the scope of work required, and has adopted the timeframes proposed by Telecom.
670. The Commission does not, however, consider that other proposed changes to the implementation plan are appropriate. While the Commission recognises CallPlus and Kordia's concerns that implementation may be delayed, the timeframes and implementation approach adopted provide an appropriate balance between the interests of Access Seekers in promptly receiving the

benefits of the MTAS STD and Access Providers in having sufficient time to provide the MTAS services. In addition, CallPlus and Kordia's concerns about timeliness have partially been addressed by the Commission's determination that set-up should proceed even where there is a dispute about set-up costs (as discussed at paragraphs 620 to 622).

671. As the Commission has determined that a cost-based MTR is appropriate for the SMS service, consequential changes have been made to the implementation plan. These changes provide for the immediate application of cost-based prices and a reconciliation process for the SMS service, on the same basis as provided for the voice MTAS services.

Dated this 5th day of May 2011

A handwritten signature in blue ink, appearing to read "Ross Patterson". It consists of a stylized 'R' and 'P' followed by a cursive 'oss' and 'atterson'. A horizontal line extends from the end of the signature towards the right.

Dr. Ross Patterson
Telecommunications Commissioner
Commerce Commission

**ATTACHMENTS TO THIS STANDARD TERMS
DETERMINATION**

Attached to this MTAS STD are the following documents, which are the operative parts of this STD:

Mobile Termination Access General Terms

Schedule 1: Mobile Termination Access Service Descriptions

Schedule 2: Mobile Termination Access Services Price List

Schedule 3: Mobile Termination Access Services Service-Specific Terms and Conditions

Schedule 4: Mobile Termination Access Services Operations Manual

Mobile Termination Access Implementation Plan

APPENDIX 1: COMMISSION BENCHMARKING INFORMATION

1. This Appendix describes the process the Commission has used in benchmarking the cost of producing MTAS, for the jurisdictions included in the Commission’s benchmark set.
2. The criteria used to establish the benchmark set are discussed in Section B “Determining the pricing principle, and core prices, for the voice MTAS services”. As discussed in that section, the Commission’s benchmark set includes the following jurisdictions: Australia, Belgium, Denmark, France, Hungary, Israel, Lithuania, Malaysia, the Netherlands, Norway, Sweden, and the UK.
3. The Commission requested information from national regulatory authorities (NRAs) who had conducted MTAS cost modelling likely to meet the benchmark criteria outlined above. Prior to finalising the benchmark set, the Commission contacted NRAs to confirm that the MTAS cost estimates used for the benchmarking were still correct.
4. Table 30 over the page summarises the calculations applied to the benchmarked cost estimates, to arrive at a final benchmark set in NZ dollars. The calculation of the cost path figures is set out in Table 31 on page 149. The remainder of this appendix discusses:
 - Corrections to the benchmark set; and
 - Information on the specific cost estimates used for each benchmarked jurisdiction.

Table 30: Calculation of final benchmark set

Country	Cost estimate (home currency, unadjusted)	Home currency base year	Year to which estimate applies	One off adjustments (France only)	Inflator (years)	Inflation rate p.a.	Cost estimate adjusted for inflation & one-off adjustment (home currency)	Currency conversion rate	Benchmarked cost estimate (NZ cents per minute)
Hungary	11.86 Ft	2008	2008		—		11.86 Ft	108.9422	10.89
Belgium	0.053 €	2008	2010		2	2.0%	0.055 €	0.5453	10.13
Denmark	kr 0.33	2011	2011		—		kr 0.33	4.5638	7.23
Australia	\$0.058	2008	2008		—		\$0.058	0.9111	6.37
Norway	kr 0.30	2009	2011		2	2.5%	kr 0.32	5.0240	6.27
UK	£0.0198	2008/09	2011/2012		3	2.0%	£0.0210	0.4003	5.25
Malaysia	R0.0873	2008	2008		—		R0.0873	1.7291	5.05
Sweden	0.2423 kr	2010	2011		1	2.0%	0.2471 kr	5.3928	4.58
Netherlands	€0.0237	2010/11	2010/2011		—		€0.0237	0.5394	4.39
Lithuania	0.056 Lt	2009	2009		—		0.056 Lt	1.4233	3.93
France	0.0181 €	2008	2011	0.0185 €	3	2.0%	0.0196 €	0.5492	3.57
Israel	ILS 0.0687	2009	2011		2	2.0%	ILS 0.0715	2.5777	2.77

Calculation of benchmarked cost paths

5. The Commission used the following process to calculate the benchmarked cost path values (this is the same approach as that described above for the benchmark set for voice)
 - adjust cost estimates expressed in real terms to nominal values, for each of the years to which the cost path estimates applied. For this purpose the Commission used inflation rates based on central bank inflation targets;
 - in the case of France, adjust the nominal values to include an uplift of two percent, to make the available historic cost estimates compatible with current costs;
 - convert the estimates to NZ cents, using blended PPP / market exchange rates.
6. Table 31 over the page illustrates these calculations for each of the countries in the benchmark set for cost paths.

Table 31: Calculation of benchmarked cost paths

	2011	2012	2013	2014	Notes
Sweden					
Cost estimate (in real terms, SEK)	0.2423	0.2148	0.1933		Real 2010 prices
Cost estimate (nominal in year of estimate, SEK)	0.2471	0.2235	0.2051		Inflation rate of 2.0% p.a.
Cost estimate in nominal NZ cents	4.58	4.14	3.80		Converted using blended exchange rate of 5.3928
Israel					
Cost estimate (in real terms, ILS)	0.0687	0.0634	0.0591	0.0554	Real 2009 prices
Cost estimate (nominal in year of estimate, ILS)	0.0715	0.0673	0.0640	0.0612	Inflation rate of 2.0% p.a.
Cost estimate in nominal NZ cents	2.77	2.61	2.48	2.37	Converted using blended exchange rate of 2.5777
France					
Cost estimate (in real terms, Euros)	0.0181	0.0155	0.0138	0.0129	Real 2008 prices
Cost estimate (nominal in year of estimate, Euros)	0.0192	0.0168	0.0152	0.0145	Inflation rate of 2.0% p.a.
One-off adjustment (nominal in year of estimate, Euros)	0.0196	0.0171	0.0155	0.0148	Uplift of 2% to make historic cost estimates compatible with current costs
Cost estimate in nominal NZ cents	3.57	3.12	2.83	2.70	Converted using blended exchange rate of 0.5492
UK					
Cost estimate (in real terms, GBP)	0.0198	0.0185	0.0172	0.0161	Real 2008/09 prices
Cost estimate (nominal in year of estimate, GBP)	0.0210	0.0200	0.0190	0.0181	Inflation rate of 2.0% p.a.
Cost estimate in nominal NZ cents	5.25	5.00	4.74	4.53	Converted using blended exchange rate of 0.4003

Corrections to the benchmark set

7. Submissions on the draft STD highlighted possible calculation errors in the Commission's draft benchmarking. These are summarised in Table 32 below, along with the Commission's response.

Table 32: Calculation issues identified in submissions

Concern identified in submissions	Commission's response
Belgium: The draft STD, at page 72, stated that the cost for Belgium is €0.0531/min in 2010, expressed in real 2008 prices, and that this figure was inflated by 2 percent per year to achieve a nominal 2010 cost in the draft benchmark set. However, the draft benchmark set did not contain the inflation adjustment. Carrying out this adjustment gives a figure of €0.0552.463	The Commission has corrected this error in the final benchmark set. The final benchmarked cost for Belgium is inflated by 2 percent per year to give a nominal cost for the year to which the estimate applies (2010).
France: On page 72 of the draft STD the Commission stated that the 2011 estimate for France is expressed as a real 2008 price. However, examination of the French model cited by the Commission reveals the model is in "real 2006 EURc". Therefore the Commission's inflation adjustment appears to be incorrect. ⁴⁶³	ARCEP has confirmed to the Commission that the model provides data in real 2008 prices. Titles in the model may not have been properly updated from 'real 2006'. In its final benchmark set the Commission has applied an inflation adjustment for the three years from 2008 to 2011 (the year to which the cost estimate applies).
Malaysia: Analysys Mason noted a typo on page 74 of the draft STD (paragraph 24 of Appendix 1), where the estimating cost of terminating local calls was incorrectly stated to be MYR0.0823. However, this error was not carried through to benchmarked cost estimate. ⁴⁶⁴	No change required
UK: The draft STD, at page 76, stated that the UK cost estimate for 2010/11 was £0.017/min (expressed in real 2008/09 prices). However, the graph the Commission cites for this estimate (Figure 29, page 142 of the Ofcom document) shows that the 2010/11 modelled cost is	The UK rate, based on OfCom's draft model of April 2010, was £0.018/min (expressed in real 2008/09 terms). In March 2011, OfCom released its finalised cost model. The Commission has used the cost estimates from that model in its final benchmark set.

⁴⁶³ NERA Economic Consulting *Review of Draft STD for MTAS—Telecom New Zealand*, 7 February 2011, page 3, section 2.2; Analysys Mason, *Draft standard terms determination analysis: Report for NZ Commerce Commission*, 04 February 2011, page 3.

⁴⁶⁴ NERA Economic Consulting *Review of Draft STD for MTAS—Telecom New Zealand*, 7 February 2011, page 3, section 2.2, Network Strategies, *Final report for TelstraClear: Draft Standard Terms Determination for mobile termination access services—A review of the Commerce Commission's Draft Determination* 23 December 2010, 7 February 2011, page 35.

⁴⁶⁵ Analysys Mason, *Draft standard terms determination analysis: Report for NZ Commerce Commission*, 04 February 2011, page 5.

Concern identified in submissions	Commission's response
£0.018/min. (The £0.017/min estimate applies to 2011/12.) ⁴⁶⁶	

Information on the specific cost estimates used for each benchmarked jurisdiction.

8. This section provides detail on the source of cost estimates used in the Commission's benchmarking for voice and SMS MTAS. Table 33 below provides an overview of some of the key characteristics of the benchmarked cost models.⁴⁶⁷ The discussion below provides further detail, and responds to specific points raised in submissions. Information sources for voice MTAS cost estimates are provided first. The three benchmarks for SMS MTAS costs are then discussed at the end of this section.

Table 33: Key characteristics of benchmarked models

Country	Year developed	Type of model	Market share of hypothetical MNO	Technologies	Developer
Australia	2007 (updated 2008)	TSLRIC	25% to 31%	2G only	WIK
Belgium	2008 (updated 2010)	TSLRIC & pure LRIC	20%	2G & 3G	Analysys Mason
Denmark	2008 (updated 2009, 2010)	TSLRIC	Actual – 25% long term	Combined 2G & 3G	Analysys Mason
France	2009	Pure LRIC and TSLRIC	33%	Combined 2G & 3G	Analysys Mason
Hungary	2008	TSLRIC	33%	2G only	Ernst and Young
Israel	2010	TSLRIC	33%	GSM, 3G, and CDMA	NERA
Lithuania	2009	TSLRIC	33%	2G & 3G	Ernst and Young
Malaysia	2005	TSLRIC	33%	2G only	NERA
Netherlands	2010	Pure LRIC & TSLRIC	33%	Combined 2G & 3G	Analysys Mason
Norway	2006 (updated 2009)	Pure LRIC & TSLRIC	Actual – 33% long term	Combined 2G & 3G	Analysys Mason

⁴⁶⁶ NERA Economic Consulting Review of Draft STD for MTAS—Telecom New Zealand, 7 February 2011, page 3, section 2.2.

⁴⁶⁷ This table is drawn from a more extensive table provided by Analysys Mason, see Analysys Mason, *Draft standard terms determination analysis: Report for NZ Commerce Commission*, 04 February 2011, pages 10-11 for a fuller version.

Country	Year developed	Type of model	Market share of hypothetical MNO	Technologies	Developer
Sweden	2008	TSLRIC	Actual – 25% long term	Combined 2G & 3G	Analysys Mason
UK	2010	Pure LRIC & TSLRIC	25%	Combined 2G & 3G	Analysys Mason

Australia (voice)

9. The ACCC engaged WIK Consult to conduct cost modelling for mobile termination. WIK used a TSLRIC+ model to estimate costs of MTAS in Australia, which was updated in 2008. Table 34 below shows the results of WIK's cost modelling, for operators with a market share of 25 percent and 31 percent respectively.
10. The Commission has used the 2008 updated cost estimates, for an operator with 31 percent market share, to benchmark MTAS costs. It is appropriate to benchmark against estimated costs for an operator with 31 percent market share, as this is closer to market shares observed in New Zealand. The cost estimate of 5.9 cents per minute was based on estimates rather than verifiable data. The Commission has therefore used the estimate of 5.8 cents per minute in its benchmark set.

Table 34: WIK model estimates of efficient cost of supplying MTAS in Australia

Model version	25% market share*	31% market share*
WIK 1.2	6.6 cpm	6.1 cpm
WIK 1.2 (2008 update)	6.1 cpm	5.8 cpm
WIK 1.2 (2008 update – with uplifted data **)	6.2 cpm	5.9 cpm

*Market share benchmark used in the 2007 Pricing Principles Determination

** Estimates only, minutes increased by 10 percent, mobile penetration at 100 percent and WACC at 15 percent.

Information source for Australia

11. Modelled rates are sourced from ACCC, Domestic Mobile Terminating Access Service Pricing Principles Determination and Indicative Prices for the Period 1 January 2009 to 21 December 2011, March 2009 (available from <http://www.accc.gov.au/content/item.phtml?itemId=864976&nodeId=1e1b39d5ede14c87b6482438d70ca1df&fn=MTAS%20pricing%20principles%20determination%202009%E2%80%9311.pdf>.) See Table 2 on page 15 for modelled estimates.

Belgium (voice)

12. The IBPT engaged Analysys Mason to conduct cost modelling for mobile termination. The model provides estimates of mobile termination costs, using LRIC+ and 'pure' LRIC, for the three actual operators and for a hypothetical

operator. The Commission has used the LRIC+ cost estimate for the hypothetical operator, which is €0.0531/min for 2010, expressed in real 2008 prices.

13. The Commission has applied an inflation adjustment of 2 percent per year such that the modelled rate is expressed in nominal terms for the year of estimation. This reflects the inflation target of the Belgian central bank.

Information source for Belgium

14. Modelled rates are sourced from <http://www.ibpt.be>ShowDocaspx?objectID=3293&lang=fr>. See: Table 7 on page 211 of the French version (Table 7, page 219 of the Dutch version) for the modeled rates.
15. Information on asymmetrical MTRs is available from the same source. Paragraph 182 on page 76 and Table 8 on page 222 presents the regulated rates for 2009-2013.

Denmark (voice)

16. The ITST engaged Analysys Mason to develop an LRAIC cost model for mobile termination. The ITST updated the model in 2010, to produce an estimate of the cost of mobile termination in 2011 of DKK0.33 per minute, expressed in 2011 prices. This cost estimate applies to all four mobile operators in Denmark for the period 1 May 2011 to 31 December 2011.
17. The Commission's draft benchmark set included a higher cost estimate of DKK0.44. That estimate applied for the period 1 January 2011 to 30 April 2011. As Network Strategies noted in its submission in the draft STD was in force for only one month of the Commission's initial twelve-month period. Network Strategies proposed that the Commission address this by applying a weighted average of the two cost estimates.⁴⁶⁸

Information sources for Denmark

18. The results of the ITST's updated LRAIC cost estimates are available on its website at <http://www.itst.dk/tele-og-internetregulering/smp-regulering/engrospriser/lraic-1/lraic-priser/mobil/2010/endelige-afgorelsel-om-fastsettelse-af-maksimalprisen-efter-lraic-metoden-pa-markedet-for-mobilterminering-marked-7/?searchterm=mobiltermineringspriserne>. Model results for the four mobile operators are published in individual decisions. All have the same modeled LRAIC. See in particular section 3.1.8 of each individual decision for model results.
19. Regulated prices since 2006 are available on the ITST website at <http://www.itst.dk/tele-og-internetregulering/smp-regulering/engrospriser/lraic-1/lraic-priser/mobil/2010/endelige-afgorelsel-om-fastsettelse-af-maksimalprisen-efter-lraic-metoden-pa-markedet-for-mobilterminering-marked-7/?searchterm=mobiltermineringspriserne>.

⁴⁶⁸ Network Strategies, *Final report for TelstraClear: Draft Standard Terms Determination for mobile termination access services—A review of the Commerce Commission's Draft Determination* 23 December 2010, 7 February 2011, section 3.6, page 34.

[1/lraic-priser/mobil/mobile-termination-rates-in-dkk-1](#). (This shows the asymmetric prices that applied up until 1 May 2011.)

France (voice)

20. ARCEP engaged Analysys Mason to conduct cost modelling for mobile termination. Analysys Mason used a LRIC+ model to estimate a cost of €0.0181/min for 2011, and cost estimates for future years expressed in real 2008 prices (see Table 35).

Table 35: France: benchmarked cost estimates 2011 to 2014 (real 2008 Euros)

	2011	2012	2013	2014
France	0.0181	0.0155	0.0138	0.0129

21. The Commission has applied an inflation adjustment of 2 percent per year to arrive at a nominal cost estimate for 2011, and for the cost path going forward. The nominal cost estimate has been adjusted to add and uplift of 2 percent to reflect differences between historical cost modelling and current cost modelling (as discussed in paragraphs 258 to 260 of the main report).
22. Network Strategies stated in its submission that “...ARCEP has released a later version of the model, namely Release 3 (dated June 2010 and released 28 May 2010). These results differ slightly from those of the earlier version used by the Commission.”⁴⁶⁹
23. ARCEP has confirmed to the Commission that the model referred to in the Network Strategies submission was not finalised. The Commission has stated that it only benchmarks against finalised models. While an updated version of the French model has been released, ARCEP’s price control process is still ongoing. Accordingly, the Commission has not included the updated cost in its benchmark set.

Information source for France

24. Modelled rates are available from ARCEP’s website at <http://www.arcep.fr/index.php?id=8080>. The blended (2G & 3G) LRIC+ termination cost for incoming voice, in real 2008 € cost per minute can be calculated by summing rows 3082 to 3094 in Module 4 – Service cost / sheet HCA Service – HCA Unitisation and Service Costs.⁴⁷⁰ Cost-path information is contained in the same source.
25. Commentary on the history of MTRs in France, including the approach to asymmetrical MTRs, is provided at the bottom of the webpage.

⁴⁶⁹ Network Strategies, *Final report for TelstraClear: Draft Standard Terms Determination for mobile termination access services—A review of the Commerce Commission’s Draft Determination 23 December 2010, 7 February 2011*, pages 35-36.

⁴⁷⁰ The model is located as a link under the date January 13 2010.

Hungary (voice)

26. The NMHH engaged Ernst & Young to conduct cost modelling for mobile termination. Ernst & Young used a LRIC+ model to estimate a cost of Ft11.86/min for 2008, expressed in a nominal 2008 price and implement a glide path to the cost modelled rate over a 23 month period.

Information source for Hungary

27. Modelled rates are available from the NMHH's website at <http://www.nmhh.hu/index.php?id=hir&cid=6592&mid=1139> Page 4 provides a table outlining the glide path to the cost modelled price.

Israel (voice)

28. The Israeli regulator engaged NERA to conduct cost modelling for mobile termination. NERA used a LRIC+ model to estimate a cost of ILS 0.0687/min for 2011, expressed in real 2009 prices. Table 36 sets out cost estimates for the period 2011 to 2014.

Table 36: Israel: benchmarked cost estimates for 2011 to 2014 (real 2009 ILS)

	2011	2012	2013	2014
Israel	0.0687	0.0634	0.591	0.0554

29. Analysys Mason submitted that the Israeli regulator increased their cost estimate to include inflation and royalties which increased the 2011 cost from ILS 0.0687 to ILS 0.0728, and that the Commission must account for this increase in its benchmarking.⁴⁷¹
30. The Commission has adjusted for inflation in a consistent manner for all benchmarked data points, by expressing benchmarked cost estimates in nominal terms in the year to which they apply. The Israeli regulator adjusted the cost based MTR by adding inflation, based on actual CPI, and royalties its LRIC+ cost estimate. As discussed in paragraphs 287 to 288 of the main report, the Commission considers it inappropriate to use actual inflation for a benchmarking exercise of this nature. Instead the Commission has used the long-term forward looking projections of inflation provided by central bank inflation targets to adjust for inflation where required. If the Commission were to include Israel's adjusted cost estimate of ILS 0.0728 in its benchmark set, as proposed by Analysys Mason, this would result in an inconsistent treatment, compared to the rest of the benchmark set.
31. Accordingly the Commission has retained the unadjusted cost estimate of ILS 0.0687. The Commission has applied an inflation adjustment of two percent per year to arrive at a nominal estimate of ILS 0.0715 per minute for 2011 (the year to which the cost estimate applies). Two percent reflects the midpoint of the Bank of Israel's target inflation band of between 1 and 3 percent.

⁴⁷¹ Analysys Mason, *Draft standard terms determination analysis: Report for NZ Commerce Commission*, 04 February 2011, page 5.

Information source for Israel

32. Modelled rates are provided in the report “An Examination of Charges for Mobile Network Elements in Israel”,⁴⁷² (available at http://www.moc.gov.il/sip_storage/FILES/8/2278.pdf). See in particular the “Summary Recommendation” on page 4 and Appendix A, “Model Sensitivity Analyses” on page 32. Cost-path information is available from the same source.

Lithuania (voice)

33. The Lithuanian regulator engaged Ernst & Young to conduct cost modelling for mobile termination. Ernst & Young used a LRAIC model to estimate a cost of Ltl 0.056 per minute for 2009, expressed in nominal 2009 prices.

Information source for Lithuania

34. Information on Lithuania’s cost estimates is available on the RRT’s website at <http://www.rrt.lt>. See in particular the section “Wholesale price control/Mobile Termination” (<http://www.rrt.lt/index.php?2127140408>). Further information is available from Balso Skambu_I_ Užbaigimo Individualiuose Viešuosiuose Judriojo Telefono Ryšio Tinkluose Rinkos Tyrimo Ataskaita (available at http://circa.europa.eu/Public/irc/infso/ecctf/library?l=/lithuania/registered_notifications/lt20090990/ataskaita_7rtpdf_LT_1.0_&a=d, see page 36.)

Malaysia (voice)

35. The Malaysian regulator engaged NERA to conduct cost modelling for mobile termination. NERA used a TSLRIC model to estimate a cost of 8.32sen per minute for local calls, 9.13sen per minute for national calls and 28.34sen per minute for national calls using the submarine cable for 2008, expressed in nominal 2008 prices.
36. The Commission has used an evenly weighted mean of the local call and national call costs. The Commission has not collected data in the proportion of calls that are local compared to national. The Commission understands that generally more local calls are made than national however, without concrete evidence that Commission has taken what it considers to be a conservative approach and taken an evenly weighted mean between the local and national rates.
37. The Commission decided to not to use the rate for national calls using the submarine cable because of the distance from mainland Malaysia is 950km compared to the Cook Straight which is around 23km at its narrowest point, creating significant cost differentials.

Information source for Malaysia

38. Modelled rates are available from the document A Report on a Public Inquiry: Access Pricing, available at

⁴⁷² NERA Economic Consulting, *An Examination of Charges for Mobile Network Elements in Israel*, 24 August 2010.

http://www.skmm.gov.my/link_file/Admin/FactsAndFigures/PublicEnquiryReport/30472965PIReportAccessPricing-MCMC-Final.pdf. (see Table 6.2, page 92).

Netherlands (voice)

39. The Dutch regulator engaged Analysys Mason to conduct cost modelling for mobile termination. Analysys Mason used a LRIC+ to estimate a cost of €0.0237/min for 2011, expressed in nominal 2011 prices.
40. Analysys Mason submitted that the Commission should use an older estimate of MTAS costs for the Netherlands, as the most recent cost estimate is still under appeal.⁴⁷³ The Commission has elected to rely on the more recent estimate. This estimate is the result of a final regulatory decision, and is the basis for current regulated prices (as Analysys Mason noted).

Information sources for the Netherlands

41. Modelled rates are available from the regulator's website at <http://www.opta.nl/nl/actueel/alle-publicaties/publicatie/?id=3180>. See in particular Annex C.11 Final Model—spreadsheets Service costing. Results for mobile can be found in the sheet titled Results_mobile.
42. Information on the approach taken in the Netherlands to asymmetry is available from:
 - http://circa.europa.eu/Public/irc/infso/ecctf/library?l=/nederland/adopted_measures/nl20070634/marktanalysebesluit_NL_1.0_&a=d. See: Paragraph 437, page 95 explains that MTRs were self-regulated until 1 December 2006. Table 1 on page 4 outlines the regulated rates in the Netherlands from 1 December 2006 until 1 July 2010.
 - <http://www.opta.nl/nl/actueel/alle-publicaties/publicatie/?id=3224>. The regulated rates for 7 July 2010 to 7 July 2013 are published in Table 16, Page 185. Symmetry is established on 1 September 2010.

Norway (voice)

43. The Norwegian regulator engaged Analysys Mason to conduct cost modelling for mobile termination. Analysys Mason used a LRAIC model to estimate a cost of NOK 0.30 per minute for 2011, expressed in real 2009 prices.
44. The Commission has applied an inflation adjustment of 2.5 percent per year such that the modelled rate is expressed in nominal terms for the year of estimation. This reflects the inflation target of the Norwegian central bank.

⁴⁷³ Analysys Mason, *Draft standard terms determination analysis: Report for NZ Commerce Commission*, 04 February 2011, page 6.

Information sources for Norway

45. Modelled rates are set out in the NPTA document Decisions for designating undertakings with significant market power and imposing specific obligations in the markets for voice call termination on individuals mobile networks (market 7), available at http://www.npt.no/ikbViewer/Content/122386/M7_Decision_27092010_Public.pdf (see paragraph 171, page 35).
46. Information on the approach taken to asymmetry is available from the NPTA's website at:
 - <http://www.npt.no/ikbViewer/Content/109726/Marked%2016%20-%20vedtak%20offentlig%20scannet%20versjon.pdf>. (see Table 1, page 5); and
 - <http://www.npt.no/ikbViewer/Content/122382/M7%20-%20Vedtak%20-%202027%2009%202010%20-%20Offentlig.pdf> (see Table 1, page 5).

Sweden (voice)

47. The Swedish regulator, PTS, engaged Analysys Mason to conduct cost modelling for mobile termination. Analysys Mason used a LRIC+ to estimate the highest and lowest cost operators in Sweden as being SEK 0.2582 per minute and SEK 0.2263 per minute. These are for the 2010/11 period (July to June), expressed in real 2010 prices.
48. In setting the regulated symmetric MTR, PTS chooses the upper bound (i.e. the LRIC+ for the highest cost operator. This is done to ensure cost recovery for all operators.
49. In the MTAS Schedule 3 Investigation the Commission took the midpoint of the two bounds. The Commission considers that the approach taken in the Schedule 3 Investigation remains appropriate, as the Commission's objective is to benchmark the cost of an efficient operator. Accordingly the Commission has taken the midpoint of the two bounds as the benchmark for each of the years in its cost path (2011 to 2013), see Table 37 below.

Table 37 Sweden: benchmarked cost estimates (2011 to 2013, real 2010 SEK)

	2011	2012	2013
Sweden	0.2423	0.2148	0.1933

50. To arrive at nominal cost estimates for 2011, and for the cost path going forward, the Commission has applied an inflation adjustment of 2 percent per year. The inflation rate applied reflects the inflation target of the Swedish central bank.
51. Analysys Mason submitted that it would be more appropriate to use the highest cost estimate from Sweden in the benchmark, set as this is the cost estimate the

PTS uses to set the MTR under Swedish law.⁴⁷⁴ The Commission does not consider that it is bound to rely on the same point in the range of cost estimates that the PTS uses, under the Swedish legal framework. Rather, the purpose of the Commission's benchmarking is to estimate the efficient costs of providing MTAS. Accordingly, the Commission has retained the approach it took in its Draft STD, of taking the midpoint of the Swedish estimates as the benchmark.

52. The PTS is currently developing a revised mobile termination cost model. The new model is generic, i.e. it produces a single cost estimate based on an efficient operator, rather than calculating the cost for each of the operators. The new model produces cost estimates based on a pure LRIC approach as well as an LRIC+ approach, in line with the European Commission recommendation on termination costs. The revised model is currently in draft form; final results are not available. Accordingly the Commission has continued to use the results of the previous model for its benchmarking. However the Commission notes that the revised (draft) cost estimate is substantially lower than the previous cost estimates. The draft LRAIC+ cost estimate for 2011 is SEK 0.1249 (in real 2010 SEK).

Information sources for Sweden

53. Modelled rates are available from the PTS document *Uppdatering av prisrekommendation för terminering av röstsamtal i mobilnät*, available from the PTS website, at <http://www.pts.se/upload/Ovrigt/Tele/Bransch/Kalkylarbete%20mobilnät/Samråd%20våren%202010/mobil-lric-prisrekommendation-fran-1-juli-2010.pdf> (see page 2). Cost-path information is included in the same document.
54. Information on the level of asymmetry afforded to the new entrant in Sweden is outlined at http://www.pts.se/upload/Documents/SE/Terminering_%20mobil_%20skyldigheter_Hi3G.pdf (see page 15).
55. Information on Sweden's draft revised cost model is available at <http://www.pts.se/sv/Dokument/Remisser/2011/Samrad-om-kalkylmodell-och-prismetod-for-mobilnat/>.

United Kingdom (voice)

56. The UK regulator engaged Analysys Mason to conduct cost modelling for mobile termination. At the time the Commission issued its draft STD, the UK model was still subject to consultation. Ofcom released its final decision, and cost model results, on 15 March 2011. The final cost estimates, using an LRIC+ methodology, are set out in the Modelling Annexes to Ofcom's Mobile Termination Review Statement (see paragraph 58 below).

⁴⁷⁴ Analysys Mason, *Draft standard terms determination analysis: Report for NZ Commerce Commission*, 04 February 2011, section 2.1, page 6.

Table 38: UK cost estimates 2011/12/ to 2011/154 (GBP per minute, real 2008/09 prices)

	2011/12	2012/13	2013/14	2014/15
UK	0.0198	0.0185	0.0172	0.0161

57. The Commission has applied an inflation adjustment of 2 percent per year to arrive at a nominal cost estimate for 2011, and for the cost path going forward. This inflation rate reflects the express inflation target of the Bank of England.

Information sources for the UK

58. Ofcom's finalised LRIC+ cost estimates, and associated information are provided in Ofcom's Mobile Termination Review Statement released on 15 March 2011 (see <http://stakeholders.ofcom.org.uk/consultations/mtr/statement>). The LRIC+ cost estimates are contained in the Modelling Annexes attached to the Ofcom statement, and available at http://stakeholders.ofcom.org.uk/binaries/consultations/mtr/statement/MCT_statement_Annex_6-10.pdf. Figure A10.2 on page 143 presents voice termination costs estimated using LRIC+ for 2G only, 3G only, and a blended network. The Commission has used the LRIC+ estimate for a blended network in its benchmark set.
59. For information on asymmetrical MTRs in the UK see the following documents
- OfCom statement on Wholesale Mobile Voice Call Termination, 1 June 2004, available at http://stakeholders.ofcom.org.uk/binaries/consultations/mobile_call_termination/statement/Statement_on_Wholesale_Mobi1.pdf. The regulated MTRs for 2004 to 2006 are presented in Table 1, page 60; and
 - UK Competition Commission, Mobile phone wholesale voice termination charges: Determination, 16 January 2009, available at http://www.competition-commission.org.uk/appeals/communications_act/mobile_phones_determination.pdf. The regulated MTRs for 2006 to 2011 are presented in Figure 16.1, page 373.

Denmark (SMS)

60. The Danish regulator engaged Analysys Mason to conduct cost modelling for SMS mobile termination. Analysys Mason used a LRIC+ to a cost of DKK0.022 per SMS for 2009, expressed in nominal 2009 prices.

Information source for Denmark (SMS)

61. Information on the cost estimate for SMS is available on the ITST website at <http://www.itst.dk/tele-og-internetregulering/smp-regulering/markedsundersogelser/2-runde-af-markedsundersogelser/horing-over-markedsafgorelser-1/engrosmarkedet-for-sms>. Prices for the three operators are published in individual decisions. All have the same modeled price. The final paragraph of section 3.1 of each individual decision states that the weighted

average cost of termination is kr0.022/SMS. (See documents titled “Udkast til prisafgørelse over for …”.)

Israel (SMS)

62. The Israeli regulator engaged NERA to conduct cost modelling for mobile termination. NERA used a LRIC+ model to estimate a cost of SMS ILS 0.0017/SMS for 2011, expressed in real 2009 prices.
63. The Commission has applied an inflation adjustment of 2 percent per year to arrive at nominal value for 2011.

Information source for Israel (SMS)

64. Modelled rates are provided in the report “An Examination of Charges for Mobile Network Elements in Israel”,⁴⁷⁵, available at http://www.moc.gov.il/sip_storage/FILES/8/2278.pdf. For information on the SMS cost estimate see “Summary Recommendation” on page 4 and “Appendix A, Model Sensitivity Analyses” on page 32.

Malaysia (SMS)

65. The Malaysian regulator engaged NERA to conduct cost modelling for mobile termination. NERA used a TSLRIC model to estimate a cost of 0.27sen per SMS for 2008, expressed in nominal 2008 prices.

Information source for Malaysia (SMS)

66. Information on the modeled cost estimate for SMS is available from the document A Report on a Public Inquiry: Access Pricing, available at http://www.skmm.gov.my/link_file/Admin/FactsAndFigures/PublicEnquiryReport/30472965PIReportAccessPricing-MCMC-Final.pdf (see Table 6.2 on page 92).

⁴⁷⁵ NERA Economic Consulting, *An Examination of Charges for Mobile Network Elements in Israel*, 24 August 2010.

APPENDIX 2: PROCESS FOR THE MTAS STD

Background to the determination process

1. On 28 September 2010, the Commission initiated the STD process in relation to the MTAS Services under section 30C of the Act.⁴⁷⁶
2. The Commission conducted a scoping workshop on 6 October 2010. The workshop was open to all parties to the STD. The purpose of the workshop was to provide the Commission with information to assist it in specifying:
 - a reasonable period of time within which an Access provider(s) must submit a standard terms proposal (STP) under section 30F; and
 - any additional requirements for that proposal under 30F(2).
3. On 7 October 2010 the Commission gave written notice to Vodafone requiring it to submit to the Commission, a single STP covering the MTAS Services by 5 November 2010 that complied with section 30G of the Act.⁴⁷⁷ In the notice, the Commission specified a number of additional requirements that Vodafone was required to provide in its proposal.
4. On 5 November 2010 Vodafone provided the STP to the Commission in accordance with the Commission's notice of 7 October 2010.
5. The Commission received submissions on Vodafone's STP from CallPlus and Kordia, the Telecommunications Users Association of New Zealand, Telecom, TelstraClear and 2degrees.

Information request and release of CBA model

6. To assist in the MTAS STD development process, on 28 September 2010 the Commission requested information from 2degrees, Telecom and Vodafone.⁴⁷⁸ These parties provided the requested information, supplementary information and clarification on the approaches that each party had taken in providing that information.
7. All parties requested that the information they had provided be classified as either restricted information (RI) or additional protection information (API), including Commission only information (COI), under the Order. On 14 December 2010 the Commission issued a decision on the classification of that information, setting out:⁴⁷⁹
 - the categories of information that are RI, subject to the provision of the Order;

⁴⁷⁶ Commission, *Mobile Termination Access Services Standard Terms Development Process*, 28 September 2010 (**STD initiation letter**).

⁴⁷⁷ MTAS STP notice.

⁴⁷⁸ STD initiation letter, pages 6-7.

⁴⁷⁹ Commission, *Classification of information provided for the MTAS STD process*, 14 December 2010.

- the categories of information that are API, subject to the provisions of the Order and the additional API conditions specified in the Commission's decision; and
 - the categories of information that are COI.
8. In addition, the Commission received a request from Covec Limited for a copy of the cost-benefit assessment (CBA) model from the MTAS Schedule 3 Investigation. On 20 December 2010 the Commission determined that the CBA model should be released under the Order, subject to specified API conditions.⁴⁸⁰

Release of the draft MTAS STD

9. On 23 December 2010 the Commission released the draft MTAS STD. Submissions were initially due on 7 February 2011, with cross-submissions being due on 17 February 2011, and the MTAS STD Conference being scheduled for 1-2 March 2011.

Submissions and cross-submissions on the draft MTAS STD

10. The Commission received submissions on the draft MTAS STD from:
- 2degrees, with supporting reports from independent experts Professor Dr. Justus Haucap, Emma Lanigan, Synovate and Telecommunications Management Group;
 - Auckland Netball Centre Inc;
 - CallPlus and Kordia;
 - Digital Island;
 - Federated Farmers;
 - InternetNZ;
 - Telecom, with a supporting report from independent expert NERA;
 - TelstraClear, with a supporting report from independent expert Network Strategies;
 - TUANZ;
 - Vodafone, with supporting reports from Analysys Mason and Covec; and
 - Woosh.
11. On 11 February 2011 the Commission sought the views of parties over a request from Vodafone for an extension to the timeframe for cross submissions and clarification of the process for the MTAS STD process.

⁴⁸⁰ Commission, *Release of MTAS Schedule 3 Investigation quantitative model*, 20 December 2010.

12. On 14 February 2011, following feedback from interested parties, the Commission announced that:
- the timeframe for cross-submissions was extended to 24 February 2011; and
 - the Conference was rescheduled to be on 15 and 16 March 2011.
13. The Commission received cross-submissions on the draft MTAS STD from:
- 2degrees, with a supporting report from independent experts Professor Dr. Justus Haucap and Emma Lanigan;
 - CallPlus and Kordia;
 - Telecom, with a supporting report from independent expert NERA;
 - TelstraClear, with a supporting report from independent expert Network Strategies;
 - TUANZ; and
 - Vodafone.

Pre-Conference information request and responses

14. On 23 February 2011 the Commission requested that:⁴⁸¹
- Interested parties provide information on any commercial interconnection agreements (both domestic and international) that they are parties to where bill-and-keep (BAK) or hybrid BAK pricing applies for either voice or SMS traffic. Where hybrid BAK pricing applies, parties should provide the details of the thresholds (eg traffic imbalance levels);
 - TelstraClear / Network Strategies provide further information on points raised in Network Strategies report attached to TelstraClear's submission;
 - 2degrees, Telecom and Vodafone provide the details of the numbers of post-paid customers that are plans with no term commitment remaining, plans with a contract commitment of up to 12 months remaining and plans with a contract commitment of more than 12 months remaining;
 - if the Commission decided to impose a retail non-discrimination condition, parties' comments on:
 - what form should that condition take eg should such a condition involve a price cap or be linked to the mobile termination rates;
 - should there be any exceptions to the condition eg short term promotions;

⁴⁸¹ Commission, Letter to parties re additional information and comments requested prior to MTAS STD Conference, 23 February 2011.

- how long should the condition remain in place for; and
 - how should the condition be monitored; and
 - if the Commission decided a differential glide path for fixed-to-mobile calls cf mobile-to-mobile calls was appropriate, parties' comments on:
 - what should the differential glide paths be ie how would the differential be set and how long would it be in place for; and
 - how would the differential glide path be monitored; and
 - if the Commission decided asymmetry was appropriate, parties' comments on how the asymmetric prices should be set and how they would be phased out.
15. Responses were received from 2degrees, Telecom, TelstraClear (including a supporting report from Network Strategies) and Vodafone.

Pre-Conference workshop

16. On 11 March 2011 the Commission held a pre-Conference workshop, which addressed the following non-price issues:
- Treatment of transit and transport services;
 - Charges for set-up arrangements;
 - Artificial inflation of traffic;
 - SIM boxes; and
 - Timeframes for implementation.
17. The pre-Conference workshop was attended by representatives of 2degrees, CallPlus, Telecom, Vodafone and Woosh.

Conference

18. On 15 and 16 March 2011 the Commission held a Conference to discuss the draft MTAS STD and issues arising from submissions and cross-submissions. The Conference was attended by representatives of 2degrees, CallPlus, Telecom, TUANZ and Vodafone.
19. 2degrees were supported by independent experts Professor Dr. Justus Haucap, Director of the Dusseldorf Institute of Competition Economics, and Emma Lanigan. Telecom was supported by independent expert James Mellsop of NERA. Dr Suella Hansen and Noelle Jones of Network Strategies appeared as independent experts engaged by TelstraClear, who were unable to attend the Conference. Vodafone were supported by independent experts Dr John Small and Dr Aaron Schiff of Covec and Joan Obradors of Analysys Mason. All independent experts confirmed in writing that they were appearing as experts

and agreed to follow the guidance provided in the Code of Conduct for expert witnesses contained in the High Court Rules.

20. 2degrees were supported by legal advisers from Minter Ellison Rudd Watts and Vodafone were supported by legal advisers from MGF Webb.

Post-conference information updates

21. Following the Conference, Vodafone were requested to provide:
 - a revised artificial inflation of traffic provision, following consultation with industry;
 - Vodafone's submission in Portugal regarding non-discrimination conditions; and
 - comments on questions asked about Vodafone Group's cost-model results for New Zealand.
22. In addition, 2degrees, Telecom and Vodafone were requested to provide updated volume and revenue information to supplement their responses to the original information request (referred to in paragraph 6 above).
23. 2degrees, Telecom and Vodafone all provided follow-up information in response to these requests.

APPENDIX 3: SUMMARY OF SUBMISSIONS ON BENCHMARK SET

Purpose

1. This Appendix summarises submissions received on the Commission's approach to benchmarking in relation to:
 - general comments on the Commission's benchmarking approach (see paragraphs 3 to 36);
 - comparability of benchmarks (see paragraphs 37 to 99);
 - other benchmarking criteria (see paragraphs 100 to 109);
 - not all benchmarks are derived from TSLRIC models (see paragraphs 110 to 119);
 - changes to the benchmark set (see paragraphs 120 to 138);
 - converting benchmarks into comparable form (see paragraphs 139 to 143);
 - calculation errors in the draft benchmark set (see paragraphs 144 to 152);
 - relevance of the Vodafone model to the Commission's benchmarking (see paragraphs 153 to 161);
 - establishing a cost-path for voice MTAS (see paragraphs 162 to 189); and
 - establishing the benchmark set for SMS MTAS (see paragraphs 190 to 195).
2. Under each topic submissions received are grouped into submissions on the draft STD, cross-submissions, and views presented at the MTAS STD Conference in March 2011.

General comments on the Commission's benchmarking approach

Submissions on the draft STD

Telecom and NERA

3. Telecom noted that the sample in the benchmark set ranged from a minimum of 2.95 cpm to a maximum of 10.86 cpm and asked NERA to consider issues of statistical uncertainty in selecting a price point within this range as applicable to New Zealand.⁴⁸² Details of the statistical analysis are set out in the NERA report in sections 3.1 and 3.2.
4. Telecom noted that, when compared to cost modelling for fixed networks, mobile networks consist of a rather limited schedule of direct costs attributed

⁴⁸² Telecom Submission, paragraphs 26 – 30.

from network elements, and a more expansive schedule of joint costs which must be allocated to services on a more subjective basis. Accordingly, cost modelled MTR rates will be subject to a greater level of estimation error than fixed models. Telecom submitted that the price point that the Commission derives from the benchmarking exercise will accordingly be subject to an unknown level of model error that is, at least, likely to be higher than corresponding risk when benchmarking fixed access services. Telecom submitted that this risk needs to be recognised in the Commission's benchmarking.⁴⁸³

5. In light of these risks NERA submitted that:⁴⁸⁴

The sheer variability in country characteristics makes benchmarking difficult. This leaves the Commission with two options:

- Carry out a much more rigorous analysis, e.g., using econometrics, resulting in a more rigorous point estimate; or
- Stick with a non-rigorous benchmarking study, but be much more cautious in choosing the point estimate – see section 3 of our report.

Given that the Telecommunications Act provides for a final pricing principle process, our view is that that latter approach is the most appropriate one.

Vodafone:

6. Vodafone submitted that there are substantial uncertainties about what the costs of an efficient New Zealand operator actually are. Stating that the Commission's estimates of cost, as well as the methodology for estimating them, have moved markedly in recent times, while there is a wide variance (from just under 3 cents to just under 11 cents) between the rates estimated from various countries for reasons that are not well understood.⁴⁸⁵
7. Vodafone submitted that means that MTAS price setting should be approached conservatively so as to ensure that the purpose of regulation, as set out in section 18, is not frustrated.
8. Given the uncertainty and the importance of erring on the upside, Vodafone encouraged the Commission to be more cautious in its benchmarking work. Vodafone provided the following as reasons for doing so:⁴⁸⁶
9. The Commission benchmarks against cost model results, not against the prices regulators have actually set, in contrast to all other regulators who use benchmarking approaches to set prices for MTAS.
10. The Commission chooses the 37½th percentile from its benchmark set, without any real analysis of the impacts of this choice on investment, something that it routinely does in other regulatory proceedings.

⁴⁸³ *ibid*, paragraphs 38 – 39.

⁴⁸⁴ NERA Economic Consulting *Review of Draft STD for MTAS—Telecom New Zealand*, 7 February 2011, page 7, section 2.5.

⁴⁸⁵ Vodafone Submission, page 27, paragraphs 118.

⁴⁸⁶ *ibid*, pages 27, paragraph 121.

11. The Commission proposes to move directly to cost, with no glide path. Stating that this is a highly unusual approach also, particularly because of the importance to mobile market competition of fixed-to-mobile termination rates, and the significant changes that could take place if rates are sharply changed.
12. Vodafone stated that the Commission has articulated the risk of setting prices below cost, but submits that the draft STD does not reflect this risk or contain means of reducing the risk or its adverse effects.
13. Vodafone stated that it would be safer to put in place a glide path on fixed-to-mobile rates, and choose a more moderate level for cost, and then monitor the impacts of regulation over time.⁴⁸⁷
14. Vodafone stated that a conservative approach to selecting regulated prices is international best practice and that this is because regulators recognise that the longer-term impact of regulatory decisions on investment and how these feed through to consumers and producers has a larger impact on welfare than short term impacts on consumers and producers.
15. Noting that the Commission benchmarks termination costs (based on cost models) while other regulators that use benchmarking compare actual regulated rates, Vodafone submitted that the differences between actual regulated rates and modelled cost estimates results in a very significant difference in approach.
16. Given the uncertainty and asymmetric risk in setting rates too low, Vodafone noted that some regulators, such as in Croatia, take as the rate for a country the operator with the highest figures. Even those regulators who use lower averages use actual regulated rates rather than cost model derived rates.
17. Vodafone raised the example of the Australian benchmark where the Commission has benchmarked against the cost modelled rate, which the ACCC has stated is below cost. The ACCC subsequently regulated the voice MTR at 10.15 NZ cpm, despite the cost model suggesting a rate of 6.5 NZ cpm.⁴⁸⁸

Cross-submissions

2degrees (p8):

18. 2degrees reiterated its broad support for the Commission's benchmarking approach.⁴⁸⁹
19. 2degrees stated that much of the incumbents' submissions revisited matters that have already been considered and resolved by the Commission.⁴⁹⁰ 2degrees

⁴⁸⁷ ibid, pages 27 – 28, paragraphs 122 – 125.

⁴⁸⁸ ibid, pages 34 – 36, paragraphs 146 – 152.

⁴⁸⁹ 2degrees, *Cross-submission to the Commerce Commission on the Draft Standard Terms Determination for the designated services of the mobile termination access services (MTAS (fixed-to-mobile voice (FTM), mobile-to-mobile voice (MTM) and short messaging services (SMS))),* 24 February 2011, p. 8, paragraph 3.7.

⁴⁹⁰ Such as benchmarking of cost-modelled rates as opposed to regulated prices and the impact of lower MTRs on investment.

- urged the Commission not to permit incumbent attempts to re-litigate matters further to extend the current process.⁴⁹¹
20. 2degrees stated that submissions that have sought to undermine the benchmarking as being inherently volatile are not constructive and ignore the fact that benchmarking is only an initial pricing principle, and urge the Commission not to be drawn into a de-facto cost modelling exercise.
 21. Referencing the Ministerial Inquiry, 2degrees submitted that the benchmarking process was intended to be an approach to setting prices which can be set more quickly and cheaply than build a cost model.⁴⁹²
 22. 2degrees agreed with the Network Strategies submission that increasing the number of calculations and adjustments to the benchmark data will require additional effort from the Commission. 2degrees stated that they also agree with the Network Strategies recommendation that it may be preferable that the Commission apply its expert judgement to assess how the costs of an efficient operator in New Zealand compare to those in the benchmark set. Concluding that they (2degrees) not only prefer this approach, but consider it to be what the legislature intended.⁴⁹³
 23. 2degrees noted that the submission from Analysys Mason is at odds with earlier work it has conducted. In its study for Ofcom analysing jurisdictions that have implemented bill and keep, Analysys Mason conclude that “to date the risk of underinvestment (from implementing bill and keep) has not been of significant concern”.⁴⁹⁴
 24. Additionally, 2degrees noted that Analysys Mason recommend low MTRs and non-discrimination to the Kenyan regulator⁴⁹⁵ to address very similar market failures to those present in the New Zealand market.⁴⁹⁶

Telecom:

25. Telecom cross-submitted that the wide range of rates set out in the Commission’s benchmarks, and the large variations in outcomes which arise from the inclusion, adjustment, or exclusion of benchmarks should underline for the Commission the magnitude of the uncertainty associated with the benchmarking process.⁴⁹⁷
26. Telecom noted that submitters have raised a number of issues with the benchmarking and urge the Commission to carefully consider the fact that the range of issues raised, and the impact that these issues have on benchmarked

⁴⁹¹ 2degrees Cross-submission, Section 3, page 8, paragraphs 3.4 – 3.5.

⁴⁹² ibid, Section 3, page 9, paragraphs 3.11 – 3.15.

⁴⁹³ ibid, Section 3, page 9, paragraphs 3.16 – 317.

⁴⁹⁴ Ofcom Report, para 6.61

⁴⁹⁵ Analysys Mason Kenya Report, p49

⁴⁹⁶ 2degrees Cross-submission, Section 6, pages 24 - 25, paragraphs 6.8 – 6.13.

⁴⁹⁷ Telecom, *Cross-submission on the Commerce Commission’s Draft Standard Terms Determination on Mobile Termination and Access Services*, 24 February 2011, paragraph 15. (**Telecom Cross-submission**)

estimates of the MTR means that they should take great care in selecting their point estimate.⁴⁹⁸

27. Telecom submitted that Network Strategies correctly note that “if mobile termination rates are too high, then there may be a detrimental effect on allocative efficiency with the result that competition may be harmed.” Agreeing with the comment, Telecom reminded the Commission that if MTRs were to be regulated below cost, then there would likely be a detrimental effect on dynamic efficiency with the result that the long term best interests of end users may be harmed.⁴⁹⁹
28. Telecom noted that Vodafone’s submission sets out its concern about the uncertainty of the cost of voice termination in New Zealand and draws attention to the wide range of rates set out in the Commission’s benchmarks. It states that the detail of why the models produce such a wide range of results is not well understood. Telecom submitted that the Commission’s proposed approach to the comparability of benchmark countries, choice of the 37.5th percentile of the range, and exclusion of a glide path are likely to produce a regulated MTR that is likely to be below cost.
29. Telecom urged the Commission either to revisit its benchmark set, and reconsider its approach to comparability, or to choose a price point for the MTR which reduces the significant risk of regulating below cost.⁵⁰⁰

TelstraClear:

30. TelstraClear disagreed with Vodafone’s submission that the Commission should benchmark against regulated prices rather than cost modelled rates because the regulated rates can be influenced by factors unrelated to cost, such as market, political or social considerations.⁵⁰¹

Network Strategies:

31. In response to Vodafone’s submission that the Commission used rates for the benchmark values that were sourced from the cost models, rather than the price points actually implemented by the regulator, Networks Strategies raised a number of reasons why a regulator implement a rate other than cost. Network Strategies stated that these reasons are typically due to the use of a glide path towards achieving cost-based or symmetric rates.
32. Network Strategies submitted that it is therefore preferable for the Commission to select the cost-based rates in its benchmarking analysis, and then independently determine if there may or may not be some reason for setting a price point above benchmarked cost, rather than being influenced by local factors not relevant to the New Zealand context.⁵⁰²

⁴⁹⁸ ibid, paragraph 16.

⁴⁹⁹ ibid, paragraph 17.

⁵⁰⁰ ibid, paragraphs 18 - 19.

⁵⁰¹ TelstraClear Cross-submission, Section C.2, page 5, paragraph 24(b).

⁵⁰² Network Strategies Cross-submission, Section 2.2, page 9.

Vodafone (p7):

33. Vodafone suggested the following adjustments to the Commissions benchmarking approach:⁵⁰³
- increasing the number of countries in the benchmark sample;
 - using comparability criteria that drive costs such as traffic volumes rather than urbanisation
 - adjusting the cost model results for situations where the final regulated price set is not the cost model result; and
 - excluding cost estimates from unfinished regulatory processes.

MTAS STD Conference

34. James Mellsop of NERA commented that “this is, once again, a frustrating area for the Commission because you’re not going to get a perfect benchmark set; there are so many cost drivers. So I’ve actually been quite sympathetic to what the Commission has done ...”⁵⁰⁴ He went on to state that “unless you want to go the full-blown econometric route, then I think there’s an argument for staying broad but picking the price point carefully”.⁵⁰⁵
35. Similarly, Anton Nannestad of Telecom commented that it’s better to have more observations in the sample and to “take some of these things into account when you’re selecting the price point”.⁵⁰⁶ He went on to state that “I’m probably not a fan of actually removing any of the data points, acknowledging that none of them are perfect”,⁵⁰⁷ and that having a narrow group of benchmarks raises the uncertainty: “The smaller the sample, the greater the uncertainty.”⁵⁰⁸
36. Noelle Jones of Network Strategies noted that “there are other criteria other than urbanisation which do influence the costs. Urbanisation is not the sole parameter here. The relationship between a number of different proxy variables is very very complex when it comes to looking at what the cost should be.” She went on to comment that “if we are limiting ourselves to just a single criteria for inclusion within the benchmark set, this should also inform our choice of price point”.⁵⁰⁹

⁵⁰³ Vodafone Cross-submission, pages 7 – 8, paragraph 41.

⁵⁰⁴ MTAS STD Conference Day One, page 100, lines 19-23.

⁵⁰⁵ Ibid., page 100 line 33 to page 101 line 2.

⁵⁰⁶ Ibid., page 102, lines 31-32.

⁵⁰⁷ Ibid., page 103, lines 8-9.

⁵⁰⁸ Ibid., page 103, lines 24-25.

⁵⁰⁹ Ibid., page 106, lines 9-12 and 21-22.

Comparability of benchmarks

Submissions on draft STD

2degrees and Emma Lanigan

37. 2degrees⁵¹⁰ and Emma Lanigan⁵¹¹ submitted that Hungary should be excluded from the benchmark set because it is a 2G-only cost model and it relies on some historic costs.

Telecom and NERA:

38. Telecom submitted that it did not agree with the Commission's view that differences in cost modelling methodologies would balance out. Telecom was of the view that different cost modelling methodologies used in the Commission's set can give rise to compatibility issues.⁵¹²
39. Telecom identified the following issues as key areas where cost differences can arise:⁵¹³
- General concept of model (eg spatial or non-spatial model, scorched earth or scorched node approach);
 - Radio layer design;
 - Radio layer provisioning;
 - Aggregation network design;
 - Switching centre location and design;
 - Technology choice; and
 - Annualisation of costs.
40. Telecom did not agree with the Commission's view that differences in cost modelling methodologies would balance out.⁵¹⁴
41. Telecom consider that:
- the impact of methodological differences would be difficult to predict either in a qualitative or quantitative way;
 - each of these cost models estimates will be subject to an unquantifiable model error; and

⁵¹⁰ 2degrees Submission, pages 38, paragraph 6.18.

⁵¹¹ Lanigan Submission, Section 3, pages 9-10.

⁵¹² Telecom, *Submission on the Commerce Commission's Draft Standard Terms Determination on Mobile Termination and Access Services*, 7 February 2011, paragraph 40. (**Telecom Submission**)

⁵¹³ *ibid*, pages 11-15.

⁵¹⁴ *ibid*, paragraph 45.

- there is no reason to assume that these errors will balance out any more than to assume that they will cumulate as “overs or unders”. (para 45)
42. Telecom submitted that these errors cannot be quantified at the present time and that the known approximations are all in the direction of under-stating costs. According to Telecom the impact of model error and modelling methodological differences mean that the country cost estimates used for benchmarking should be viewed in terms of point estimates with an unknown margin of error.⁵¹⁵
43. Addressing cost drivers for the MTAS service, Telecom submitted that costs are driven predominantly through the coverage of the network, the number of customers on the network and the volume of traffic on the network. The fixed investment required to build a mobile network the services provided on a mobile network utilise a large number of common network elements meaning that most network elements have more than one cost driver and that no subscriber individually drives costs for any one of the primary cost drivers.⁵¹⁶
44. Telecom submitted that the proportion of coverage driven cells to capacity driven cells is an important comparability consideration. Telecom noted that the rural/urban split exhibited in New Zealand has resulted in much of the network being built for coverage, rather than capacity, purposes. As a result Telecom was of the view that an efficient network built in New Zealand must take into account the need to compete on the basis of coverage and if this is taken into account, it will increase the cost of mobile termination over a hypothetical network design based primarily on a capacity-driven deployment.⁵¹⁷
45. Telecom considered the comparability assessment based on urbanisation to be flawed because it does not take into account the fundamental drivers of cost, or the rate at which scale economies emerge in smaller jurisdictions.⁵¹⁸
46. Telecom submitted that the Commission should carry out a more detailed review of the models in its benchmark set, and estimate a statistic for the average traffic per NodeB site/Base Transceiver Station. The same statistic could be estimated for New Zealand using data for the networks operated by each of the three MNOs. In choosing the measure for New Zealand, Telecom submitted that the lowest average traffic statistic should be selected in order to avoid any operator being forced to terminate below cost when a price point is selected.⁵¹⁹
47. NERA, on behalf of Telecom, submitted that if urbanisation were the primary driver of costs, as the Commission contends, then one would expect to see a negative relationship between urbanisation and costs.⁵²⁰
48. NERA plotted the relationship between urbanisation and the benchmarked cost and the trend line suggests that as urbanisation increases, costs increase, which according to NERA is the opposite of the Commission’s proposition.

⁵¹⁵ ibid, paragraph 46.

⁵¹⁶ ibid, paragraph 47.

⁵¹⁷ ibid, paragraphs 48 – 53.

⁵¹⁸ ibid, paragraphs 54 – 56.

⁵¹⁹ ibid, paragraph 64.

⁵²⁰ NERA, *Review of Draft STD for MTAS*, 7 February 2011, Section 2.4. (**NERA Submission**)

49. NERA submitted that there are likely to be other important cost drivers, and it was inappropriate to place sole reliance on urbanisation. Other cost drivers that NERA consider likely to be material are:
- Network coverage area;
 - Scale of operators in terms of number of subscribers and volumes per subscriber;
 - Purchasing power;
 - Whether the operators are integrated with fixed networks or standalone mobile operators;
 - Infrastructure sharing between companies;
 - Prices paid for spectrum;
 - Traffic demand profile, quality of service and other technical assumptions;
 - Wages, pension, national insurance, redundancy costs;
 - Cost of land for cell and switch sites, including planning rules; and
 - Cost of capital.
50. NERA submitted that the variability in country characteristics makes benchmarking difficult and the Commission could either:⁵²¹
- carry out a much more rigorous analysis, e.g., using econometrics, resulting in a more rigorous point estimate; or
 - maintain a non-rigorous benchmarking study, but be much more cautious in choosing the point estimate.
51. NERA submitted that the latter approach is more appropriate, given that the Telecommunications Act provides for a final pricing principle process.

Network Strategies:

52. Network Strategies submitted that the Commission's conclusion that urbanisation is the only relevant exogenous comparability factor is not substantiated with any underlying evidence or references to previous studies.⁵²²
53. Network Strategies submitted that variation in the benchmark set may be the result of the following:⁵²³

⁵²¹ ibid, Section 2.5.

⁵²² Network Strategies, *Draft Standard Terms Determination for mobile termination access services – A review of the Commission's Draft Determination 23 December 2010, 7 February 2011*, pages 15 – 16. (**Network Strategies Submission**)

⁵²³ ibid, pages 16 - 17.

- significant differences between 2G and 3G unit costs, as evidenced by the cost modelling conducted in the UK;
 - traffic volumes contribute to difference in benchmarks, as illustrated in the sensitivity analysis conducted in Israel; and
 - the weighted average cost of capital (WACC) is generally recognised as having a resultant impact on cost.
54. Network Strategies submitted that traffic volumes affect the modelled costs, and noted that New Zealand has relatively low levels of mobile voice traffic per subscriber. Network Strategies indicated that the low traffic is in part due to perceived high retail tariffs, and reducing the termination rate, thus reducing retail rates (assuming pass through occurs) should stimulate traffic levels. If this were the case, then an assumption of anticipated voice traffic levels to be similar to current levels would be inappropriate.⁵²⁴
55. Network Strategies noted that WIK Consult advice was that the high fixed to mobile substitution is a reason for excluding the Austrian MTRs. Network Strategies suggested that the Malaysian and Lithuanian benchmarks should also be excluded for the same reason.⁵²⁵
56. Network Strategies submitted that the size of coverage area should not influence incremental costs, however the ratio of coverage driven cells to capacity driven cells will. Urbanisation is a rough proxy for this ratio, but there will be significant variation in traffic density in urban areas between countries due to a combination of per-subscriber usage levels and the number of subscribers in those areas, indicating that urbanisation alone would not be sufficient to explain all the variation within the benchmark set.⁵²⁶
57. Network Strategies considered the 60-100% urbanisation range used for comparability purposes to be too broad and may introduce some countries into the benchmark set that are not comparable to New Zealand.⁵²⁷
58. Noting that population density figures are often suggested as a proxy for traffic density, Network Strategies stated that when averaged over an entire country the resulting figure may not adequately act as an accurate proxy. Network Strategies noted that there are methods for rectifying this problem, but concluded that the practical realities of doing so make it too difficult to pursue.
59. Examining a combination of population density and urbanisation, Network Strategies note that there appear to be three distinct clusters of countries:⁵²⁸
- New Zealand, Australia, Norway and Sweden have broadly similar characteristics for these measures;

⁵²⁴ ibid, page 23.

⁵²⁵ ibid, pages 17 - 18.

⁵²⁶ ibid, page 19.

⁵²⁷ ibid, page 19.

⁵²⁸ ibid, pages 19 - 20.

- Hungary, Lithuania and Malaysia have relatively lower urbanisation levels yet higher population densities; and
 - Belgium, Israel, the Netherlands and the United Kingdom have relatively higher population densities and urbanisation,
60. Network Strategies submitted that the Commission should consider options for adjusting for systematic differences between the benchmarked countries and New Zealand.
61. Network Strategies submitted that domestic transit is included in all benchmarks in the Commission's set, except for France.⁵²⁹
62. Network Strategies concluded that the variation in benchmarks are not due to one factor alone.

Vodafone and Analysys Mason

63. Vodafone submitted that it had reservations about the Commission's approach to country comparability. In particular, Vodafone noted and provided some examples to show that high urbanisation does not necessarily relate to lower termination costs and vice versa.⁵³⁰
64. Vodafone noted that the Commission has recognised the impact data volumes can have on the end result of a TSLRIC model, but this has not taken this into account in the benchmarks.⁵³¹
65. Vodafone noted that it had developed a bottom up TSLRIC+ model to estimate the cost of termination of a mobile call on the network of a hypothetical efficient new entrant in New Zealand and presented the results of the exercise.⁵³²
66. According to Vodafone its model provides strong evidence that the Commission's benchmarking methodology generates results below cost and encouraged the Commission to develop a model as a cross-check on its benchmarking work, and in particular to ensure that it does not set rates below cost.⁵³³
67. Analysys Mason, on behalf of Vodafone, identified the main methodological differences between the TSLRIC models developed by the countries included in the Commission's benchmark.⁵³⁴

⁵²⁹ ibid, page 24 - 25.

⁵³⁰ Vodafone, *Submission on the Draft Standard Terms Determination for the Designation of the Mobile Termination Access Services*, February 2011, pages 30-31, paragraphs 138 – 140. (**Vodafone Submission**)

⁵³¹ ibid, page 34.

⁵³² Vodafone noted that its model is consistent with world best TSLRIC modelling practice and reflects approaches adopted by many European NRAs. The model has been calibrated to reflect New Zealand-specific network factors

⁵³³ ibid, pages 41 – 42.

⁵³⁴ Analysys Mason, *Draft standard terms determination analysis*, 4 February 2011, pages 10-11 (**Analysys Mason Submission**).

68. Analysys Mason submitted that geo-demographic parameters such as the distribution of population density is a more appropriate driver of costs than urbanisation.⁵³⁵
69. Analysys Mason stated that the large variance between benchmarks can be attributed to the sensitive nature of MTAS costs (calculated on a TSLRIC basis) to a number of country-specific factors. According to Analysis Mason, these factors include traffic and cost-related issues.⁵³⁶
70. Analysys Mason noted that there is a great degree of variability in the information used to define urbanisation. This therefore makes the urbanisation rate even less suitable for the comparability assessment of countries.⁵³⁷
71. Analysys Mason submitted that the most appropriate way to determine the realistic termination costs of an efficient operator in a workably competitive market is by designing and constructing a cost model specifically for such an operator.⁵³⁸
72. Having identified factors that it considers likely to influence costs, Analysys Mason assessed the effect depreciation methods, traffic volumes, data volumes and equipment prices have on the mobile termination rate.⁵³⁹
73. Analysys Mason submitted that the proportion of 2G versus 3G traffic in a model is a key comparability criteria. For example in the UK in 2010/11, the blended MTAS is GBP0.048, whereas the 2G MTAS is GBP0.037 and the 3G MTAS is GBP0.055.
74. Analysys Mason submitted that variances in data traffic have a significant impact on the end result of a TSLRIC model. Analysys Mason also noted that that data forecasts can vary significantly between countries.⁵⁴⁰

Cross-submissions

2degrees and Emma Lanigan and Professor Justus Haucap

75. 2degrees submitted that the cost model developed by Vodafone is not relevant to the current benchmarking exercise and should be disregarded.⁵⁴¹
76. Professor Justus Haucap and Emma Lanigan (Haucap and Lanigan), on behalf of 2degrees, responded to submissions critiquing the Commissions sole use of urbanisation as the comparability factor. Haucap and Lanigan cross-submitted

⁵³⁵ ibid, page 12.

⁵³⁶ ibid, page 12.

⁵³⁷ ibid, page 13.

⁵³⁸ ibid, page 14.

⁵³⁹ ibid, pages 14 – 16.

⁵⁴⁰ ibid, page 15.

⁵⁴¹ 2degrees, *Cross-submission to the Commerce Commission on the Draft Standard Terms*

Determination for the designated services of the mobile termination access services (MTAS) (fixed-to-mobile voice (FTM), mobile-to-mobile voice (MTM) and short messaging services (SMS)), 24 February 2011, page 8, paragraph 3.6. (2degrees Cross-submission)

- that using the urbanisation measure is a reasonable way of filtering out countries that are most unlikely to be comparable with New Zealand.⁵⁴²
77. Haucap and Lanigan cross-submitted that there are undoubtedly a range of cost drivers other than urbanisation and that these will vary significantly within the sample. Haucap and Lanigan noted that differences in costing methodology between countries further complicates the analysis of network cost drivers.⁵⁴³
 78. Haucap and Lanigan concluded that it is reasonable to focus on benchmarks from highly urbanised countries as they are more likely to be more comparable to New Zealand than less urbanised countries.
 79. Haucap and Lanigan noted that analysis conducted by Covec, for the regulator in Vanuatu, found that of a range of variables (including, for example, the number of mobile subscribers, the ratio of fixed to mobile subscribers and population) urbanisation was the only statistically significant explanator of cost variation between countries after eliminating all statistically insignificant explanatory variables.⁵⁴⁴
 80. Analysing the range of urbanisation rates considered comparable for the benchmarking exercise, Haucap and Lanigan note that the range (60%-100%) is not centred around the New Zealand urbanization rate of 86%. Haucap and Lanigan submitted that the Commission not only needs to consider the size of the range that is considered as comparable, but also whether there is downward bias towards countries that are less urbanised than New Zealand.⁵⁴⁵
 81. Haucap and Lanigan agreed with Network Strategies recommendation that the Commission should use its expert judgement to determine which countries should be included in the sample and what adjustments are required.⁵⁴⁶
 82. In cross-submissions, Haucap and Lanigan agreed with Network Strategies' observation that the Commission should exclude all cost models of 2G-only networks – this would result in the exclusion of Australia, Hungary and Malaysia.⁵⁴⁷

TelstraClear and Network Strategies:

83. TelstraClear cross-submitted that in principle, it might be desirable to estimate the average traffic per NodeB/BTS of each benchmarked model to test further the comparability of the benchmarks, as suggested by Telecom. However, TelstraClear considered Telecom's proposal is likely to yield little benefit at the cost of further delays to the STD process.

⁵⁴² Professor Justus Haucap and Emma Lanigan, *Response to submissions on the Commerce Commission's Draft Standard Terms Determination for Mobile Termination Access Services*, 24 February 2011, page 3. (**Haucap/Lanigan Cross-submission**)

⁵⁴³ ibid, pages 3-4.

⁵⁴⁴ ibid, pages 3-4.

⁵⁴⁵ ibid, page 4.

⁵⁴⁶ ibid, page 4.

⁵⁴⁷ ibid, page 1.

- 84. TelstraClear noted that the Commission has previously investigated and addressed the issue of comparability in the MTAS Schedule 3 Investigation and in that investigation the Commission and WIK Consult considered the impact of factors such as population per cellsite, and found that many of these factors had little impact on cost comparability.⁵⁴⁸
- 85. Network Strategies noted that all operators were of the view that urbanisation alone is not a primary driver of mobile network costs and concluded that other factors are instrumental in driving costs, and the Commission's selection criteria does not address this.⁵⁴⁹
- 86. Network Strategies submitted that while the concept of using a cost model to validate the benchmark results is reasonable, Network Strategies noted that if the Vodafone cost model were to be used, it would need to be carefully scrutinised to ensure that its parameters are appropriate for New Zealand conditions.⁵⁵⁰
- 87. Network Strategies noted that traffic projections – both voice and data – will have an effect on the costs of termination on mobile networks and that the underlying projections in each benchmarked model will be influenced by the individual market characteristics but conclude that omitting from the benchmark set countries with different traffic profiles to that of New Zealand would result in few – if any – benchmarks. On this basis Network Strategies submitted that the Commission should not exclude benchmarks on the basis of differences in traffic profiles.⁵⁵¹
- 88. Network Strategies cross submitted that the Telecom proposal to calculate an average traffic per NodeB site/BTS for each of the benchmarked countries to inform a comparability assessment to is impractical, noting that the relevant traffic information is not always available for countries in the benchmark set and as with population density, is averaged across the entire country/coverage area.⁵⁵²
- 89. Network Strategies recommended that the Commission applies its expert judgement to assess how the costs of an efficient New Zealand operator would compare with those in the benchmark set for a number of different and competing drivers.⁵⁵³

Vodafone (p8):

- 90. Vodafone cross-submitted that some measure of relative usage across models is likely to be a much better comparability factor than urbanisation. Assumptions about traffic growth and composition are critical and the Commission has

⁵⁴⁸ TelstraClear, *Cross-submission on the Commerce Commission's Draft Standard Terms Determination for Mobile Termination Access Services*, 24 February 2011, Section C.1, page 4. (**TelstraClear Cross-submission**)

⁵⁴⁹ Network Strategies, *Cross-submission for Draft Determination for mobile termination access services*, 23 February 2011, page 6. (**Network Strategies Cross-submission**)

⁵⁵⁰ *ibid*, page 10.

⁵⁵¹ *ibid*, pages 10 – 11.

⁵⁵² *ibid*, pages 11 – 12.

⁵⁵³ *ibid*, page 12.

recognised this, but not taken this into account when looking at comparability of cost model results.⁵⁵⁴

91. To underline the importance of usage, Vodafone referenced NERA's submission as a practical example showing that reducing minutes of use in the Israeli model to New Zealand levels drives up the cost estimate significantly.⁵⁵⁵
92. Vodafone agree with Telecom that the Commission needs to identify more relevant factors, such as traffic volumes, population density and data traffic to properly compare benchmark countries to New Zealand.⁵⁵⁶

MTAS STD Conference

93. At the MTAS STD Conference, Dr. Aaron Schiff of Covec described a benchmarking exercise Covec undertook for the regulator in Vanuatu. As part of that work Covec tried econometric benchmarking. Dr. Schiff stated that “we tried a range of variables in that model and urbanisation was the only one that remained as statistically significant. It was a somewhat different sample of countries to what the Commission has. ...”. Dr Schiff also noted that in the end the Vanuatu regulator did not just rely on urbanisation, but used real GDP per capita in combination with urbanisation.⁵⁵⁷
94. Joan Obradors of Analysys Mason reiterated concerns in relation to the urbanisation criterion, stating that it's one criteria that one can use to filter the list of countries, but that not a driver of any mobile costing models Analysys Mason have ever seen, and that the way the parameter is measured differs between countries.⁵⁵⁸
95. In relation to traffic density per PTS site, Mr. Obradors commented that this could give a very good indicator of the cost per minute, but that “trying to go into the details of each one of these models and determine which is the traffic density per PTS would be an even more complex benchmarking exercise ... we may get the perfect benchmark, but if we just have two or three data points, I mean, I wonder what would be the relevance of this benchmark. ... so, if we reduce the dataset, I mean, then we will be benchmarking against perhaps three data points that are very different among themselves and they may be very different from the situation in New Zealand”⁵⁵⁹
96. Anton Nannestad of Telecom agreed that urbanisation is “an appropriate kind of cutter between things that fit in and things that don't”⁵⁶⁰ but, in light of the variability in the way that the UN measures urbanisation, stated that “I'd really be reluctant to peg it to anything more than perhaps the 60-100 that the

⁵⁵⁴ Vodafone, *Cross-submission on the Draft Standard Terms Determination for the Designation of the Mobile Termination Access Services*, February 2011, page 8, paragraphs 42 - 44. (**Vodafone Cross-submission**)

⁵⁵⁵ ibid, page 8, paragraph 45.

⁵⁵⁶ ibid, page 8, paragraph 46.

⁵⁵⁷ MTAS STD Conference Day One, page 96 line 25 to page 97 line 6.

⁵⁵⁸ Ibid., page 97, lines 13-33.

⁵⁵⁹ Ibid., page 98, lines 3-7, 13-26.

⁵⁶⁰ Ibid., page 104, lines 3-5, lines 10-18.

Commission's suggested. To be perfectly frank, I think what the Commission's done is fine and I'd be reluctant to disturb that personally."

97. Dr. John Small of Covec stated that he would be reluctant to narrow up the Commission's band of 60 to 100 percent urbanisation, as New Zealand's population density is very skewed, and "that's just not captured in the urbanisation statistic because it's a single measure".⁵⁶¹
98. Emma Lanigan commented at the Conference that "maybe what is relevant is that the group of low urbanisation counties are quite different to the group of high urbanisation countries. So if you're just taking a group of high urbanisation countries and looking at the relationship between cost urbanisation you're not getting the full relationship".⁵⁶² She went on to state that "I did tend to think that urbanisation was a pragmatic approach and I don't think I suggested any other specific measures. You know, it's not going to be perfect, but I think it sort of filters out a lot of countries that just aren't comparable to New Zealand."⁵⁶³ In relation to concerns about different measures of urbanisation across different countries, Ms. Lanigan commented that "I think that's a good point, but I don't know that those differences will be really that large that you'll end up with, you know, a country that ... is just not comparable with New Zealand."⁵⁶⁴
99. With respect to other comparability measures, Ms. Lanigan commented that:
 - it seems reasonable that GDP per capita will have an impact on the services demanded, and that will then flow into an impact on costs,⁵⁶⁵ and that "you would expect that the costs in developing countries might be quite different to in developed countries";⁵⁶⁶ and
 - in terms of population per cell site, in cases where you've got a particularly high population per cell site in very densely populated areas, it can actually increase the cost as well.⁵⁶⁷

Other Benchmarking Criteria

Submissions on draft STD

Emma Lanigan:

100. Lanigan submitted that the Commission should consider adding to the benchmark sample criteria the requirement that cost estimates must be recent – for example, they must relate to 2010/11 or 2011. This would be a more

⁵⁶¹ Ibid., page 104, lines 23-29; page 105 lines 1-5.

⁵⁶² Ibid., page 98 line 30 to page 99 line 2.

⁵⁶³ Ibid., page 99, lines 29-32.

⁵⁶⁴ Ibid., page 99, lines 4-7.

⁵⁶⁵ Ibid., page 99, lines 14-17.

⁵⁶⁶ Ibid. page 105, lines 15-17.

⁵⁶⁷ Ibid., page 99, lines 18-21.

principled alternative that will result in more accurate cost estimates than making adjustments to outdated models, or using the 37.5th percentile.⁵⁶⁸

Federated Farmers:

101. Federated Farmers submitted that it supported the Commission's view that MTAS should be benchmarked against OECD countries.⁵⁶⁹

TelstraClear and Network Strategies:

102. Network Strategies considered that models based solely on 2G technology should be excluded from the benchmark set because there are considerable cost savings from operating a 2G/3G network. They noted that the New Zealand market operates in a 2G/3G environment so 2G costs are not an appropriate benchmark for New Zealand conditions.⁵⁷⁰

Analysys Mason:

103. Analysys Mason surveyed the different approaches to benchmarking for MTAS service that have been undertaken internationally and identified areas where these approaches differ from the benchmarking methodology implemented by the Commission.⁵⁷¹

Cross-submissions

Haucap and Lanigan

104. Haucap and Lanigan concurred with Network Strategies recommendation that the cost models from Australia, Hungary and Malaysia be excluded from the benchmark set as they use models estimating costs for 2G only networks.⁵⁷²

Network Strategies:

105. Network Strategies submitted that restricting the benchmark set to cost estimates related to the current period (2011 or 2010/11) would reduce the number of benchmarks within the set and stated that for practical reasons that the benchmark set must include slightly older data.⁵⁷³

MTAS STD Conference

106. Emma Lanigan expanded on her suggestion that 2G only networks be excluded from the benchmark set, noting that "if you look at the Ofcom model and documentation, it shows that 2G costs are higher than the hybrid operators or 3G especially going forwards as you would expect because you don't get the

⁵⁶⁸ Lanigan Submission, pages 10 – 11.

⁵⁶⁹ Federated Farmers, *Submission on Draft Standard Terms Determination for the designated services of the mobile termination access services (MTAS) fixed-to-mobile voice (FTM), mobile-to-mobile voice (MTM) and short messaging services (SMS)*, 7 February 2011, page 2, paragraph 2.1.

⁵⁷⁰ Network Strategies Submission, pages 21 – 22.

⁵⁷¹ Analysys Mason Submission, pages 18 – 27.

⁵⁷² Haucap/Lanigan Cross-submission, page 4.

⁵⁷³ Network Strategies Cross-submission, page 6.

economies of scope with data services ...” and that “it seemed to me that if you include 2G ... that ... will affect the reliability and the degree to which the results really reflect the cost in New Zealand.”⁵⁷⁴

- 107. Noelle Jones of Network Strategies agreed that 2G only models should be excluded “because the costs are very different to those of an operator having both 2G and 3G networks.”⁵⁷⁵
- 108. On this issue, James Mellsop of NERA noted that there is a trade-off if you take out 2G only models “once again you are taking out you’re making the sample smaller. But why pick on 2G, why not pick on something else, GDP or whatever, so there’s just trade-offs involved.”⁵⁷⁶ Similarly, Joan Obradors stated that “On the issue of 2G versus 2G models ... if we start removing models, I mean, then we will end up with very few benchmarks, so we are increasing the uncertainty.” He also noted that “3G models are only more favourable if we have enough volume of data traffic.”⁵⁷⁷ Anton Nannestad of Telecom noted that “the economies that are available on 3G networks cut both ways depending on whether you’re servicing for capacity or for coverage”.⁵⁷⁸
- 109. Network Strategies suggested that “we need to look at the case of Malaysia separately” and that there are “very valid grounds for removing Malaysia from the benchmark set, not just on the 2G issues as well”.⁵⁷⁹

Not all benchmarks are derived from TSLRIC models

Submissions on the draft STD

2degrees and Emma Lanigan:

- 110. 2degrees submitted that the Commission has incorrectly assumed that European estimates of LRIC+ (which are similar to fully distributed cost) are a good approximation of TSLRIC.⁵⁸⁰
- 111. Emma Lanigan, on behalf of 2degrees, submitted that average cost estimates, often referred to as LRIC+ (long-run incremental cost plus) or LRAIC+ (long-run average incremental cost plus) – are not good approximations of TSLRIC for the MTAS. Lanigan considers average cost estimates overstate TSLRIC and recommends that where a pure LRIC cost is available the Commission should

⁵⁷⁴ Ibid., page 100, lines 5-12.

⁵⁷⁵ Ibid., page 101, lines 17-19.

⁵⁷⁶ Ibid., page 100, lines 24-26.

⁵⁷⁷ Ibid., page 101, lines 23-29.

⁵⁷⁸ Ibid., page 103, lines 15-17.

⁵⁷⁹ Ibid., page 101, line s5-16.

⁵⁸⁰ 2degrees, *Submission to the Commerce Commission on the Draft Standard Terms Determination for the Designated services of the mobile termination access services (MTAS) (fixed-to-mobile voice (FTM), mobile-to-mobile voice (MTM) and short messaging services (SMS))*, 7 February 2011, page 37, paragraph 6.6. (**2degrees Submission**)

utilise it for benchmarking purposes,⁵⁸¹ adding its own estimate of a reasonable mark-up should it consider a mark-up necessary.⁵⁸²

112. Lanigan submitted that reasonable allocation of common costs, taking into account efficiencies, will most likely be close to zero for the MTAS. The use of a material common cost mark-up will have the effect of heightening barriers to entry.⁵⁸³

Cross-submissions

NERA:

113. NERA cross submitted that it is incorrect to argue that LRIC+ models are based on average mobile voice traffic costs rather than the incremental costs of termination and therefore overstate TSLRIC.
114. NERA noted that LRIC+ models do not use a termination services increment as used by recent pure LRIC models, but uses an increment of all voice traffic. According to NERA such an approach is consistent with the definition of TSLRIC
115. NERA also noted that a pure LRIC or LRIC approach without any allocation of common fixed costs appears inconsistent with outcomes in competitive markets.
⁵⁸⁴

Network Strategies:

116. Network Strategies cross submitted that using pure LRIC benchmarks for Belgium, the Netherlands and the UK raises comparability issues because some benchmarks would be based on modelling that includes common costs and some would not, which would create comparability issues.⁵⁸⁵

Vodafone:

117. Vodafone cross submitted that the Commission should continue with its current TSLRIC definition as the definition of TSLRIC in the Act was clearly intended to permit cost recovery where there are common costs. Vodafone noted that in Lanigan's interpretation of TSLRIC, operators would be unable to recover their common costs.
118. Vodafone noted that building a mobile network involves providing both origination and termination services and that most network costs are common to both origination and termination. Requiring call origination to recover all costs that are common with termination is an arbitrary approach that would harm

⁵⁸¹ Emma Lanigan, *International Benchmarking of Mobile Termination Rates – Comments on the Commerce Commission's Draft STD for MTAS*, 7 February 2011, pages 2-4. (**Lanigan Submission**)

⁵⁸² ibid, page 7.

⁵⁸³ Lanigan Submission, pages 6 – 7.

⁵⁸⁴ NERA Cross-submission, Section 4, pages 5 – 8.

⁵⁸⁵ Network Strategies Cross-submission, Section 2.2, page 10.

investment and competition in the mobile market, resulting in inefficient retail prices.⁵⁸⁶

119. According to Vodafone, Lanigan's view that TSLRIC is equivalent to pure LRIC and TSLRIC is lower than LRIC+ were inconsistent with her previous views, expressed at the MTAS Schedule 3 Investigation Conference.⁵⁸⁷

Changes to the benchmark set

Submissions on the draft STD

2degrees and Lanigan:

120. 2degrees⁵⁸⁸ and Lanigan⁵⁸⁹ submitted that the inclusion of Hungary in the sample of benchmark countries violates the Commission's benchmark criterion that only comparable services can be included. The Hungarian cost model is a 2G-only cost model and 2G network costs are poor and misleading estimates of 3G network costs.

Telecom and NERA:

121. Telecom⁵⁹⁰ and NERA⁵⁹¹ stated that the cost estimate for France does not meet the Commission's criteria of being a bottom-up forward looking cost based model and should therefore be excluded from the sample. NERA noted that although there was a 2% difference in between the two cost modelling exercises conducted in France, the exercise was conducted roughly 5 years ago which suggests that the 2% scaling is simply too old to be reliable.

Network Strategies:

122. Network Strategies noted that there are a number of other countries that, based on the Commission's criteria, could be included in the benchmark set, including Bahrain, Dominica and Turkey. Network Strategies stated that it does not necessarily endorse the inclusion of these particular countries within the benchmark set, but that they also appear to satisfy the Commission's stated selection criteria.⁵⁹²
123. Network Strategies submitted that Australia, Hungary and Malaysia should be omitted from the benchmark sample on the basis that 2G network costs are similarly inappropriate to be used as a benchmark for the current New Zealand environment.⁵⁹³
124. Network Strategies stated that where the period in which a benchmarked rate does not apply for the same timeframe in which the Commissions regulated

⁵⁸⁶ Vodafone Cross-submission, pages 9 – 10, paragraphs 51 – 58.

⁵⁸⁷ Slide 9 of 2degrees expert slides from the MTAS Schedule 3 Conference on 2 September 2009.

⁵⁸⁸ 2degrees Submission, page 38, paragraph 6.1.8.

⁵⁸⁹ Lanigan Submission, Section 3, pages 9 – 10.

⁵⁹⁰ Telecom Submission, page 5, paragraph 24.

⁵⁹¹ NERA Submission, Section 2.3, page 3.

⁵⁹² Network Strategies Submission, page Section 3.2, page 22.

⁵⁹³ ibid, Section 4, page 53.

MTR will apply (1 April – 31 March) the Commission should take a weighted average of the MTRs that do apply over that period.⁵⁹⁴

125. Network Strategies recommend that France be omitted from the benchmark sample, as the rates are based on historic costs. While a 2006 study may have found only a small difference between historic and current costs, they consider that it is not guaranteed that the same result will occur some five years later given the ageing of the capital stock. Network Strategies consider that the adjustment made to be relatively subjective and without the support of any evidence from latest cost data.⁵⁹⁵
126. Network Strategies noted that the Swedish regulator is legally required to implement the upper bound of its range of cost and observe that the Commission benchmarks against the average of the highest and lowest estimates. However, they note that this is not consistent with the Commission's decision to select the lowest cost Norwegian operator and recommend that the low end of the range be used, as this is representative of the most efficient operator.⁵⁹⁶

Vodafone:

127. Vodafone submitted that it is best to use finalised numbers since one can have more confidence that they have been appropriately tested.⁵⁹⁷

Analysys Mason:

128. Analysys Mason submitted that Macedonia, Romania, the Eastern Caribbean states and Slovenia could potentially be included in the benchmark set.
129. Analysys Mason noted that by including all the countries that use TSLRIC mentioned above, the 37.5th percentile increases significantly to NZ6.99 cents per minute. If the countries whose urbanization rate is below 60% are removed the 37.5th percentile is NZ5.76 cents per minute.
130. Analysys Mason submitted that the large variance in the result shows how critical the country selection criteria are.⁵⁹⁸

Cross-submissions

Haucap/Lanigan:

131. HAUCAP AND LANIGAN provided specific comment on the inclusion of Dominica, Macedonia, Bahrain and Turkey into the benchmark set.⁵⁹⁹

⁵⁹⁴ ibid, Section 3.4, pages 25 – 26.

⁵⁹⁵ ibid, Section 3.6, page 36.

⁵⁹⁶ ibid, Section 3.6, page 46.

⁵⁹⁷ Vodafone Submission, page 29, paragraphs 133 - 134.

⁵⁹⁸ Analysys Mason Submission, Section 2.2, pages 8 – 9.

⁵⁹⁹ Haucap/Lanigan Cross-submission, pages 4- 5.

TelstraClear:

132. TelstraClear cross-submitted that it does not support Vodafone's proposal to add Macedonia and Dominica to the benchmark set. TelstraClear submitted that Macedonia should be excluded because it does not meet the Commission's urbanisation criteria. TelstraClear noted that Dominica had just 106,000 mobile subscribers in 2009 and submitted that such a small subscriber base prevents operators from taking advantage of scale economies, therefore this would be expected to result in higher unit costs than found in New Zealand.⁶⁰⁰

Network Strategies:

133. Network Strategies noted that 2degrees recommends that Hungary should be rejected as the rates are based on a 2G-only cost model, and thus not representative of 3G network costs. 2degrees failed to identify the same issue with the Australian and Malaysian rates used by the Commission. Network Strategies submitted that all three of these countries should be omitted from the benchmark set.⁶⁰¹
134. Network Strategies submitted that such countries with urbanisation rates at the low end of the Commission's range may not be particularly comparable to New Zealand.⁶⁰²

Vodafone:

135. Vodafone cross-submitted that Dominica should be added to the benchmark.⁶⁰³
136. Vodafone did not support removing 2G models from the benchmark set because operators in New Zealand and overseas are in the process of transitioning from 2G networks to 3G networks and it may be efficient on a transitory basis to operate both networks. Transition is not accounted for in pure 2G or pure 3G network models and will underestimate the efficient cost of providing the MTAS.
137. Vodafone submitted that the Commission needs to take great care to properly assess efficient MTAS costs in the presence of network migration.⁶⁰⁴
138. Vodafone noted that the submissions raising issues with use of some historical costs in the Hungarian model are not new and have been addressed by the Commission previously. Vodafone hold the view that the Hungarian model meets the Commission's benchmarking criteria.⁶⁰⁵

⁶⁰⁰ TelstraClear Cross-submission, Section C.2, page 5, paragraph 24(a).

⁶⁰¹ Network Strategies Cross-submission, Section 2.2, page 7.

⁶⁰² *ibid*, Section 2.2, page 7.

⁶⁰³ Vodafone Cross-submission, page 8, paragraph 47.

⁶⁰⁴ *ibid*, pages 8 - 9, paragraphs 47 - 49.

⁶⁰⁵ *ibid*, page 9, paragraph 50.

Converting benchmarks into a comparable form

Submissions on the draft STD

Network Strategies:

139. Network Strategies questioned whether the appropriate approach of using a country's target inflation rate (or midpoint of target range where relevant) for converting benchmarks expressed in real terms into nominal terms is appropriate.
140. In applying an inflation adjustment, Network Strategies stated it is important to use a method that appropriately reflects the situation and suggested three inflation assumptions that could be used, actual inflation, target inflation or forecast inflation.⁶⁰⁶
141. Network Strategies noted that the hybrid approach used by the Commission in converting into a common unit of currency is necessary for benchmarking purposes is inconsistent with that used by the Commission in its 2006 MTAS investigation when ten year average spot rates were used for currency conversion.
142. Network Strategies further pointed out that no other regulator has followed the Commission's hybrid approach. Typically, conversions are made using the market exchange rate (or an average over time) or PPP rates, but not a combination of the two.
143. Network Strategies recommend that the Commission applies PPP rates as the method of currency conversion in its benchmarking exercise.⁶⁰⁷

Calculation errors

Submissions on draft STD

NERA:

144. NERA submitted that they had identified a number of errors in the Commission's calculation of the Belgian, French and UK benchmarks.⁶⁰⁸

Analysys Mason:

145. Analysys Mason submitted that the benchmark for Belgium used in the Commission's benchmark set is incorrect since it does not take into account that the cost for 2010 is expressed in real 2008 terms. Analysys Mason noted that an inflation adjustment of 2% per annum should be applied to the benchmarked rate. Accordingly, the benchmark should be EUR0.0552, instead of EUR0.053.
146. Analysys Mason submitted that the Commission's benchmarking does not take into consideration the cost of the fourth operator in Denmark. The benchmark

⁶⁰⁶ Network Strategies Submission, Section 3.1.1, pages 10 – 11.

⁶⁰⁷ ibid, Section 3.1.2, pages 11 – 14.

⁶⁰⁸ NERA, *Review of Draft STD for MTAS*, 7 February 2011, Section 2.2.

for Denmark should be a weighted average of all operators. This results in a benchmark of KR0.4575 rather than KR0.44.

147. The Israeli regulator increased their cost modelling to take into account CPI's and royalties which increased the 2011 cost from ILS0.0687 to ILS0.0728. Analysys Mason submitted that this increase must be taken into account in the Commission's benchmarking.
148. Analysys Mason noted that in June 2010, the Swedish regulator set MTAS rate at KR0.26 (NZD0.049) for the period from 1 July 2010 to 30 June 2011 which corresponds to the operator with the highest TSLRIC cost. The reason for choosing the highest TSLRIC cost as the most appropriate option is that, according to Swedish law, operators have the right to cost recovery. Therefore, Analysys Mason considered it more appropriate to use the highest cost in the benchmark
149. Analysys Mason submitted that only benchmarks that have been finalised should be included in the benchmark set, and accordingly:
 - the Netherlands should be excluded as the cost-based MTR is currently under appeal; and
 - the UK should be excluded, as the benchmarked cost estimate was a draft undergoing consultation.⁶⁰⁹

Cross-submissions

Haucap/Lanigan:

150. Addressing the issue raised by Analysys Mason relating to whether costs should be used where MTRs have not been finalised or are under appeal, HAUCAP AND LANIGAN cross submitted that while using recent and finalised models would be ideal, using old models risks relying on input assumptions and methodologies that are out-of-date which would also compromise the veracity of the benchmark estimate.
151. Noting that costs have been steadily reducing over time HAUCAP AND LANIGAN submitted that for efficiency reasons only, recent cost estimates should be relied on and conclude that the most recent UK and Netherlands cost models are the best information that the Commission has to hand for each of these countries.⁶¹¹

⁶⁰⁹ Analysys Mason Submission, section 2.1, pages 3 – 7.

⁶¹⁰ The UK's cost estimate has since been finalised, see Appendix 1 for details.

⁶¹¹ Haucap/Lanigan Cross-submission, pages 5 – 6.

TelstraClear:

152. TelstraClear⁶¹² and Network Strategies⁶¹³ submitted that given the number of calculation errors identified in the data set, it would be prudent for the Commission to check all data points.

Relevance of the Vodafone model to the Commission's benchmarking*Submissions on draft STD*

153. Vodafone submitted an LRIC model used by the Vodafone group and calibrated by Vodafone to New Zealand conditions. Vodafone suggested that this model should be used as a cross-check of the results of the Commission's benchmarking, stating that:⁶¹⁴

This modelling supports the view that the Commission's benchmarking approach is producing unrealistically low estimates of cost, and the Commission's discretion around its benchmarking process should be exercised accordingly.

Cross-submissions

154. Network Strategies noted the sensitivity of such models to key assumptions and input costs, emphasising the need for thorough verification of these, should the Commission take the Vodafone model into consideration.⁶¹⁵
155. With respect to Vodafone's proposal that the Commission use its model as a cross-check of its benchmarking, Network Strategies also noted that:⁶¹⁶
- it is very unusual for a cost model to be used as a sanity check for a regulatory benchmarking exercise, given that the development of a cost model is a more complex undertaking than benchmarking. Typically benchmarking would be used as a sanity check for a regulatory cost model.
156. 2degrees submitted that “{the} cost-model presented by Vodafone is not relevant to the current benchmarking exercise. We consider that it has no evidential weight and must be ignored.”⁶¹⁷

MTAS STD Conference

157. Hayden Glass of Vodafone suggested that the model is relevant guidance when it comes to looking at a price point selection based on benchmarking,⁶¹⁸ and that “I'd certainly see it as a relevant cross-check”.⁶¹⁹

⁶¹² TelstraClear Cross-submission, Section C.2, page 5, paragraph 24(c).

⁶¹³ Network Strategies Cross-submission, Section 2.2, page 5.

⁶¹⁴ Letter from Hayden Glass, GM Public Policy, Vodafone to Shane Kinley, 28 February 2011.

⁶¹⁵ Network Strategies, *Review of Vodafone Cost Model Documentation: Report for TelstraClear*, 7 March 2011.

⁶¹⁶ Network Strategies, *Review of Vodafone Cost Model Documentation: Report for TelstraClear*, 7 March 2011, page 7.

⁶¹⁷ 2degrees, *Cross-submission to the Commerce Commission on the Draft Standard Terms Determination for the designated services of the mobile termination access services (MTAS (fixed-to-mobile voice (FTM), mobile-to-mobile voice (MTM) and short messaging services (SMS))),* 24 February 2011, page 3, paragraph 1.8.

158. Dr. Suella Hansen of Network Strategies noted that it is extremely unusual in a benchmarking process for a cost model to be used as a check for the benchmarking, and “also in the context of an initial pricing principle we thought it was unusual”.⁶²⁰ Joan Obradors of Analysys Mason responded that “if you have a model that – let’s assume it’s sensible in terms of inputs ;and the methodology, that can inform you as well as to the validity of the sum of the benchmarks that you are using.”⁶²¹ Similarly, James Mellsop commented that, given the “enormous uncertainty” in the Commission’s benchmarking, “it seems to be it would be great to be able to take into account another information point”.⁶²²
159. Dr. Hansen also commented that “it looked to us as if there would be significant work for the Commission in checking a number of the assumptions and parameters that went into this model”.⁶²³ James Mellsop also noted that “you’ve obviously go the issue of having to check {the model} carefully”.⁶²⁴
160. Similarly Emma Lanigan commented that “in order to review a model it’s a very extensive exercise; these models are complicated, you would need to do a cell by cell audit to be comfortable with relying on the model.” and that “Really these are all the sorts of things that you would do in a final pricing principle, not in an IPP.”⁶²⁵
161. Bill McCabe of 2degrees noted that “the inputs in other models in other jurisdictions had been debated with all sides of the debate putting their inputs into the appropriate assumptions that went in” and that Vodafone’s model had not been subject to such debate.⁶²⁶ Paul Mathewson for 2degrees stated that “it’s far from clear, and in our view it’s not within the Commission’s jurisdiction to consider the cost model in a benchmarking exercise, and I’m just looking at the plain wording of the initial pricing principle, which is benchmarking against the cost of providing similar services in comparable countries. And I can’t see how a Vodafone Group cost model fits within that process which the Commission is currently undertaking at all.”⁶²⁷

Submissions on the establishing a cost-path for voice MTAS

162. In the draft STD, the Commission benchmarked against cost-paths calculated by models in the Commission’s benchmark set. The Commission’s preliminary view was that the cost path for the MTAS voice service should match the median of the annual benchmarked reductions.

⁶¹⁸ Ibid., page 85, lines 5-7

⁶¹⁹ ibid., page 95, line 6.

⁶²⁰ ibid., page 85, lines 12-19.

⁶²¹ Ibid., page 86, lines 25-28.

⁶²² Ibid., page 87, lines 5-7.

⁶²³ Ibid., page 85, lines 21-23.

⁶²⁴ Ibid., page 87, lines 9-11.

⁶²⁵ Ibid., page 85 line 33 to page 86 line 7.

⁶²⁶ Ibid., page 88, lines 5-7.

⁶²⁷ Ibid., page 88, lines 10-15.

Submissions on the draft STD2degrees

163. 2degrees submitted that growth in data traffic is key to the economics of 3G networks, yet in deriving the downward trend in mobile network costs (the “cost path”) the Commission has relied on at least one model that assumes no 3G data growth from 2010 onwards. 2degrees stated that this is at odds with the situation in New Zealand and is erroneous.⁶²⁸

Telecom and NERA

164. The Commission adopts a low price point in anticipation of future efficiency gains and on the presumption that costs are overstated. It also assumes that, in addition, compounding efficiency gains of 6% per annum will occur. For the reasons discussed above the Commission’s overall proposal is highly likely to lead to an underestimate of the TSLRIC and to compound this by locking in automatic annual discounts.
165. If the Commission adjusts the benchmarking results and price point in the manner proposed by Telecom then an automatic annual discount of 6%, as adopted in the named benchmark countries, may be appropriate. Absent these adjustments then the proposed 6% annual discount would double count efficiencies already banked when setting the price point and would perpetuate a below cost MTR.⁶²⁹
166. NERA submit that the arguments for choosing the 75th percentile are even more compelling when selecting a cost path than when selecting a benchmark because:⁶³⁰
- 167. The sample is smaller (four countries); and
 - 168. The level of uncertainty surrounding a forward cost estimate in the will be higher than for the estimates in benchmark set, because the cost path estimates will presumably be relying on a greater degree of forecasting.

TelstraClear

169. TelstraClear submitted that the cost path in the draft STD is likely to reflect a conservative view of future reductions in the efficient forward-looking cost of the MTAS in New Zealand. Given the forecast growth in traffic volumes over mobile networks over the next five years TelstraClear expects significant reductions in the unit cost of termination. Particularly in New Zealand, where the capacity for market growth appears to be greater than in other benchmarked countries where markets may be closer to saturation.⁶³¹

⁶²⁸ 2degrees Submission, Section 6, page 39, paragraph 6.19.

⁶²⁹ Telecom Submission, paragraphs 32 – 33.

⁶³⁰ NERA Submission, Section 4, pages 10 – 11.

⁶³¹ TelstraClear Submission, pages 4 – 5, paragraph 15.

Network Strategies

170. Network Strategies noted that not all benchmarked cost-paths in the Commission's set are defined for the period the period the Commission intends to set MTAS prices (1 April 2011 to 31 March 2015). In the later years of this period, the number of benchmarks in the set decreases and as a result the benchmarked may become less representative of typical costs, which may introduce bias.⁶³²
171. Network Strategies submitted that in Sweden the mobile termination rates are reassessed annually to take into account the most recent market developments and (in particular) traffic projections. The relevant cost model is updated and the mobile termination rates recalculated. Network Strategies concluded the Commission's cost path over the four-year time horizon will become out-of-date relatively quickly.
172. To accommodate for this Network Strategies recommend that the benchmarking be updated annually to reflect the latest developments in the market.⁶³³
173. Furthermore, in some countries there is a rate change part-way through the year from April to March (the time period used by the Commission). Networks Strategies submit that the Commission has been inconsistent over how such a situation is handled in the benchmarking, for example in the case of Sweden, where a rate change occurs on 1 July to cover the period from July to June 2012, the Commission used the rate introduced in July 2011.
174. Network Strategies recommended that a weighted averaged of the relevant MTRs over the entire twelve month period (April-March) be used rather than a rate that is applicable for only part of that timeframe.⁶³⁴

Analysys Mason

175. As Analysys Mason submitted that the Israel and UK benchmarks are not correct. In the case of Israel, in December 2010 the Israeli regulator increased the 2011 cost to ILS0.0728 to take into account CPIs and royalties, therefore the starting point of the cost path is not correct.⁶³⁵ In the case of UK the regulatory process is not finalised yet and this model is still under public consultation. Analysys Mason submitted that the Commission should use the UK model for 2007 because it is the most recent finalised model available.⁶³⁶
176. Given the limited number of benchmarks for the calculation of the cost path, Analysys Mason's preliminary view is the benchmarking approach taken is not appropriate.⁶³⁷

⁶³² Network Strategies Submission, Section 3.4, page 25.

⁶³³ ibid, Section 3.4, page 26.

⁶³⁴ ibid, Section 3.4, page 26.

⁶³⁵ Analysys Mason Submission, Section 2.1, page 5.

⁶³⁶ ibid, Section 2.1, page 7.

⁶³⁷ ibid, Section 2.6, page 17.

- 177. Analysys Mason agreed with the Commission that factors such as increasing call volumes, equipment price trends, cost recovery profiles and mobile data influence the annual cost reductions exhibited by cost models. Noting that the environment in each benchmarked country, in terms of regulation, competition in the mobile market, operators and usage by subscribers are completely different, Analysys Mason stated that these discrepancies are shown in the differences in the cost path in each model and the TSLRIC unit cost.⁶³⁸
- 178. Analysys Mason concluded by submitting that the Commission does not provide reasoning for why the median of the cost path benchmarks is appropriate for the New Zealand context.

Woosh

- 179. Woosh submitted that accelerated growth in 3G services coupled with the move to all IP voice is likely to have a downward impact on the cost of voice termination than the Commission has accommodated.
- 180. Woosh stated that mobile data is increasing at exponential rates and the ratio of mobile voice to mobile data is changing rapidly and that the cost apportionment and cost-path reduction should reflect this.
- 181. To highlight this, Woosh noted that Cisco released a report that forecasts a 26x increase in mobile data traffic between 2010 and 2015 (an annual compound growth rate of 92%).
- 182. Woosh considered it fair to say that the proportion of joint network and common costs allocated to voice will reduce directly in proportion to the increase in mobile data and argue that the true cost of voice termination as a percentage of joint network and common costs will reduce faster than the Commission allows for in the cost-path specified in the draft STD.
- 183. Woosh recommend that the cost-path be adjusted to account for the increases in mobile data usage outlined above.⁶³⁹

Cross-submissions on the draft STD

Haucap and Lanigan

- 184. Haucap and Lanigan noted that Analysys Mason express the view that the small sample size of cost paths available means that benchmarking of cost paths is not appropriate but do not appear to propose an alternative methodology. Haucap and Lanigan state that it is not clear whether this implies Analysys Mason think a cost path should not be applied, or that it considers the Commission should determine a cost path in some other way.

⁶³⁸ ibid, Section 2.6, page 17.

⁶³⁹ Woosh Wireless, *Submission in relation to the Commerce Commission's draft standard terms determination for the designated services of the mobile termination access services: fixed-to-mobile voice (FTM), mobile-to-mobile voice (MTM) and short messaging services (SMS)* dated 23 December 2010, 7 February 2011, Section 2.3, page 2.

- 185. Haucap and Lanigan submitted that it is clear that a cost trend needs to be incorporated in some way. Increasing volumes, especially in relation to data services, and reductions in equipment costs imply that unit costs of voice termination are falling, possibly very significantly. Although the use of such a small sample may not be ideal, Haucap and Lanigan stated that the Commission's approach does appear to be a pragmatic and reasonable approach to approximating cost reductions.
- 186. NERA expressed a view that by using the 37.5th percentile and by applying a cost path the Commission is addressing the same issue twice. Haucap and Lanigan considered this to be incorrect as the cost path is only applied going forwards from 2011 and is not applied to bring forward old estimates of cost to 2011.⁶⁴⁰

TelstraClear and Network Strategies

- 187. Network Strategies submitted that they previously noted that the Swedish MTR is updated annually to take into account market developments and concluded that if the cost-path remains static from the date of regulation for the four year time horizon of regulation, it will become out-of-date relatively quickly.
- 188. In response to Telecom's submission a price point of the 75th percentile and possibly a 6% adjustment for efficiency gains should be applied as the cost path, Network Strategies submitted that Telecom's suggested approach will result in a price point that has little correspondence with trends in cost-based mobile termination in the benchmark set.⁶⁴¹

Vodafone

- 189. Vodafone submitted that statistical uncertainties surrounding whether the cost-path accurately acts as a proxy for an FPP outcome are considerable and to account for this the Commission is obliged to take steps to avoid setting the regulated price below cost.⁶⁴²

Submissions on establishing the benchmark set for SMS MTAS

Submissions on the draft STD

Vodafone and Analysys Mason

- 190. Vodafone submitted that a flat rate of no more than 1 cent per text be implemented as a pragmatic way of avoiding the difficulties with either benchmarking or Bill and Keep.⁶⁴³
- 191. Analysys Mason provided a survey of the methodologies used to calculate SMS termination rates by some regulators. The relevant points raised for each country are as follows:⁶⁴⁴

⁶⁴⁰ Haucap/Lanigan Cross-submission, pages 8-9.

⁶⁴¹ Network Strategies Cross-submission, Section 2.2, pages 8 – 9.

⁶⁴² Vodafone Cross-submission, pages 11 – 12, paragraph 66.

⁶⁴³ Vodafone Submission, page 44, paragraph 180.

- France – SMS regulated (asymmetry implemented) in July 2006 at EUR0.03 and EUR0.035 based on fully allocated cost methodology. These were updated in November 2009 where a glide path was implemented that ends with a regulated SMS rate of EUR0.01 from July 2012. Analysys Mason submitted that the regulator uses a cost accounting methodology to estimate the cost of wholesale SMS termination.
- Poland – on 24 September 2010 the regulator calculated the cost of SMS termination to be PLN0.01, but implemented a regulated termination price of PLN0.05 on the basis it is “justified and appropriate”. It is not clear what cost basis was used to calculate the costs.
- Israel – The regulator estimated LRIC costs of NIS0.021 for 2009 using the same model used to calculate the voice benchmark. The regulator has subsequently announced that the regulated SMS price will fall from NIS0.0017 from 1 January 2011 to NIS0.0013 from 1 January 2014. Analysys Mason submitted that they do not know if these prices are based on LRIC.
- Denmark – Since 2002 mobile-to-mobile SMS has been regulated at a price of DKK0.20. In 2010 the regulator estimated the cost of SMS termination to be DKK0.02, cost using TSLRIC methodology. Because of the significant difference between the regulated rate and the TSLRIC rate the regulator implemented a glide path. The regulated SMS termination rate in 2010 was DKK0.16.
- Portugal - The SMS termination market is not regulated in Portugal and the rates are commercially agreed between operators. According to the decision regarding the voice call termination market in 2005, the price agreed between operators was EUR0.0499 at this point in time. Currently, the price is EUR0.0375.
- Malaysia - In September 2005, the regulator published a public inquiry paper with the results of the costing study performed by NERA calculating the long-run incremental costs (LRIC) of facilities and services on the access list in Malaysia. The results of the public inquiry were a set of agreed maximum SMS termination rates for the period 2006 to 2008. The termination cost in 2008 was MRY0.0027.
- Jordan - In the case of Jordan SMS termination has been subject to a bill-and-keep system that has been implemented by commercial negotiation between the MNOs themselves, without recourse to any regulatory supervision on the part of the regulator.
- Singapore - It appears SMS termination in Singapore is not regulated and is based on commercial negotiations between operators, however all of them have decided to set a bill and keep approach.

⁶⁴⁴ Analysys Mason Submission, Section 3.3, pages 28 – 32.

- Qatar – In February 2009 the regulator set SMS termination prices using the average SMS–MTAS coefficient between the EU15 SMS termination rates and MTAS rates. The EU15 SMS termination rates were, on average, 2.06 lower than its corresponding MTAS. The regulator has applied an SMS termination rate that is 2.06 times lower than the regulated voice termination rate.
192. Vodafone and Analysys Mason submitted that benchmarking costs for SMS is difficult because there are few countries in which it has been regulated. The Commission's cost benchmark is based on just three models.
193. Analysys Mason conducted a benchmarking exercise using a benchmark set of six SMS termination benchmarks, including one of the Commission's benchmark countries (Denmark) as below.⁶⁴⁵ Vodafone noted that the exercise is based on current rates rather than cost model results.⁶⁴⁶

Current SMS termination rates in six European countries

	EUR	FX	NZD
Belgium	0.0496	0.530	0.094
Ireland	0.0317	0.530	0.080
Portugal	0.0375	0.530	0.071
France *	0.0325	0.530	0.081
Denmark	0.0268	0.530	0.051
Poland	0.0134	0.530	0.025
Average			0.080

194. Analysys Mason suggested two methods for calculating a benchmark:
- applying an average drawn from these benchmark countries, amounting to 6 cpt; or
 - the Qatari method, which is premised on the SMS termination rate being an average a factor of 2.06 lower than its corresponding voice MTAS. The Commission's proposed voice MTAS rate is 4.68cpm, meaning an SMS rate of 2.27 cpt.
195. Vodafone submitted that if the Qatari method is applied, their voice cost estimate of 7.4 cents for voice, results in an SMS termination rate of 3.6 cpt in 2011, falling to 2.6 cpt in 2015.⁶⁴⁷

⁶⁴⁵ ibid, Section 3.3.1, pages 32 – 33.

⁶⁴⁶ Vodafone Submission, pages 45 – 46.

⁶⁴⁷ Analysys Mason Submission, Section 3.1.1, page 33.

APPENDIX 4: SUMMARY OF SUBMISSIONS ON PRICING PRINCIPLE FOR VOICE

Purpose

1. This Appendix includes summaries of submissions on the pricing principle, price point selection, cost path and asymmetry for voice.

Commission's preliminary view on price point selection for voice MTAS services

2. In the draft STD, the Commission's preliminary view was that a forward-looking cost-based price for the FTM and MTM voice MTAS services is likely to best promote competition for the long-term benefit of end-users.

Is a comparative analysis of the alternative pricing methodologies required to determine which best complies with section 18?

Submissions on the draft STD

Vodafone

3. Vodafone noted that the Initial Pricing Principle (IPP) requires the Commission to determine an MTR benchmark against the costs of providing similar services in comparable countries that result from the application of a forward-looking cost-based methodology. Vodafone submitted that only if the Commission considers that a forward-looking cost-based methodology does not best give effect to the purpose set out in section 18 does the IPP empower the Commission to consider either a pure Bill and Keep method or a hybrid Bill and Keep method.⁶⁴⁸
4. Vodafone argued that there is no "coin toss" between a cost-based rate and Bill and Keep, and the Commission may only consider a Bill and Keep system once it has demonstrated that a forward looking cost based methodology does not best give effect to the purpose of section 18.⁶⁴⁹

Telecom

5. Telecom submitted that the MTAS IPP contemplates that the Commission may only depart from a forward-looking cost-based methodology by applying some form of bill and keep methodology where a cost-based approach is not considered to give best effect to section 18 of the Act.⁶⁵⁰

2degrees

6. 2degrees submitted that, in its view, the Commission can only make a determination as to whether or not a forward-looking cost-based methodology or one of the alternative methodologies (pure BAK or hybrid BAK) is the best

⁶⁴⁸ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 44, paragraph 182.

⁶⁴⁹ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 44, paragraph 183.

⁶⁵⁰ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 13.

approach by considering the state of competition under each of the different options.⁶⁵¹

Is BAK the appropriate pricing principle for voice?

Submissions on the draft STD

2degrees

7. 2degrees submitted that while cost-based pricing clearly has its merits, it is not appropriate in practice in the context of the New Zealand market. 2degrees is of the view that the Commission's assessment of "cost" in the form of benchmarks will not deliver the benefits of competition because:⁶⁵²
8. it fails to take into account the strategic incentives for large networks to impose off-net surcharges irrespective of the level of MTR; and
9. TSLRIC benchmarks do not equate to a new entrants cost, who as WIK-Consult acknowledges, likely incur greater costs due to sub-efficient scale.
10. Specifically, 2degrees submitted that BAK is the appropriate pricing principle for the voice MTAS services because:⁶⁵³
 - marginal termination costs are not materially different to zero;
 - there is no demonstrable harm from BAK;
 - it has minimal regulatory costs;
 - it has low transaction costs;
 - it may well be "future proof";
 - as accepted by the Commission in Homezone, it removes the incentives for the parties to game by targeting net receivers, and removes the inefficient cross-subsidies that such gaming would create;
 - as argued by CRA (now NERA, for Telecom), it leads to dynamic efficiency as provides carriers with incentives to reduce their costs of providing interconnection services;
 - BAK has precedent, both domestically and internationally;
 - it may help reduce (but not remove) the incentive for high on-net/off-net price differentiation and mitigate the harm from extreme high levels of closed-net pricing in New Zealand;
 - to the extent that there is any relevant "waterbed effect", this would be negligible given high mobile penetration rates in New Zealand;

⁶⁵¹ 2degrees, *Submission on the Draft MTAS STD*, 7 February 2011, p 65, paragraph 11.4.

⁶⁵² 2degrees, *Submission on the Draft MTAS STD*, 7 February 2011, p 65, paragraph 11.5.

⁶⁵³ 2degrees, *Submission on the Draft MTAS STD*, 7 February 2011, p 67-68, paragraph 12.6.

- Vodafone have argued that traffic should be symmetrical in their early submissions so there is no reason not to have BAK as it does not change net flow of payments, especially for SMS, which is two-way in nature; and
- CRA has argued that BAK will provide the parties with a valuable form of compensation – the ability to terminate calls on each others' network. More recently, NERA described it not as a cost of zero, but as “mutual forgiveness”.

Telecom

11. Telecom submitted that regulating voice termination on a bill and keep basis from the current levels of termination rates would be a radical departure from international norms. Telecom submitted that it is not clear at all how such a shift in termination models would affect retail markets and pricing, and it is even less clear how such a shift could be made to work for fixed-to-mobile traffic, where a termination fee for mobile-to-fixed traffic already applies.⁶⁵⁴
12. Telecom argued that with these risks, such a shift could only be justified by clear and compelling evidence that the mobile services market in New Zealand exhibits significant structural characteristics that depart from those evidenced in any other market in the world, and that bill and keep is the only pricing principle capable of addressing these in a manner that meets the statutory purpose. Telecom submitted that it is not aware of any such evidence, and can see no compelling reason why a move away from a cost based benchmarking approach should be required for voice termination in the New Zealand context.⁶⁵⁵

TelstraClear

13. TelstraClear submitted that it agrees with the Commission that it is critical for MTRs to be reduced to cost-reflective levels in order to promote competition for the long-term benefit of end-users of telecommunications services in New Zealand.⁶⁵⁶

Network Strategies

14. Network Strategies, on behalf of TelstraClear, submitted that the Commission's view (that a forward-looking cost-based methodology will achieve the purpose of the Act) is consistent with international best practice as the prevailing standard in regulated mobile termination rates has become forward-looking and cost-based.⁶⁵⁷

CallPlus and Kordia

15. CallPlus and Kordia submitted that they support the Commission's view that moving immediately to a cost-based MTR, with a single rate for fixed-to-mobile

⁶⁵⁴ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 14.

⁶⁵⁵ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 15.

⁶⁵⁶ TelstraClear, *Submission on the Draft MTAS STD*, February 2011, p 3, paragraph 6.

⁶⁵⁷ Network Strategies, *Submission on the Draft MTAS STD*, 7 February 2011, p 3.

and mobile-to-mobile will encourage competition and be in the long-term interest of consumers.⁶⁵⁸

Federated Farmers

16. Federated Farmers submitted that it is important to remove the barriers which are limiting the potential expansion in the mobile market, and that these immediately need to be remedied by imposing cost-based MTRs.⁶⁵⁹

Woosh

17. Woosh submitted that the Commission should apply the same BAK logic for voice termination that it has to SMS and, therefore, MTRs should be set out on a pure BAK basis from April 2011.⁶⁶⁰

Cross-submissions on the draft STD

2degrees

18. In its cross-submission, 2degrees noted that Vodafone advocates cutting mobile-to-mobile and SMS termination rates to cost immediately, but having a glide path for fixed-to-mobile termination rates. 2degrees submitted that there is good reason for both mobile-to-mobile and SMS to benefit from the lowest possible rate – i.e. BAK.⁶⁶¹
19. 2degrees stated that the incumbents' strongest argument against BAK for mobile-to-mobile is the potential that setting rates too low would harm investment incentives. However, 2degrees submitted that in light of Vodafone's submission that nearly all of the downside from reduced MTRs is caused by fixed-to-mobile termination rate reductions and that it expects mobile-to-mobile voice traffic to be balanced, together with the fact that there is currently very little and decreasing mobile-to-mobile voice traffic, it fails to see how cutting mobile-to-mobile termination rates to BAK can have any impact on incumbent revenue or investment incentives.⁶⁶²
20. 2degrees noted that Vodafone has acknowledged that it earns very little revenue from mobile-to-mobile traffic, and what traffic exists generates a wash of interconnection payments that is confined solely within the New Zealand mobile industry. Therefore, 2degrees argued that Vodafone (and the remainder of the industry as a whole) will be no worse off and therefore investment incentive arguments against BAK for mobile-to-mobile are not valid.⁶⁶³
21. Rather, 2degrees submitted that if mobile-to-mobile MTRs drop to zero (and assuming a non-discrimination condition is imposed) socially optimal levels of

⁶⁵⁸ CallPlus and Kordia, *Submission on the Draft MTAS STD*, 7 February 2011, p 4.

⁶⁵⁹ Federated Farmers. *Submission on the Draft MTAS STD*, 7 February 2011, p 2.

⁶⁶⁰ Woosh, *Submission on the Draft MTAS STD*, 7 February 2011, p 1.

⁶⁶¹ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 14, paragraphs 3.46-3.47.

⁶⁶² 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 14, paragraphs 3.48-3.51.

⁶⁶³ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 14, paragraph 3.52.

cross-network traffic can be expected to emerge generating real retail revenues and incentives for mobile operators to invest.⁶⁶⁴

Vodafone

22. In its cross-submission, Vodafone argued that a properly estimated forward-looking cost-based price is the economically efficient price, and there has been no evidence or compelling reasoning put forward to support a move away from cost-based pricing for voice.⁶⁶⁵
23. Rather, Vodafone submitted that there are many fundamental reasons not to move in this direction. Vodafone referred to a report to the European Commission (prepared by Vodafone) that canvasses these issues.⁶⁶⁶
24. Vodafone submitted that there are many issues to consider for a move to BAK for voice. For example, Vodafone noted that a firm that is a net recipient of traffic will be required to give other operators voice termination services for free to the extent of any imbalance. Vodafone argued that this gives rise to the bizarre result that it costs the originating network less to terminate a call on the terminating network than on the originating network itself. Vodafone submitted that even in the case of “relatively balanced” traffic it is not clear how the provision of services for free could be efficient.⁶⁶⁷
25. Vodafone submitted that since BAK involves no payment between network operators, all costs of terminating inbound calls or SMS must be recovered from end-users. In the case of inbound calls, Vodafone submitted that BAK at a wholesale level would mean that in the retail market receiving party end-users would have to pay for inbound calls or texts, either in the form of a charge per minute or per text, or in the form of higher fixed monthly access charges than they would otherwise pay.⁶⁶⁸
26. Vodafone noted that at least 27 countries have changed from RPP to CPP since 1991, and that as far it is aware, only five countries still work on a receiving party pays basis (with the rest of the world having abandoned RPP or never adopted it). Consequently, Vodafone argued that the overwhelming global trend away from receiving party pays suggests that end-users do not value receiving incoming calls to the extent they believe they should pay for them.⁶⁶⁹
27. Furthermore, Vodafone noted that 2degrees links its proposal for BAK pricing for voice termination with the competition problems that it alleges in on-net pricing. However, Vodafone submitted that BAK pricing at interconnect will not prevent other operators from offering different prices at retail for different types of calls. Vodafone stated that whether an operator can terminate at cost or for

⁶⁶⁴ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 14, paragraph 3.52.

⁶⁶⁵ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 5, paragraphs 23-26.

⁶⁶⁶ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 5, paragraph 26.

⁶⁶⁷ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 5-6, paragraph 28.

⁶⁶⁸ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 6, paragraph 29.

⁶⁶⁹ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 6, paragraph 31.

nothing will not impact on whether another operator chooses to offer a higher off-net price.⁶⁷⁰

Vodafone report to European Commission

28. As part of its cross-submission, Vodafone attached a report that it prepared for the European Commission setting out its views on a move to BAK. In this report Vodafone argued that a move to BAK is contrary to consumer interests.⁶⁷¹
29. Vodafone stated that mandated BAK allows networks to terminate traffic off-net at zero cost, and provides networks with a viable strategy to increase the costs of their competitors (and/or generate congestion on rival networks) with retail pricing that generates off-net calls. By contrast, Vodafone noted that networks will face a non-zero marginal cost for all calls terminated on-net, which will give networks a strong incentive to favour off-net call termination over on-net termination (since both occur the same origination cost).⁶⁷²
30. Vodafone further noted that whereas networks have complete control over the quality of their on-net calls (in terms of congestion etc.), they have limited (or no) control over the quality of off-net calls (since the quality of the call is determined by the quality on its weakest segment).⁶⁷³
31. Vodafone argued that this leads to a clear dichotomy:⁶⁷⁴
 - on-net calls will be relatively more expensive but will have high quality/low congestion;
 - off-net calls will be cheaper but may suffer from lower quality/high congestion if the terminating network is not prepared to match the same quality of service.
32. Vodafone also argued that:⁶⁷⁵
 - there is considerable empirical evidence that European consumers would be highly averse to a move to RPP;
 - on-net/off-net price differentiation will continue under BAK, as evidenced by US tariffs (with on-net calls provided free in certain pre-pay packages, and excluded from calling allowances in contract plans);

⁶⁷⁰ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 7, paragraph 37.

⁶⁷¹ Vodafone, Appendix to cross-submission: *Vodafone comments on the draft final report by Tera Consultants and Hogan Lovells on future of interconnection charging methods*, p 1, paragraph 4.

⁶⁷² Vodafone, Appendix to cross-submission: *Vodafone comments on the draft final report by Tera Consultants and Hogan Lovells on future of interconnection charging methods*, p 2, paragraph 8.

⁶⁷³ Vodafone, Appendix to cross-submission: *Vodafone comments on the draft final report by Tera Consultants and Hogan Lovells on future of interconnection charging methods*, p 2, paragraph 9.

⁶⁷⁴ Vodafone, Appendix to cross-submission: *Vodafone comments on the draft final report by Tera Consultants and Hogan Lovells on future of interconnection charging methods*, p 2, paragraph 10.

⁶⁷⁵ Vodafone, Appendix to cross-submission: *Vodafone comments on the draft final report by Tera Consultants and Hogan Lovells on future of interconnection charging methods*, p 5-10.

- on-net/off-net price differentiation is equally effective for both small and large networks; and
- mobile ownership is sensitive to prices.

MTAS STD Conference

33. At the MTAS STD Conference, Professor Haucap acknowledged that there are downsides to bill-and-keep and the question whether these downsides can be more than compensated depends on the nature or the extent of the call externalities that are present in the New Zealand market. Professor Haucap stated:⁶⁷⁶

...if the externalities are very strong, then bill-and-keep may be a very good principle. If the externalities are not so strong, I would rather go for cost-based, some other cost-based - incremental cost-based standard.

34. It was agreed at the MTAS STD Conference that calling externalities exist. For example, Professor Haucap stated:⁶⁷⁷

It is, I think, quite obvious that receiver benefits exist; people hand out their mobile phone number in order to be called, so that suggests that people receive a benefit from being called regularly.

35. Similarly, Dr Aaron Schiff from Covec stated:⁶⁷⁸

...I can't deny that people enjoy receiving calls, I think that's obvious. So the question is the extent to which those benefits are internalised by the caller...

36. There was some debate about whether or not these receiver benefits are internalised.⁶⁷⁹ However, the economic experts all agreed that measuring the strength of any uninternalised call externalities is difficult.⁶⁸⁰

37. Dr Schiff described a number of possible reasons why calling externalised are internalised by end-users. Dr Schiff noted that:⁶⁸¹

...one way that this could be internalised is through the reciprocity between the two parties so that any individual call or text is part of a bigger conversation between the two parties and they both jointly pay for the costs of that and both jointly get the benefits.

In addition to that I think there's an even simpler story about how in many cases these calling externalities can be internalised and that's just simply that, especially among friends or within families the caller cares about the person that they're calling. So, for example, when I'm calling my mother, I probably talk to her for a lot longer than is optimal for me personally, because I care about her welfare I know that when she talks to me she's happy and I care about that and so I internalise the benefits to her explicitly. This won't be true in all cases but I think in many cases it could be.

⁶⁷⁶ MTAS STD Conference Transcript, 15 March 2011, p 37, lines 13-19.

⁶⁷⁷ MTAS STD Conference Transcript, 15 March 2011, p 64, lines 16-19.

⁶⁷⁸ MTAS STD Conference Transcript, 15 March 2011, p 71, lines 9-10.

⁶⁷⁹ Dr Schiff noted that one way that calling externalities could be internalised is through the reciprocity between two end-users so that any individual call or text is part of a bigger conversation between the two parties, who ultimately jointly pay for the cost of the conversation.

⁶⁸⁰ MTAS STD Conference Transcript, 15 March 2011, p 64-76.

⁶⁸¹ MTAS STD Conference Transcript, 15 March 2011, p 71, lines 13-24.

38. Professor Haucap, on the other hand, argued that calling externalities are significant in the context of the New Zealand market. Specifically, Professor Haucap stated that:⁶⁸²

I would think that they rather exist or they do not exist, meaning there's no proof in a sense but the evidence suggests to me that it's more likely that these call externalities are significant than they are not significant.

39. In reaching this view, Professor Haucap argued that given the relatively low mobile voice usage in New Zealand, it is unlikely that the level of calling is at the socially optimal level, especially when compared to the level of calling in other countries where on-net off-net differentials are not as high.⁶⁸³ Professor Haucap also noted that Vodafone has a large number of customers that do not make any calls, and only hold a SIM card in order to receive calls.⁶⁸⁴ According to Professor Haucap, this suggests that these customers do not take into account the benefit of receiving calls on the other side, suggesting that internalisation of calling externalities is unlikely in this case.⁶⁸⁵
40. Given the difficulties associated with measuring the strength of call externalities, Dr Suella Hansen from Network Strategies noted that there is a risk that adjusting for externalities when setting a regulated price runs the risk of compensating for externalities that have already been internalised. Specifically, Dr Hansen stated:⁶⁸⁶

I would say that if a pricing solution is going to be proposed to address a failure to internalise any alleged externalities, there has to be quite a lot of certainty about exactly what we are addressing, because we could end up with a situation where externalities that are already internalised are being internalised again, if you like, through imposing a pricing solution; so that's one danger that's possible.

41. Dr Schiff argued that in the absence of clear evidence in terms of the strength of un-internalised calling externalities, cost-based pricing is efficient. Dr Schiff stated:⁶⁸⁷

...measuring these externalities is difficult, I think all of us have said that. In that situation, from an economic perspective cost-based pricing is what we usually think of as our first port of call as to what is efficient and then we depart from that if we have strong evidence in terms of the externalities.

⁶⁸² MTAS STD Conference Transcript, 15 March 2011, p 66, lines 31-33.

⁶⁸³ MTAS STD Conference Transcript, 15 March 2011, p 65, lines 14-27.

⁶⁸⁴ MTAS STD Conference Transcript, 15 March 2011, p 58.

⁶⁸⁵ MTAS STD Conference Transcript, 15 March 2011, p 65-66.

⁶⁸⁶ MTAS STD Conference Transcript, 15 March 2011, p 68, lines 21-25.

⁶⁸⁷ MTAS STD Conference Transcript, 15 March 2011, p 70, lines 18-22.

Commercial BAK agreements

Additional comments prior to MTAS STD conference

2degrees

42. 2degrees provided the following table showing the number of commercial interconnection agreements (both international and domestic) to which it is a party, and BAK or hybrid BAK is applied for voice traffic.⁶⁸⁸

Service	Pure BAK	Hybrid BAK
Domestic fixed line – IntraLICA calls	[] 2DRI	[] 2DRI
0867 – Dial-up internet calls	[] 2DRI	[] 2DRI

Vodafone

43. Vodafone stated that []
 VNZ/TNZ API2⁶⁸⁹
44. However, Vodafone stated that BAK for intra-LICA calls is not evidence of good commercial precedent for BAK as an economically efficient outcome. Rather Vodafone argued that is evidence of the far-reaching, market-distorting impacts of mandating a rate of zero (whether for TSO local calls, or for MTAS SMS).⁶⁹⁰

Telecom

45. Telecom noted that it is not party to any mobile interconnection agreements that apply any form of bill and keep for voice.⁶⁹¹

Preliminary view on price point selection for voice MTAS services

46. In the draft STD the Commission's preliminary view was that the 37.5th percentile is the appropriate price point for voice as it is most likely to reflect the cost of providing the MTAS in New Zealand in 2011 and promote dynamic efficiency in the long run.

There is no basis for rejecting WIK's recommendation of the 25th percentile

Submissions on the draft STD

2degrees

47. 2degrees concurred with the Commission's conclusion that the median of the benchmark sample will overestimate the forward looking costs of mobile

⁶⁸⁸ 2degrees, *Request for additional information and further comments prior to MTAS STD Conference*, 2 March 2011, Annex A, p 11.

⁶⁸⁹ Vodafone, *Comments on MTAS implementation issues*, 2 March 2011, p 5, paragraph 26.

⁶⁹⁰ Vodafone, *Comments on MTAS implementation issues*, 2 March 2011, p 5-6, paragraphs 27-41.

⁶⁹¹ Telecom, *Letter re additional information and comments requested prior to MTAS STD conference*, 2 March 2010, p 1.

termination in New Zealand. 2degrees noted that the Commission chose to use the 37.5th percentile on the basis that doing so adjusts for the fact that a number of the benchmarks are out-of-date and thus will overstate costs.⁶⁹²

48. However, 2degrees submitted that, as clearly explained by WIK-Consult, there are a number of other reasons why the median rate will overstate costs, and that in selecting the 37.5th percentile the Commission has effectively ignored those additional reasons.⁶⁹³
49. Emma Lanigan, on behalf of 2degrees, noted that:⁶⁹⁴

“It appears that the choice of the 37.5th percentile is based on the result that such a choice would also results in a rate of 4.68 cpm. This brings into question whether out-of-date cost estimates should in fact be included in the benchmark sample. It would seem that a more principled approach which explicitly recognizes the inaccuracies of using outdated cost estimates is to add the additional criterion to the benchmark sample selection process that the benchmarks must be recent, using the Commission’s definition that the costs must relate to either 2010/11 or 2011.”

50. Lanigan also noted that:⁶⁹⁵

“Even when focusing on the subset of countries where cost models are recent, there are still strong reasons to believe that the appropriate rate is below the median. WIK expresses the view that cost model results will on average be biased upwards. Another important reason for using costs below the median is that average cost methodologies, which are still employed in a substantial number of the benchmark countries hugely overstate TSLRIC.”

Telecom

51. Telecom noted that the Commission adopted the 37.5th percentile of its benchmarking sample set on the basis that the 25th percentile of the benchmark set is likely to represent too low an estimate, and that the 50th percentile is likely to represent too high an estimate. Telecom submitted that given the level of uncertainty and the wide range of price points in the benchmark set, it strongly believes that the Commission’s starting point in selecting a price point should be the median rather than any lower point. Telecom submitted that it may then be appropriate to consider whether there are factors which should drive the selection of a different point.⁶⁹⁶
52. Telecom set out comments on key real world differences between the benchmarked countries which it believes the Commission should consider when selecting a price point. In particular, Telecom argued that economies of scale in mobile telecommunications arise at a different rate in countries with small populations as compared with larger jurisdictions. Telecom noted that New

⁶⁹² 2degrees, *Submission on the Draft MTAS STD*, 7 February 2011, p 38, paragraphs 6.14-6.15.

⁶⁹³ 2degrees, *Submission on the Draft MTAS STD*, 7 February 2011, p 38, paragraph 6.15.

⁶⁹⁴ Lanigan report, *International benchmarking of mobile termination rates: Comments on the Commerce Commission’s Draft STD for MTAS*, 7 February 2011, p 10-11.

⁶⁹⁵ Lanigan report, *International benchmarking of mobile termination rates: Comments on the Commerce Commission’s Draft STD for MTAS*, 7 February 2011, p 11.

⁶⁹⁶ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 21.

Zealand is relatively large (geographically) with a relatively small population and a relatively low GDP and median income.⁶⁹⁷

53. Telecom submitted that the Commission has assumed that because urbanisation levels in New Zealand are broadly comparable to the UK, the costs of termination will be similar. However, noting that use of UN urbanisation data is widely considered to be unreliable for cross-jurisdictional comparisons, Telecom submitted that it does not consider urbanisation to be reliable as a basis for comparability in the Commission's STD process. Instead, Telecom argued that the Commission should take into account the impact of the fundamental drivers of cost described above, and the way in which minimum scale effects operate in mobile telephony.⁶⁹⁸
54. Telecom noted that general, wireless access networks do not as a whole generate substantial and consistent economies of scale. Telecom argued that in countries like New Zealand, the low population, the relatively low wealth by OECD standards, the relatively low density per square kilometre of coverage in urban and especially rural areas, the distance from other countries, (and for roammers the comparatively low penetration of 3G handsets in Europe (and to a lesser extent America) capable of using Telecom's 3G network), all limit the volume of mobile traffic.⁶⁹⁹
55. Telecom submitted that TSLRIC under recovers MTR costs for mobile networks. Telecom noted that radio network engineers derive a total demand for traffic estimate based on a range of factors in order to determine the capacity of the network so that it is capable of meeting demand at the hour during which a subscriber generates the heaviest average demand on the network. Telecom noted that outside busy hour, the average traffic generated by subscribers will drop below this level, and depending on the assumptions adopted by model builders in relation to the estimation of the increment as comprised of coverage, traffic, and subscriber increments there may be a downward error in estimation of a cost based MTR. Telecom stated that this theoretical ideal is usually not achieved in practice and compounds the low side bias in the proposed MTR.⁷⁰⁰
56. Telecom submitted that it is not possible for small population markets like New Zealand to achieve the scale economies assumed in most of the Commission's benchmark countries. Telecom noted that even relatively small European countries such as Belgium tend to have 10m+ high income end users. Telecom argued that sub-scale NZ networks compete for a much smaller and less affluent customer base than is the case with richer, higher population countries typically contained in the Commission's benchmarking, and that the aggregate effect of not adjusting for these legitimate factors may result in a material underestimation of the true TSLRIC. Accordingly, Telecom suggested that the Commission should act with caution to avoid setting a price point for MTR below cost.⁷⁰¹

⁶⁹⁷ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 54.

⁶⁹⁸ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 56.

⁶⁹⁹ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 57.

⁷⁰⁰ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraphs 66-68.

⁷⁰¹ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 69.

NERA

57. NERA submitted that the variation in the benchmarks implies that caution is required when selecting a price point, particularly when combined with the small sample size, the uncertainty about the comparability of New Zealand with the benchmark sample, the likely waterbed effects and investment risks of below cost pricing.⁷⁰²
58. To highlight the variability in the benchmark set NERA constructed 95 percent confidence intervals around the median of the benchmark set, one based on the “order statistics” method set out by Ott and Longnecker and the other using the bootstrapping technique. NERA also estimated confidence intervals using the benchmarks from the 2011 period using the same techniques.⁷⁰³
59. The 95 percent confidence interval estimated for the full benchmark set was 3.99 cents to 9.75 cents using the order statistics method and 4.255 cents to 8.145 cents using the bootstrapping method. For the 2011 benchmarks only the 95 percent confidence interval was estimated to be 2.91 cents to 9.75 cents using the order statistics method and 3.64 cents to 6.31 cents using the bootstrapping method. These confidence intervals are based around a median of 4.95 cents for the full benchmark set and 4.68 cents for the 2011 benchmark set.⁷⁰⁴
60. NERA submitted that because all of these ranges are quite large, it suggests that the median benchmark estimates of 4.95 cents and 4.68 cents are relatively imprecise, and caution is required in applying the median.⁷⁰⁵
61. Furthermore, NERA noted that as justification for selecting a price below the median, the Commission argued that:⁷⁰⁶
62. “... given increases in call volumes, mobile data and equipment price trends, the Commission considers that the median of the benchmark set may overstate the current costs of terminating the voice MTAS service.”
63. However, NERA submitted that the Commission had already accounted for these effects in its proposed cost-path when it stated:⁷⁰⁷
64. “There are several factors that influence the annual cost reductions in these models, including increasing call volumes, equipment price trends, cost recovery profiles and the extent of mobile data uptake.”
65. Accordingly, NERA submitted that by selecting a price point below the median and including a cost path, the Commission is addressing the same issue twice.⁷⁰⁸
66. NERA noted that the asymmetric risk of regulatory error is the usual reason for setting a price point above the median, and the Commission’s view that the two

⁷⁰² NERA, *Review of Draft STD for MTAS*, 7 February 2011, p 7.

⁷⁰³ NERA, *Review of Draft STD for MTAS*, 7 February 2011, p 7-8.

⁷⁰⁴ NERA, *Review of Draft STD for MTAS*, 7 February 2011, p 8.

⁷⁰⁵ NERA, *Review of Draft STD for MTAS*, 7 February 2011, p 8.

⁷⁰⁶ NERA, *Review of Draft STD for MTAS*, 7 February 2011, p 8-9.

⁷⁰⁷ NERA, *Review of Draft STD for MTAS*, 7 February 2011, p 9.

⁷⁰⁸ NERA, *Review of Draft STD for MTAS*, 7 February 2011, p 9.

way nature of interconnection reduces the concern on this issue.⁷⁰⁹ NERA submitted that this ignores the “bill and keep fallacy” that the removal of an access charge affects each network’s perceived marginal cost and therefore retail prices. NERA argued that in doing so, the implementation of bill and keep is not neutral even when traffic is in balance.⁷¹⁰

67. NERA noted that while the bill and keep fallacy is in reference to a MTR of zero, the reasoning also holds for below cost MTRs. In addition to this, NERA highlighted advice assessing the merits of a bill and keep system provided to the Commission by WIK Consult, in which WIK identified two possible detrimental effects of implementing bill and keep:⁷¹¹
68. that there is the incentive for operators under this regime to offer more favorable terms to their customers for outgoing calls since these are now less expensive and potentially under utilizing their own investment; and
69. that operators less incentive to cater to incoming calls, given that these will generate no income and may as a result allocate less capacity to incoming calls, affecting the quality of service afforded to incoming calls.
70. NERA noted that this logic applies to below cost MTRs as well as zero rated MTRs, which calls into question the Commission’s reasoning that the two way nature of interconnection is unlikely to be significant.⁷¹²
71. Finally, NERA stated that the Commission appears to justify choosing a price point below the median on the grounds that a key driver of investment is competition. NERA submitted that it is likely to be correct that competitive pressures will incentivise investment in mobile markets. Nevertheless, NERA submitted the potentially offsetting distortions to investment incentives discussed by WIK Consult remain. Moreover, NERA argued that this justification does not address the key issue, which is that when choosing a point from a distribution that is based on a very small and disparate sample, it is appropriate to be cautious so as to avoid adopting a below cost point.⁷¹³
72. NERA concluded that the Commission should adopt the 75th percentile as the price point because of the small sample size, the consequent imprecision of the median or any other point estimate, and the likely waterbed effects and investment risks of below cost pricing.⁷¹⁴

⁷⁰⁹ NERA, *Review of Draft STD for MTAS*, 7 February 2011, p 9.

⁷¹⁰ NERA, *Review of Draft STD for MTAS*, 7 February 2011, p 9.

⁷¹¹ NERA, *Review of Draft STD for MTAS*, 7 February 2011, p 9-10.

⁷¹² NERA, *Review of Draft STD for MTAS*, 7 February 2011, p 10.

⁷¹³ NERA, *Review of Draft STD for MTAS*, 7 February 2011, p 10.

⁷¹⁴ NERA, *Review of Draft STD for MTAS*, 7 February 2011, p 10.

TelstraClear

73. TelstraClear submitted that given the marked downward trend in MTRs in most benchmarked countries, it is appropriate that the Commission sets an initial price point below the median of the benchmark set.⁷¹⁵

Network Strategies

74. Network Strategies noted that in the draft STD the Commission selected the 37.5th percentile on the grounds that the lower quartile is likely to underestimate the costs of the MTAS service while the median may overstate costs. Network Strategies submitted that it can find no evidence of this particular statistic being used previously for telecommunications regulatory benchmarking.⁷¹⁶
75. Noting that adjusting benchmarks for comparability purposes will require additional effort on behalf of the Commission, Network Strategies submitted that it may be preferable to take an alternate approach whereby the Commission applies its expert judgement to set a price point that encapsulates how the costs of an efficient New Zealand operator would compare with those in the benchmark set for a number of different (and competing) drivers, including urbanisation, fixed to mobile substitution and traffic volumes.⁷¹⁷
76. In addition, Network Strategies submitted that the Commission could include a view on the likely future combined effect of these drivers within the regulatory timeframe, noting that this would ensure that the Commission is not constrained by historical characteristics (such as traffic levels) which are likely to be affected by the introduction of cost-oriented mobile termination rates.⁷¹⁸
77. Network Strategies recommended that the Commission further investigate the benchmark set to explore characteristics such as fixed to mobile substitution and traffic volumes when deciding on the appropriate price point.⁷¹⁹

Vodafone

78. Vodafone submitted that the Commission has changed approach many times on its choice of a regulated MTAS price from a range of benchmarks. Vodafone noted that the Commission has gone from using the median (October 2004), to the 75th percentile (June 2005, April 2006, April 2008), back to the median (March 2009, June 2009), then to a range from the average of the three cheapest benchmark countries to the median (December 2009, February 2010), and now to the 37.5th percentile (December 2010).⁷²⁰
79. Vodafone stated that the justification for the 37.5th percentile seems odd when the absolute price levels are considered. Vodafone noted the Commission's statements that the 25th percentile is likely to be below cost (para 103) but the

⁷¹⁵ TelstraClear, *Submission on the Draft MTAS STD*, February 2011, p 4, paragraph 15.

⁷¹⁶ Network Strategies, *A review of the Draft MTAS STD*, 7 February 2011, p 26-27.

⁷¹⁷ Network Strategies, *A review of the Draft MTAS STD*, 7 February 2011, p 27.

⁷¹⁸ Network Strategies, *A review of the Draft MTAS STD*, 7 February 2011, p 27.

⁷¹⁹ Network Strategies, *A review of the Draft MTAS STD*, 7 February 2011, p 27.

⁷²⁰ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 36, paragraph 153.

median is likely to be above cost (para 104). However, Vodafone noted that the actual difference between the 37.5th percentile and the median is less than half a cent. Accordingly, Vodafone submitted that it is hard to fathom how the Commission could ever be sure that the 37.5th percentile is just right when the differences are that tiny given all the uncertainties of the cost estimation process.⁷²¹

80. Vodafone submitted that the Commission's approach in MTAS is also in contrast with its determinations in its Input Methodologies work where the Commission used the 75th percentile to select WACCs for businesses regulated under Part 4 of the Commerce Act. Likewise, Vodafone noted that the Commission chose the 75th percentile in the Sub-loop Backhaul Service in the Sub-loop STD, and in both situations the Commission identified investment incentives as important considerations in selecting these price points.⁷²²
81. Vodafone submitted that the Commission has addressed relative investment potential in only the most cursory and simplistic way in arguing for a price point based on the 37.5th percentile and stated that the Commission should inquire into this issue more deeply.⁷²³
82. Vodafone submitted that the Commission's welfare model shows that the proposed cut in MTAS is going to reduce mobile sector cash flows by \$103 million over four years on an NPV basis (driven by reduced fixed to mobile termination revenue) and that this reduction in cash flows will reduce further investment by the three mobile operators in New Zealand.⁷²⁴
83. Vodafone noted that in selecting a benchmark the Commission has stated that it recognises that "the long-term consequences of under-investment are generally regarded as being potentially more severe" than where an access price is too high. Vodafone submitted that given this statement, the Commission's approach to selecting benchmarks in other STDs and for other sectors, and the depressing effect an MTAS cut will have on mobile sector investment, the Commission's failure to address investment potential from entrants and incumbents in setting the rate means that it has overlooked a highly relevant consideration for achieving the statutory purpose.⁷²⁵

Analysys Mason

84. Analysys Mason submitted that the Commission provides no strong argumentation as to why the 37.5th percentile of the benchmark set is chosen to determine the voice termination cost in New Zealand. Analysys Mason submitted that the 37.5th percentile is an arbitrary figure and that it has serious reservations about the price point.⁷²⁶

⁷²¹ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 36, paragraph 154.

⁷²² Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 36-37, paragraphs 155-158.

⁷²³ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 37, paragraph 159.

⁷²⁴ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 37, paragraph 160.

⁷²⁵ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 38, paragraph 164.

⁷²⁶ Analysys Mason, *Draft standard terms determination analysis*, 4 February 2011, p 7.

- 85. Analysys Mason noted that the result calculated applying the 37.5th percentile is very sensitive to the presence of specific observations within the benchmark sample, and that should any of the benchmarked countries be removed from the sample, the 37.5th percentile result would change significantly.⁷²⁷
- 86. Analysys Mason submitted that a more prudent approach, such as using the 75th percentile or the median, would be more appropriate, noting that these approaches have been taken in previous occasions by the Commission itself and by other regulatory bodies who have regulated wholesale prices using international benchmarking. Analysys Mason stated that if the median is taken, this has the effect of correcting the deviations of the highest and lowest figures and try to diminish the distortions of a small sample.⁷²⁸

Woosh

- 87. Woosh submitted that using a price point of the 37.5th percentile is an error because it assumes that costs in New Zealand are comparable to those in Sweden and the UK. Woosh also submitted that the 37.5th percentile fails to take sufficient account of the increase in all-IP voice services and increases in mobile data usage.⁷²⁹
- 88. Woosh questioned why the Commission has not included countries that have much lower MTRs than those set out in the benchmark set used in the draft STD. Woosh proposed that the Commission (should it not decide to implement bill and keep for voice services) use a rate less than the lowest rate on the final voice benchmark set referred to in the draft MTAS STD.⁷³⁰

Cross-submissions on the draft STD

2degrees

- 89. In its cross-submission, 2degrees stated that it has seen nothing new in the incumbents' submissions to suggest the Commission move upwards from its current price point selection. To the contrary, 2degrees submitted that arguments for BAK for mobile-to-mobile and selection of a 25th percentile price point as suggested by WIK-Consult remain, with no evidence of harm from setting MTRs at zero having been established.⁷³¹
- 90. 2degrees noted that both Telecom and Vodafone argued that the price point should be at the 75th percentile and that these parties are seeking to skew the benchmarks upward. 2degrees noted that Telecom and Vodafone argued that selection of the 37.5th percentile risks setting prices below-cost, potentially harming competition and consumers and putting future investment at risk.⁷³²

⁷²⁷ Analysys Mason, *Draft standard terms determination analysis*, 4 February 2011, p 8.

⁷²⁸ Analysys Mason, *Draft standard terms determination analysis*, 4 February 2011, p 8.

⁷²⁹ Woosh, *Submission on the Draft MTAS STD*, 7 February 2011, p 1.

⁷³⁰ Woosh, *Submission on the Draft MTAS STD*, 7 February 2011, p 1.

⁷³¹ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 8, paragraphs 3.8-3.9.

⁷³² 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 9, paragraphs 3.18-3.19.

91. However, 2degrees submitted that the incumbents assume away all of the risk of above-cost MTRs and focus on the risk of setting rates below cost. 2degrees submitted that neither the incumbents, nor their experts, present any tangible evidence to support claims that below cost MTRs would cut investment in mobile networks and reduce competition overall.⁷³³
92. Rather, 2degrees noted that Analysys Mason (in the United Kingdom) concluded in a report for Ofcom that BAK pricing did not have an adverse impact on investment.⁷³⁴
93. 2degrees further submitted that:⁷³⁵
- Ofcom, supported by Vodafone's own experts, Analysys Mason, recently concluded that "lower termination rates are likely to benefit consumers overall."
 - Ofcom also highlighted the distinction between termination and other access charges in its 2010 Discussion Paper, noting "that mobile providers could recover common costs from either (higher) MTRs and/or from their own subscribers. This is a critical distinction between termination and other access charges. Termination is a form of two-way access while other types of access – e.g. charges for local loop unbundling (LLU), carrier pre-selection (CPS) and wholesale line rental (WLR) services – are examples of one-way access."
 - The EC has also made it clear that high termination rates are a "cash cow" for incumbents, a tax on new entrants, and that closed-net pricing creates consumer harm.
94. 2degrees noted that Telecom draws an analogy between MTAS and traditional vertical monopolies in its discussion of glide paths, referencing concerns from "other regulatory proceedings" that large changes in regulated rates can lead to under investment and impact security of supply. However, 2degrees argued that the analogy between MTAS and traditional vertical monopolies is misleading because unlike traditional vertical monopolies, the supply of MTAS services is two-way with each network operator receiving the mutual benefits of interconnection.⁷³⁶
95. 2degrees noted that in the Final Schedule 3 Report, the Commission referred to the risks of underinvestment in relation to the traditional vertical UCLL and sub-loop monopolies should access prices be set too low which is understandable given risks with "rate of return" investment in such a situation. However, 2degrees noted that the Commission concluded in the MTAS Schedule 3 report that "The Commission did not receive any evidence of detriment from regulating MTRs below cost."⁷³⁷

⁷³³ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 10, paragraphs 3.20-3.23.

⁷³⁴ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 10, paragraph 3.23.

⁷³⁵ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 10-11, paragraph 3.25.

⁷³⁶ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 11, paragraphs 3.29-3.31.

⁷³⁷ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 12, paragraph 3.33.

96. 2degrees submitted that this remains the case with the incumbents presenting no new evidence of the alleged harm of setting MTRs too low. 2degrees submitted that it considers analogies with vertical monopolies to be misleading and that there is no basis for the Commission adjusting its current price-point selection upwards.⁷³⁸
97. Furthermore, 2degrees submitted that it is far more efficient, and of far lower regulatory risk, to err in favour of a lower termination rate at the IPP stage than to set an above-cost rate which risks maintaining the existing distortions in telecommunications markets. 2degrees submitted that if the EC, and Ofcom's 2010 paper recommend LRIC over LRIC plus, a "lower value" TSLRIC (which is much higher than either) can raise no concerns, and in fact, must be considered more likely to meet the section 18 purpose.⁷³⁹
98. 2degrees submitted that the Commission has considerably more flexibility in a benchmarking exercise than is acknowledged by the incumbents. In addition, 2degrees submitted that if the price determined by the Commission proved higher than a final calculation of TSLRIC, this could be resolved through a "wash up" following the determination of an FPP.⁷⁴⁰
99. 2degrees argued that it would be more efficient and pro-competitive for the Commission to err in favour of a lower price point (as recommended by WIK-Consult) than risk the benefits of competition being forestalled for a further period pending a lengthy, inefficient and costly FPP process in the event a rate above-cost is applied.⁷⁴¹
100. 2degrees submitted that it remains of the view that the Commission was correct to conclude that a point below the median is appropriate, and that there are in fact strong grounds to adopt WIK-Consult's recommendation of the 25th percentile.⁷⁴²
101. 2degrees submitted that if the Commission is minded to err in a particular direction it should err on the side of caution and ensure that the price set is extremely unlikely to exceed costs.⁷⁴³

Haucap and Lanigan

102. In their cross-submission, Haucap and Lanigan (on behalf of 2degrees), noted the NERA submission that there is an asymmetric risk of regulatory error and that "the negative welfare consequences of setting the rate above cost are lower than those from setting the rate below cost". Haucap and Lanigan agreed with the view that the welfare costs of regulatory error are asymmetric in the case at hand, however, Haucap and Lanigan argued that the welfare costs associated

⁷³⁸ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 12, paragraph 3.34.

⁷³⁹ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 12, paragraphs 3.36-3.37.

⁷⁴⁰ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 12, paragraph 3.38.

⁷⁴¹ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 12, paragraph 3.40.

⁷⁴² 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 13-14, paragraphs 3.44-3.45.

⁷⁴³ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 9, paragraph 3.10.

with below-cost MTRs are much lower than the welfare costs of above-cost MTRs.⁷⁴⁴

103. Haucap and Lanigan submitted that they consider the risk of lost competition and reduced entrant investment to exceed the welfare cost associated with the risk of potentially lost incumbent investment. They submitted that below-cost MTRs do not necessarily imply that investment cost recovery would not be possible, and hence, the risk of setting MTRs erroneously at a below-cost level is not the same as the risk of inducing under-investment into mobile infrastructure.⁷⁴⁵
104. Haucap and Lanigan submitted that the key trade-off in setting MTRs is between facilitating efficient retail pricing and the recovery of joint cost, which also impacts on investment incentives. Therefore, Haucap and Lanigan submitted that it is, *prima facie*, absolutely not clear whether or not “the negative welfare consequences of setting the rate above cost are lower than those from setting the rate below cost” as claimed by NERA.⁷⁴⁶
105. Haucap and Lanigan referred to three arguments against above-cost termination rates put forward by the European Commission:⁷⁴⁷

“While mobile termination rates are on a downward trend as a result of regulatory intervention in the EU, regulators have tended to implement glide paths with a more gradual rate of reduction and in 2007 mobile termination rates were still on average almost nine times the equivalent fixed rate. This results in substantial transfers and an indirect subsidy from fixed operators and their customers to mobile networks and services. This may in turn be contributing to inefficiently low usage of fixed networks in some Member States and could prove to be a barrier to important innovations and investments in the fixed sector such as fibre roll-out and delivery of next generation networks and bundled/convergent services.”

“Above-cost termination rates can give rise to competitive distortions between operators with asymmetric market shares and traffic flows. Termination rates that are set above an efficient level of cost result in higher off-net wholesale and retail prices. As smaller networks typically have a large proportion of off-net calls, this leads to significant payments to their larger competitors and hampers their ability to compete with on-net/off-net retail offers of larger incumbents. This can reinforce the network effects of larger networks and increase barriers to smaller operators entering and expanding within markets.”

“Furthermore, it may be claimed that high termination rates charged on a per-minute price basis create pressure on operators to adopt per-minute retail tariffs, thereby limiting the possible emergence of more innovative offers such as those based on flat-rate tariff structures which could in turn promote greater retail consumption.”

106. Haucap and Lanigan stated that they concur with these arguments, and noted that in the particular circumstances of the New Zealand mobile market, the degree of market power of the former duopoly has, hitherto, been substantial. Therefore, Haucap and Lanigan submitted that retail price distortions are more likely than in a market with three or four established operators.⁷⁴⁸

⁷⁴⁴ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 6.

⁷⁴⁵ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 6.

⁷⁴⁶ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 6.

⁷⁴⁷ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 7.

⁷⁴⁸ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 7.

107. Haucap and Lanigan also submitted that they agree with the Commission's line of reasoning that a hypothetical below cost MTR is less of a concern "on the basis of the two way nature of interconnection". As pointed out by Laffont and Tirole, and as quoted by NERA in section 3.4 of their submission, "a change in the access charge need not affect the (absence of) net payment between the operators." In fact, Haucap and Lanigan noted that if traffic between the networks is balanced the net payment between networks is also zero, and in that case, an above-cost MTR cannot directly contribute to the recovery of joint cost, but only indirectly by driving up retail prices. Haucap and Lanigan submitted that in that sense it is correct, as stated by Laffont and Tirole and quoted by NERA, that bill-and-keep is not neutral and that the same logic applies, in principle, to below-cost MTRs.⁷⁴⁹
108. Haucap and Lanigan submitted that it should also be noted though that even a below-cost MTR may be sufficient to recover an operator's joint and common cost because, following the above line of reasoning, MTR revenues amount to zero if calling patterns are balanced and MTRs symmetric. Haucap and Lanigan noted that termination revenues do not directly contribute to the common cost in that case, but only indirectly.⁷⁵⁰
109. Based on these considerations, Haucap and Lanigan submitted that they do not see why the negative welfare consequences of above-cost rates exceed those of below-cost rates. Rather, Haucap and Lanigan argued that the negative welfare consequences of above-cost MTRs are likely to exceed the negative welfare consequences of below-cost MTRs, as above-cost MTRs will stifle competition and also investment by entrant operators. In the long-run, Haucap and Lanigan stated that they expect more investment and innovation to emerge in a market with three intensely competing operators than under the previous duopoly market structure in New Zealand.⁷⁵¹

Telecom

110. In its cross-submission, Telecom agreed with Vodafone that the Commission's proposed approach to the comparability of benchmark countries, choice of the 37.5th percentile of the range, and exclusion of a glide path are likely to produce a regulated MTR that is below cost. Telecom urged the Commission to exercise great care to choose a price point for the MTR which reduces the significant risk of regulating below cost.⁷⁵²
111. Telecom noted that it generally agrees with Analysys Mason's comments on the selection of benchmark countries, adjustments to the calculation of the benchmark country prices, the difficulties with the single urbanisation comparability criterion used by the Commission, and its comments on the selection of the price point from the subsequent range. Telecom also noted

⁷⁴⁹ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 7-8.

⁷⁵⁰ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 8.

⁷⁵¹ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 8.

⁷⁵² Telecom, *Cross-submission on the Draft MTAS STD*, 24 February 2011, paragraphs 18-19.

Network Strategies' concern with the selection of the third octile (37.5th percentile) as a price point selection tool for regulatory benchmarking.⁷⁵³

112. In summary, Telecom stated that a review of the submissions in relation to benchmarking emphasises the risks with the Commission's proposed approach to the comparability of benchmark countries, computation of the range, the choice of the 37.5th percentile of the range, and the exclusion of a glide path.⁷⁵⁴

Network Strategies

113. Network Strategies, on behalf of TelstraClear, cross-submitted that any decisions regarding the selection of statistical measure – median, quartile, 37.5th percentile or other estimate – must be informed to some extent by the characteristics of the data within the benchmark sample. Network Strategies submitted that both it, and the other operators, identified various problems with the selection of countries, and the resultant calculation/adjustment of some of the data points. Network Strategies anticipate that correction of these issues will result in an improved, that is a smaller, confidence interval, and thus the level of uncertainty will be reduced.⁷⁵⁵
114. With regards to whether the median or another measure should be used, Network Strategies submitted that the Commission needs to use its expert judgement via the mechanism of adjusting quartiles up or down.⁷⁵⁶

Vodafone

115. Vodafone cross-submitted that the Commission should give more weight to mitigating the risk of setting a regulated price below cost, and use the 75th percentile of the benchmark set as a response. Vodafone also noted Network Strategies submission that it could find no evidence of the 37.5th percentile being used previously in telecommunications regulatory benchmarking.⁷⁵⁷
116. Furthermore, Vodafone highlighted submissions from Telecom and NERA noting the statistical problems caused by using small samples. Vodafone stated that it supports this analysis and the concerns about the statistical robustness of the Commission's narrow sample of benchmark countries.⁷⁵⁸

MTAS STD Conference

117. At the MTAS STD Conference, Telecom supported the adoption of the 75th percentile as the price point:⁷⁵⁹

Our starting point is, what we're doing is regulating, that alone means we should have pause for thought and make sure that we're not over-regulating. Ally that to the fact that we've got

⁷⁵³ Telecom, *Cross-submission on the Draft MTAS STD*, 24 February 2011, paragraphs 20 and 22-23.

⁷⁵⁴ Telecom, *Cross-submission on the Draft MTAS STD*, 24 February 2011, paragraph 24.

⁷⁵⁵ Network Strategies, *Cross-submission on Draft MTAS STD*, 23 February 2011, p 5.

⁷⁵⁶ Network Strategies, *Cross-submission on Draft MTAS STD*, 23 February 2011, p 5.

⁷⁵⁷ Vodafone, *Cross-submission on the Draft MTAS STD*, February 2011, p 11, paragraphs 63-64.

⁷⁵⁸ Vodafone, *Cross-submission on the Draft MTAS STD*, February 2011, p 11, paragraph 65.

⁷⁵⁹ John Wesley-Smith, MTAS STD Conference Transcript Day One, page 107, lines 15-19.

an IPP and an FPP process in the Act and that, from our perspective, suggests that you deal with uncertainty by acting conservatively, and you should go for the 75th.

118. James Mellsop from NERA also supported the use of the 75th percentile on the grounds that there was a “huge amount of uncertainty in the sample”.⁷⁶⁰
119. Professor Haucap, on the other hand, argued that the risks associated with setting a price that is too low minimal in the context of the New Zealand market:⁷⁶¹

I think while there are of course some risk of welfare cost if the price is too low, one is that the operators could not receive their - recover their common cost.

However, I think this risk is fairly low in the current situation of the New Zealand mobile telecommunications market, in the market structure as we see it, especially the risks that Vodafone or Telecom are not able to recover their common costs given the market share that they have in the retail market and all the frictions that are natural in this kind of market, meaning that consumers are not easily instantaneously switching back and forth usually in this type of market, or there are plenty of opportunities to recover common costs through other type of retail prices usually. Even if it's difficult to - even if the rate would be below cost and does not contribute, the retail rate would not contribute to the recovery of common cost.

120. At the MTAS STD Conference, Professor Haucap referred to a number of risks associated with setting an access price that is too high, to the extent that the resulting MTR is above cost:⁷⁶²

...first of all it means that it does not only not correct for the calling externalities that there may be, but it may even further deteriorate this problem because a calling externality would justify a discount or a below cost rate; so this would mean that this problem gets worse as opposed to what it already - or compared to what it is.

It may also mean that, the second risk that it stifles sufficient competition and expansion of an entrant, and also that the entrant and also the fixed-line networks have to contribute over-proportionally to the common costs of the incumbent.

The third is that, well, in the very extreme there's a risk that an entrant may not be able to sustain its business, and then you have to compare what is the risk of a long run duopoly situation, or how easy is it to reverse the situation of market exit. I think that's much more difficult to reverse than the situation if we find out that prices are too high and have to lower them, and the risk - and too high prices are more likely to jeopardise the entrant's business than too low prices in this particular context.

I also point out what WIK have pointed out in their report, that in the set of benchmarks there are a number - or it's likely that in a number of countries the termination rates have been influenced by political consideration that usually tend to drive prices up rather than too low. So, WIK at least points that out in the report to you, so I think this is a valid point.

The fifth is that, well, there is this double mark-up. So, even if we set the mobile termination rate that is below cost, that does not mean that the retail price also have to be at below cost because you can add a mark-up, or we typically set a mark-up and the mark-up will typically be set, especially in the situation where there is no fixed fee for many customers. And that means that the below cost termination rate does not imply a below cost retail rate, so there is another opportunity to recover costs and also to reach efficient prices in the retail market.

⁷⁶⁰ MTAS STD Conference Transcript Day One, page 107, lines 25-31.

⁷⁶¹ MTAS STD Conference Transcript Day One, page 112, lines 9-20.

⁷⁶² MTAS STD Conference Transcript Day One, page 112-113.

121. In relation to the impact of the two-way nature of interconnection on price point selection, Emma Lanigan noted that:⁷⁶³

...in the case of two-way access I think the issue is that, because all of the networks are facing the same price, that they can still - facing the same access price, they can still recover any unrecovered costs at the retail level because the retail price isn't being competed down in the same way that it is in the one-way access.

122. Vodafone suggested that there is a relevant distinction between fixed-to-mobile and mobile-to-mobile when considering the two-way nature of interconnection. At the MTAS STD Conference, Vodafone stated that it is most concerned about the impact on fixed-to-mobile:⁷⁶⁴

It seemed to me really clear that the impact on mobile competition and mobile investment from cutting the fixed-to-mobile termination rates is obviously negative; it must be for all operators if we're going to cut - say, we've estimated \$290 million out of the mobile market.

...certainly the impact that we're most concerned about is the fixed-to-mobile, and that seems to me to be much more analogous to the one-way story than the two-way story.

Preliminary view on whether asymmetric termination rates should be implemented for the voice MTAS services

123. In the draft STD the Commission's preliminary view was that moving quickly to cost-based MTRs will address the competition concerns in the MTAS market, and consequently, asymmetric rates in favour of a new entrant are not appropriate.

Are asymmetric termination rates appropriate?

Submissions on the draft STD

2degrees

124. 2degrees submitted that it agrees with WIK-Consult's view that equally (or more) efficient new entrants will have materially higher costs compared with incumbent networks, which have a far larger entrenched customer base. However, 2degrees submitted that it has sympathy for the Commission's view that asymmetric rates should not be adopted, even though such an approach would reflect the Access Provider's "cost".⁷⁶⁵
125. 2degrees noted that to the extent that incumbents use termination rates as an excuse for off-net surcharges, this excuse would remain and is something it wishes to avoid. 2degrees submitted that it would be prepared to forego asymmetry provided a non-discrimination condition was imposed.⁷⁶⁶
126. However, 2degrees stated that it strongly disagrees with the Commission's reasoning for not adopting asymmetric termination rates, namely that 2degrees has succeeded and that this is assumed to continue. 2degrees argued that

⁷⁶³ MTAS STD Conference Transcript Day One, page 111, lines 24-27.

⁷⁶⁴ Comments by Hayden Glass, MTAS STD Conference Transcript Day One, page 114, lines 20-32.

⁷⁶⁵ 2degrees, *Submission on the Draft MTAS STD*, 7 February 2011, p 68, paragraphs 12.8-12.9.

⁷⁶⁶ 2degrees, *Submission on the Draft MTAS STD*, 7 February 2011, p 68-69, paragraph 12.9.

statements about its success have been overstated and strategic/anti-competitive conduct will continue.⁷⁶⁷

Telecom

127. Telecom submitted that asymmetric rates would be both unprincipled and likely to give rise to arbitrage opportunities. Telecom noted that within the current pricing construct, 2degrees have engaged in conduct that might be described as arbitrage, through Textmerace and Santaline. Telecom argued that practices of this nature would only increase in the event of asymmetric rates being applied.⁷⁶⁸
128. From a legal perspective, Telecom also questioned whether it is possible to set an asymmetric rate and remain faithful to the pricing principles that have been set out in the Act.⁷⁶⁹

TelstraClear and Network Strategies

129. TelstraClear submitted that since MTRs are to be based on efficient forward-looking costs (rather than actual costs), there is no justification for asymmetric application. TelstraClear noted that the European Commission has previously stated that symmetric application of MTRs based on efficient costs will promote allocative and productive efficiency, which will ultimately benefit consumers.⁷⁷⁰
130. TelstraClear also noted that asymmetric termination rates may potentially encourage inefficient behaviour, by effectively rewarding MNOs with higher costs. TelstraClear agreed with the Commission's preliminary view that asymmetric application of MTRs would not be appropriate.⁷⁷¹
131. Network Strategies, on behalf of 2degrees, noted that the view of the European Commission is that asymmetric rates may sometimes be justified where new entrants encounter difficult conditions, and that a four-year timeframe for phasing out asymmetries is reasonable for the new mobile entrant to achieve minimum efficient scale (15-20% market share). Network Strategies submitted that the Commission's preliminary view (that asymmetry is not justified) is reasonable, given that substantially lower mobile termination rates should benefit new entrants.⁷⁷²

Vodafone

132. Vodafone submitted that there is no need for asymmetry in rates for 2degrees in this case because:
 - 2degrees continues to grow its customer base quickly, with an estimated market share of [] VNZRI. This is [] VNZRI the 15-20% market

⁷⁶⁷ 2degrees, *Submission on the Draft MTAS STD*, 7 February 2011, p 69, paragraph 12.10.

⁷⁶⁸ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraphs 106-108.

⁷⁶⁹ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 109.

⁷⁷⁰ TelstraClear, *Submission on the Draft MTAS STD*, February 2011, p 5, paragraph 16.

⁷⁷¹ TelstraClear, *Submission on the Draft MTAS STD*, February 2011, p 5, paragraph 16.

⁷⁷² Network Strategies, *Submission on the Draft MTAS STD*, 7 February 2011, p 6-7.

share that the EC considers a reasonable benchmark for the end of any cost argument for asymmetry;

- [] VNZAPIO2
 - 2degrees argued in the mobile co-location process that its network costs were lower than other operators, which supports the Commission's observation that entrants may face lower costs to build their mobile network (given their ability to use the most up-to-date and lowest cost technology); and
 - an asymmetry in MTAS rates would blunt 2degrees' incentives to compete and to grow, since growing market share would lead to a removal of the asymmetry and reduce its profits from termination of calls to its existing customer base.⁷⁷³
133. Vodafone further submitted that asymmetry in rates may mean that other operators differentiate between the retail costs of calls to 022 numbers and other mobile numbers. In addition, Vodafone argued that the Commission should avoid imposing both asymmetry in favour of 2degrees and an on-net pricing ban, as this combination would generate incentives for 2degrees to find ways to attract calls from other operators' customers, since this would boost its interconnect revenues and reduce other operators' margins.⁷⁷⁴

Cross-submissions on the draft STD

2degrees

134. In its cross-submission, 2degrees noted that one of the key reasons given by Vodafone in support of a fixed-to-mobile glide-path is the harm that immediate cuts in fixed-to-mobile termination rates would have on 2degrees. 2degrees submitted that this is no basis for the incumbent operators to retain monopoly rents for a moment longer.⁷⁷⁵
135. 2degrees submitted that if the Commission is not minded to impose a non-discrimination condition then Vodafone is right that the Commission risks exposing 2degrees to material revenue downside without opening up the market to full and robust competition. Accordingly, 2degrees stated that Vodafone's submissions support asymmetric rates, but in favour of new entrants only.⁷⁷⁶
136. 2degrees submitted that this could be achieved by a fixed-to-mobile glide path in favour of new entrants only, and only until efficient scale is achieved.⁷⁷⁷
137. In response to Telecom's submission that asymmetric rates would give rise to arbitrage opportunities (such as Textmerace and Santaline), 2degrees argued that if MTRs are regulated to cost (or BAK as currently proposed for SMS), then

⁷⁷³ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 54-55, paragraph 235.

⁷⁷⁴ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 55, paragraph 236.

⁷⁷⁵ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 15, paragraphs 4.3-4.4.

⁷⁷⁶ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 15, paragraphs 4.9-4.10.

⁷⁷⁷ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 15, paragraph 4.11.

there is no incentive for an operator to reward its customers for receiving SMS.⁷⁷⁸

Telecom

138. In its cross-submission, Telecom stated that asymmetric MTRs (with higher termination rates for calls terminating on 2degrees' network) are not justified, either as entry assistance, or in the absence of a non-discrimination provision to deal with the perceived competition issue.⁷⁷⁹
139. Telecom noted that internationally there is a growing shift away from asymmetries, and a recognition that they can drive harmful distortion into retail and wholesale markets.⁷⁸⁰
140. Telecom also referred to a paper by Valletti in which it is argued that applying asymmetric regulation to MTRs is an improper and inefficient way of enacting entry assistance policies. Rather, Valletti argued that if asymmetric regulation is put in place, it must somehow be related to differences in the way monopoly power over termination is exerted.⁷⁸¹

NERA

141. NERA, on behalf of Telecom, cross-submitted that in any workably competitive market with fixed costs, entrants will have an average cost disadvantage to incumbents, all else being equal. NERA argued that this will generally not be regarded as a competition policy problem, but just a real world entry issue.⁷⁸²
142. NERA submitted that asymmetric MTRs would provide a further form of entry and expansion assistance to 2degrees, in addition to the drop in MTRs to cost. NERA stated that typically regulation is not imposed in other markets where entrants could benefit from having their entry and expansion assisted in a similar way. Likewise, NERA submitted that entrants in real world markets are not able to charge more than their incumbent rivals, just because entrants have higher average costs.⁷⁸³
143. Furthermore, NERA submitted that asymmetric rates might create perverse incentives for 2degrees, because all else being equal, capturing market share would ultimately lead to the removal of the asymmetry, reducing 2degrees' termination revenues.⁷⁸⁴

⁷⁷⁸ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 16, paragraph 4.14.

⁷⁷⁹ Telecom, *Cross-submission on the Draft MTAS STD*, 24 February 2011, paragraph 72.

⁷⁸⁰ Telecom, *Cross-submission on the Draft MTAS STD*, 24 February 2011, paragraph 73.

⁷⁸¹ Telecom, *Cross-submission on the Draft MTAS STD*, 24 February 2011, paragraphs 75-76.

⁷⁸² NERA, *Review of submissions on Draft STD for MTAS*, 24 February 2011, p 8.

⁷⁸³ NERA, *Review of submissions on Draft STD for MTAS*, 24 February 2011, p 8.

⁷⁸⁴ NERA, *Review of submissions on Draft STD for MTAS*, 24 February 2011, p 8.

Vodafone

144. In its cross-submission, Vodafone stated that it agrees with Telecom that asymmetric pricing is probably contrary to the Act, is unprincipled and opens more opportunities for arbitrage.⁷⁸⁵
145. Vodafone noted that WIK Consult has argued that 2degrees should be allowed asymmetric rates because it may have a less favourable traffic structure, lower value customers and a higher cost of capital. Vodafone argued that this is a very questionable thesis because:⁷⁸⁶
 - it is not in the Commission's statutory mandate to support a single competitor;
 - lower value customers and higher cost of capital are the result of commercial decisions by the management and shareholders of 2degrees. The Commission's mandate is not about favouring a particular company's marketing focus or making up for a decision to enter the market later than others; and
 - less favourable traffic structure has consistently been overstated in this investigation. 2degrees is a net recipient of revenues from mobile termination, and an asymmetry in rates on top of that would add an ongoing insult to the current injury.

Haucap and Lanigan

146. Haucap and Lanigan, on behalf of 2degrees, cross-submitted that the key problem with both asymmetric regulation and glide paths is that both measures aim at fine-tuning regulation in a situation with high uncertainty and highly asymmetric information. Haucap and Lanigan submitted that the two concepts are both incompatible with what would happen in competitive markets.⁷⁸⁷
147. Haucap and Lanigan submitted that in competitive markets entrants can neither claim higher prices from consumers because they have not reached efficiency levels yet nor can any incumbent rely on any glide path.⁷⁸⁸
148. However, Haucap and Lanigan noted that where mobile termination rates are set above long-run incremental costs, high on-net/off-net price differentials lead to large networks receiving a disproportionately higher contribution to common costs than small networks. Haucap and Lanigan submitted that in that context a regulator may employ asymmetric rates in an attempt to balance the playing field to some extent between small and large networks (for example, such an approach was taken by the French regulator, ARCEP).⁷⁸⁹

⁷⁸⁵ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 36, paragraph 187.

⁷⁸⁶ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 36, paragraphs 188-189.

⁷⁸⁷ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 10.

⁷⁸⁸ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 10.

⁷⁸⁹ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 10-11.

Additional comments prior to MTAS STD conference

2degrees

149. 2degrees noted that it has previously submitted that a combination of MTR reductions and a non-discrimination condition are required to deliver the full benefits of competition to consumers. However, 2degrees stated that if the Commission is not minded to impose a non-discrimination condition, or is minded to impose a non-discrimination condition on only certain MTAS services, there remain strong grounds for asymmetric termination rates to be applied in favour of a new entrant for both fixed-to-mobile and mobile-to-mobile services.⁷⁹⁰
150. 2degrees stated that there is no single formula that it is aware of for determining the level of asymmetry that should be applied, with the asymmetry applied by national regulatory authorities tending to vary with specific national circumstances. However, 2degrees noted that the common factor is that asymmetric termination rates have been a feature of international markets for more than a decade, recognising both the higher costs of a new entrant and the long-term benefits of increased competition from new entry.⁷⁹¹
151. 2degrees noted that according to the ERG's common position on asymmetric termination rates, the average asymmetry (surveyed typically around 3 years after the launch of the new entrant) for 3G-only operators is approximately 50%. 2degrees also referred to a statement from the ERG that operators with a market share below 10% have, on average, a termination rate level higher than the lowest MTR in their country of 47%.⁷⁹²
152. Furthermore, 2degrees noted that the recent January 2010 survey from BEREC confirmed that 21 out of 33 European countries continue to apply asymmetric MTRs.⁷⁹³
153. 2degrees argued that applying the factors identified by the ERG and the general position applied by national regulatory authorities in Europe, there are strong grounds for asymmetric rates to apply for at least 5 years, with an asymmetry in the upper bounds of the range of 35% to 50%.⁷⁹⁴
154. Accordingly, 2degrees recommended a non-converging asymmetry in the upper bound of the range of 35% to 50% for a period of 5 years, to be reviewed by the Commission in advance of expiry to ascertain whether the asymmetry should be

⁷⁹⁰ 2degrees, *Request for additional information and further comments prior to MTAS STD Conference*, 2 March 2011, p 5, paragraphs 37-38.

⁷⁹¹ 2degrees, *Request for additional information and further comments prior to MTAS STD Conference*, 2 March 2011, p 5, paragraph 39.

⁷⁹² 2degrees, *Request for additional information and further comments prior to MTAS STD Conference*, 2 March 2011, p 6-7, paragraphs 43-46.

⁷⁹³ 2degrees, *Request for additional information and further comments prior to MTAS STD Conference*, 2 March 2011, p 7, paragraph 47.

⁷⁹⁴ 2degrees, *Request for additional information and further comments prior to MTAS STD Conference*, 2 March 2011, p 9, paragraph 57.

retained, removed or adjusted based on actual market conditions at the time of review.⁷⁹⁵

Telecom

155. Telecom stated that its view remains that asymmetries are typically unhelpful in interconnection-based network industries such as telecommunications. Telecom noted that the past performance of interconnection markets has repeatedly shown that where there are significant asymmetries in pricing, arbitrage opportunities will arise and markets will be distorted.⁷⁹⁶
156. Telecom further noted that it has recently observed behaviour in the New Zealand mobile services market that is designed purely to take advantage of arbitrage opportunities in the wholesale interconnection structures. Telecom stated that asymmetric pricing of the sort proposed by 2degrees would exacerbate and encourage this type of inefficient and unhelpful behaviour.⁷⁹⁷

Network Strategies

157. Network Strategies, on behalf of TelstraClear, noted that there are precedents available for the implementation of asymmetric rates which may be useful to inform the Commission, should it decide that asymmetric rates are justified for the particular circumstances of the New Zealand market.⁷⁹⁸
158. Network Strategies noted that although some European jurisdictions have implemented asymmetric mobile termination rates historically, the European Commission is now advocating the convergence of all termination rates.⁷⁹⁹
159. Network Strategies noted that the Commission could apply a similar definition of minimum efficient scale to that adopted by the European Commission (15%-20% market share), and use the defined market share as a trigger for the phasing out of asymmetries.⁸⁰⁰
160. Network Strategies stated that the question of how to set an appropriate asymmetric price is rather more challenging, in the absence of a cost model. Network strategies noted that given a cost model is beyond the scope of an initial pricing principle, other possibilities include:⁸⁰¹
 - benchmarking margins for asymmetries in other jurisdictions that use forward-looking cost-based pricing;
 - devising an estimate based on a benchmark set of small or new operators in jurisdictions with forward-looking cost-based pricing;

⁷⁹⁵ 2degrees, *Request for additional information and further comments prior to MTAS STD Conference*, 2 March 2011, p 10, paragraph 65.

⁷⁹⁶ Telecom, *Letter re additional information and comments requested prior to MTAS STD conference*, 2 March 2010, p 2.

⁷⁹⁷ Telecom, *Letter re additional information and comments requested prior to MTAS STD conference*, 2 March 2010, p 2.

⁷⁹⁸ Network Strategies, *Additional information for MTAS STD*, 2 March 2011, p 2.

⁷⁹⁹ Network Strategies, *Additional information for MTAS STD*, 2 March 2011, p 3.

⁸⁰⁰ Network Strategies, *Additional information for MTAS STD*, 2 March 2011, p 3-4.

⁸⁰¹ Network Strategies, *Additional information for MTAS STD*, 2 March 2011, p 4.

- applying a different (higher) quartile or percentile to the Commission's set of benchmark termination rates in respect of small or new operators based on expert judgement of the impact of lack of efficient scale.
161. However, Network Strategies noted that the first two options are problematic in that only asymmetric rates that have been set using cost-based models would be appropriate, and this would limit the sample size. In addition, Network Strategies noted that for those jurisdictions that would qualify, the particular local market conditions may be quite unlike those in New Zealand.⁸⁰²
162. Network Strategies noted that the third option would permit consideration of the effect of local New Zealand conditions in addition to being able to set the small operator rate relative to that of the standard rate.⁸⁰³

Vodafone

163. Vodafone noted that it has previously argued that there is no justification for an asymmetry in rates in practice since 2degrees needs no further regulatory assistance. Vodafone stated that it continues to hold that view.⁸⁰⁴
164. Vodafone also stated that the Commission has not established any kind of case for an asymmetry, and that it has not carried out the work that would need to be done as a precursor to design of an intervention.⁸⁰⁵
165. Vodafone noted that the ERG has fleshed out the arguments about asymmetry in some detail, and that the first step is to ask whether asymmetric rates applied in the wholesale market are a better remedy than other competition law options. Vodafone submitted that in New Zealand's case, the Commerce Act exists to address anti-competitive behaviour.⁸⁰⁶
166. Vodafone noted that if this is thought inadequate for some reason, the ERG suggests two specific reasons for allowing temporary asymmetries between mobile termination rates of different operators:⁸⁰⁷
- objective and justifiable cost differences between operators, beyond their control; and
 - impediments to retail market entry and expansion, or late entry meaning, for a transitional period, a new entrant may face higher unit costs than other operators.
167. Vodafone stated that the only objective and justifiable cost difference the ERG points to is differences in spectrum cost and availability that cannot be resolved

⁸⁰² Network Strategies, *Additional information for MTAS STD*, 2 March 2011, p 4.

⁸⁰³ Network Strategies, *Additional information for MTAS STD*, 2 March 2011, p 4.

⁸⁰⁴ Vodafone, *Comments on MTAS implementation issues*, 2 March 2011, p 11, paragraph 68.

⁸⁰⁵ Vodafone, *Comments on MTAS implementation issues*, 2 March 2011, p 11, paragraph 69.

⁸⁰⁶ Vodafone, *Comments on MTAS implementation issues*, 2 March 2011, p 11, paragraph 70.

⁸⁰⁷ Vodafone, *Comments on MTAS implementation issues*, 2 March 2011, p 12, paragraph 71.

- via market transactions. Vodafone stated that this is not a problem in New Zealand.⁸⁰⁸
168. Vodafone noted that the ERG has also identified three criteria where temporary asymmetries may be justified if all are met:⁸⁰⁹
- there must be high traffic imbalances as a result of operator strategies;
 - existing MTR tariffs for new entrant operators must be significantly above cost; and
 - the benefits of setting transitory asymmetric rates outweigh any short term detriments.
169. However, Vodafone argued that the case for impediments to retail market entry and expansion has not been made out in New Zealand either. Vodafone stated that traffic imbalances are not high,
- [
] VNZ/2D API2⁸¹⁰
170. Vodafone submitted that if the Commission were to investigate asymmetric rates further, it would need to show that the benefits outweigh the detriments, i.e., incremental investment by 2degrees, resulting directly from some temporary asymmetric rate, outweighs the cost of distorting competition.⁸¹¹
171. Vodafone stated that if the Commission does introduce an asymmetry for 2degrees, the asymmetric rate should be reduced to cost by March 2012 or when 2degrees hits 15% market share, whichever comes first.⁸¹²

MTAS STD Conference

172. James Mellsop from NERA noted that asymmetric MTRs in favour of 2degrees would incentivise higher off-net prices. Specifically, Mr Mellsop stated:⁸¹³

You've already seen most of my comments on this, but just over the last couple of days I've been a bit perplexed thinking about this idea of an asymmetric rate, because on the one hand the concern that we're discussing here is that Vodafone or Telecom will crank up their off-net prices and make it unattractive for customers to shift to 2degrees. Yet, if we have an asymmetric MTR, that actually promotes that because a Telecom customer effectively has a higher cost to call a 2degrees network than vice versa.

So, you know, it just seems to me to be actually flying in the face of all the other - the strategic incentive discussion we've had.

173. In respect of spectrum allocation, 2degrees stated at the MTAS STD Conference:⁸¹⁴

⁸⁰⁸ Vodafone, *Comments on MTAS implementation issues*, 2 March 2011, p 12, paragraph 72.

⁸⁰⁹ Vodafone, *Comments on MTAS implementation issues*, 2 March 2011, p 12, paragraph 73.

⁸¹⁰ Vodafone, *Comments on MTAS implementation issues*, 2 March 2011, p 12, paragraph 74.

⁸¹¹ Vodafone, *Comments on MTAS implementation issues*, 2 March 2011, p 13, paragraph 78.

⁸¹² Vodafone, *Comments on MTAS implementation issues*, 2 March 2011, p 13, paragraph 81.

⁸¹³ MTAS STD Conference Transcript Day Two, 16 March 2011, p 203, lines 8-16.

⁸¹⁴ MTAS STD Conference Transcript Day Two, 16 March 2011, p 202-203.

I think Telecom are going 3G only, I think that's their public position on the CDMA so it's going to be an XT only network. And I do note that they have 15 MHz at the 850 band, as do Vodafone have, they have 15 MHz paired at the 900 spectrum. We have 10 MHz at the 900 spectrum, and 10 MHz - and I haven't gone into a huge amount of detail on this, but I understand it's quite hard to run both 2G and 3G with only 10 MHz of spectrum at that level.

So, there may be efficiency gains that the other guys have at having higher amounts of spectrum at that level.

APPENDIX 5: SUMMARY OF SUBMISSIONS ON PRICING PRINCIPLE FOR SMS

Purpose

1. In the draft STD, the Commission's preliminary view was that the appropriate pricing principle for the SMS termination service is pure BAK. This Appendix summarises submissions received on whether a forward-looking cost-based methodology or BAK for SMS is likely to best promote competition for the long-term benefit of end-users.

Is BAK appropriate for SMS termination?

Submissions on the draft STD

CallPlus and Kordia

2. CallPlus and Kordia submitted that they strongly support the draft STD position in relation to BAK for SMS. CallPlus and Kordia submitted that the SMS service carries a marginal termination cost close to zero which makes it an ideal candidate for the pure BAK structure imposed.⁸¹⁵

Telecom

3. Telecom submitted that it is of the view that it is appropriate to depart from benchmarking as an IPP for MTAS where any cost-based rates for termination are likely to fall below a certain minimum point, and where traffic is expected to be roughly in balance in the ordinary course of events. Accordingly, Telecom submitted that it would support a move to some form of bill and keep for SMS.⁸¹⁶
4. Telecom submitted that a move to a hybrid bill and keep would be preferable to a move to pure bill and keep because of its potential to remove incentives for parties to congest other networks with SMS spam. However, Telecom submitted that as it is alone in desiring hybrid SMS as the methodological outcome, and as spam can be controlled by other means (assuming that this ability to control is not restricted), it shall not pursue that option further.⁸¹⁷
5. However, Telecom submitted that if the decision is made to move to pure bill and keep for SMS, then there needs to be some other mechanism to address the potential for spam and the incentives on parties to congest other networks. Telecom submitted that this creates an additional reason for the reinstatement of the artificial inflation of traffic provisions proposed by Vodafone as these could potentially be used to address this problem if they are drafted broadly enough.⁸¹⁸

⁸¹⁵ CallPlus and Kordia, *Submission on the Draft MTAS STD*, 7 February 2011, p 4.

⁸¹⁶ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 16.

⁸¹⁷ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 17.

⁸¹⁸ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 18.

TelstraClear

6. TelstraClear agreed that in certain circumstances BAK may be an appropriate basis for interconnection regulation, in particular, where traffic flows between networks are relatively balanced and the costs of termination are low.⁸¹⁹
7. TelstraClear submitted that the approach taken by the Commission appears appropriate in the current circumstances, given the observed traffic patterns referred to in the draft STD. However, TelstraClear submitted that a BAK regime may potentially create distortions in future if there is a material change in inter-network traffic flows.⁸²⁰
8. TelstraClear submitted that an alternative approach could involve the application of BAK under certain traffic balance conditions, and a cost-based rate for out of balance traffic beyond a certain threshold (i.e. a hybrid BAK approach).⁸²¹

Vodafone

9. Vodafone submitted that there is no strong argument to support pure BAK as the pricing principle for SMS termination, and suggested that the SMS termination rate be set at one cent per text as a pragmatic solution.⁸²²
10. Vodafone submitted that a cost-based approach is the best method for setting SMS termination prices and that cost-based prices provide incentives for the efficient use of services. Vodafone argued that moving below cost requires special circumstances, since it generates unusual and unwelcome incentives, such as spam.⁸²³
11. Furthermore, Vodafone submitted that there is nothing in the draft STD that reviews the consequences for competition and for end-users of changes in SMS interconnection rates. Vodafone stated that there is no apparent problem with existing SMS services, with prices being low and usage is high.⁸²⁴
12. Vodafone argued that if net payments are already low between operators, and regulation would therefore make little difference in those payments, it is unclear what the scale of any impact from regulation will be for customers.⁸²⁵
13. Vodafone noted that the only justification it could see in the draft STD for pure BAK is that it will avoid the costs in measuring and billing wholesale SMS. However, Vodafone stated that all three operators have already sunk costs into SMS billing and metering systems and will continue to use these systems in order to monitor traffic balances. Vodafone also noted that these systems will be required to provide monitoring information to the Commission.⁸²⁶

⁸¹⁹ TelstraClear, *Submission on the Draft MTAS STD*, February 2011, p 6, paragraph 24.

⁸²⁰ TelstraClear, *Submission on the Draft MTAS STD*, February 2011, p 6, paragraph 26.

⁸²¹ TelstraClear, *Submission on the Draft MTAS STD*, February 2011, p 6-7, paragraph 27.

⁸²² Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 44, paragraph 180.

⁸²³ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 44, paragraph 184.

⁸²⁴ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 45, paragraph 190.

⁸²⁵ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 45, paragraph 191.

⁸²⁶ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 46, paragraph 196.

14. Vodafone submitted that pure BAK would be a natural outcome of commercial negotiations if it avoids unnecessary costs (in line with the Commission's theory). Vodafone noted that BAK may arise commercially in a number of exceptional circumstances:⁸²⁷
 - operators may agree to a BAK arrangement where they have not sunk costs into metering and billing systems. However, once such systems are in place the rationale for BAK dissipates; and
 - BAK may also occur in circumstances where volumes between operators are low, but where traffic volumes start to become significant the business case for operators to bill for termination increases as the risk of unbalanced traffic also increases.
15. Vodafone noted that although it maintains a significant number of international SMS agreements on BAK terms, BAK agreements for SMS are an incidental part of broader negotiations for international roaming agreements between carriers, and volumes tend to be relatively low. Vodafone also noted that it reserves the right to alter these agreements when it appears there are significant imbalances resulting from a party taking advantage of the BAK terms. Vodafone gave an example of an international BAK agreement which has an express limit on imbalances that exceed either 5% or 25,000 SMS per month as inbuilt protections to prevent abuse of BAK terms.⁸²⁸

Analysys Mason

16. Analysys Mason, on behalf of Vodafone, submitted that the SMS market in New Zealand is quite competitive with a similar level of SMS traffic for each operator. Accordingly, Analysys Mason argued that there is no need to modify the interconnection regime, because since the level of traffic imbalance is low, the impact of any change would not materially improve competition in the mobile market.⁸²⁹
17. Analysys Mason submitted that, in its opinion, the Commission should take the income distribution effect into account as well as the possible effect on mobile penetration, spam and network costs, before making radical changes to the interconnection regime.⁸³⁰
18. Analysys Mason presented various negative arguments of a BAK regime, including:⁸³¹
 - BAK would increase the number of unwanted and nuisance calls or SMS;
 - although BAK may possibly decrease the need for cost accounting regulation, it will not decrease the overall need for regulatory intervention;

⁸²⁷ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 47, paragraphs 201-202.

⁸²⁸ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 47-48, paragraphs 203-204.

⁸²⁹ Analysys Mason, *Draft standard terms determination analysis*, 4 February 2011, p 40.

⁸³⁰ Analysys Mason, *Draft standard terms determination analysis*, 4 February 2011, p 40.

⁸³¹ Analysys Mason, *Draft standard terms determination analysis*, 4 February 2011, p 41-45.

- a move to BAK might cause significant disruption to the mobile industry;
- a move to BAK may have an impact on the retail charging regime;
- BAK will not significantly enhance consumer welfare;
- in a BAK environment, quality of voice service could suffer significantly;
- BAK could encourage inefficient routing;
- the introduction of BAK may affect the routing of traffic;
- BAK might increase the level of cheating; and
- lowering of termination rates does not automatically translate into lower costs for consumers.

Cross-submissions on the draft STD

Haucap and Lanigan submission

19. Haucap and Lanigan, on behalf of 2degrees, cross-submitted that many of the arguments put forward by Analysys Mason are not applicable to SMS. In particular, Haucap and Lanigan argued that the claims of waterbed effects and reduced investment incentives are simply irrelevant given the observation that SMS traffic is roughly balanced and that the payments are simply transfers within the domestic mobile market.⁸³²
20. Furthermore, Haucap and Lanigan submitted that Analysys Mason has not accounted for the fact that SMS termination costs are very low, and this fact also makes many of the arguments put forward irrelevant.⁸³³
21. Haucap and Lanigan argued that given the low cost of SMS termination, also in relation to the cost of voice termination, the arguments that have been made for and against BAK in voice telephony markets can not easily be applied to SMS termination without any qualification. Haucap and Lanigan are of the view that as the relative cost of actual billing tends to be higher for SMS termination, the transaction cost savings weigh heavier in that case.⁸³⁴

Vodafone

22. In its cross-submission, Vodafone noted that it is not aware of any commercial SMS BAK arrangements that are “pure”. Vodafone stated that all of its agreements [] VNZRI.⁸³⁵

⁸³² Haucap and Lanigan, *Response to submissions on the Commerce Commission’s Draft MTAS STD*, 24 February 2011, p 13.

⁸³³ Haucap and Lanigan, *Response to submissions on the Commerce Commission’s Draft MTAS STD*, 24 February 2011, p 13.

⁸³⁴ Haucap and Lanigan, *Response to submissions on the Commerce Commission’s Draft MTAS STD*, 24 February 2011, p 13.

⁸³⁵ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 15, paragraph 84.

- 23. Furthermore, Vodafone submitted that SMS volumes are significant, and do drive real costs. Vodafone noted that there are around one billion SMS sent in New Zealand each month, and that even very small costs for a single SMS quickly become significant costs when multiplied by large volumes.⁸³⁶
- 24. Vodafone submitted that even if the ratio of inbound to outbound traffic moved closer to balance, if volumes continue to grow the absolute amount of out of balance interconnect traffic could increase overall. Vodafone noted that in this scenario, a pure BAK regime would mean that the net receiving operator would have costs that it could not recover except from its retail customers.⁸³⁷

MTAS STD Conference

- 25. At the MTAS STD Conference there was some support amongst the economic experts for BAK as the pricing principle for SMS. For example, Professor Haucap stated:⁸³⁸

...bill-and-keep would be a very appropriate pricing principle, especially for SMS. This has to do with the very low cost of terminating SMS which have been estimated by the Commission's own experts, WIK, to be 0.15 NZ cents.

...the revenues resulting from SMS termination are also comparatively low when you compare this with voice termination revenues. So, if we try to relate revenues to the transaction costs of, first of all, billing at the party side but also of regulating, finding the appropriate cost, my impression would be that the cost of finding the correct cost-based rate and the cost of implementing billing systems may well outweigh the benefits that there may be with finding a very very small but correct rate.

So, yes, I agree with what you said, especially for SMS bill-and-keep it's very appropriate billing principle.

- 26. Similarly, James Mellsop from NERA noted that, in the context of SMS, he is less concerned about bill and keep because the transaction costs argument becomes relatively more important.⁸³⁹
- 27. At the MTAS STD Conference, Hayden Glass from Vodafone stated:⁸⁴⁰

As Network Strategies and everybody else agrees, SMS is not an expensive service. But, if we were having to terminate 50 million of them for free every month, we would find that, even though a very small cost per SMS, that's still a significant competitive burden, and there doesn't seem to me that there's any particular reason to abandon cost-based pricing in this case...

- 28. Dr Suella Hansen from Network Strategies stated she would be comfortable with BAK for SMS, provided that there is some other means to deal with the potential for spam:⁸⁴¹

Our position is that the costs are very very low for SMS traffic and on that basis bill-and-keep would seem to be appropriate. The one concern that we did have was spam. But as

⁸³⁶ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 15, paragraph 85.

⁸³⁷ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 15, paragraph 86.

⁸³⁸ MTAS STD Conference Transcript, 15 March 2011, p 24, lines 4-21.

⁸³⁹ MTAS STD Conference Transcript, 15 March 2011, p 26, lines 7-11.

⁸⁴⁰ MTAS STD Conference Transcript, 15 March 2011, p 27-28.

⁸⁴¹ MTAS STD Conference Transcript, 15 March 2011, p 26, lines 13-16.

Ross said, if that could be addressed somehow independently then we would have no concerns about bill-and-keep for SMS traffic.

29. Joan Obradors from Analysys Mason argued at the conference that the cost-savings associated with BAK for SMS are likely to be minimal:⁸⁴²

I mean, one of the advantages without doubt for bill-and-keep is that you have - you save costs in terms of the billing systems, but I think that this is a theoretical advantage because the point is that, as of today all the networks do have billing systems in place, and actually there would be a cost associated with setting up systems to stop spam, and perhaps also associated with the legal cases that may come with SMS spam.

So these cost savings, although they are true on paper, I'm not sure that they would be applicable to the New Zealand market.

30. 2degrees noted at the conference that if a cost-based rate was set in accordance with the IPP, it is possible that BAK would emerge through commercial negotiations in order to avoid the costs of billing. Bill McCabe from 2degrees stated:⁸⁴³

...when you start getting into whether, if it's 0.1 or 0.16 of a cent, then it's simpler to go to bill-and-keep. As we've discussed separately, the SMS spam issue is dealt with by many operators around the world, and I think there are probably systems in place here, I don't know; but even if it was 0.1 cent or bill-and-keep, which I don't regard bill-and-keep as free, I'd regard it as a zero price where you gain reciprocity. So it's not - it's a price of zero but it's not for free because you get something in return.

So, I think, whether it's bill-and-keep or it's a very very low price which is reflected in cost, there's probably not much difference between us. I think if we were to pick a rate of 0.15 as the Commission has proposed, I think you will find that most of the operators around the room would implement bill-and-keep to avoid the costs of billing at the end of the month. So, you might find that you achieve bill-and-keep even if you regulate a price.

31. Telecom agreed that it is possible that in the event that a cost-based regulated rate was set for SMS termination, BAK may result from commercial negotiations:⁸⁴⁴

We'd be very comfortable with 0.15, 0.25 of a cent as a termination rate. We thought we were comfortable with bill-and-keep as an option as well, although in the last month as we have thought some more about that and as our experience managing the Text Me Race promotion has deepened, we've now got a preference for a small charge for SMS termination that, as Bill says, you know, if in time we decide we don't need it we can move commercially to the bill-and-keep model.

32. At the conference Paul Partridge from Vodafone stated that "I think parties will certainly consider bill-and-keep and, if it's sufficiently economically efficient for them to do so".⁸⁴⁵

⁸⁴² Joan Obradors, MTAS STD Conference Transcript, 15 March 2011, p 26, lines 22-29.

⁸⁴³ MTAS STD Conference Transcript, 15 March 2011, p 29, lines 1-13.

⁸⁴⁴ MTAS STD Conference Transcript, 15 March 2011, p 32, lines 3-9.

⁸⁴⁵ MTAS STD Conference Transcript, 15 March 2011, p 30, lines 9-10.

SMS spam

Submissions on the draft STD

Vodafone

- 33. Vodafone submitted that pricing SMS at zero cost will encourage firms specialising in unsolicited commercial messaging, and that operators need to have protections against the arbitrage opportunities that setting termination prices at zero create. Vodafone further submitted that the arbitrage risks are real and even easier to exploit than for email, where spam accounts for more than 90% of traffic received by Vodafone New Zealand and destined for its customers.⁸⁴⁶
- 34. Vodafone provided a number of examples of other countries where SMS spam has become problematic. Vodafone noted that while pure Bill and Keep pricing in itself is not the cause of growing SMS spam in all these countries, moving from cost based pricing to pure bill and keep will inevitably open up greater commercial opportunities for firms specialising in spam.⁸⁴⁷

TUANZ

- 35. TUANZ submitted that it is very concerned about SMS spam and its growing impact on customers. TUANZ submitted that in its view, some of the decisions outlined in the STD would make it easier for SMS spam to be sent than is the case today.⁸⁴⁸
- 36. TUANZ disagreed with the Commission's preliminary view that a pure BAK model would be preferable to a hybrid BAK model. TUANZ suggested adopting a hybrid BAK model that encompasses both web-to-SMS and internationally-originated SMS.⁸⁴⁹

Cross-submissions on the draft STD

Telecom

- 37. In its cross-submission, Telecom stated that it does not object to pure BAK for SMS. However, Telecom submitted that it has concerns (shared with Vodafone) around the potential for SMS spam, and that pure BAK will have the effect of exacerbating and encouraging SMS spam (as is the case with e-mail currently).⁸⁵⁰
- 38. Therefore, Telecom submitted that it would still prefer a hybrid BAK pricing model (with very low tiers of charges) or a low flat rate as suggested by Vodafone. Telecom submitted that operationally it thinks a low flat rate will be simpler than hybrid BAK, however, it considers that Vodafone's suggestion of

⁸⁴⁶ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 48-49, paragraph 207.

⁸⁴⁷ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 49-50, paragraphs 208-210.

⁸⁴⁸ TUANZ, *Submission on the Draft MTAS STD*, 7 February 2011, p 2.

⁸⁴⁹ TUANZ, *Submission on the Draft MTAS STD*, 7 February 2011, p 4.

⁸⁵⁰ Telecom, Cross-submission on the Draft MTAS STD, 24 February 2011, paragraph 33.

1c/SMS is too high. Telecom submitted that it would prefer a rate in the vicinity of the benchmarked rate of 0.16c/SMS, which it believes is sufficient to deter spam.⁸⁵¹

39. Telecom noted that it has already sent offers to 2degrees and Vodafone offering a move to 0.25c/SMS immediately, pending completion of the STD process. However, Telecom noted that at the time of writing it had not yet received replies from either of those parties.⁸⁵²

Vodafone

40. In its cross-submission, Vodafone agreed with TUANZ's concerns regarding the potential for spam. Vodafone submitted that while the risk of SMS spam is unknown, it is a scourge wherever it emerges. Vodafone submitted that given no one has isolated any difference for competition or for retail market outcomes between a low flat rate for SMS termination or a BAK regime, it cannot see any reason for the Commission to take the risk of moving to BAK.⁸⁵³
41. Vodafone submitted that BAK will result in increases in SMS spam, and therefore result in significant negative call externalities for those receiving spam. Vodafone argued that the Unsolicited Electronic Messages Act is so ineffective in dealing with email spam that Vodafone finds itself blocking over 90% of the emails its customers receive. Vodafone also noted that it is currently experiencing increased volumes of SMS spam.⁸⁵⁴
42. Vodafone noted that in July 2010 the United States Federal Trade Commission announced a milestone as its Do Not Call registry passed 200 million numbers. Vodafone argued that since the US uses a BAK regime for interconnection, this could be taken as evidence that BAK leads to unwanted business to consumer telemarketing, and that consumers not only do not value receiving unsolicited or unwanted calls, but there is in fact a significant detriment from these unwanted calls.⁸⁵⁵

TUANZ

43. In its cross-submission, TUANZ reiterated its concerns regarding the potential for SMS spam, and argued that moving to pure BAK for SMS is a dangerous move that may backfire on the industry.⁸⁵⁶
44. TUANZ submitted that a hybrid model that allows operators to move offenders to a billed model will help avoid a surge in SMS spam before it becomes a problem for customers. TUANZ submitted that the hybrid model should take

⁸⁵¹ Telecom, Cross-submission on the Draft MTAS STD, 24 February 2011, paragraph 33.

⁸⁵² Telecom, Cross-submission on the Draft MTAS STD, 24 February 2011, paragraph 34.

⁸⁵³ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 15, paragraph 82.

⁸⁵⁴ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 15, paragraph 91.

⁸⁵⁵ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 15, paragraph 92.

⁸⁵⁶ TUANZ, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 1.

into account a relatively modest level of imbalance and pricing for the billed model should be cost-based rather than retail minus.⁸⁵⁷

2degrees

45. In its cross-submission, 2degrees stated that neither Telecom nor Vodafone has explained clearly how concerns around spam (or network congestion) would arise and/or where existing legislation directed at preventing spam is insufficient. 2degrees submitted that it would be inappropriate to presuppose a breach of existing spam legislation, and if spam actually occurred, there is an existing legal process to deal with it. 2degrees argued that anti-spam legislation provides an effective control on SMS spam, and noted that Vodafone Hutchison Australia was censured in 2009 for breaching Australian anti-spam legislation.⁸⁵⁸
46. 2degrees also disagreed with the analogies made between email and SMS spam. 2degrees argued that this analogy misses the critical distinction that unlike e-mail, price signals remain at the retail level to deter SMS spam. SMS is not offered to end-users free of charge.⁸⁵⁹
47. 2degrees submitted that the SMS termination rate of 1 cent per text proposed by Vodafone is unacceptable and far greater than would be required to meet Vodafone's stated objective of deterring SMS spam. However, 2degrees submitted that it would consider a revised (and more reasonable) artificial inflation of traffic clause if the Commission so request.⁸⁶⁰

Additional comments prior to MTAS STD conference

Vodafone

48. Vodafone stated that it is experiencing increasing problems with SMS spam, especially for "advanced fee" SMS lottery scams. Vodafone noted that Over the last 6 months, it has identified [] VNZRI additional international roaming partners with SMS imbalances that are of concern, or who are sending spam, and it is in the process of moving these international roaming partners to paid SMS arrangements. Vodafone noted that these [] VNZRI are in addition to [] VNZRI international roaming partners that were already on paid SMS arrangements.

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49. Dr John Small from Covec and Dr Suella Hansen from Network Strategies expressed concerns that BAK for SMS would lead to increased levels of spam. However, it was acknowledged that these concerns could be addressed through other means, such as a clause which prevents the artificial inflation of traffic.⁸⁶¹

⁸⁵⁷ TUANZ, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 2.

⁸⁵⁸ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 7, paragraphs 2.11-2.12.

⁸⁵⁹ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 7, paragraph 2.13.

⁸⁶⁰ 2degrees, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 7, paragraphs 2.14-2.18.

⁸⁶¹ MTAS STD Conference Transcript, 15 March 2011, p 24-26.

Commercial BAK agreementsAdditional comments prior to MTAS STD conference*Vodafone*

50. In response to the Commission's request for information regarding the use of BAK in commercial interconnection agreements, Vodafone stated that commercial arrangements for SMS on a BAK basis are not entered into until both parties have made a risk assessment of the likely volumes and value of the arrangement. Vodafone noted that this could include the following factors:⁸⁶²

- past traffic balance / imbalance;
- expected volume/scale (e.g., international SMS has volumes 1000 times lower than domestic SMS);
- the extent to which international interconnect SMS is included as part of a wider, higher value arrangement e.g., for international roaming;
- reciprocity;
- expected percentage imbalance;
- expected absolute imbalance (e.g., number of SMS);
- the rate at which traffic might grow;
- whether previous arrangements between the parties have been paid or BAK;
- the extent to which changing incentives might be anticipated to change behaviour / traffic;
- the extent to which billing and measuring systems are already set up, or would be required to be set up with associated costs;
- appropriate pre-conditions for BAK continuing;
- risk of arbitrage;
- risk of abuse such as spam;
- the extent to which monitoring processes or systems would have to be put in place to detect or prevent arbitrage or abuse, and the cost of this;
- whether mechanisms to deal with spam (e.g., by blocking) have already been developed and put in place, or whether they would need to be developed;
- the term for the arrangement;

⁸⁶² Vodafone, *Comments on MTAS implementation issues*, 2 March 2011, p 2, paragraph 11.

- the ability and extent to which agreed contractual mechanisms are in place to unwind the arrangement e.g., by moving to paid arrangements, and the certainty around these mechanisms;
 - the ability to terminate the arrangements on notice; and
 - concurrent background events, e.g., increasing volumes of SMS spam in the marketplace.
51. Furthermore, Vodafone noted that volumes of international and domestic SMS vary significantly. For Vodafone, the average number of inbound SMS per month per international roaming partner is [] VNZRI thousand. Vodafone noted that this compares with inbound SMS volumes from Telecom of [] VNZ/TNZ API2 million per month and from 2degrees of [] VNZ/2D API2 million for January 2011.⁸⁶³
52. Accordingly, Vodafone stated that commercial BAK arrangements entered into on this basis and on this scale are fundamentally different to the Commission mandating pure BAK, without limitation or regard to traffic imbalances, or any prior agreement of review conditions or consideration of the circumstances under which the arrangements would move to paid arrangements.⁸⁶⁴
53. Vodafone noted that it has approximately [] VNZRI international roaming partners, and that international SMS with [] VNZRI of these international roaming partners is on an informal BAK basis. However, Vodafone stated that there is no formal signed agreement (BAK or otherwise) between the parties in most cases, and that it is industry practice that either party can at any time give notice it wishes to move to a paid arrangement.⁸⁶⁵
54. Vodafone stated that it has [] VNZCOI international SMS interconnects with [] VNZCOI for international P2P SMS. Vodafone stated that:⁸⁶⁶
- [] VNZCOI

▪ [] VNZCOI

[] VNZCOI

⁸⁶³ Vodafone, *Comments on MTAS implementation issues*, 2 March 2011, p 3, paragraph 12.

⁸⁶⁴ Vodafone, *Comments on MTAS implementation issues*, 2 March 2011, p 3, paragraph 13.

⁸⁶⁵ Vodafone, *Comments on MTAS implementation issues*, 2 March 2011, p 4, paragraphs 14-16.

⁸⁶⁶ Vodafone, *Comments on MTAS implementation issues*, 2 March 2011, p 4-5, paragraphs 22-25.

■ [

] VNZCOI

Telecom

55. Telecom stated that it is currently party to [] TNZRI interconnection agreements where the charging mechanism is pure bill and keep for SMS, and that it is not party to any agreements that apply hybrid bill and keep.⁸⁶⁷
56. Telecom noted that the interconnection agreements in which it employs bill and keep for SMS are with [] TNZRI. Telecom also noted that each of these agreements provides a mechanism to revert to charging should the market conditions change and traffic flows go out of balance.⁸⁶⁸

2degrees

57. 2degrees provided the following table showing the number of commercial interconnection agreements (both international and domestic) to which it is a party, and BAK or hybrid BAK is applied for SMS traffic.⁸⁶⁹

Service	Pure BAK	Hybrid BAK
International SMS	[] 2DRI	[] 2DRI

58. 2degrees noted that in addition to these BAK arrangements, [] 2DROI. 2degrees stated that BAK is not appropriate for SMS hubs, as they act solely as a transit/broker and termination revenue is their only source of revenue.⁸⁷⁰

⁸⁶⁷ Telecom, *Letter re additional information and comments requested prior to MTAS STD conference*, 2 March 2010, p 1.

⁸⁶⁸ Telecom, *Letter re additional information and comments requested prior to MTAS STD conference*, 2 March 2010, p 1.

⁸⁶⁹ 2degrees, *Request for additional information and further comments prior to MTAS STD Conference*, 2 March 2011, Annex A, p 11.

⁸⁷⁰ 2degrees, *Request for additional information and further comments prior to MTAS STD Conference*, 2 March 2011, Annex A, p 11.

APPENDIX 6: SUMMARY OF SUBMISSIONS ON ON-NET OFF-NET PRICE DIFFERENTIATION

Purpose

1. This Appendix summarises issues in submissions in relation to whether there should be a non-price discrimination condition, in response to the Commission's preliminary view that:⁸⁷¹

“that it is not necessary to impose a condition barring on-net / off-net discrimination where prices are cost based. Setting cost-based prices for the MTAS voice services and requiring BAK for SMS, as is proposed in this draft MTAS STD, will enable a new entrant such as 2degrees to compete with the on-net prices of the incumbent networks without the need for such a condition.

However, were the Commission to reach a final view that glide paths were appropriate, then prices would be above-cost for the period of the glide path and the Commission would need to reconsider whether a condition barring on-net / off-net discrimination was appropriate during that time period.”

Views on the introduction of a non-discrimination condition

2. Note that following a review of submissions and cross-submissions received, the Commission sent a further information request on 2 March 2011 to assist with its preparation for the MTAS STD Conference and the Final STD. One of the questions asked was how a non-discrimination provision at retail could be implemented. The responses to this request are included in this summary.

Submissions

2degrees and Professor Haucap

3. In summary, 2degrees submitted that the following New Zealand market conditions support providing a non-discrimination condition:
 - increasing competition has not addressed on-net / off-net differentials and associated competition problems, suggesting that market tipping points have been passed;⁸⁷²
 - current pricing structures have softened competition and created a barrier to new entry and expansion;⁸⁷³
 - more New Zealanders are influenced by the network used by family and friends than in other countries;⁸⁷⁴
 - on-net call prices influence more New Zealanders' choice of providers than consumers in other countries;⁸⁷⁵ and
 - more New Zealanders have multiple mobile phones than in other countries.⁸⁷⁶

⁸⁷¹ Draft MTAS STD page 47, paragraphs 233-234.

⁸⁷² 2degrees submission on the draft MTAS STD pages 3-4, paragraphs 1.8-1.11

⁸⁷³ 2degrees submission on the draft MTAS STD page 5, paragraphs 1.18-1.19

⁸⁷⁴ 2degrees submission on the draft MTAS STD page 5, paragraph 1.21

⁸⁷⁵ 2degrees submission on the draft MTAS STD page 5, paragraph 1.22

4. 2degrees has submitted that because of the market structure in NZ, reducing MTRs is not enough and that the importance of market structure is missing from the Commission's analysis⁸⁷⁷.
5. 2degrees proposes that there are 2 disadvantages felt by smaller networks (barriers to entry or growth because of two inter-related phenomena described by Harbord and Pagnozzi)⁸⁷⁸:
 - subscribers to large networks experience lower average call costs (more calls are on-net) – larger networks are seen to be more attractive and this places smaller networks at a competitive disadvantage; and
 - when larger networks set high off-net prices, subscribers to smaller networks receive fewer calls, so utility from joining a smaller network is decreased and so is ability to compete.
6. 2degrees suggest that reducing MTRs impacts the first disadvantage felt by smaller networks, but the extent to which lower MTRs reduce the second disadvantage depends on market structure⁸⁷⁹.
7. 2degrees note Ofcom has stated that if all mobile operators are the same size then distortions are limited. However with new entry, there is potential for anti-competitive pricing to create barriers to entry/expansion⁸⁸⁰.
8. Professor Haucap, on behalf of 2degrees, proposes that a non discrimination condition is the low risk solution⁸⁸¹. He suggests that there are potential welfare losses from over and under regulation, but that the question of harm depends on circumstance. Professor Haucap suggests that the damage is higher in the scenario where there is risk of limiting the potential for intensified competition (the extreme being market exit and significant lessening of competition)⁸⁸².
9. It is Professor Haucap's view that⁸⁸³:
 - the damage resulting from competition not gaining grounds altogether and especially from market exit by any player in a concentrated market is much higher than the damage from potentially competition being softer for a limited period of time;
 - while market exit would very likely result in softer competition for a long period of time (giving rise to cumulative long-run effects), the potential mistake of softer competition for a number of years can relatively easily be corrected, once the price discrimination ban is lifted, however, if an

⁸⁷⁶ 2degrees submission on the draft MTAS STD page 5, paragraph 1.23

⁸⁷⁷ 2degrees submission on the draft MTAS STD page 4, paragraph 1.17

⁸⁷⁸ 2degrees submission on the draft MTAS STD page 18, paragraph 3.12

⁸⁷⁹ 2degrees submission on the draft MTAS STD page 18, paragraph 3.14 and 3.15

⁸⁸⁰ 2degrees submission on the draft MTAS STD page 41, paragraph 7.6

⁸⁸¹ 2degrees submission on the draft MTAS STD page 48, paragraph 7.42

⁸⁸² Professor Haucap, A note on-net/off-net retail price differences in the NZ mobile telecommunications market (for 2degrees), page 8, paragraph 38

⁸⁸³ Professor Haucap, A note on-net/off-net retail price differences in the NZ mobile telecommunications market (for 2degrees), page 8, paragraphs 39-41

entrant, in the extreme case, has been successfully driven off the market it is unlikely that another new entrant would easily emerge; and,

- the risk of softening competition through a temporary price discrimination ban appears to be rather low, as 2degrees has to price aggressively and to undercut its rivals (as explained above) in any case in order to acquire customers in a largely saturated market. In addition, the degree of competition in the mobile telecommunications market in New Zealand has not appeared to be very strong during the duopoly period.
10. Professor Haucap strongly recommends imposing a temporary price discrimination ban for a three year period, including a sunset clause and a provision to evaluate the state of competition and market conditions again after that period⁸⁸⁴.
 11. 2degrees is concerned by the Commission's approach to 'monitor' or 'wait and see' in respect of non-discrimination, suggesting that it goes against the weight of evidence, and is a risky regulatory strategy⁸⁸⁵. 2degrees propose that the condition be:
 - comparable to the Homezone condition;
 - apply to Telecom and Vodafone;
 - apply to all voice calls (MTM, FTM) and SMS;
 - prohibit each restricted operator from imposing any charge on their retail customers;
 - be implemented on a staged basis to allow existing on account plans to expire; and
 - last for 3 years⁸⁸⁶.
 12. In response to the request for additional information, 2degrees reiterated the content in its submission and confirmed that they did not think any exceptions to the non-discrimination condition should be permitted beyond the transitional arrangements already proposed by 2degrees (particularly with regards to SMS). 2degrees do suggest however that (if any exceptions were to be implemented) an exception to mobile-to-mobile closed-user groups where services are charged on a single invoice may be appropriate, as it would address concerns raised about the potential impact of a non-discrimination condition on existing business accounts⁸⁸⁷.

⁸⁸⁴Professor Haucap, A note on-net/off-net retail price differences in the NZ mobile telecommunications market (for 2degrees), page 9, paragraph 43

⁸⁸⁵2degrees submission on the draft MTAS STD, page 53, paragraph 8.23

⁸⁸⁶2degrees submission on the draft MTAS STD, page 61, paragraphs 10.1 to 10.6

⁸⁸⁷Letter from 2degrees in response to a request for additional information and further comments prior to MTAS STD Conference, 2 March 2011, Paragraph 17, page 3

Telecom

13. In summary, Telecom submitted that it supported the Commission's preliminary view not to ban on-net / off-net discounting, stating that:⁸⁸⁸
- the Commission does not have jurisdiction to regulate retail prices;
 - the underlying facts differed from those in the Homezone decision, and the Commission does not need to both regulate the price of MTAS and restrict on-net discounting;
 - other comparable countries have chosen to regulate the price of MTAS, rather than regulating retail prices, in order to respond to concerns about price discrimination; and
 - price discrimination is a valid commercial practice that the Commission should not interfere with lightly.
14. Telecom suggests that the Commission has ignored other market factors which perpetuate the impact of on/off net differentials (i.e. ease of discrimination) and simply assumes that low MTRs will address the issue⁸⁸⁹.
15. Telecom suggest that other comparable jurisdictions have chosen to regulate MTAS as their remedy to addressing price discrimination, so any proposal to impose such provisions would be out of keeping with international practice. Price discrimination allows service providers to differentiate their offerings to appeal to different segments of the market. This is a valid commercial practice that responds to customer demands⁸⁹⁰.
16. Telecom also submitted that it disagreed with the Commission's inverse link between non-discrimination conditions and a glide path, given the potentially longer term impact of non-discrimination conditions.⁸⁹¹
17. In response to the additional request for information, Telecom noted that the request puts them in a difficult position due to the absence of any proper consideration of retail regulation in this MTAS process to date or any form of cost benefit analysis. Telecom believes there are significant process and jurisdictional issues at play and so cannot explore the implementation issue given these overarching concerns⁸⁹².

TelstraClear

18. TelstraClear submit that the current structure of the mobile market in NZ is partly a function of legacy pricing practices, including heavy on-net discounting by the incumbent MNOs and above-cost pricing of termination. As a result, TelstraClear suggest that it would be prudent for the Commission to closely monitor the development of competition following the implementation of cost-

⁸⁸⁸ Telecom submission on the draft MTAS STD, pages 33-34, paragraph 111.

⁸⁸⁹ Telecom submission on the draft MTAS STD, page 28, paragraph 84

⁸⁹⁰ Telecom submission on the draft MTAS STD, page 34, paragraph 111

⁸⁹¹ Telecom submission on the draft MTAS STD, page 34, paragraphs 112-113.

⁸⁹² Letter from Telecom in response to a request for additional information and further comments prior to MTAS STD Conference, 2 March 2011, pages 1-2

based termination rates (and that the Commission may want to apply further regulatory remedies if continued on-net discounting maintains existing market structures and reinforces barriers to entry and expansion)⁸⁹³. Their view is that a non-discrimination condition is not necessary as long as termination rates are strictly cost-based (because if this is the case all players should be able to offer similar pricing structures)⁸⁹⁴. TelstraClear do however suggest that the Commission may wish to consider a non-operative requirement in the STD to enable swift action if it became necessary⁸⁹⁵.

19. TelstraClear further submitted:

- where a MNO can offer lower on-net charges as a result of cost advantages then this is reasonable, rather than anti-competitive;⁸⁹⁶ and
- if a MVNO is not offered equivalent on-net discounts to those offered by their host MNO to that MNO's customers, then the MVNO will be at a disadvantage and downstream competition will be damaged.⁸⁹⁷

Vodafone

20. In summary, Vodafone submitted that it supported the Commission's preliminary view not to ban on-net / off-net discounting⁸⁹⁸, stating that:

- there is no benefit to the Commission in regulating retail prices and many risks;⁸⁹⁹
- on-net pricing is common throughout the world and in New Zealand;⁹⁰⁰
- removing on-net-pricing would raise "prices for an enormous number of customers and lead to very significant market disruption";⁹⁰¹
- it is not clear that the Commission can ban on-net pricing as a condition under section 30, and the current situation differs from the Homezone decision;⁹⁰² and
- banning on-net pricing would be disproportionate to the Commission's objective of ensuring that a new entrant can compete with on-net pricing.⁹⁰³

21. Vodafone suggests that the Commission is right to be cautious about an on-net pricing ban and propose that there is no benefit to competition from the

⁸⁹³ TelstraClear submission on the draft MTAS STD, page 10, paragraph 39

⁸⁹⁴ TelstraClear submission on the draft MTAS STD, page 10, paragraphs 35-36

⁸⁹⁵ TelstraClear submission on the draft MTAS STD, page 11, paragraph 40

⁸⁹⁶ TelstraClear submission on the draft MTAS STD page 10, paragraph 36.

⁸⁹⁷ TelstraClear submission on the draft MTAS STD page 10, paragraph 38.

⁸⁹⁸ Vodafone submission on the draft MTAS STD page 7, paragraph 26, page 52, paragraph 218 and page 54, paragraph 237.

⁸⁹⁹ Vodafone submission on the draft MTAS STD page 52, paragraph 220.

⁹⁰⁰ Vodafone submission on the draft MTAS STD page 52, paragraph 220.

⁹⁰¹ Vodafone submission on the draft MTAS STD page 52, paragraph 220 and page 54, paragraph 237.

⁹⁰² Vodafone submission on the draft MTAS STD pages 52-53, paragraphs 223-226.

⁹⁰³ Vodafone submission on the draft MTAS STD page 53, paragraph 225 and page 54, paragraph 237.

Commission being directly involved in setting retail prices, and there are a number of risks in such an approach.⁹⁰⁴

22. Vodafone suggest that this issue is not about non-discrimination – the real issue is whether mobile operators choose to set on-net calling prices lower than off-net calling prices; and the relativity between on-net pricing and interconnection rates.⁹⁰⁵
23. Vodafone also note that
 - [
 -] VAPI1.⁹⁰⁶
24. In addition, Vodafone are unconvinced that it is legal for the Commission to ban on-net pricing as a condition under section 30. The Commission's powers are restricted to controlling wholesale rates.⁹⁰⁷
25. Vodafone also submitted that there were restrictions in place on on-net pricing as a result of the Final MTAS Report and the MTAS Reconsideration Report, in addition to general competition laws.⁹⁰⁸ Vodafone proposed that those restrictions should be removed as doing so would remove uncertainty over what pricing options are available for on-net offers and would promote competition.⁹⁰⁹
26. In response to the request for additional information, Vodafone reiterated their view that imposition of any form of retail price control is unlawful under the Telecommunications Act 2001⁹¹⁰, and repeated points made in their cross submission. Vodafone also expressed the following views:
 - they understand that 2degrees may not wish to compete with other operators' retail calling offers, just as it may have difficulty competing with their more extensive distribution, better handset range, stronger brands, or faster mobile data networks, but none of these matters are appropriately matters for Commission intervention, since they are not bottleneck points susceptible to regulation⁹¹¹;
 - the Commission has previously imposed informal controls on on-net pricing, and Vodafone use the guidance given in the Reconsideration Report when considering retail offers to bring to market (noting that

⁹⁰⁴ Vodafone submission on the draft MTAS STD page 51, paragraph 220

⁹⁰⁵ Vodafone submission on the draft MTAS STD page 52, paragraph 225

⁹⁰⁶ Vodafone submission on the draft MTAS STD page 51, paragraph 221

⁹⁰⁷ Vodafone submission on the draft MTAS STD page 51, paragraph 223

⁹⁰⁸ Vodafone submission on the draft MTAS STD pages 53-54, paragraphs 227-232.

⁹⁰⁹ Vodafone submission on the draft MTAS STD pages 53-55, paragraphs 227, 233 and 237.

⁹¹⁰ Letter from Vodafone in response to a request for additional information and further comments prior to MTAS STD Conference, 2 March 2011, page 7, paragraph 48

⁹¹¹ Letter from Vodafone in response to a request for additional information and further comments prior to MTAS STD Conference, 2 March 2011, page 8, paragraph 53

determining whether the guidance is breached or not is complicated and uncertain)⁹¹²; and,

- the Commission should set up a separate industry process to develop the methodology for how the ban will work (obviously keeping in mind that Vodafone consider a ban both illegal and impractical)⁹¹³.

Woosh

27. Woosh ask that the Commission impose on all MNOs a non-discrimination condition in the MTAS STD barring on-net/off-net discrimination (for 5 years), and that the market conditions justifying this are that⁹¹⁴:

- number portability means that end users do not necessarily know whether an 021 number is on the Vodafone network, or whether an 027 number is on the Telecom network (so where there is a higher fee, they may not necessarily know this in advance);
- geographic areas and age segments are dominated and monopolised by particular MNOs (and the continuation of off-net surcharges, will reduce competition in these geographic markets and age groups); and
- without an on-net/off-net price discrimination restriction, it will be nearly impossible for a 4th MNO to enter the NZ market.

Cross submissions

2degrees

28. 2degrees note that nearly all submitters acknowledge the uniqueness of the New Zealand market, referring to Vodafone's dominance in the critical Auckland market and the geographic monopolies enjoyed by the incumbents that are masked by the national statistics collected by the Commission⁹¹⁵.
29. 2degrees suggest that TelstraClear does not appear to have taken the strategic incentives for differential pricing into account in recommending a non-operative condition – these incentives are far stronger than the incentives created by above-cost MTRs⁹¹⁶. They also suggest that TelstraClear want a fair and level playing field, but, it would seem only for MVNOs and not new entrants⁹¹⁷.
30. 2degrees states that Vodafone's submission “if the Commission, in the fullness of time, concludes that termination rates need to be looked at again and reduced

⁹¹² Letter from Vodafone in response to a request for additional information and further comments prior to MTAS STD Conference, 2 March 2011, page 8, paragraph 54

⁹¹³ Letter from Vodafone in response to a request for additional information and further comments prior to MTAS STD Conference, 2 March 2011, page 8, paragraph 57

⁹¹⁴ Woosh submission on the draft MTAS STD pages 2-3, paragraphs 3.1-3.2.

⁹¹⁵ 2degrees cross submission on the draft MTAS STD, page 5, paragraph 1.25

⁹¹⁶ 2degrees cross submission on the draft MTAS STD, page 4, paragraph 1.16

⁹¹⁷ 2degrees cross submission on the draft MTAS STD, page 21, paragraph 5.19

further it retains the ability to relook at rates” is out of touch and inefficient, and the need for a further Schedule 3 investigation must be avoided⁹¹⁸.

- 31. In their cross submission, 2degrees note that both Telecom and Vodafone accept that above-cost termination rates are not the only incentive for differential pricing⁹¹⁹. It is also suggested that many submitters agree that some form of non-discrimination condition is necessary to address the distortions in the mobile market (Digital Island, Woosh, and TUANZ)⁹²⁰.
- 32. 2degrees also disagrees with Telecom’s assertion that the proposed non-discrimination condition is ‘out of keeping with international practice’, noting the Homezone determination. They also refer to examples used in their original submission of a number of overseas jurisdictions that had directly addressed off-net surcharges⁹²¹.
- 33. 2degrees comments on Telecom’s assertion that its current pricing practices are generally network neutral, suggesting that this statement ignores the very large number of Telecom customers who remain on the CDMA network, where differential pricing is prevalent, together with Telecom’s fixed line customers who face off-net surcharges for calls to non-Telecom mobiles⁹²².
- 34. Professor Haucap and Emma Lanigan, on behalf of 2degrees, respond to Vodafone’s assertion that there is no need for a non-discrimination rule and that there is no benefit for competition from that type of regulatory intervention. They note that in Professor Haucap’s original submission, it is well accepted economic theory that on-net/off-net price discrimination can increase barriers to entry and expansion⁹²³.
- 35. Haucap and Lanigan, on behalf of 2degrees, also note that Vodafone’s discussion of the impact of F2M termination rates on its pricing for low-usage customers highlights how important it is that both non-discrimination and cost based or BAK MTRs are applied together. Vodafone explains that if F2M termination rates fall it will need to adjust its pricing to low-usage customers that were previously funded by MTRs, for example by implementing minimum top-ups. If F2M termination charge reductions lead to changes such as minimum top ups for Vodafone pre-pay customers, Haucap and Lanigan suggest this mean it will be more expensive for customers of other networks to have a second SIM that they use to communicate with Vodafone contacts
[] J2DCOI.⁹²⁴

⁹¹⁸ 2degrees cross submission on the draft MTAS STD, page 5, paragraph 1.28

⁹¹⁹ 2degrees cross submission on the draft MTAS STD, page 18, paragraph 5.4

⁹²⁰ 2degrees cross submission on the draft MTAS STD, page 20, paragraph 5.13

⁹²¹ 2degrees cross submission on the draft MTAS STD, page 21, paragraphs 5.25 and 5.26

⁹²² 2degrees cross submission on the draft MTAS STD, page 22, paragraphs 5.35 – 5.36

⁹²³ Haucap and Lanigan (on behalf of 2degrees) response to submissions received on the Commerce Commission’s Draft STD for MTAS, page 11

⁹²⁴ Haucap and Lanigan (on behalf of 2degrees) response to submissions received on the Commerce Commission’s Draft STD for MTAS, page 12

Telecom

36. Telecom submit that 2degrees' proposal is outside the scheme of the Telecommunications Act, which is limited to wholesale regulation⁹²⁵. The lengthy process to date has focussed on regulation at wholesale and seeking to regulate retail at the end of a process without a proper process would raise significant procedural issues⁹²⁶.
37. Telecom note in their cross submission that the Commission had requested further submissions on the issue but Telecom do not consider that they have been accorded sufficient consultation opportunities in relation to this matter. Telecom suggest that a comprehensive consultation process should occur to deal with this issue⁹²⁷.
38. Telecom suggest that 2degrees has under appreciated and avoided the practical implications of this type of regulation, and have failed to discuss any of the 'real world' effects that such a proposal would have. Telecom's view is that the proposed regulation would⁹²⁸:
 - force costly and complex changes;
 - force migration of customers onto XT;
 - be unsatisfactory and harmful to a very large number of end customers – and would also be unorthodox and a non-trivial departure from standard practice;
 - need thought as to how this would apply to MVNOs.
39. Telecom conclude that the proposal is to radically transform the pricing landscape into one where all the offerings are more homogeneous between on and off net pricing. They suggest that this is a very direct and overt form of retail intervention and that it would be inappropriate for the Commission to make such a sweeping change to retail markets as an addendum to a process of investigating wholesale rates, and without a cost benefit analysis⁹²⁹. They suggest that a very high bar should be set for any intervention (even at a theoretical level)⁹³⁰.
40. Telecom also suggest that it would need to be workable in the context of MVNOs, given that it seems problematic to regulate retail conduct of parties that don't even have networks⁹³¹.
41. Telecom note that⁹³²:

⁹²⁵ Telecom cross submission on the draft MTAS STD, page 3, paragraph 8

⁹²⁶ Telecom cross submission on the draft MTAS STD, page 17, paragraphs 65 and 66

⁹²⁷ Telecom cross submission on the draft MTAS STD, page 3, paragraph 9

⁹²⁸ Telecom cross submission on the draft MTAS STD, pages 3 and 4, paragraph 10

⁹²⁹ Telecom cross submission on the draft MTAS STD, page 4, paragraph 11 and 12

⁹³⁰ Telecom cross submission on the draft MTAS STD, page 15, paragraph 55

⁹³¹ Telecom cross submission on the draft MTAS STD, page 15, paragraph 54

⁹³² Telecom cross submission on the draft MTAS STD, page 14, paragraph 53

- the fact consumers choose differentiated pricing when given a truly free choice suggests that differentiated pricing is of value (this is in context of Telecom trying to entice customers onto any-net XT plans) and that a forced move will be deeply unpopular;
 - they have around 400,000 customers who would likely feel adversely affected by the homogenised pricing proposed by 2degrees (those that prefer their legacy pricing plans);
 - developing new propositions and having to migrate customers would be a substantial and costly exercise; and,
 - it is operationally more sensible to migrate customers on to XT, rather than introduce new CDMA pricing plans (which immediately raises handset cost issues).
42. NERA, on behalf of Telecom, submits that it would be inappropriate for the Commission to impose any sort of ban on on-net/off-net price discrimination⁹³³, as there is a significant body of evidence confirming that price discrimination is pro-competitive and consumer welfare enhancing. NERA note that it is not clear in practice whether there is a ‘competition problem’ that justifies regulatory intervention, and that there is not currently a sufficient case to justify what would be quite a fundamental extension of regulation to the retail level⁹³⁴. NERA also note that⁹³⁵:
- despite high MTRs and on-net/off-net differentials it is competing and attracting customers from Vodafone and Telecom;
 - 2degrees has grown faster than any third entrant anywhere in the world;
 - 2degrees has announced an intention to invest \$100m in expanding its network and plans to open 30 additional retail stores, which appears to be inconsistent with the proposition that 2degrees is constrained from expanding due to the on-net/off-net price differential.
43. NERA suggest that it would be premature to go further than lowering MTRs by imposing retail price regulation without first seeing evidence of the impact of reducing MTRs. They also note that strategic behaviour to attract and retain customers occurs in many real world workably competitive markets, and is often judged to be pro- rather than anti-competitive (e.g. loyalty programmes offered by book stores and coffee shops). First mover advantage and switching costs are also features of many workably competitive markets⁹³⁶.
44. NERA note that the welfare effects of price discrimination in the more general sense can be positive or negative, but that the risks of extending regulation to the retail level are that:

⁹³³ NERA Review of Submissions on Draft STD for MTAS, 24 February 2011, page 4

⁹³⁴ NERA Review of Submissions on Draft STD for MTAS, 24 February 2011, page 3

⁹³⁵ NERA Review of Submissions on Draft STD for MTAS, 24 February 2011, page 2

⁹³⁶ NERA Review of Submissions on Draft STD for MTAS, 24 February 2011, page 2

- banning price discrimination may lead to an increase in the overall average price and a welfare loss (price discrimination can allow a firm to serve one group of consumers at a relatively low price, while serving a different group at a different price);
 - price discrimination may lower the average price (although only under linear pricing) – Rey and Tirole (1998); and,
 - the effect of a limit on the on-off-net price differential is to raise the on-net price above the efficient level, because the on-net price no longer reflects the call externality – Hoernig (2008) – this inefficiency must be weighted against the efficiency gains from having a lower off-net price⁹³⁷.
45. Telecom note that they have always believed that there is a weak link between MTAS rates and price differentiation at retail, and that EU regulators and the Commission have so far taken a different view to them and have justified the regulation of MTAS on the basis it addresses any problems arising from retail differentiation practices. Telecom go on to suggest that if the Commission is now in agreement that the link is tenuous, then it should recommend the deregulation of MTAS. If it holds to the view that MTAS regulation has the effect it is purported to have, then there is no need for regulation at retail⁹³⁸.

Vodafone

46. Vodafone submit that the 2degrees proposed condition goes too far and amounts to requiring Vodafone to change its retail text and voice offers for all its customers. Vodafone propose that this is clearly retail price control and outside the scope of the Commission's legal powers⁹³⁹.
47. Vodafone's view is that the Commission has no statutory authority as STDs are intended to regulate the supply of wholesale telecommunications services and do not extend to the regulation of the terms and conditions of the supply of retail telecommunications services⁹⁴⁰. Vodafone rely on the phrase "the supply of certain telecommunications services between service providers" (emphasis added) in section 18(1) of the Act to come to this view⁹⁴¹.
48. Vodafone notes the Commission's consideration of imposing a retail price non-discrimination under section 30O(1)(d) of the Act, but suggests that this section must be read in light of the relevant statutory purpose set out in section 18(1). Vodafone also submit that this interpretation is supported by the underlying policy of the Act⁹⁴².
49. Vodafone also suggest that a ban would be extremely disruptive for its customers and that there is no way that banning plans with on-net discounts (Txt2000 and Bestmate) could ever be seen to be reasonable or in the interests if

⁹³⁷ NERA Review of Submissions on Draft STD for MTAS, 24 February 2011, page 3-4

⁹³⁸ Telecom cross submission on the draft MTAS STD, page 16, paragraphs 62-63

⁹³⁹ Vodafone cross submission on the draft MTAS STD, page 2, paragraph 9

⁹⁴⁰ Vodafone cross submission on the draft MTAS STD, page 27, paragraph 136

⁹⁴¹ Vodafone cross submission on the draft MTAS STD, page 28, paragraph 137-138

⁹⁴² Vodafone cross submission on the draft MTAS STD, page 28, paragraph 139-140

end users⁹⁴³. Vodafone note that if the Commission wants to ban on-net pricing it needs to⁹⁴⁴:

- consider the consumer welfare tradeoffs of such a ban;
- predict how operators would respond at retail to a ban;
- consider the losses that would accrue to groups of end users who enjoy on-net pricing today; and,
- isolate any benefits that would emerge to consumers, demonstrating that they outweigh the detriments.

50. Vodafone suggest that end users will bear the impact of any ban on on-net pricing through⁹⁴⁵:
- confusion caused by the transition and the changes to existing contracts;
 - a significant decline in the value that these customers receive; and
 - an effective freeze on Vodafone's ability to compete while the changes are made to plans.
51. Vodafone suggests that on-net pricing is not the barrier to competition that 2degrees claims it is – it is generally pro-competitive, common across the world and a feature of the offers of all operators in New Zealand, including 2degrees⁹⁴⁶. Vodafone suggests that the evidence clearly shows that 2degrees is continuing to attract customers and has a healthy customer market share around 18 months after its launch⁹⁴⁷, hence Vodafone's on-net pricing is not a barrier in practice. Vodafone proposes that 2degrees is the fastest growing third mobile entrant in the world⁹⁴⁸.
52. Vodafone submit that section 18 obliges the Commission to consider whether an immediate cut in mobile-to-mobile rates will further promote competition, when 2degrees is already experiencing world-leading growth. Debate is required on 2degrees' actual growth⁹⁴⁹.
53. Vodafone notes that their volume of on-net traffic is heavily influenced by usage of the Bestmate offer and that this has been falling since they capped Bestmate to 1000 minutes and 100 texts per month⁹⁵⁰.
54. Vodafone supports the TUANZ proposal that the best solution is to continue to monitor on-net pricing in the expectation that cuts to mobile-to-mobile

⁹⁴³ Vodafone cross submission on the draft MTAS STD, page 2, paragraph 9

⁹⁴⁴ Vodafone cross submission on the draft MTAS STD, pages 25-26, paragraph 126

⁹⁴⁵ Vodafone cross submission on the draft MTAS STD, page 32, paragraph 165

⁹⁴⁶ Vodafone cross submission on the draft MTAS STD, page 3, paragraph 10

⁹⁴⁷ Vodafone cross submission on the draft MTAS STD, page 18, paragraph 98

⁹⁴⁸ Vodafone cross submission on the draft MTAS STD, page 19, paragraph 105

⁹⁴⁹ Vodafone cross submission on the draft MTAS STD, page 19, paragraph 106

⁹⁵⁰ Vodafone cross submission on the draft MTAS STD, page 18, paragraph 99

termination rates will resolve any real concerns about mobile market competition⁹⁵¹.

55. In response to Professor Haucap's recommendation for a ban on on-net pricing – Vodafone note that even this is qualified, as there is a sunset clause recommended, with withdrawal after 3 years. Vodafone suggests that because the ban is temporary it is designed to enhance the interests of a particular competitor. Vodafone also suggest a temporary ban may set a precedent for future regulation, which could retard efficient entry and investment. Vodafone believe that Professor Haucap has underestimated the detriments of this approach⁹⁵².
56. Vodafone also suggest that the proposed condition cannot be applied sensibly to either the Access Seeker or Access Provider under the MTAS. Vodafone note that retail pricing occurs where mobile operators hand over traffic, not where traffic is handed to them, so think that it is difficult to envisage how this type of obligation could sensibly apply to an Access Provider of MTAS who does not have over any traffic under MTAS⁹⁵³.
57. Vodafone proposes that the prudent option for the Commission is to set cost-based termination rates and allow competition to solve the problem, and monitor 2degrees' progress and the impact of intervention on the market⁹⁵⁴.

What part does consumers' ability to receive calls and texts create a barrier to switching in NZ?

Submissions

2degrees, Professor Haucap, and Synovate Research

58. 2degrees submit extensively on the fact that consumers value making and receiving calls, noting that the fact people answer the phone, give out business cards, and run call centres is evidence, as is the existence of receiving party pays in other jurisdictions⁹⁵⁵.
59. 2degrees also cite the following in support of the proposition that the ability to receive calls and texts is a switching barrier in New Zealand:
 - during the Schedule 3 Investigation, it was noted that the biggest reason people left was because of friends and family having to pay too much to call or text 2degrees⁹⁵⁶; and,
 - Vodafone have put a specific price on value of receiving landline calls (\$20 per month) – a number that can only receive (and never make) calls⁹⁵⁷.

⁹⁵¹ Vodafone cross submission on the draft MTAS STD, page 3, paragraph 12

⁹⁵² Vodafone cross submission on the draft MTAS STD, page 30, paragraphs 151-152

⁹⁵³ Vodafone cross submission on the draft MTAS STD, page 30, paragraphs 154

⁹⁵⁴ Vodafone cross submission on the draft MTAS STD, page 35, paragraph 182

⁹⁵⁵ 2degrees submissions on the draft MTAS STD, page 23, paragraphs 4.16-4.17

⁹⁵⁶ 2degrees submissions on the draft MTAS STD, pages 23-24, paragraph 4.18

60. Synovate Research, on behalf of 2degrees⁹⁵⁷, submitted a research report on the New Zealand mobile market structure. In summary the report research notes⁹⁵⁸:
- 28% of personal mobile phone users currently use more than one mobile phone connection;
 - []2DRI;
 - 71% cite the network others use as an influence on their current choice of main mobile provider (4% big influence); and
 - When thinking about switching providers, 71% indicate annoyance at the issue of people contacting them to have to pay more (38% say this would prevent them from switching).
61. 2degrees also submit that number portability continues to facilitate off-net surcharges⁹⁵⁹, [] 2DCOI⁹⁶⁰, and that customers tell 2degrees about the impact of off-net charges⁹⁶¹.
62. 2degrees suggest that the network effect is even stronger than having a reliable connection, citing that there was very little switching of network provider by consumers following numerous XT outages⁹⁶², and that closed network pricing prevents customers from switching networks, locking them into the dominant network in their city⁹⁶³.
63. Professor Haucap refers to, and supports, 2degrees submission that consumers value both placing and receiving calls as well as sending and receiving messages. He notes that the difficulty arises for economists when asked to measure the importance of call externalities – the fact that it is empirically difficult to estimate a demand curve for receiving calls does not mean these benefits do not exist. He also suggests that another reason why resources may not have been devoted to the measurement of call externalities may be the presumption that call externalities may have been internalised in Europe (he refers to a suggestion by Ofcom in 2003 that suggested call externalities were already largely internalized as people tended to be in stable calling relationships with each other)⁹⁶⁴.
64. Professor Haucap fully concurs with the view of Harbord and Pagnozzi (2010) that “even if call externalities are partially or fully internalised, to the extent that a call to a subscriber on a rival network benefits the receiver, a network still has a strategic incentive to set inefficiently high off-net prices to reduce the number of calls received by rival networks’ subscribers”. The crucial factor is not whether call externalities are internalized once prices are roughly symmetric, but

⁹⁵⁷ 2degrees submissions on the draft MTAS STD, pages 24-25, paragraphs 4.19-4.23

⁹⁵⁸ Synovate report (on behalf of 2degrees), Exploring mobile market structure in New Zealand, page 5

⁹⁵⁹ 2degrees submissions on the draft MTAS STD, page 32, paragraph 5.23

⁹⁶⁰ 2degrees submissions on the draft MTAS STD, page 33, paragraph 5.23

⁹⁶¹ 2degrees submissions on the draft MTAS STD, pages 34-35, paragraph 5.32-5.34

⁹⁶² 2degrees submissions on the draft MTAS STD, page 46, paragraph 7.34

⁹⁶³ 2degrees submissions on the draft MTAS STD, page 48, paragraph 7.38

⁹⁶⁴ Professor Haucap, A note on-net/off-net retail price differences in the NZ mobile telecommunications market (for 2degrees), page 5, paragraphs 17-21

whether receiver benefits exist at all or not. Once these benefits exist (as they certainly do), there are strategic incentives for incumbent networks to set higher off-net than on-net prices⁹⁶⁵.

Cross submissions

TUANZ

65. TUANZ note that the research paper from Synovate (on behalf of 2degrees), contains a number of interesting points and reinforces TUANZ' view that more investigation is needed. TUANZ suggest that the points raised are indicative of a market where we have reached a tipping point that makes it doubly difficult for new entrants to compete. TUANZ suggest that the Commission launch an investigation into on-net pricing and the impact of the network effect on New Zealand customer behaviour⁹⁶⁶.

Vodafone and The Research Agency

66. Vodafone comments on the survey conducted by Synovate (on 2degrees' behalf) and expresses concerns about comparing this survey to one done by Jigsaw for Ofcom⁹⁶⁷ (2degrees contrast the results to support the proposition that mobile switching by end users is a barrier to expansion that is unique to New Zealand).
67. Vodafone's concerns relate to issues such as the question type (Jigsaw's were open ended and Synovate's used a prompted list) and the finding that 28% of respondents had more than one mobile phone connection – this is not reflective of personal mobile use resulting from on-net pricing as this percentage also captures users with a 'non main' phone number for business purposes. Overall, Vodafone believe that the way the questionnaire was constructed biases the results in favour of showing that switching is unlikely, and on-net pricing is to blame⁹⁶⁸.
68. The Research Agency, on behalf of Vodafone, reviewed the raw data used in the Synovate Research survey and noted the following⁹⁶⁹:
- the sampling approach used may have weighted the Auckland sub-group and Auckland Youth sub-group beyond what is good practice;
 - Synovate's questions (given as lists as opposed to being open ended) may have overstated specific issues and ignored decision making influences outside of the list provided;
 - Synovate's questions may overstate the strength of switching barriers because the question directly implies that all personal mobile users are to some extent considering switching;

⁹⁶⁵ Professor Haucap, A note on-net/off-net retail price differences in the NZ mobile telecommunications market (for 2degrees), page 6, paragraph 23

⁹⁶⁶ TUANZ cross submission on the draft MTAS STD, page 2

⁹⁶⁷ Vodafone cross submission on the draft MTAS STD, page 26, paragraph 129

⁹⁶⁸ Vodafone cross submission on the draft MTAS STD, pages 26-27, paragraphs 129-130

⁹⁶⁹ The Research Agency (on behalf of Vodafone), Review: Synovate's "Exploring mobile market structures in New Zealand"

- comparisons to the Jigsaw study are tenuous as Jigsaw's questions were unprompted;
 - consideration of switching is also overstated because one of the responses "Yes, I thought about it, but I did not switch" covers a huge spectrum of consideration; and,
 - cross network calling charges are being overstated.
69. The Research Agency, on behalf of Vodafone, conducted a survey to measure barriers to switching in the New Zealand mobile market, in order to test the conclusions of the Synovate survey. The Research Agency note that their survey was done without initially prompting respondents with pre-defined answers so as to be a better comparison with the Jigsaw study for Ofcom and a better view of the natural barriers to switching in the New Zealand market⁹⁷⁰.
70. The Research Agency only provides preliminary results but the key differences (when compared with the Synovate survey) are stated as being⁹⁷¹:
- switching intentions are significantly overstated (only 10% in the Research Agency survey had given serious thought to switching);
 - cross network calling costs are being overstated as a barrier to switching (11% compared with Synovate's 38%); and,
 - cross network calling costs are being overstated as a driver of decisions (10% - 41% when prompted - compared with Synovate's 45%).

Is the presence (and potential growth of) on-net/off-net discounting an issue?

Submissions

2degrees and Professor Haucap

71. 2degrees submit that the competition problem is increasing, noting that the percentage of on-net traffic has increased since 2008 and the retail price differential has increased since 2008 (average off-net prices are now more than twice that of average on-net prices)⁹⁷².
72. 2degrees also suggest that the competitive response to a decrease in MTRs and increased competition has been an increase in the deployment of off-net surcharges⁹⁷³. In addition, Telecom and Vodafone are leveraging their landline subscriber bases and so incentives to apply off-net surcharges are increasing⁹⁷⁴.

⁹⁷⁰ The Research Agency (on behalf of Vodafone), Preliminary Results: Measuring Barriers to Switching in the NZ Market, page 2

⁹⁷¹ The Research Agency (on behalf of Vodafone), Preliminary Results: Measuring Barriers to Switching in the NZ Market, pages 4-6

⁹⁷² 2degrees submission on the draft MTAS STD, page 8, paragraphs 2.3 and 2.5

⁹⁷³ 2degrees submission on the draft MTAS STD, page 8, paragraph 2.2

⁹⁷⁴ 2degrees submission on the draft MTAS STD, page 13, paragraph 2.15-2.18

73. Professor Haucap submits that in the economics literature it is well accepted that on-net/off-net retail price discrimination can serve as a strategic barrier to entry to retail markets in mobile telephony and that large incumbent operators have strategic incentives to set lower prices for on-net calls than for off-net calls in order to induce price mediated network effects⁹⁷⁵.
74. Professor Haucap notes that the concern that tariff-mediated network effects can be strategically used to stifle market competition and to secure market power is well founded and should be of concern to the Commission⁹⁷⁶. He notes that on-net/off-net price discrimination has been a subject of concern for a number of competition authorities and/or regulators in Europe⁹⁷⁷:
- in Germany action was taken, but the proceedings were discontinued because operators had increasingly moved to ‘all-net tariffs’ so the regulator did not expect any potential abuse to have an appreciable negative impact on the market in the future; and
 - similar complaints against price differentiation between on-net and off-net calls have also been made in other countries such as Austria, Italy and Turkey.
75. Professor Haucap suggests that once call externalities and/or switching costs and/or first-mover advantages are present, then a reduction in MTRs will not safeguard the competitive process, and the incumbent has strategic incentives to increase its off-net charges. Assuming there are no new customers to be won, new entrants must win customers over from their current operator and generally entrants do not only have to match an incumbent’s price, but also have to undercut it by a substantial amount to make it worthwhile for consumers to switch and to try a new product⁹⁷⁸.
76. Professor Haucap suggests that customer survey results from the Synovate survey suggest that this general observation (above) is also true for New Zealand. If 2degrees were able to match the two incumbent networks’ prices, there is little incentive for customers to switch, hence, the ability to match prices may not be sufficient to acquire customers⁹⁷⁹.
77. Professor Haucap also submits that⁹⁸⁰:
- matching prices becomes even more difficult if the incumbents’ termination rates are set at a level above true LRIC;

⁹⁷⁵ Professor Haucap, A note on-net/off-net retail price differences in the NZ mobile telecommunications market (for 2degrees), page 2, paragraph 3

⁹⁷⁶ Professor Haucap, A note on-net/off-net retail price differences in the NZ mobile telecommunications market (for 2degrees), page 3, paragraph 8

⁹⁷⁷ Professor Haucap, A note on-net/off-net retail price differences in the NZ mobile telecommunications market (for 2degrees), page 3, paragraphs 6 and 7

⁹⁷⁸ Professor Haucap, A note on-net/off-net retail price differences in the NZ mobile telecommunications market (for 2degrees), page 3, paragraphs 9-11

⁹⁷⁹ Professor Haucap, A note on-net/off-net retail price differences in the NZ mobile telecommunications market (for 2degrees), page 4, paragraph 13

⁹⁸⁰ Professor Haucap, A note on-net/off-net retail price differences in the NZ mobile telecommunications market (for 2degrees), pages 4-5, paragraphs 14-16

- there are several other factors that lead to first-mover advantages for the incumbent, on top of consumer switching costs and in this context it is important to note that there have long been various barriers to efficient entry in New Zealand; and,
 - even if one ignores switching costs and first mover advantages the presence of receiver benefits provides incentives for large networks to impose surcharges for off-net calls.
78. With specific reference to New Zealand, Professor Haucap notes that the strong segmentation of the market into Vodafone and Telecom ‘islands’ further strengthens the incentive to introduce off-net surcharges. He notes that if customers groups face switching costs or cannot coordinate larger groups to switch jointly, high off-net charges serve to lock-in the existing customer base. Therefore, the entrant will face significant difficulties in attracting customers. The introduction of significant off-net surcharges can, therefore, be used to effectively foreclose the market⁹⁸¹.
79. Professor Haucap also notes that a customer’s price confusion increases and transparency decreases the more people port their number. If, due to increasing mobile number portability, customers cannot distinguish networks by their prefixes, consumers may be unaware about the price that they actually have to pay if on-net and off-net prices are different. He suggests that a price discrimination ban would also solve this problem⁹⁸².

Telecom

80. Telecom questions the Commission’s reliance on 2008 data to suggest that on-net traffic volumes are high, and why the Commission has not considered other reasons as to why New Zealand usage patterns may differ from European calling patterns⁹⁸³.
81. Telecom notes that on-net/off-net pricing is a common feature internationally and exists in 27 out of 30 of the OECD countries’ mobile markets. Telecom believe that the differential between on-and off-net pricing in NZ is not high compared with other jurisdictions, and is not out of line with the levels of on-net/off-net discounting seen in other jurisdictions⁹⁸⁴.

Auckland Netball

82. Auckland Netball suggest that current termination rates for communication across different mobile provider networks are obstructive to innovative communication and timely messaging to/from members (unless run with more

⁹⁸¹ Professor Haucap, A note on-net/off-net retail price differences in the NZ mobile telecommunications market (for 2degrees), pages 6-7, paragraphs 27-28

⁹⁸² Professor Haucap, A note on-net/off-net retail price differences in the NZ mobile telecommunications market (for 2degrees), pages 7, paragraph 30

⁹⁸³ Telecom submission on the draft MTAS STD, page 26, paragraph 76

⁹⁸⁴ Telecom submission on the draft MTAS STD, page 26, paragraph 78

than one provider and provide members with option to message on numbers registered with different providers)⁹⁸⁵.

TUANZ

83. TUANZ submit that on-net pricing in itself is not a bad thing and generally supports the Commission's preliminary view; but suggests that NZ's peculiar market dynamics must be considered with regard to on-net pricing and that further investigation is warranted⁹⁸⁶.
84. TUANZ note that NZ is in a very peculiar position because of historical technical choices. Telecom and Vodafone operated entirely different technological solutions for their mobile phone services until very recently, and so we have an almost unique situation: two regional monopolies operating throughout the country⁹⁸⁷.
85. TUANZ submit that with such a strong prevalence of closed-user group offers in the market it is almost impossible for a new entrant to make any inroads in terms of market share. Its not enough to persuade one customer to switch, the customer must also bring a substantial share of friends, family and business contacts or face being cut off. On-net discounting, combined with market dominance and high termination rates, has led to a severe distortion of the market and customers who would otherwise choose the lowest-priced service provider are forced to stay with a higher-priced competitor.⁹⁸⁸
86. TUANZ note that they have heard of several cases where business customers would like to switch their entire business from one provider to another but face dramatic opposition from staff and suppliers because of the cost that will be added to phone bills⁹⁸⁹.

Digital Island

87. Digital Island submitted that on-net/off-net pricing structures result in customers being unable to predetermine the cost of calls to mobiles. They believe it is fundamental that a customer should be able to determine the cost of a call prior to making that call. With number portability and growing quantity of MVNOs, it is no longer possible for a customer to determine what network their call will terminated on⁹⁹⁰.
88. Digital Island recommends the complete removal of on-net/off-net pricing, and that it should only be permitted in situations where a customer can reasonably establish the charges associated with the number they are calling⁹⁹¹.

⁹⁸⁵ Auckland Netball submission on the draft MTAS STD, page 2

⁹⁸⁶ TUANZ submission on the draft MTAS STD, pages 4-5

⁹⁸⁷ TUANZ submission on the draft MTAS STD page 5

⁹⁸⁸ TUANZ submission on the draft MTAS STD pages 4-6

⁹⁸⁹ TUANZ submission on the draft MTAS STD, page 6

⁹⁹⁰ Digital Island submission on the draft MTAS STD, pages 1-2

⁹⁹¹ Digital Island submission on the draft MTAS STD, page 2

Vodafone

89. Vodafone note that all operators have on-net offers, and practically all the countries in the OECD have operators that offer on-net pricing discounts. On-net pricing is very common and the level of termination rates does not seem to influence either the prevalence of on-net offers, or how cheap on-net calling is relative to any-net calling⁹⁹².
90. Vodafone suggest that the Commission's concern is not with on-net pricing itself, but 2degrees' ability to compete if on-net prices offered by Vodafone and Telecom are too low relative to termination rates⁹⁹³.

Cross submissions

Vodafone

91. Vodafone provides information that they suggest reveals that there is not widespread on-net calling issue, nothing that
 - [] JVNZCOI⁹⁹⁴.
92. With regards to cross-net traffic, Vodafone submits that⁹⁹⁵:
 - [] API2;
 - 2degrees has submitted that 'closed network pricing prevents customers from switching networks, locking them into the dominant network in their city', however
 - [] API2;
 - [] API2;
 - [] API2 is entirely inconsistent with 2degrees' theory that on-net pricing leads to a traffic imbalance that is to the detriment of 2degrees,
 - [] API2. Vodafone suggest that this is not an on-net/off-net issue but rather a marketing choice by 2degrees and a consequence of the customers they have decided to target; and
 - Vodafone also present data that shows the high churn rates in New Zealand, showing that customers do not appear to be locked in at all.

⁹⁹² Vodafone submission on the draft MTAS STD, page 23, paragraph 103

⁹⁹³ Vodafone submission on the draft MTAS STD, page 23, paragraph 104

⁹⁹⁴ Vodafone cross submission on the draft MTAS STD, page 21, paragraph 114

⁹⁹⁵ Vodafone cross submission on the draft MTAS STD, pages 23-24, paragraph 117

93. Vodafone suggest that on-net pricing has been given a ‘bad rap’ in this whole investigation, and that there are good economic reasons and plenty of consumer benefits from on-net pricing⁹⁹⁶.
94. Vodafone also submit that 2degrees’ argument that the strategic incentives to use on-net pricing depends on the existence of benefits from receiving calls is incorrect. On-net pricing⁹⁹⁷:
- is a competitive response by operators to provide pricing bundles that match the calling patterns of mobile users;
 - generates network effects, but these make mobile networks compete harder for customers and this effect increases consumer welfare;
 - increases competition between mobile networks because, with such pricing, an additional subscriber on a network makes that network slightly more valuable to all its existing customers.
95. With regards to Professor Haucap’s assertion that it is common for entrants to have to undercut the incumbent to attract customers, Vodafone note that this has not normally been of concern to competition authorities and price cutting is good for customers⁹⁹⁸.
96. Vodafone believe that calling externalities exist to some extent, but are not as important as 2degrees assert. They note that access externalities are created by mobile users’ subscription decisions, as the decision of a user to join a network makes that network more valuable to others. Vodafone suggest that 2degrees has ignored this and yet the UK Competition Commission and Ofcom believe that access externalities are bigger than calling externalities and that access externalities are less likely to be internalised⁹⁹⁹.

Is the Homezone determination relevant?

Submissions

2degrees

97. 2degrees submitted that the current mobile market conditions in New Zealand are the same as those that justified a non-discrimination condition in the Homezone decision, although in this case the conditions are actual rather than theoretical.¹⁰⁰⁰
98. 2degrees submit that the fact that discriminatory pricing is already prevalent in the mobile services market is no basis for failing to address the competitive

⁹⁹⁶ Vodafone cross submission on the draft MTAS STD, page 24, paragraph 120

⁹⁹⁷ Vodafone cross submission on the draft MTAS STD, page 25, paragraphs 122-123

⁹⁹⁸ Vodafone cross submission on the draft MTAS STD, page 25, paragraph 124

⁹⁹⁹ Vodafone cross submission on the draft MTAS STD, page 27, paragraphs 131-132

¹⁰⁰⁰ 2degrees submission on the draft MTAS STD pages 5-6, paragraphs 1.25-1.28

harm it causes, and that retail distortions are immaterial and dwarfed by competition benefits¹⁰⁰¹.

99. 2degrees believe that the Commission's recognition of conditions when non-discrimination might be needed (i.e. prices not reflecting costs) apply here. If the Commission were to set a single regulated MTR then it would be below cost for incumbents and above cost for 2degrees (therefore a non-discrimination provision would be appropriate)¹⁰⁰².
100. 2degrees think that Vodafone's arguments in Homezone relate to strategic incentives for Telecom to impose higher prices for calls to Vodafone local numbers (not, for example, TSO obligations)¹⁰⁰³.

Vodafone

101. Vodafone submit that the current case is different from Homezone, and the unique features are that¹⁰⁰⁴:
 - the non-discrimination rule is only necessary in a TSO context, which prevented Telecom from charging a fee for local calls but did not clearly prevent Telecom from charging a fee for local calls to customers of Vodafone's local service - there is no such complexity in mobile pricing; and
 - Telecom faces no incremental costs from calls to customers of Vodafone's fixed-line replacement service, since they are charged on a BAK basis. For mobile off-net calls, operators do face an incremental cost when connecting a call to another operator that they do not face for an on net call.

Cross submissions

2degrees

102. 2degrees cross submitted that Vodafone's arguments on the relevance of Homezone are not compelling and that the Commission's precedent is sound and remains directly relevant to the current process¹⁰⁰⁵.
103. 2degrees submit that Vodafone has performed an about-face on the Commission's ability to impose a non-discrimination condition and seeks to elevate TSO implications as the main reason a non-discrimination condition was sought and obtained in Homezone. It is suggested that Vodafone requested a non-discrimination condition in Homezone to ensure its customers received the benefit of incoming calls and to prevent the "hobbling" of competition by

¹⁰⁰¹ 2degrees submission on the draft MTAS STD page 51, paragraphs 8.6-8.9

¹⁰⁰² 2degrees submission on the draft MTAS STD page 54, paragraph 8.25

¹⁰⁰³ 2degrees submission on the draft MTAS STD pages 54-55, paragraphs 8.26-8.34

¹⁰⁰⁴ Vodafone submission on the draft MTAS STD, page 53, paragraph 226

¹⁰⁰⁵ 2degrees cross submission on the draft MTAS STD, page 4, paragraph 1.18

strategic discriminatory pricing by the incumbent operator (which, it is proposed, are the same reasons as 2degrees in this case)¹⁰⁰⁶.

Vodafone

104. Vodafone submit that the 2degrees proposal is not analogous with the Homezone determination because the legal situation is different and there is a radical difference in the scale of the impact of these two interventions. Vodafone believe that the following factors differentiate this situation from Homezone¹⁰⁰⁷:
 - Telecom is a monopoly provider of fixed-line technology;
 - Telecom had a significant degree of market power as the incumbent fixed-line provider and this market dominance was reinforced by wealth transfers from competitors to Telecom under the TSO regime;
 - no effective alternative for local calling in much of the country, with competitive entry being confined to the toll bypass market;
 - competition concerns not as acute in mobile; and,
 - in Homezone it was appropriate that the state of the retail market factored heavily into the Commission's deliberations and that it sought to rectify an arbitrary, non-market distortion – this does not apply in the mobile market, where competition determines the retail offers available.
105. In terms of the suggestion 2degrees makes about the ability to raise margin squeeze arguments under the Commerce Act, Vodafone disagree that there is any uncertainty, noting that margin squeeze would never be a concern where wholesale prices are set at cost. Vodafone note that the Commission has issued helpful guidance on the relationship between the Telecommunications Act and the Commerce Act and does not think any ambiguity remains¹⁰⁰⁸.

International precedents for the use of a non-discrimination condition (NDC)

Submissions

2degrees and Telecommunications Management Group (TMG)

106. 2degrees submitted that there are international precedents for a non-discrimination condition.¹⁰⁰⁹
107. TMG, on behalf of 2degrees, submit that there is neither a *prima facie* case for nor against on-net/off-net price differentials as anti-competitive conduct, as shown by the use of the practice in more competitive markets internationally. They suggest however, that the precedent shows that under certain conditions large MNOs can strategically employ differentials to restrict competition, giving

¹⁰⁰⁶ 2degrees cross submission on the draft MTAS STD, page 4, paragraphs 1.19 and 1.20

¹⁰⁰⁷ Vodafone cross submission on the draft MTAS STD, page 31, paragraphs 157-161

¹⁰⁰⁸ Vodafone cross submission on the draft MTAS STD, page 32, paragraph 163

¹⁰⁰⁹ 2degrees submission on the draft MTAS STD page 6, paragraph 1.29 and pages 56-60(section 9)

rise to increased network effects that discourage consumers from subscribing to smaller MNOs¹⁰¹⁰.

108. TMG propose that given incentives to strengthen network effects, consumers will prefer to join or remain with large MNOs (which creates the ‘club effect’) which may result in potential distortions, such as heightened barriers to entry and expansion, customer lock-in and a significant concentration of on-net traffic that affect long-term competition in the mobile market¹⁰¹¹.
109. TMG proposes that MTR price regulation is insufficient on its own, and as a consequence, competitive distortions stemming from on-net/off-net price differentiation persisted (and sometimes even increased) following the adoption of MTR regulation in most countries analysed. Some regulatory authorities had to go back, reassess market conditions and adopt additional, more targeted remedies to address on-net/off-net price differentiation¹⁰¹².
110. TMG suggest that the commonalities in the countries surveyed that led regulatory authorities to adopt ex ante remedies specifically targeting on-net/off-net differentiation are¹⁰¹³:
 - pronounced and increasing proportion of on-net traffic;
 - significant differences in size between the largest and smallest MNOs; and,
 - significant and increasing differentials between on-net and off-net retail prices.
111. TMG notes that non-discrimination conditions have generally been implemented on a transitory basis and periodically reviewed. These remedies are meant to be lifted once the regulatory authority is satisfied that the mobile market has become sufficiently competitive and/or when competitive distortions in the market have been resolved¹⁰¹⁴.
112. TMG considered the following countries in its analysis: Kenya, Singapore, Columbia, Turkey Slovenia and Portugal. In addition to the three commonalities listed above, the following points are worthy of note:¹⁰¹⁵
 - In Kenya whilst there were overall price reductions as a result of a cut in MTRs and capping of the retail price of mobile off-net minutes,

¹⁰¹⁰ TMG (on behalf of 2degrees), On-net/off-net price differentiation: Review of international precedent, page 2.

¹⁰¹¹ TMG (on behalf of 2degrees), On-net/off-net price differentiation: Review of international precedent, page 3.

¹⁰¹² TMG (on behalf of 2degrees), On-net/off-net price differentiation: Review of international precedent, page 3.

¹⁰¹³ TMG (on behalf of 2degrees), On-net/off-net price differentiation: Review of international precedent, page 4.

¹⁰¹⁴ TMG (on behalf of 2degrees), On-net/off-net price differentiation: Review of international precedent, page 5.

¹⁰¹⁵ TMG (on behalf of 2degrees), On-net/off-net price differentiation: Review of international precedent, pages 5-8

competition problems persisted and on-net/off-net prices more than doubled from 2006 – 2009;

- In Kenya, PWC concluded that the dominant MNO was engaging in on-net/off-net differentiation, which it was using to ‘further entrench its higher market share and dominance, to the detriment of competition and consumers’;
- In Singapore the restriction was lifted after finding the market ‘mature and competitive’ (to get to this conclusion the regulator referred to the HHI, and that MNOs active in the market had relatively even market shares based on subscribers);
- In Columbia, the regulator observed that because the dominant MNO was a net payer of termination charges, the MTR reductions had increased the dominant MNO’s average revenue per minute (and these were not being passed on to consumers in the form of lower off-net rates);
- TMG suggest that the Columbia case highlights that a price rule for on-net/off-net differentiation that provides a carve-out for promotional offers will likely be insufficient to address the potential competitive concerns identified by the regulator;
- In Turkey prior to 2007, complaints filed over practice of setting high on-net/off-net price differentials and pricing on-net calls below the regulated MTR – note that Vodafone was one of the parties that did this;
- In Turkey, the decision to regulate was influenced by research which noted that ‘Turkcell had benefited from first mover advantages in the mobile market to establish its dominance, and is believed to maintain its dominance in the market by discriminating between on-net and off-net prices and thereby exploiting tariff-mediated network externalities to its advantage’.
- In Slovenia, despite 3 reviews of wholesale mobile termination market, introduction of competition has encountered setbacks, including exit of the third MNO;
- In Slovenia, the third MNO argued that it had been unable to effectively compete due to the regulator’s failure to impose ex ante rules on the dominant player, including MTR regulation and regulation of on-net/off-net price differentials. Competing operators argued that the dominant player was engaging in cross subsidisation and price discrimination between on-net and off-net calls resulting in low average revenues per user and returns on capital (note this third MNO alleged abuse of dominant position, but this was dismissed).

Cross submissions

Telecom and NERA

- 113. Telecom submit that rather than illustrating that regulation at wholesale and at retail is consistent with international precedent, 2degrees actually point to jurisdictions such as Kenya as precedent, which cannot reasonably be regarded as culturally and/or economically similar to New Zealand¹⁰¹⁶.
- 114. Telecom note that in EU jurisdictions such as the UK, the approach has been to take a view that if MTRs are regulated at cost there is no need to regulate retail prices. It is also noted that in the US and Australia there have been no moves to impose non-discrimination at retail¹⁰¹⁷.
- 115. NERA, on behalf of Telecom, note that at the end of 2007, on-net discounting was prevalent in Germany, Ireland, Italy, Norway, Portugal, Spain, Sweden and UK, and that many of these countries have multiple mobile network operators and the markets are likely to be workably competitive (NERA cite the fact that since 2003, Ofcom have found the UK mobile market to be effectively competitive)¹⁰¹⁸.

Vodafone

- 116. Vodafone submit that TMG, on behalf of 2degrees, has not compared the widespread use of on-net/off-net differentials across countries but rather focused only on six countries. Vodafone asks that the Commission check the information provided as 2degrees ahs said that Kenya has banned on-net pricing, but this is not true¹⁰¹⁹.

Additional comments prior to MTAS STD conference

Vodafone

- 117. In response to the Commission's request for further information of 23 February 2011, Vodafone submitted that the proposed ban on on-net pricing from 2degrees constitutes such a significant change to the scope of the MTAS that it requires a separate industry process.
- 118. Vodafone reiterates its view that a ban would be both illegal and impractical and that the best solution to the on-net pricing issue is the one proposed by TUANZ: to reduce MTRs to cost and monitor the impact on the retail market.

Telecom

- 119. Telecom does not consider it conducive to provide comments on the form or implementation of a potential non-discrimination clause without a proper

¹⁰¹⁶ Telecom cross submission on draft MTAS STD, page 15, paragraph 56

¹⁰¹⁷ Telecom cross submission on draft MTAS STD, page 15, paragraph 57

¹⁰¹⁸ NERA (on behalf of Telecom), Review of submissions on Draft STD for MTAS, pages 2-3

¹⁰¹⁹ Vodafone cross submission on draft MTAS STD, page 34, paragraph 175 and 176

consideration of retail regulation in the MTAS process or a cost-benefit analysis of such an intervention.

2degrees

120. 2degrees does not provide any additional information regarding the form and implementation of a potential non-discrimination other than what stated in its submission and cross-submission.

Additional comments at the MTAS STD conference

Telecom

121. James Mellsop of NERA stated that if the market characteristics observed in New Zealand, with on-net traffic remaining at 90% or above, do not change in a relatively short period of time following the Commission's final decision, the anti-competitive effect of on-net off-net price differentiation does appear to be more certain.
122. John Wesley Smith maintained that the proposed ban on on-net pricing from 2degrees is not regulating a service between service providers and is therefore outside the scope of the Commission's legal powers.
123. Simon Haines argued that even the linkage between the wholesale service and the retail service restricting supply of the former without a non-discrimination clause is not strong enough to warrant this kind of intervention.

2degrees

124. Paul Mathewson made the point that a potential non-discrimination clause would relate directly to the wholesale service since without such a clause there would be restricted provision of the wholesale service.

Vodafone

125. Hayden Glass submitted that as the intervention would imply Vodafone mandatorily having to change all their pricing, it was a significant intervention.

APPENDIX 7: SUMMARY OF SUBMISSIONS ON GLIDE PATHS

Purpose

1. This Appendix summarises submissions on whether or not a glide path is appropriate.

Commissions' preliminary view on glide paths

2. In the draft STD, the Commission's preliminary view was that a glide path is not required to transition MTRs from current levels to the proposed regulated rates. The Commission was of the view that, as a consequence of the unique features of the New Zealand market, the importance of removing the barrier to expansion is such that moving immediately to cost-based MTRs is likely to best promote competition for the long-term benefit of end-users.

Is a glide path appropriate?

Submissions on the draft STD

2degrees

3. 2degrees submitted that the past decade has provided incumbents with one long glide path and their regulatory findings reflect anticipated changes. Accordingly, 2degrees argued that there is no basis for a glide path.¹⁰²⁰

CallPlus and Kordia

4. CallPlus and Kordia supported the Commission's preliminary view that moving immediately to a cost-based MTR, with a single rate for fixed-to-mobile and mobile-to-mobile will encourage competition and be in the long-term interest of end-users.¹⁰²¹

Federated Farmers

5. Federated Farmers supported the Commission's proposal that changes to cost-based pricing for the voice MTAS services should come into force immediately. Federated Farmers submitted that it is important to remove the barriers which are limiting the potential expansion in the mobile market, and that these immediately need to be remedied by imposing cost-based MTRs.¹⁰²²

Telecom

6. Telecom submitted that glide paths are a sound approach to regulating rates over an extended period. Telecom submitted that there are a number of reasons for this, including that regulators:¹⁰²³

¹⁰²⁰ 2degrees, *Submission on the Draft MTAS STD*, 7 February 2011, p 68, paragraph 12.7.

¹⁰²¹ CallPlus and Kordia, *Submission on the Draft MTAS STD*, 7 February 2011, p 4.

¹⁰²² Federated Farmers. *Submission on the Draft MTAS STD*, 7 February 2011, p 2.

¹⁰²³ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 89.

- generally recognise that an immediate reduction in wholesale rates can cause disruption to the business plans of mobile operators, affect demand patterns for both prepay and postpay customers differently, and interfere with investment incentives;
 - understand that glide paths align with expected changes in underlying costs over time where these can be projected forward with some degree of confidence;
 - take account of the fact that glide paths correspond to a tilt in an annuity calculation applied to convert a capital cost into an annual equivalent; and
 - recognise that glide paths match with spreading a fixed cost over an increasing number of minutes when minutes are expected to increase over time.
7. Furthermore, Telecom submitted that an immediate reduction in MTRs will likely amplify the “waterbed” effect for all market participants. In respect of Telecom, it was noted that it may make it more expensive for some consumers to switch to the XT 3G network, slowing down uptake and the shutdown of the current 2G/3G CDMA network.¹⁰²⁴
8. Telecom noted that it, like the other MNOs in New Zealand, enters into short and long term contracts with third party customers and suppliers, manages its funding relationships with shareholders and lenders, determines its planned programmes of future capital investment, and manages its operational cost structures based on a forecast continuation of its operational business model.¹⁰²⁵
9. Telecom argued that the MTR reductions contemplated in the draft STD are of a different order of magnitude from those that were considered in the context of the undertakings put forward by Vodafone and Telecom during the Schedule 3 investigation. Therefore, Telecom submitted that it is simply not correct to suggest that parties could have foreseen reductions of the scale contemplated, and factored them into their business models.¹⁰²⁶

NERA

10. NERA, on behalf of Telecom, submitted that by the Commission’s own logic, any reduction in MTRs is going to assist 2degrees. Therefore, NERA argued that the pro-competitive benefits that the Commission believes would result would occur even if MTRs were reduced more slowly, but with the upside of less risk.¹⁰²⁷
11. In addition, NERA submitted that it believes the Commission understates the risks of the waterbed effect. NERA submitted that the waterbed effect results changed incentives, and is effectively about competition for customers becoming “softer” because they become less attractive. NERA stated that the

¹⁰²⁴ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 90.

¹⁰²⁵ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 93.

¹⁰²⁶ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 95.

¹⁰²⁷ NERA, *Review of Daft STD for MTAS*, 7 February 2011, p 11.

Commission's assertion that the waterbed effect is unlikely to happen in practice is at odds with the empirical evidence that was discussed during the September 2009 conference.¹⁰²⁸

TelstraClear

12. TelstraClear agreed with the Commission's preliminary view that a glide path should not be imposed. TelstraClear submitted that in the circumstances, it is appropriate to immediately transition to cost-based MTRs, given the significant benefits associated with doing so and the lack of any material detriment.¹⁰²⁹
13. TelstraClear argued that the hypothesised detriments associated with an immediate reduction in MTRs are unlikely to be significant. In particular, TelstraClear noted that the incumbent MNOs have been aware of the intention to reduce MTRs to cost-reflective levels since 2006 and have committed to MTR reductions through undertakings. Therefore, TelstraClear submitted that it would be hard to claim that there would be a "price shock" if the prices in the draft STD were to take effect.¹⁰³⁰
14. Furthermore, TelstraClear submitted that the presence of an aggressive new entrant means that the waterbed effect is likely to be muted in New Zealand. TelstraClear argued that to the extent that the incumbent MNOs seek to increase retail prices following a reduction in MTRs, this is likely to be met with a competitive response from 2degrees.¹⁰³¹

Network Strategies

15. Network Strategies, on behalf of TelstraClear, submitted that the Commission's preliminary view that no glide path is required is reasonable, given that New Zealand has one of the lowest levels of mobile voice traffic per subscriber of any country. Network Strategies argued that a key reason for this is a perception that retail tariffs are high. Therefore, Network Strategies argued that reducing the termination rate and thus reducing retail rates should stimulate traffic levels (assuming that pass-through will occur).¹⁰³²
16. Network Strategies referred to statistics from the OECD which indicate that a 1% reduction in mobile termination rates results in a 0.69% and 0.26% reduction in the average final mobile and fixed service prices (respectively).¹⁰³³

Vodafone

17. Vodafone submitted that it does not believe that the Commission is correct about the need to cut rates to cost with such urgency. Vodafone argued that:¹⁰³⁴

¹⁰²⁸ NERA, *Review of Draft STD for MTAS*, 7 February 2011, p 12.

¹⁰²⁹ TelstraClear, *Submission on the Draft MTAS STD*, February 2011, p 5, paragraph 17.

¹⁰³⁰ TelstraClear, *Submission on the Draft MTAS STD*, February 2011, p 5, paragraph 20.

¹⁰³¹ TelstraClear, *Submission on the Draft MTAS STD*, February 2011, p 6, paragraph 22.

¹⁰³² Network Strategies, *Submission on the Draft MTAS STD*, 7 February 2011, p 5.

¹⁰³³ Network Strategies, *Submission on the Draft MTAS STD*, 7 February 2011, p 5.

¹⁰³⁴ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 20, paragraph 88.

18. 2degrees is having no trouble acquiring customers,
 [
] VNZAPI2
19. Previous Commission analysis, if correct, shows that a cut in mobile-to-mobile termination rates is necessary, but that the rate need not be directly cut to cost, because on-net prices are not that low relative to mobile-to-mobile termination rates.

Cross-submissions on the draft STD

Haucap and Lanigan

20. Haucap and Lanigan, on behalf of 2degrees, cross-submitted that there are two aspects associated with glide paths in Europe:¹⁰³⁵
 - glide paths are firstly used to bring down the entrants' MTR to the incumbents' MTR level; and
 - secondly, to reduce MTRs to an efficient cost level for all operators.
21. Haucap and Lanigan submitted that there are various reasons why immediate reductions to cost would maximise efficiency. Haucap and Lanigan submitted that an immediate reduction to cost-based rates would intensify competition immediately and generate the largest consumer surplus.¹⁰³⁶
22. Haucap and Lanigan further submitted that, in their view, the use of glide paths is not compatible with the general philosophy of bottleneck regulation. Haucap and Lanigan submitted that the general philosophy behind why and how bottlenecks are regulated is to set prices as if the market was competitive, and in a competitive market, incumbents are regularly not protected by any sort of glide path.¹⁰³⁷
23. Haucap and Lanigan noted that if an incumbent undertakes an investment which is devalued due to market entry, this is considered an entrepreneurial risk from which a firm should not be sheltered. They argued that if an entrant sets a low price, incumbents can usually not seek protection by asking the entrant to keep prices up for a while so as to allow the incumbent to adjust to the new situation.¹⁰³⁸

CallPlus and Kordia

24. In their cross-submission, CallPlus and Kordia stated that they agree with the Commission and 2degrees that a glide path would not be in the best interests of consumers and that the reduction is long overdue.¹⁰³⁹

¹⁰³⁵ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 9.

¹⁰³⁶ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 10.

¹⁰³⁷ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 10.

¹⁰³⁸ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 10.

¹⁰³⁹ CallPlus and Kordia, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 3.

Telecom

25. In its cross-submission, Telecom urged the Commission to consider the importance of implementing a glide path in order to minimise the disruption for both mobile customers and mobile network operators. Telecom noted that the Commission's original CBA suggested that both benefits and detriments would arise for some segments of mobile consumers, and for operators.¹⁰⁴⁰
26. Telecom argued that any significant change to MTRs, no matter how much notice operators may or may not have had, still needs to be implemented, and the effects on various market participants take time to become evident. Accordingly, Telecom submitted that a reasonable, but not extended, glide path would be appropriate for the Commission to implement.¹⁰⁴¹

Vodafone

27. In its cross-submission, Vodafone echoed Telecom's criticism of the Commission's proposal to provide no glide path for voice MTAS. Vodafone also agreed with Telecom's emphasis on Ofcom's recognition that the short term benefits of immediate reductions need to be balanced against the long term benefits arising from efficient investment incentives for existing and prospective network operators and service providers.¹⁰⁴²

Length of glide pathSubmissions on the draft STD*Telecom*

28. Telecom submitted that a glide path of one year between current MTRs and Telecom's suggested rate would allow an appropriate adjustment period for mobile operators, and minimise the impact on consumers. Telecom submitted that implementing a relatively short glide path to this target MTR would best meet the section 18 purpose of promoting competition for the long-term benefit of end-users.¹⁰⁴³
29. Telecom proposed two approaches to setting the glide path which it believes reflect a sensible trade off between the need to deliver significant regulatory changes quickly, and enabling businesses and markets to assimilate significant price changes:
 - make the 2011 rate the mid-point between the current regulated rate of about 18cpm and the target IPP rate for voice; or, alternatively
 - take as a starting point the view that parties could have expected some reductions in MTRs in 2011. The glide path rate for 2011 could then be the

¹⁰⁴⁰ Telecom, *Cross-submission on the Draft MTAS STD*, 24 February 2011, paragraph 31.

¹⁰⁴¹ Telecom, *Cross-submission on the Draft MTAS STD*, 24 February 2011, paragraph 31.

¹⁰⁴² Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 12, paragraphs 67-68.

¹⁰⁴³ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 103.

medium of the range of regulated outcomes for 2011 put forward by the Commission in its final Schedule 3 report (7.48cpm).¹⁰⁴⁴

Analysys Mason

30. Analysys Mason, on behalf of Vodafone, presented a summary of the different approaches taken by national regulatory authorities when setting mobile termination rates since they have been regulated. This included a benchmarking exercise comparing the total duration of the glide path and the average reduction per semester.
31. Analysys Mason made a number of observations regarding the approaches taken by other regulators, including:¹⁰⁴⁵
 - in some countries, mobile termination rates have been regulated for ten years but the price is not set at the TSLRIC yet, even if the regulator has its own cost model (i.e. it has greater certainty than can be achieved from a benchmarking approach);
 - in some countries, prices are based on TSLRIC but using the cost of a previous year. The reason is to try to ease the impact on the operators' businesses;
 - in some countries, prices were cost-based, but currently there is no information about how prices are calculated;
 - in several countries, consecutive glide paths have been set to regulate MTAS;
 - in some countries, the main purpose of glide paths is to set symmetry between operators;
 - some regulators are in favour of long glide paths;
 - in some countries, the NRA has waited for 11 years before forcing MTR to TSLRIC cost; and
 - some regulators highlighted the risk of setting low MTAS rates.
32. In benchmarking the length of glide paths, Analysys Mason noted that the minimum is Portugal with a glide path of 19 months, the maximum is the UK with five years, and the average is around three years.¹⁰⁴⁶

Covec

33. Covec, on behalf of Vodafone, submitted that it is standard practice for regulators to use a glide path when implementing regulated reductions in mobile termination rates. Covec benchmarked the way that regulators around the world have implemented glide paths, and concluded that the approach in the draft STD

¹⁰⁴⁴ Telecom, *Submission on the Draft MTAS STD*, 7 February 2011, paragraph 104.

¹⁰⁴⁵ Analysys Mason, *Draft standard terms determination analysis*, 4 February 2011, p 34-38.

¹⁰⁴⁶ Analysys Mason, *Draft standard terms determination analysis*, 4 February 2011, p 38.

is extreme compared with a wide range of countries and a wide variety of reasons for regulation.¹⁰⁴⁷

34. Given that the Commission is proposing in the draft STD to reduce termination rates by around 70%, Covec submitted that a more typical glide path profile would involve five equal drops in absolute terms over a period of about 2 ¾ years.¹⁰⁴⁸

Cross-submissions on the draft STD

Telecom

35. In its cross-submission, Telecom agreed with the comments from Analysys Mason on international practice by regulators in setting glide paths. Telecom noted that the glide path benchmarking carried out by Analysys Mason suggests an average of around three years with a range between 19 months and five years.¹⁰⁴⁹

Network Strategies

36. In its cross-submission, Network Strategies commented on Covec's glide path benchmarking. Network Strategies noted that in any benchmarking exercise it is crucial that the selected sample has characteristics in common with the target country.¹⁰⁵⁰
37. Network Strategies submitted that no attempt has been made in Covec's glide path benchmark sample to include only countries that faced similar market conditions at the time of implementing a glide path to the market conditions that prevail in New Zealand today. Network Strategies submitted that, at the very least Covec ought to have considered market share at the time of glide path commencement for any countries in its sample.¹⁰⁵¹
38. Furthermore, Network Strategies submitted that in a number of instances Covec has erroneously included 'glide paths' in its benchmarking that do not exist, which renders its results and conclusions unreliable.¹⁰⁵²
39. Network Strategies submitted that Covec has misrepresented the situation in Hungary with respect to glide paths, and that Australia is an inappropriate comparator for New Zealand in the context of benchmarking glide paths. Network Strategies also noted that Covec did not include Israel, Lithuania and Malaysia in its glide path benchmarking, and that neither Isreal nor Malaysia applied glide paths, while Lithuania applied a three year glide path.¹⁰⁵³
40. Accordingly, Network Strategies concluded that the results from the Covec glide path benchmarking are unreliable and as such should not be used as an indicator

¹⁰⁴⁷ Covec, *Mobile termination glide path benchmarking*, 7 February 2011, p 1.

¹⁰⁴⁸ Covec, *Mobile termination glide path benchmarking*, 7 February 2011, p 9.

¹⁰⁴⁹ Telecom, *Cross-submission on the Draft MTAS STD*, 24 February 2011, paragraph 27.

¹⁰⁵⁰ Network Strategies, *Cross-submission on the Draft MTAS STD*, 23 February 2011, p 15.

¹⁰⁵¹ Network Strategies, *Cross-submission on the Draft MTAS STD*, 23 February 2011, p 16.

¹⁰⁵² Network Strategies, *Cross-submission on the Draft MTAS STD*, 23 February 2011, p 16.

¹⁰⁵³ Network Strategies, *Cross-submission on the Draft MTAS STD*, 23 February 2011, p 16-18.

of typical overseas practice, or to inform the Commission's final decision on whether a glide path is appropriate for New Zealand.¹⁰⁵⁴

Additional comments prior to MTAS STD conference

Covec

41. Covec reviewed its benchmarking of mobile termination glide paths in light of comments made by Network Strategies on the treatment of some countries.¹⁰⁵⁵
42. Following the revisions made to the glide path benchmarking, Covec noted that compared to its original report the median total duration had reduced slightly from 1,001 days to 959 days (about 2.6 years). Covec also noted that based on the observed relationship between the number of drops on a glide path and the overall percentage change in the MTR, a 70% MTR reduction would correspond to five drops on the glide path.¹⁰⁵⁶

Glide path for FTM rates, but immediate reduction for MTM (and SMS)

Submissions on the draft STD

Vodafone

43. Vodafone submitted that the mobile-to-mobile and SMS termination rates should be cut to cost immediately, but that fixed-to-mobile termination rates should be reduced more gradually with a glide path down to cost.¹⁰⁵⁷
44. Vodafone submitted that a glide path down in fixed-to-mobile termination rates would better promote competition than the Commission's no glide path proposal. In particular, Vodafone argued that:¹⁰⁵⁸
 - the main benefit to end-users from reduced termination rates, according to the Commission, is to promote competition in the mobile market. Following the Commission's logic, this implies a need to cut mobile-to-mobile voice and perhaps SMS termination rates quickly;
 - the Commission's logic does not require such sharp or immediate reductions to fixed-to-mobile rates. The Commission has not looked at the impacts on a new entrant such as 2degrees from sharp reductions in fixed-to-mobile termination rates, but clearly it will promote competition in the mobile market if these rates reduce on a reasonable glide path over time, rather than having hundreds of millions of dollars immediately taken from operators' revenues and transferred to the fixed-line market;
 - there are other good reasons to use a glide path in reducing fixed-to-mobile rates. Immediate sharp cuts to fixed-to-mobile voice termination

¹⁰⁵⁴ Network Strategies, *Cross-submission on the Draft MTAS STD*, 23 February 2011, p 18.

¹⁰⁵⁵ Covec, *Updated mobile termination glide path benchmarking*, 1 March 2011, p 1.

¹⁰⁵⁶ Covec, *Updated mobile termination glide path benchmarking*, 1 March 2011, p 3.

¹⁰⁵⁷ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 2, paragraph 8.

¹⁰⁵⁸ Vodafone, *Submission on the Draft MTAS STD*, February 2011, p 6, paragraph 23.

rates could lead to negative competition impacts in the retail mobile market for customers who tend to receive more calls than they make; and

- there is no point in cutting fixed-to-mobile termination rates if those reductions will not be passed through into retail fixed prices anyway. International experience gives little cause for optimism on this score.

Cross-submissions on the draft STD

Telecom

45. In its cross-submission, Telecom agreed with Vodafone's statements regarding the potential for disruption for mobile customers and operators and that a glide path is required to manage these. However, Telecom disagreed with Vodafone's suggestion that the glide path should differ between MTM and FTM (rather than applying equally to all MTRs).¹⁰⁵⁹

NERA

46. NERA, on behalf of Telecom, noted that the basis for Vodafone's argument (that there should be a glide path for FTM but not MTM) appears to be that cutting FTM termination rates would result in a large transfer of revenues from mobile operators to fixed operators, assuming that fixed-operators do not pass through the full FTM rate reductions to final consumers.¹⁰⁶⁰
47. NERA submitted that the revenue Vodafone refers to is revenue that is currently "transferred" from fixed operators to mobile operators through an above cost FTM rate. Thus, NERA is of the view that reducing the FTM rate is simply unwinding a transfer that already occurs, rather than creating a new one.¹⁰⁶¹
48. NERA also submitted that Vodafone does not carry through the full logic of its arguments:¹⁰⁶²

"On Vodafone's argument, the transfer of revenues from mobile operators to fixed operators weakens competition in mobile markets, as the reduced rents in mobile soften competition in mobile. But on this same logic, if these rents are transferred to fixed operators, then this would strengthen competition in the fixed market. If margins increase in fixed due to the transfer that Vodafone is postulating, then on Vodafone's own logic competition in fixed would intensify, which would in turn increase the pass-through rate; and

On Vodafone's argument, the Commission should monitor pass-through in the fixed market. However, on the same logic the Commission should monitor pass-through in the mobile market, yet Vodafone does not promote this. There appears to be no good reason why pass-through of MTM rates is assumed to occur while pass-through of FTM rates is assumed not to occur."

49. NERA submitted that a related point is made by OFT, which argues that fixed and mobile markets are converging and thus symmetric treatment of FTM and MTM is desirable.¹⁰⁶³

¹⁰⁵⁹ Telecom, *Cross-submission on the Draft MTAS STD*, 24 February 2011, paragraph 26.

¹⁰⁶⁰ NERA, *Review of submissions on Draft STD for MTAS*, 24 February 2011, p 4.

¹⁰⁶¹ NERA, *Review of submissions on Draft STD for MTAS*, 24 February 2011, p 4.

¹⁰⁶² NERA, *Review of submissions on Draft STD for MTAS*, 24 February 2011, p 5.

50. Finally, NERA submitted that Vodafone does not address the risk of arbitrage if the FTM and MTM termination rates are different. NERA noted that this risk was acknowledged at the 2009 MTAS conference by Vodafone and its economic expert, Dr John Small, and that the failed experience of differential rates in France was also briefly discussed at the conference.¹⁰⁶⁴

2degrees

51. In its cross-submission, 2degrees stated that it agrees with Vodafone that the “actual issue” for the Commission to address is the high barriers to entry and expansion in the mobile market. 2degrees submitted that it is clear from Vodafone’s repeated calls for a fixed-to-mobile glide path that Vodafone’s main concern is to retain a fixed-to-mobile subsidy funded by fixed-line customers for as long as possible.¹⁰⁶⁵
52. 2degrees submitted that it is prepared to forego above-cost fixed-to-mobile subsidies in favour of the far greater benefits of a fully contestable mobile market.¹⁰⁶⁶
53. 2degrees submitted that Vodafone’s concern is that fixed-to-mobile termination rate reductions would not benefit fixed users, but instead fill Telecom’s coffers. 2degrees submitted that if current competition is unlikely to deliver consumer benefits then the market is clearly not sufficiently competitive, and non-discrimination of fixed-to-mobile calls (to correspond with the existing obligation in relation to fixed-to-fixed local calls) would contribute to increased competition.¹⁰⁶⁷

Haucap and Lanigan

54. In response to Vodafone’s argument that a large reduction in FTM termination rates will result in a change in arrangements for low-usage prepay customers (which will result in some customers disconnecting their service), Haucap and Lanigan, on behalf of 2degrees, noted that high mobile penetration is not of value per se if this is also due to artificial cross-subsidies from other mobile or fixed-line customers.¹⁰⁶⁸
55. Haucap and Lanigan argued that the fact that some mobile consumers may disconnect because they do not receive cross-subsidies any longer is not necessarily inefficient. Rather, Haucap and Lanigan stated that there are efficiencies to be gained from reducing the use of multiple handsets. Furthermore, Haucap and Lanigan noted that above-cost FTM rates lead to intermodal distortions between fixed-line and mobile telecommunications markets.¹⁰⁶⁹

¹⁰⁶³ NERA, *Review of submissions on Draft STD for MTAS*, 24 February 2011, p 5.

¹⁰⁶⁴ NERA, *Review of submissions on Draft STD for MTAS*, 24 February 2011, p 5.

¹⁰⁶⁵ 2degrees, *Cross-submission on Draft MTAS STD*, 24 February 2011, p 15, paragraphs 4.1-4.2.

¹⁰⁶⁶ 2degrees, *Cross-submission on Draft MTAS STD*, 24 February 2011, p 15, paragraph 4.5.

¹⁰⁶⁷ 2degrees, *Cross-submission on Draft MTAS STD*, 24 February 2011, p 15, paragraph 4.7.

¹⁰⁶⁸ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 11.

¹⁰⁶⁹ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 11.

56. Haucap and Lanigan submitted that to the extent that the Commission is concerned about the effects on low usage customers, then applying a glide path to only FTM is an alternate solution. Haucap and Lanigan stated that this would immediately work towards alleviating the barriers to entry and expansion in the mobile market that above-cost MTRs contribute to. However, Haucap and Lanigan noted that the trade-off in this approach is that fixed-line suppliers and their customers will not fully receive the benefits of cost-based MTRs until a later date, and there may be a distortion between fixed and mobile networks.¹⁰⁷⁰
57. Furthermore, Haucap and Lanigan submitted that another consideration is whether arbitrage will limit, or even eliminate, the ability to set differential (lower) rates for terminating MTM calls compared to FTM calls. However, Haucap and Lanigan stated that, based on their discussions with 2degrees, arbitrage between FTM and MTM calling is relatively easy to detect.¹⁰⁷¹

CallPlus and Kordia

58. In their cross-submission, CallPlus and Kordia stated that they would be particularly concerned if a glide path was introduced for FTM only. CallPlus and Kordia noted that the impact of an asymmetry of pricing between FTM and MTM, creating market distortions between substitutable services, was detailed in submissions back in 2009.¹⁰⁷²

TelstraClear

59. In its cross-submission, TelstraClear noted that Vodafone's proposal is to regulate for discrimination between fixed and mobile network operators in pricing of an identical service. TelstraClear submitted that there is no basis for this type of regulated discrimination, given that there is no difference between the services being offered to fixed and mobile operators and no difference in costs.¹⁰⁷³
60. TelstraClear also submitted that if it were true that fixed-line competition was ineffective as Vodafone claims, it is not clear how this would justify the continuation of above-cost termination pricing by MNOs. TelstraClear stated that Vodafone's argument seems to be that a lack of competition in one market somehow justifies above-cost pricing of bottleneck services in another market.¹⁰⁷⁴
61. TelstraClear submitted that, alternatively, Vodafone may be seeking to argue that profitable fixed-line operators are able to bear above-cost pricing for access to the mobile termination bottleneck, and therefore there is no need to reduce FTM termination rates. However, TelstraClear argued that this would be neither economically efficient nor fair, particularly given that fixed termination rates

¹⁰⁷⁰ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 11.

¹⁰⁷¹ Haucap and Lanigan, *Response to submissions on the Draft MTAS STD*, 24 February 2011, p 11.

¹⁰⁷² CallPlus and Kordia, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 3.

¹⁰⁷³ TelstraClear, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 2, paragraph 7.

¹⁰⁷⁴ TelstraClear, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 2, paragraph 8.

- (i.e. those payable by MNOs on fixed networks) are subject to cost-based price regulation.¹⁰⁷⁵
62. TelstraClear submitted that maintaining above-cost termination rates for FTM only would effectively mean that fixed-line operators would continue to subsidise mobile operators through above-cost pricing of access to the termination bottleneck. TelstraClear noted that this would be akin to the type of asymmetric regulation of termination rates that many regulators have rejected.¹⁰⁷⁶
 63. TelstraClear also submitted that Vodafone appears concerned that termination cost savings may not be fully “passed through” to end-user prices. However, TelstraClear submitted that the extent of pass-through by both fixed and mobile operators will depend on a range of factors on both the demand side and the supply side. In particular, TelstraClear noted that where mobile or fixed-line service providers offer multi-tiered or bundled pricing structures, there may be limited direct pass-through, as cost savings may be reflected in other components of the tariff bundle.¹⁰⁷⁷
 64. Furthermore, TelstraClear noted that to the extent that termination rates can be reduced to cost-reflective levels, this will create better conditions for entry and expansion in fixed-line markets, just as it will in mobile markets. TelstraClear submitted that if Vodafone is correct and fixed-line competition is indeed ineffective, then this only strengthens the case for an immediate reduction in FTM termination rates. TelstraClear stated that reducing FTM termination rates immediately will reduce barriers to entry and expansion in fixed-line markets and thus promote competition.¹⁰⁷⁸

Network Strategies

65. Network Strategies, on behalf of TelstraClear, cross-submitted that the Vodafone proposal basically suggests that fixed line subscribers should subsidise mobile businesses. Network Strategies noted that one of the main reasons for the European Commission’s concerns about the level of mobile termination rates was the competitive implications of rates that were four to five times above cost and about ten times higher than fixed termination rates. Network Strategies submitted that this effectively supported a wealth transfer from fixed operators, smaller mobile operators (due to traffic imbalances) and their customers to the large mobile operators. Network Strategies submitted that in the interests of allocative efficiency one customer group should not support another.¹⁰⁷⁹
66. Network Strategies further submitted that the introduction of cost-based termination rates should improve efficiency and stimulate innovation in the market. Network Strategies noted that termination rates based on an efficient

¹⁰⁷⁵ TelstraClear, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 2, paragraph 9.

¹⁰⁷⁶ TelstraClear, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 2, paragraph 9.

¹⁰⁷⁷ TelstraClear, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 3, paragraph 10.

¹⁰⁷⁸ TelstraClear, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 3, paragraph 11-12.

¹⁰⁷⁹ Network Strategies, *Cross-submission on the Draft MTAS STD*, 23 February 2011, p 13-14.

standard provide incentives to operators to improve efficiency, with the result that excessive profits will be removed and ultimately consumers will benefit.¹⁰⁸⁰

67. Network Strategies noted that the Vodafone proposal appears to seek to increase fixed operators' relative costs through setting differentiated (inefficient) wholesale rates over a relatively long time horizon, and that if this were to occur then it is likely that there would be an adverse effect on downstream competition.¹⁰⁸¹
68. In addition, Network Strategies submitted that Vodafone's concern for mobile retail customers who receive more calls than they make may be addressed by an immediate and across-the-board move to cost-based termination rates. Network Strategies noted that one of the main reasons for the relatively low levels of mobile voice traffic per subscriber in New Zealand is the perceived high retail tariff structure, and that removing the barriers caused by non cost-based mobile termination rates should lead to a situation in which mobile retail customers will place more calls.¹⁰⁸²
69. With respect to pass-through, Network Strategies submitted that Vodafone has produced no compelling evidence to support its claim that there will be no pass through from reduced mobile termination rates to retail fixed rates.¹⁰⁸³
70. Accordingly, Network Strategies submitted that there are no compelling arguments to support Vodafone's glide path proposal, and in the event that the Commission considers a staged introduction of cost-based termination rates, there should be no discrimination between fixed-to-mobile and mobile-to-mobile paths.¹⁰⁸⁴

Vodafone

71. In its cross-submission, Vodafone stated that the Commission has yet to show how penalising mobile operators with sharp cuts in fixed-to-mobile termination rates could have any other effect than reducing mobile competition and investment. Vodafone stated that its proposal for a three-year glide path for fixed-to-mobile rates would allow the Commission to:¹⁰⁸⁵
 - get a better read on what mobile voice termination costs actually are;
 - see whether fixed line customers who call mobiles benefit as it predicts;
 - monitor the extent to which any detriments to mobile customers emerge; and
 - make adjustments if required.

¹⁰⁸⁰ Network Strategies, *Cross-submission on the Draft MTAS STD*, 23 February 2011, p 14.

¹⁰⁸¹ Network Strategies, *Cross-submission on the Draft MTAS STD*, 23 February 2011, p 14.

¹⁰⁸² Network Strategies, *Cross-submission on the Draft MTAS STD*, 23 February 2011, p 14.

¹⁰⁸³ Network Strategies, *Cross-submission on the Draft MTAS STD*, 23 February 2011, p 14.

¹⁰⁸⁴ Network Strategies, *Cross-submission on the Draft MTAS STD*, 23 February 2011, p 15.

¹⁰⁸⁵ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 12, paragraphs 69-70.

72. Vodafone submitted that there could be a material reduction in mobile competition from sharp reductions in fixed-to-mobile rates. Vodafone noted that there are a very large number of mobile customers today who mostly or exclusively receive calls, and the economics of competing for these customers for all mobile operators will change sharply if fixed-to-mobile termination rates are radically cut.¹⁰⁸⁶
73. Vodafone submitted that it is because of these mobile customer detriments, and the uncertainty about how much of the reduction in termination rates that fixed operators like TelstraClear will pass through to fixed customers who call mobiles that it has proposed a glide path for fixed-to-mobile termination rates. Vodafone noted that Telstra passed through to customers as little as 25% of the reductions in termination rates in Australia, according to the Australian regulator.¹⁰⁸⁷
74. Vodafone submitted that it does not think that its proposal will cause significant problems in practice because:¹⁰⁸⁸
- Vodafone has been operating with [] VAPI 2 / 2DAPI 2 in its commercial agreement with 2degrees since September 2008. This has not caused any practical billing issues.
 - Most access seekers only have fixed-to-mobile traffic, so there is no practical problem distinguishing traffic. In addition, for each mobile operator there are only two access seekers that might have both mobile-to-mobile and fixed-to-mobile traffic eg for Vodafone as Access Provider, this would be Telecom Mobile and 2degrees, and 2degrees does not currently offer retail fixed-to-mobile calling.
 - Vodafone currently has [] VNZRI.
 - The divergence is for only three years and is on a fixed track with the divergence shrinking over time.
 - There are some protections against traffic manipulation. Clause 2.1 of Sub-schedule 4C of the draft STD provides that the Access Seeker shall “provide unaltered numbering information (including A-number) to the Access Provider”.

Additional comments prior to MTAS STD conference

Telecom

75. Telecom reiterated its strong belief that some form of glide path is necessary and important to smooth the effects of the proposed regulation for operators and end-

¹⁰⁸⁶ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 13, paragraph 73.

¹⁰⁸⁷ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 13, paragraphs 74.

¹⁰⁸⁸ Vodafone, *Cross-submission on the Draft MTAS STD*, 24 February 2011, p 13-14, paragraph 75.

users. Telecom stated that this view reflects international best practice and is supported by a number of regulators across the OECD.¹⁰⁸⁹

76. However, Telecom stated that its view remains that asymmetries are typically unhelpful in interconnection-based network industries such as telecommunications. Telecom noted that the past performance of interconnection markets has repeatedly shown that where there are significant asymmetries in pricing, arbitrage opportunities will arise and markets will be distorted. Telecom pointed to the French example of differential MTRs as an example.¹⁰⁹⁰

2degrees

77. 2degrees reiterated its cross-submission on the draft STD that there is no basis for a glide-path for the incumbent mobile networks. 2degrees noted that this would merely continue their subsidy long after any justification has fallen away. 2degrees argued that there are only grounds for a glide path to be applied to a new entrant.¹⁰⁹¹
78. Accordingly, 2degrees stated that it objects to any differential between any fixed-to-mobile and mobile-to-mobile glide path applied by the Commission. However, 2degrees stated that if the Commission is minded to impose a glide-path it can see no basis for setting different glide paths for fixed-to-mobile and mobile-to-mobile other than if the Commission determines BAK pricing for mobile-to-mobile and cost-based pricing (benchmarking) for fixed-to-mobile termination.¹⁰⁹²
79. 2degrees argued that setting a differential on any other basis would be arbitrary and that it is not aware of circumstances where such a differential has been imposed by any other national regulatory authority.¹⁰⁹³
80. However, 2degrees stated that if the Commission was minded to impose different glide paths for fixed-to-mobile and mobile-to-mobile termination (or BAK for mobile-to-mobile) it does not consider there would be material difficulty in monitoring the implementation of each glide path.¹⁰⁹⁴

¹⁰⁸⁹ Telecom, *Letter re additional information and comments requested prior to MTAS STD conference*, 2 March 2010, p 2.

¹⁰⁹⁰ Telecom, *Letter re additional information and comments requested prior to MTAS STD conference*, 2 March 2010, p 2.

¹⁰⁹¹ 2degrees, *Request for additional information and further comments prior to MTAS STD Conference*, 2 March 2011, p 4, paragraph 30.

¹⁰⁹² 2degrees, *Request for additional information and further comments prior to MTAS STD Conference*, 2 March 2011, p 4, paragraphs 31-32.

¹⁰⁹³ 2degrees, *Request for additional information and further comments prior to MTAS STD Conference*, 2 March 2011, p 4, paragraph 33.

¹⁰⁹⁴ 2degrees, *Request for additional information and further comments prior to MTAS STD Conference*, 2 March 2011, p 4, paragraph 34.

81. 2degrees noted that A-number manipulation is already prohibited under the draft STD and where manipulation is suspected by an MNO the veracity of the presented A-number can be relatively easily tested.¹⁰⁹⁵

TelstraClear and Network Strategies

82. TelstraClear stated that the Commission has yet to propose a draft position on how it would approach differential glide paths for fixed-to-mobile calls compared to mobile-to-mobile calls, and it is difficult to propose options when no precedent exists. Accordingly, TelstraClear requested that if the Commission does proceed with differential glide paths, it consults with interested parties on its draft position.¹⁰⁹⁶
83. Network Strategies, on behalf of TelstraClear, noted that it had already stated in its cross-submission on the draft STD that there do not appear to be compelling reasons for the Commission to adopt a differential glide path for fixed-to-mobile and mobile-to-mobile calls.¹⁰⁹⁷
84. However, Network Strategies stated that should the Commission decide to implement differential glide paths, the actual quantum of the differential will depend crucially on the Commission's reason or reasons for adopting the decision. Network Strategies stated that in the absence of this reasoning it is difficult to advise on an appropriate methodology for implementation.¹⁰⁹⁸

Vodafone

85. Vodafone stated that its proposed glide path for the fixed-to-mobile MTR (as set out in its submission) is based on international benchmarking of glide paths used in other countries. Vodafone has proposed that the fixed-to-mobile MTR fall from the current rate of 17.7 cpm (on a second + second equivalent basis) to a cost estimate of 5.5 cpm by 1 April 2014, starting with a 5.7 cpm reduction on 1 April 2011.¹⁰⁹⁹
86. Vodafone noted that its proposed glide path is very similar to the median of Covec's glide path benchmarking, and is of very similar duration to the glide paths used in the UK, Denmark, Australia, Lithuania, Sweden and France.¹¹⁰⁰

¹⁰⁹⁵ 2degrees, *Request for additional information and further comments prior to MTAS STD Conference*, 2 March 2011, p 4, paragraph 35.

¹⁰⁹⁶ TelstraClear, *Mobile Termination STD – additional information*, 3 March 2011, paragraph 5.

¹⁰⁹⁷ Network Strategies, *Additional information for MTAS STD*, 2 March 2011, p 4.

¹⁰⁹⁸ Network Strategies, *Additional information for MTAS STD*, 2 March 2011, p 4-5.

¹⁰⁹⁹ Vodafone, *Comments on MTAS implementation issues*, 2 March 2011, p 9, paragraph 60.

¹¹⁰⁰ Vodafone, *Comments on MTAS implementation issues*, 2 March 2011, p 9, paragraph 62.

APPENDIX 8: SUMMARY OF SUBMISSIONS ON SERVICE DESCRIPTION ISSUES

Introduction

1. This Appendix summarises the Commission's preliminary views and issues in submissions in relation to the service descriptions for the MTAS STD, as set out in Section B of the draft MTAS STD and Annexes 1 to 3 to Schedule 1 to the Mobile Termination Access General Terms.

Preliminary view on service description matters

2. The Commission's preliminary views on service description matters in the draft MTAS STD were that:¹¹⁰¹
 1. it was appropriate to retain separate service descriptions for the FTM service and the MTM service, as these services may be purchased by different Access Seekers, although in practice the same pricing principle is applied to these two services in this draft STD decision;
 2. internationally-originated VOIP calls are (and should be) covered by the FTM service description, given that the definition of FTM Call includes:
 3. voice-over-Internet-protocol-originated voice calls (**VOIP calls**);¹¹⁰² and
 4. internationally-originated voice calls (**IO calls**), that originate "... in a network outside New Zealand from either a local or geographic number or a mobile number ...";¹¹⁰³ and
 5. a charging basis of second + second charging, with all calls being subject to a charge, including calls with a duration of two seconds or less, was appropriate for both FTM and MTM calls;
 6. domestic transit should be excluded from the MTAS services, and the MTAS service should apply only from the point where a FTM call is handed over to an Access Provider for termination on the Access Provider's network at a designated MSC. However, transited calls and SMS' (whether transited by the Access Provider or another party) should not be excluded from the definition of FTM or MTM calls or SMS', so that an Access Seeker could obtain the benefit of the terms of the MTAS STD, including price, even where transit services were commercially provided; and
 7. calls made by inbound roamer and internationally-originated VOIP should be included within the definition of MTM calls; and

¹¹⁰¹ *Draft MTAS STD*, pages 9 – 11, paragraphs 24-25 and 29-30, page 12, paragraphs 37-19, and page 13, paragraphs 44-45.

¹¹⁰² *Annex 1 to Schedule 1 to the draft Mobile Termination Access General Terms*, page 73, clause 1.

¹¹⁰³ *Annex 1 to Schedule 1 to the draft Mobile Termination Access General Terms*, page 74, clause 1.

8. web-to-text SMS messages were outside the scope of the SMS service description in the Act, unless the SMS originates from a “...cellular mobile telephone network”

FTM service description (including FTM transit)

Submissions

Vodafone

3. Vodafone submitted that drafting changes to the FTM service description were appropriate, to provide for this service to cover:¹¹⁰⁴
 - FTM calls including Access Seeker transit;
 - international mobile (ITM) calls;
 - inbound roamers calls;
 - transit MTM calls; and
 - VOIP calls.
4. However, Vodafone submitted that it did not agree that ITM and inbound roamers calls should be included in the scope of FTM calls (as discussed below).¹¹⁰⁵
5. Vodafone submitted that neither Access Provider transit nor transit by third parties should be included in the FTM service description. Each of the transit services described by Vodafone are billed according to a cascade principle, where each party bills the party that handed over the call to them, with the Access Provider billing the party that hands the call over to them.¹¹⁰⁶ Only Access Seeker transit should be included in the scope of the FTM service description.¹¹⁰⁷
6. Vodafone differentiated transit from “transport”, which involves two networks and may involve the party providing the transport service also terminating the call, whereas transit does not involve the party providing the transit service also terminating the call.¹¹⁰⁸

Telecom

7. Telecom submitted that it supported the Commission’s position that Access Providers do not have to offer national transport as part of the MTAS but may separately provide and charge for a commercial transport service if a FTM call is

¹¹⁰⁴ Vodafone submission on the draft MTAS STD pages 56-57, paragraphs 240-243.

¹¹⁰⁵ Vodafone submission on the draft MTAS STD page 57, paragraph 242 and pages 64-67, paragraphs 275-292.

¹¹⁰⁶ Vodafone submission on the draft MTAS STD pages 57-59, paragraphs 245-249, pages 60-61, paragraphs 255-257 and page 62, paragraph 261.

¹¹⁰⁷ Vodafone submission on the draft MTAS STD pages 61-62, paragraph 258-260.

¹¹⁰⁸ Vodafone submission on the draft MTAS STD pages 59-60, paragraphs 250-254.

not handed over at a Handover Point. Telecom stated that its previous comments on the estimated savings of transport costs may have been unclearly presented and the 0.47cpm figure was a weighted average price, not reflective of the actual transport charge. Telecom considers that the transport market is highly competitive and the Commission would not need to monitor it.¹¹⁰⁹

8. Telecom also submitted that a third party operator should be required to have an interconnection agreement with an Access Provider or be an Access Seeker itself in order to handover another Access Seeker's traffic.¹¹¹⁰

2degrees

9. 2degrees submitted that references to transit traffic should be deleted as they are outside the scope of the service and the Access Provider should not be dictating Access Seeker's relationships with other 3rd parties.¹¹¹¹

CallPlus and Kordia

10. CallPlus and Kordia submitted that the inclusion of transited traffic in the service descriptions is appropriate as this traffic is a "core component of the wholesale market and a fundamental part of interconnection – both domestically and internationally." Including these services allows for carriers that do not wish to invest in their own interconnection or points of presence to access the MTAS, increasing competition and allowing for leverage of assets by medium size carriers such as CallPlus and Kordia. CallPlus and Kordia consider that origination and technology make no difference to the cost of termination and the MTAS is limited to the termination leg. CallPlus and Kordia proposed drafting changes to include transited traffic in the MTAS STD.¹¹¹²

TelstraClear

11. TelstraClear supported the Commission's exclusion of transit from the service description, considering that transit is competitively supplied and it would be inappropriate to 'tie' it to the termination bottleneck. TelstraClear stated that transit is commonly included in the service description for MTAS in a number of the Commission's benchmarked countries and proposed that the costs of transit should be excluded from the benchmark or otherwise taken into account in the benchmarking exercise.¹¹¹³

¹¹⁰⁹ Telecom submission on the draft MTAS STD page 37, paragraphs 127-129.

¹¹¹⁰ Telecom submission on the draft MTAS STD page 39, drafting comment on clause 21.6.2 of the Mobile Termination Access General Terms.

¹¹¹¹ 2degrees comments on draft MTAS General Terms page 3, drafting comment on Subschedule 4C of the Mobile Termination Access General Terms.

¹¹¹² CallPlus and Kordia submission on the draft MTAS STD pages 8-9, section i.

¹¹¹³ TelstraClear submission on the draft MTAS STD pages 1 and 8-9, paragraphs 29-34. The impact on benchmarks is discussed further in Appendix xx.

Cross-submissions

2degrees

12. 2degrees cross-submitted that it did not agree to Vodafone's proposal that calls from foreign visitors roaming in New Zealand should be moved from the definition of MTM Call to FTM Call, stating that Vodafone's arguments that this change was justified based on reciprocity grounds "do not consider the fact that these services are offered on a reciprocal basis."¹¹¹⁴

CallPlus and Kordia

13. CallPlus and Kordia cross-submitted that they supported Vodafone's general proposition that Access Seeker transit should be included in the service description and other forms of transit should not. However, they disagreed with the proposal to limit Access Seeker transit to domestically originated transit and with the exclusion from the definition of MTM, so that all transit would be included in the definition of FTM. Rather, they considered that references to Access Seeker transit should be included "where it makes logical sense based on the service definitions and pricing determined by the Commission."¹¹¹⁵

Telecom

14. Telecom cross-submitted that it agreed with Vodafone's descriptions of transit and transport services, and supported Vodafone's assessment that only Access Seeker transit should be included in the MTAS regulated service.¹¹¹⁶

Vodafone

15. Vodafone cross-submitted that changes proposed to the service description by Callplus and Kordia and 2degrees were redundant if Vodafone's proposed approach to transit and transport was adopted. In addition, Vodafone considered that their drafting highlighted conceptual flaws with the proposed changes from those parties.¹¹¹⁷

Outcome of the pre-Conference workshop

16. At the 11 March 2011 Workshop there was general agreement that the FTM service should not include transit or transport services. Parties also indicated that commercially agreed prices would be expected to reflect any change in the MTAS STD price.

¹¹¹⁴ 2degrees cross-submission on the draft MTAS STD, page 26, paragraphs 7.5 and 7.6, comment on clauses 1.6, 1.11 and 1.14 of the MTAS General Terms, and page 29, comment on Annex 1, Schedule 3, clause 1, definition of FTM Call.

¹¹¹⁵ CallPlus and Kordia cross-submission on the draft MTAS STD page 6, section (e).

¹¹¹⁶ Telecom cross-submission on the draft MTAS STD page 9, paragraph 35.

¹¹¹⁷ Vodafone cross-submission on the draft MTAS STD pages 38-39, paragraphs 197-198.

Origination leg definitions

Submissions

CallPlus and Kordia

17. CallPlus and Kordia submitted that, given the identical pricing for the FTM and MTM services, there is no reason to retain any concept of origination in the service definition, and that origination matters have no bearing on the cost of terminating a call. CallPlus and Kordia submitted that all internationally originated traffic should be included in the STD service, and that there should be no artificial differentiation by origination, whether by geography, technology or network of origination, proposing the removal of references to origination or drafting changes to ensure all call origination types are covered in the service descriptions.¹¹¹⁸

Cross-submissions

CallPlus and Kordia

18. CallPlus and Kordia cross-submitted that they did not agree with Vodafone's changes to the definition of FTM Call, given their view that there should be a simplification of the definition as the "origination point, the origination technology and the origination network have no bearing on the cost of terminating the call." They also cross-submitted that references in Vodafone's drafting of the definition of FTM Call to A-numbers would have the effect of narrowing the application of the regulated price and should be removed, and that their simplified approach to the definitions should be adopted.¹¹¹⁹

Telecom

19. Telecom cross-submitted that while they agreed with the principle behind CallPlus and Kordia's submission that there was no need to retain the concept of origination where the price of FTM and MTM was the same, they considered the distinction was required to give effect to the treatment of Access Seeker transit.¹¹²⁰

Vodafone

20. Vodafone cross-submitted that CallPlus and Kordia's proposed changes, to either remove origination references or to include reference to origination from different specified numbers, were neither helpful or workable. They reiterated that their proposed drafting provided greater clarity and specificity than CallPlus and Kordia's proposed changes.¹¹²¹

¹¹¹⁸ CallPlus and Kordia submission on the draft MTAS STD pages 9-11, section j.

¹¹¹⁹ CallPlus and Kordia cross-submission on the draft MTAS STD page 6, section (f).

¹¹²⁰ Telecom cross-submission on the draft MTAS STD page 10, paragraph 37.

¹¹²¹ Vodafone cross-submission on the draft MTAS STD pages 38-39, paragraph 198.

MTM transit

Submissions

CallPlus and Kordia

21. CallPlus and Kordia's submission that the inclusion of transited traffic in the service descriptions is appropriate, discussed in paragraph 10 above, applies also to MTM transit.¹¹²²

Vodafone

22. Vodafone submitted that transited calls, whether FTM or MTM, should be included in the FTM service description only, in order to allow for a workable MTM service description should BAK be applied to MTM in the future, as transit traffic will not be balanced between parties.¹¹²³ Transit traffic imbalance for MTM could arise where the reply path of a transited call does not pass through an Access Seekers network or come within the scope of the MTAS.¹¹²⁴ If the Commission chooses to retain MTM transited calls within the scope of the MTM service description, then Vodafone requested that the Commission "acknowledge it is necessary to revisit the terms of the service description for MTM as part of any move away from cost-based pricing to BAK or in any scenario where different FTM and MTM rates may apply."¹¹²⁵

Cross-submissions

Telecom

23. Telecom cross-submitted that the concept of MTM transit, where not covered by the drafting proposed by Vodafone, should not be included in the regulated MTAS service.¹¹²⁶

Vodafone

24. Vodafone cross-submitted that 2degrees drafting amendments to the definition of MTM call were inappropriate and that the MTM service should be kept free from transit for conceptual reasons and to ensure reciprocity.¹¹²⁷
25. Vodafone also cross-submitted that CallPlus and Kordia's suggested changes to the definition of MTM call were inappropriate, as the MTM service should cover direct interconnection arrangements only.¹¹²⁸

¹¹²² CallPlus and Kordia submission on the draft MTAS STD pages 8-9, section i.

¹¹²³ Vodafone submission on the draft MTAS STD page 62, paragraph 262.

¹¹²⁴ Vodafone submission on the draft MTAS STD page 62-64, paragraph 264-273.

¹¹²⁵ Vodafone submission on the draft MTAS STD page 64, paragraph 274.

¹¹²⁶ Telecom cross-submission on the draft MTAS STD page 10, paragraph 38.

¹¹²⁷ Vodafone cross-submission on the draft MTAS STD page 39, paragraph 198.

¹¹²⁸ Vodafone cross-submission on the draft MTAS STD page 39, paragraph 198.

Outcome of the pre-Conference workshop

26. As discussed in paragraph 16 above, at the 11 March 2011 Workshop there was general agreement that the MTAS STD should not include transit or transport services. This includes MTM transit.

Calls from inbound roammers and ITM*Submissions*Vodafone

27. Vodafone submitted that inbound roammers (callers from overseas who are roaming on an Access Seekers network) should be excluded from the scope of MTM calls. Vodafone considered that these calls fall outside the scope of the MTAS service description and including them would be not serve the long term benefits of end users in New Zealand. Vodafone does not believe there is evidence of benefits suggested by the Commission of Access Seekers being able to better negotiate overseas roaming arrangements for their own customers and stated that the Commission needed to demonstrate these benefits.¹¹²⁹
28. Vodafone also submitted that ITM calls should not be regulated as doing so will not confer any benefits on New Zealand end users.¹¹³⁰
29. If the Commission chooses to retain inbound roaming and ITM calls within the scope of the MTAS, then Vodafone submitted that these calls should be included in the FTM service description. Vodafone stated that an Access Provider would not be able to distinguish between these calls, as the home network number is used as the identifier, and the reply path is always direct to the home network.¹¹³¹

2degrees

30. 2degrees submitted that the reference to international inbound roammers in clause 1.11 of the MTAS General Terms is inconsistent with other descriptions of such users in the draft MTAS General Terms and proposed a drafting change to make such references consistent.¹¹³²

*Cross-submissions*2degrees

31. As noted in paragraph 12 above, 2degrees cross-submitted that it did not agree to Vodafone's proposal that calls from foreign visitors roaming in New Zealand should be moved from the definition of MTM Call to the definition of FTM Call.

¹¹²⁹ Vodafone submission on the draft MTAS STD pages 64-65, paragraphs 276-283.

¹¹³⁰ Vodafone submission on the draft MTAS STD page 66, paragraph 284.

¹¹³¹ Vodafone submission on the draft MTAS STD pages 66-67, paragraphs 285-291.

¹¹³² 2degrees comments on draft MTAS General Terms page1, drafting comment on clause 1.11.

CallPlus and Kordia

32. CallPlus and Kordia cross-submitted that they did not agree with Vodafone's view that ITM calls should not be regulated, stating that there were a range of benefits to New Zealand end-users from regulating these calls, including encouraging facilities-based competition beyond mobile services, and fostering wholesale and retail competition.¹¹³³

Telecom

33. Telecom cross-submitted that they accepted that ITM and inbound roaming calls should be included within the regulated service.¹¹³⁴

Toll-free origination*Submissions***Vodafone**

34. Vodafone submitted that a consequential change should be made to clauses 1.6 and 1.14.3 of the MTAS General Terms to remove wording intended to cover toll-free origination, which is not relevant to the MTAS.¹¹³⁵

International VOIP calls*Submissions***Vodafone**

35. Vodafone submitted that an amendment was needed to the drafting regarding internationally originated VOIP calls, and that these needed to have a valid A-number to be included in the FTM service description.¹¹³⁶

*Cross-submissions***CallPlus and Kordia**

36. CallPlus and Kordia cross-submitted that they agreed with the Commission's inclusion of International VOIP Calls and Vodafone's submission, however, were concerned that Vodafone's drafting "inappropriately narrows the application of the origination leg of a VOIP call." They cross-submitted that the Commission should adopt their simplified definition of FTM Call to respond to this.¹¹³⁷

¹¹³³ CallPlus and Kordia cross-submission on the draft MTAS STD page 5, section (d).

¹¹³⁴ Telecom cross-submission on the draft MTAS STD page 11, paragraph 41.

¹¹³⁵ Vodafone submission on the draft MTAS STD pages 67, paragraph 292.

¹¹³⁶ Vodafone submission on the draft MTAS STD pages 67-68, paragraphs 294-296.

¹¹³⁷ CallPlus and Kordia cross-submission on the draft MTAS STD page 7, section (h).

Identification of FTM and MTM calls

Submissions

Vodafone

37. Vodafone supported the Commission’s addition of provisions requiring that Access Seekers identify FTM and MTM calls from other calls when those are handed over to an Access Provider, and proposed a drafting change requiring the means of identification to be agreed between the Access Seeker and Access Provider.¹¹³⁸

SMS service description

Submissions

Vodafone

38. Vodafone submitted that web-to-text SMS should be excluded from the SMS service description. Alternatively the SMS service description should only include web-to-text SMS with an associated reply path within the SMS service description, given the BAK pricing principle proposed by the Commission, as otherwise traffic would not be balanced.¹¹³⁹

2degrees

39. 2degrees submitted that “machine to machine” or “machine to man” (**M2M**) messages should not be part of the scope of the SMS service description and proposed drafting changes to exclude these messages.¹¹⁴⁰

CallPlus and Kordia

40. CallPlus and Kordia submitted that there is no reason to retain any concept of origination in the service definition for the SMS, and that origination matters have no bearing on the cost of terminating a SMS. CallPlus and Kordia submitted that the allowable web-to-text services are unclear, proposing drafting changes to simplify and clarify the origination position related to web-to-text.¹¹⁴¹

InternetNZ

41. InternetNZ submitted that “On the face of it, the Commission’s interpretation of the service description regarding web-to-text originated SMS is correct, although InternetNZ would prefer to see such messages included were this possible.”¹¹⁴²

¹¹³⁸ Vodafone submission on the draft MTAS STD pages 68-69, paragraphs 297-301.

¹¹³⁹ Vodafone submission on the draft MTAS STD pages 69-70, paragraphs 302-305.

¹¹⁴⁰ 2degrees comments on draft MTAS General Terms pages 2-3, drafting comment on definition of “Other Message” in Annex 3 to Schedule 3 of the Mobile Termination Access General Terms.

¹¹⁴¹ CallPlus and Kordia submission on the draft MTAS STD page 11, section k.

¹¹⁴² InternetNZ submission on the draft MTAS STD page 2, paragraph 17.

Cross-submissions

Telecom

42. Telecom cross-submitted that it was unclear when web-to-text SMS was covered by the service description, and that they supported Vodafone's submission that the SMS definition should be limited to the use of SMS functionality on a mobile handset. They also supported 2degrees' submission that M2M messages should be excluded from the scope of the SMS definition. However, Telecom also cross-submitted that they were not opposed to web-to-text being within the scope of the regulated service, so long the potential for spam issues had been resolved.¹¹⁴³

Vodafone

43. Vodafone cross-submitted that it supported 2degrees proposed amendments to clarify that M2M messages should be excluded from the SMS service description, as only person to person messages should be covered.¹¹⁴⁴
44. Vodafone also cross-submitted that it did not agree with CallPlus and Kordia's proposed amendments to allow for SMS termination where origination had not occurred on a cellular mobile network, as this was inconsistent with the service description in the Act and would mean the SMS service was not a reciprocal one.¹¹⁴⁵

SMS transit

Submissions

CallPlus and Kordia

45. CallPlus and Kordia's submission that the inclusion of transited traffic in the service descriptions is appropriate, discussed in paragraph 10 above, applies also to SMS transit.¹¹⁴⁶

Vodafone

46. Vodafone submitted that third party transit of SMS should be outside the scope of the MTAS and provided on commercial terms where the Access Seeker pays its transit provider.¹¹⁴⁷

Telecom

47. Telecom submitted that a third party operator should be required to have an interconnection agreement with an Access Provider or be an Access Seeker itself in order to handover another Access Seeker's traffic.¹¹⁴⁸

¹¹⁴³ Telecom cross-submission on the draft MTAS STD page 11, paragraphs 39-40.

¹¹⁴⁴ Vodafone cross-submission on the draft MTAS STD pages 46-47, paragraph 237.

¹¹⁴⁵ Vodafone cross-submission on the draft MTAS STD page 47, paragraph 238 and page 48, paragraph 244.

¹¹⁴⁶ CallPlus and Kordia submission on the draft MTAS STD pages 8-9, section i.

¹¹⁴⁷ Vodafone submission on the draft MTAS STD page 70, paragraphs 306-308.

*Cross-submissions*Vodafone

48. Vodafone cross-submitted, in response to 2degrees drafting amendments to clauses regarding SMS transit and CallPlus and Kordia's proposed changes to allow for the SMS service to include transit, that the SMS service should be kept free from transit, in particular to protect against the risk of domestic SMS traffic tromboning internationally.¹¹⁴⁹

Outcome of the pre-Conference workshop

49. As discussed in paragraph 16 above, at the 11 March 2011 Workshop there was general agreement that the MTAS STD should not include transit or transport services. This includes SMS transit.

¹¹⁴⁸ Telecom submission on the draft MTAS STD page 39, drafting comment on clause 5.9, Annex 3, Schedule 3 of the Mobile Termination Access General Terms.

¹¹⁴⁹ Vodafone cross-submission on the draft MTAS STD page 39, paragraph 198 and pages 47-48, paragraphs 240-244.

APPENDIX 9: SUMMARY OF SUBMISSIONS ON OTHER ISSUES, INCLUDING SUNDRY CHARGES AND NON-PRICE TERMS

Purpose

1. This Appendix summarises the Commission's preliminary views and issues in submissions in relation to other issues, including sundry charges and non-price terms.

Sundry Charges – Set up costs

Summary of the Commission's preliminary views.

2. In the draft MTAS STD, the Commission's preliminary view was that for standard set-up arrangements no charge or a nominal fixed charge was appropriate. However, the Commission requested information from Access Providers regarding set up charges that they have previously quoted or charged Access Seekers for services similar to MTAS services.¹¹⁵⁰
3. The Commission's preliminary view was that where an Access Seeker requests a non-standard set-up, the Access Seeker should pay the reasonable costs of any changes to the Access Provider's systems. Otherwise, the Access Provider should pay for standard set-up costs. To ensure transparency over these costs, the Commission added provisions for a price on application approach to the draft MTAS STD General Terms and Price List.¹¹⁵¹
4. The Commission's preliminary view was that the price and cost-sharing terms of the STP are appropriate in relation to the provisioning of uni-directional and bi-directional links, as these reflect cost-causation in the case of uni-directional links and negotiated cost sharing for bi-directional links.¹¹⁵²
5. The Commission's preliminary view was that there should be an obligation for the party responsible for connecting the link to do so within 20 working days, reflecting the timeframe provided for decommissioning a link.¹¹⁵³

Submissions

Whether set-up costs can be standardised

6. Telecom submitted that the Commission's changes to set-up cost provisions 'introduce a lack of transparency regarding the quantification of which entity pays for set-up costs'. It maintained that it 'is likely that all set-ups will arguably be non-standard' and that contention would ensue over what constitutes a reasonable charge for set up. Telecom suggested that a price on application approach (POA) that reflected underlying costs would provide adequate

¹¹⁵⁰ Draft MTAS STD Decision p50, para 244.

¹¹⁵¹ ibid para 245.

¹¹⁵² ibid para 246.

¹¹⁵³ ibid para 247.

protection for the Access Seeker.¹¹⁵⁴ Telecom indicated that set-up costs are in the range \$30,000-\$40,000.¹¹⁵⁵

7. CallPlus/Kordia cross-submitted that they did not agree with Telecom's and Vodafone's arguments that all set up costs are non-standard, maintaining that there are components of all set-ups that are common and for this reason they supported the Commission's approach.¹¹⁵⁶
8. Vodafone cross-submitted that it agreed with Telecom that set-ups are not standard, and that reasonable set-up costs should be borne by the Access Seeker. Vodafone also indicated support for Telecom's recommendation of a POA approach to set-up costs.¹¹⁵⁷
9. At the 11 March 2011 Workshop CallPlus indicated that certainty over the costs of set-up, reduction in build delay, and elimination of barriers in relation to set-up were important to it. It considered that POA combined with provision for build set-up to progress pending the outcome of the dispute resolution process, and that a provision for repayment of any overpayment to the Access Seeker following the outcome of the process, would be acceptable to it.

Allocation of set-up costs between Access Provider and Access Seeker

10. CallPlus/Kordia indicated that they supported the concept of dividing set up costs into the 'generic' costs of establishing the MTAS service to be met by the Access Provider, and set up costs unique and specific to the requirements of the Access Seeker to be met by the Access Seeker. However, CallPlus/Kordia expressed concern that the drafting of the STD did not create sufficient certainty or transparency for Access Seekers. They argued that the 'manipulation of set up costs and delivery timetables are two of the ways in which established carriers create invisible barriers to entry for new entrants to know exactly what they are up for in front and will enable the Commission, for the first time, to take a view on the level of these costs and how they impact competition'. CallPlus/Kordia proposed drafting changes to the Clause 16 of MTAS STD – General Terms to reflect their views.¹¹⁵⁸
11. Vodafone submitted that set-up costs can be significant and that the Access Seeker should bear them.¹¹⁵⁹
12. 2degrees cross-submitted it did not agree that the Access Seeker should pay the Access Provider's set up charges, particularly given the lack of transparency as

¹¹⁵⁴ Telecom's submission para 126.

¹¹⁵⁵ ibid. Appendix. Telecom indicated that it had limited records of prior set up costs although one recent assessment was undertaken of a potential Access Seeker's set-up costs. The cost components for interconnect setup were as follows: (i) network design \$5,000; office data implementation \$21,384 (24 X LICAs at 6 hours per LICA = 144 hours @ \$148.50 per hour); (iii) project management \$5,000; systems configuration \$5,000 (configuration of billing systems, NCA systems etc.). The total cost was \$36,384.

¹¹⁵⁶ CallPlus/Kordia Cross-submission p5.

¹¹⁵⁷ Vodafone's Cross-submission p44, para 221.

¹¹⁵⁸ CallPlus/Kordia's submission p6 and Marked –Up Version of the draft STD clause 16.1. and Annex 4 of Schedule 2.

¹¹⁵⁹ Vodafone submission para395.

- to charges, as this could put a smaller new entrant Access Seeker at a disadvantage.¹¹⁶⁰
13. CallPlus/Kordia cross-submitted that they agreed with Telecom that there is likely to be contention over what constitutes a reasonable charge for set-up. They recommended the adoption of their drafting suggestions ‘to provide for a practical tie break procedure to enable the implementation process to move ahead while the parties resolve arguments about the quantum of set up costs.’ As an alternative CallPlus/Kordia indicated that they would support capped set-up costs of no more than \$30,000 for an entire Access Seeker set up.¹¹⁶¹
 14. Telecom¹¹⁶² submitted that the Access Seekers should pay the Access Provider’s reasonable charges for establishing or modifying call routing, billing and other technical or support systems or arrangements to accommodate the initial provision of MTAS to the Access Seeker.¹¹⁶³
 15. Vodafone cross-submitted that it would be inappropriate to transfer the Access Seeker’s costs of network setup to the Access Provider. Vodafone cross-submitted:¹¹⁶⁴
 - that ‘as Handover Points and links are part of the Access Seeker’s network, not the Access provider’s network’, it would be inappropriate for the Access Provider to meet these costs;
 - it is unclear what set-up costs are paid by the Access Provider and which are non-standard and paid by the Access Seeker;
 - the CallPlus/Kordia proposed new clause 16.2 – providing that in case of a dispute as to the allocation of costs for interconnection setup or the quantum of costs quoted by the Access Provider, the Access Provider must make the change or provide the requirement to which the dispute relates while the matter is referred to dispute resolution – is both inconsistent with established regulatory practice and out of step with commercial practice and unjustified.

Sharing of costs of Bi-directional links

16. CallPlus/Kordia submitted that link costs should be shared where a link was bi-directional and borne by the party wanting the connection where a link is one-way.¹¹⁶⁵ CallPlus/Kordia submitted that the STD should specify a timeline for establishment of links in relation to the specified service and that this should prescribe a link establishment maximum period of 20 working days.¹¹⁶⁶

¹¹⁶⁰ 2degrees’ cross-submission p28.

¹¹⁶¹ CallPlus/Kordia’s cross- submission p5 and mark-up of the draft MTAS STD – General Terms Clause 16.

¹¹⁶² Telecom’s cross-submission para 43.

¹¹⁶³ Standard Terms Proposal MTAS – STD 5 November 2010 p38, Clause 16.1.

¹¹⁶⁴ Ibid paras 218- 220 & 226.

¹¹⁶⁵ CallPlus/Kordia op cit p7.

¹¹⁶⁶ ibid p8.

17. Telecom cross-submitted that it disagreed with CallPlus/Kordia's suggestion that bi-directional link-costs should be shared. It maintained that this would be inconsistent with commercial practice and only when traffic flows are known can there be an equitable allocation of costs.¹¹⁶⁷ For the same reason Telecom also indicated disagreement with CallPlus/Kordia's proposal for provisioning links within 20 days.¹¹⁶⁸
18. Vodafone, commenting on CallPlus/Kordia's submission, cross-submitted that in practice all links are moving towards becoming unidirectional. In addition, in the case of a fixed-line operator handing over toll bypass FTM traffic, the traffic flows will be asymmetric because the reply path will be via a different operator.¹¹⁶⁹

Artificial inflation of traffic

Summary of the Commission's preliminary views.

19. In the draft MTAS STD the Commission indicated that its preliminary view was that the artificial inflation of traffic (AIT) to an Access Provider's own network is likely to be a problem only where the price of MTAS is above cost. A cost-based MTR and therefore be likely to remove any incentive to artificially inflate traffic.¹¹⁷⁰
20. The Commission therefore excluded the relevant clauses (1.20 and 13.18) from the STP prohibiting the artificial inflation of traffic in the draft MTAS STD.¹¹⁷¹

Submissions

Whether AIT is necessary with MTR at cost

21. Telecom supported the reintroduction of an AIT prohibition arguing that its omission '..is detrimental to intended commercial balancing of the MTAS STD' and maintaining that '...there are potential incentives to artificially inflate traffic on the basis of the current pricing construct {and} we have no confidence that this will not continue going forward'.¹¹⁷²
22. TelstraClear submitted that an AIT provision is unnecessary and that such provisions are only likely to be necessary where MTRs are set above cost.¹¹⁷³
23. Vodafone, in its submission, urged the Commission to reconsider its preliminary view to omit the AIT provision and proposed alternative drafting. It argued that AIT inflates the cost of providing interconnection and termination of services and that there is a risk of AIT becoming problematic. Noting a number of indicators of AIT, Vodafone submitted that the Commission's reasoning for

¹¹⁶⁷ Telecom Cross-submission para 46.

¹¹⁶⁸ Ibid para 47. Reference is CallPlus/Kordia's mark-up MTAS – STD General Terms, insertion of Clause 12.5 p34.

¹¹⁶⁹ Vodafone Cross-submission p50 para 256.

¹¹⁷⁰ draft STD MTAS Decision p 53, para 260.

¹¹⁷¹ Ibid para 261.

¹¹⁷² Telecom submission para123.

¹¹⁷³ TelstraClear's submission p11.

removing this provision – that AIT is not likely to be an issue where price termination is cost-based – is incorrect. It maintained that while reducing MTR rates will reduce incentives to undertake some forms of AIT, it will not eliminate them.¹¹⁷⁴

24. 2degrees cross-submitted that it disagreed with Telecom and Vodafone that AIT should be dealt with in the STD-MTAS Terms.¹¹⁷⁵ It maintained that the artificial inflation of traffic provision.... unnecessarily restricts legitimate commercial conduct and that Access Seekers only have an incentive to artificially inflate traffic where MTRs are above-cost.' ¹¹⁷⁶
25. At the 11 March 2011 Workshop 2degrees indicated that a cost-based MTR would likely alleviate the problem but that it had concerns around the broadness of the current definition of AIT. CallPlus indicated that in its view there was no evidence that AIT was a problem. In response Vodafone indicated specific cases of AIT that it was aware of.

Whether AIT imposes ‘upstream policing obligations’

26. CallPlus/Kordia submitted that an AIT provision would impose ‘upstream policing’ obligations impracticable to comply with as currently drafted, both up- and downstream, and argued that the Access Seeker may not be able to exercise influence over the carrier it is being required to regulate.¹¹⁷⁷
27. In its cross-submission Telecom disagreed with CallPlus/Kordia’s submission in relation to the imposition of ‘upstream policing’ obligations. Telecom considered that a small carrier can ‘exercise significant influence over an upstream provider, which is consistent with the fact that it is the Access Seeker who has the direct contractual relationship with those upstream providers, and therefore has the contractual nexus to be able to manage their behaviour. There is no such relationship held by the Access Provider, and it cannot be their responsibility to incur any detriment, when it is the Access Seeker alone that stands to benefit from any upstream relationship’.¹¹⁷⁸
28. Vodafone’s cross-submission noted CallPlus/Kordia’s concern with regard to upstream activities and proposed alternative drafting to address the problem.¹¹⁷⁹

Does the risk of SMS spam require a prohibition on AIT

29. Telecom submitted the outcome of a move to zero cost termination for SMS, implied by pure Bill & Keep for SMS, would incentivise the sending of SPAM and result in congestion.¹¹⁸⁰

¹¹⁷⁴ Vodafone’s submission paras 322-329.

¹¹⁷⁵ Citing the draft STD – MTAS General Terms Clause 13 and Schedule 3, Annex 3).

¹¹⁷⁶ 2degrres Cross-submission page 6, para 2.7 and p28 under para 7.6.

¹¹⁷⁷ CallPlus/Kordia’s submission pp11-12, and 11 March 2011 Workshop.

¹¹⁷⁸ *ibid* para 48.

¹¹⁷⁹ Vodafone’s Cross-submission p46 paras 234-235.

¹¹⁸⁰ Telecom’s submission paras 123-124.

- 30. 2degrees cross-submitted that ‘neither Telecom nor Vodafone has explained exactly how concerns around SPAM (or network congestion) would arise and/or where existing legislation directed at preventing spam is insufficient’. 1181
- 31. CallPlus/Kordia in their cross-submission reiterated that they do not support Telecom’s and Vodafone’s argument for a prohibition on the AIT. They note that Vodafone ‘While relying on overseas precedent and theoretical issues,... have not been able to point to a single New Zealand mobile example of the practice which they seek to prevent....If this issue becomes a problem for the industry in the future then there is a mechanism to enable the STD to be amended to provide for it’. 1182
- 32. Referring to the potential impact of Pure BAK on the market, TUANZ cross-submitted its concern at the potential for growth of SPAM, and indicated that all SMS domestically-originating and internationally-originating SMS should be treated the same, including machine or web-generated SMS. TUANZ is of the view that moving to pure BAK for SMS ‘is a dangerous move that may backfire on the industry’. 1183
- 33. Vodafone cross-submitted that it was concerned at risk of an increase of SMS SPAM with pure BAK.1184

SIM Boxes

Summary of the Commission’s preliminary views.

- 34. The Commission’s preliminary view in the draft STD MTAS was that the use of SIM boxes¹¹⁸⁵ was likely to be a problem only where the price of MTAS is above the cost of on-net calls, and that a cost-based MTR should reduce incentives for the use of SIM boxes.¹¹⁸⁶
- 35. The Commission’s preliminary view was the prohibition on the use of SIM boxes would be reasonable, given its limited application to Access Seekers and members of their group.¹¹⁸⁷

Submissions

Whether a prohibition on SIM boxes is necessary

- 36. 2degrees submitted that clauses relating to SIM boxes should be deleted pending the development of an industry code, which it supports, and reiterated its earlier

¹¹⁸¹ ibid p7 para 2.11.

¹¹⁸² CallPlus/Kordia’s Cross-submission pp8-9.

¹¹⁸³ TUANZ’s Cross-submission p1.

¹¹⁸⁴ Vodafone’s Cross-submission pp-15-16.

¹¹⁸⁵ A Sim box, also known as a GSM Gateway, is a device which uses a MNO’s SIM cards to present calls or SMS as if they originated on the MNO’s network.

¹¹⁸⁶ draft STD MTAS Decision page 54, para 268.

¹¹⁸⁷ ibid para 270.

comment that these clauses are both unnecessary and inappropriate for terms governing the interconnect relationship.¹¹⁸⁸

37. TelstraClear submitted that a prohibition on the use of SIM boxes is unnecessary and agreed with the Commission's preliminary view that the use of SIM boxes is likely to be a problem only where the price of MTAS is above the cost of on-net calls. In this context TelstraClear questioned the Commission's preliminary view that a prohibition on the use of SIM boxes is reasonable.¹¹⁸⁹
38. CallPlus/Kordia in its cross-submission indicated support for the submissions of 2degrees and TelstraClear and reiterated that this clause should be deleted.¹¹⁹⁰
39. Vodafone cross-submitted that 'Protection of Access Providers from the use of SIM boxes is reasonable and necessary in this context...None of the submitting parties has suggested that SIM boxes are not an issue or that they do not cause harm to end-users. SIM boxes result in network congestion and unnecessary failure of some call scenarios...',¹¹⁹¹ Vodafone submitted that although an industry code may be a useful way of promoting understanding of the issue, it has yet to be developed.¹¹⁹²

Whether SIM Boxes is a matter for the retail contract and not the STD

40. CallPlus/Kordia submitted that is impossible to comply with the prohibition on using or operating SIM boxes in its current form as this requires the Access Seeker to verify that its transit routes do not involve SIM boxes. They suggest that the issue is appropriately a matter for the retail contract between the Access Seeker and the end user and not for the STD regulating MTAS at the wholesale level.

Introduction of concept of 'knowingly'

41. CallPlus/Kordia submitted that, if such a prohibition were to be included, it must be limited to situations where the Access Seeker is aware of the use of the SIM box. They therefore supported a knowledge requirement, as proposed by TelstraClear.¹¹⁹³
42. Telecom cross-submitted that it supported the current drafting of the STD in relation to SIM boxes, did support an industry code, or the inclusion of a qualifying concept of 'knowingly'.¹¹⁹⁴
43. It was generally accepted at the 11 March 2011 Workshop that the prohibition on SIM boxes should remain, but with a requirement that the Access Seeker may not knowingly make or allow use of the SIM box.

¹¹⁸⁸ 2degrees' submission *Mobile Access General Terms* p2.

¹¹⁸⁹ TelstraClear's submission p11.

¹¹⁹⁰ CallPlus/Kordia's Cross-submission pp6-7.

¹¹⁹¹ Vodafone Cross-submission p45-46 paras 230-232.

¹¹⁹² *ibid* para 233.

¹¹⁹³ CallPlus/Kordia's submission p12 & Cross-submission pp 6-7; TelstraClear submission November 2010 para 4.3.

¹¹⁹⁴ Telecom Cross-submission para 44.

Hand over/ Points of Interconnection

Summary of the Commission's preliminary views.

44. The Commission's preliminary view was that voice MTAS services did not include a domestic transit service. The Commission made amendments in the draft STD so that FTM calls that are transited over a commercial transit service can still be terminated under the MTAS STD.¹¹⁹⁵
45. The Commission made amendments to the handover arrangements to allow for an Access Seeker to choose which handover points they seek interconnection at, subject to the Access Seeker being able to handover only FTM calls that originate within the coverage area that a handover point serves.¹¹⁹⁶

Submissions

Whether Access Seekers should be able to retain their existing handover arrangements

46. CallPlus/Kordia indicated support for the amendments providing Access Seekers with the flexibility to select handover points but submitted that the amendments to the draft MTAS STD did not address the migration issue raised in their submission of November 2010. They submitted that the provision whereby Access Providers and Access Seekers may 'make any other mutually acceptable Handover Point arrangements'¹¹⁹⁷ may result in smaller Access Seeker vulnerability to a larger Access Provider 'dictating terms on migration and any additional handover points'. CallPlus/Kordia submitted that existing Access Seekers should have the option of retaining their existing handover arrangements or migrating to the structure proposed.¹¹⁹⁸
47. On the later point, Vodafone cross-submitted that CallPlus/Kordia's suggestion would have the effect of including transport arrangements in the MTAS and that would be inconsistent with the scope of the MTAS STD which is premised on Access Seeker handover to the Access Provider at a MSC in New Zealand.¹¹⁹⁹

Whether there should be greater flexibility

48. Telecom in its submission indicated general support for the MSC handover model proposed but suggested the Commission adopt the flexibility requested in its submission to the MTAS STP.¹²⁰⁰
49. TelstraClear indicates agreement with the Commission's preliminary views on the location of traffic handover points.¹²⁰¹
50. Vodafone cross-submitted that it did not support providing the Access Seeker with a right to handover at other locations, as this would be a significant change

¹¹⁹⁵ draft STD MTAS Decision p 55, para 278.

¹¹⁹⁶ ibid page 56, para 281.

¹¹⁹⁷ MTAS STD – General Terms clause 10.

¹¹⁹⁸ CallPlus/Kordia's submission p8.

¹¹⁹⁹ Vodafone Cross-submission p40 paras 200-201.

¹²⁰⁰ Telecom's submission paras 120-121.

¹²⁰¹ TelstraClear's submission p11.

to the terms of the draft STD. Where parties may agree commercial arrangements for handover at other locations, this should not be mandated as part of a regulated service. Vodafone noted that this approach is consistent with fixed-line termination, where standard calls are subject to price regulation, but national calls are unregulated and supplied on a commercial basis.¹²⁰²

51. Whether Call Handover Obligations allow FTM calls to be handed over at points outside the relevant coverage area
52. Telecom submitted that the amendments to allow for an Access Seeker to choose which handover points they seek interconnection at could be interpreted as meaning the Call Handover Obligations allow FTM calls to be handed over at points outside the relevant coverage area, and proposed drafting changes to clarify that this is not the case.¹²⁰³
53. Vodafone submitted that the MTAS General Terms make clear that the Access Seeker is able to handover only FTM calls that originate within the coverage area that a handover point serves. Vodafone indicated that were MTM calls or FTM calls that originate outside the relevant coverage areas also covered, the Access Provider would face additional costs associated with transporting those calls to and from the handover point.¹²⁰⁴

Whether a transit party should be an Access Seeker in its own right

54. Telecom suggests amendments to the drafting of Clause 2 of Sub-schedule 4C of the MTAS STD – General Terms to make it clear that a transit party will be an Access Seeker in its own right, noting that transiting calls will be subject to commercial arrangements.¹²⁰⁵
55. Vodafone in its cross-submission indicated disagreement with Telecom's proposal, arguing that calls that have been transited by a third party should have consistency with calls handed over directly. It notes that an Access Seeker may engage a third party to transport calls before the third party hands those calls over to the Access Provider at the handover point.¹²⁰⁶

Security requirements

Summary of the Commission's preliminary views.

56. In the draft MTAS STD the Commission's preliminary view was that security at the same level as provided for in other STDs is appropriate for the MTAS STD, and that changes had been made to the security provisions accordingly. In other STDs, the Commission has specified a security of the greater of \$100,000 or two

¹²⁰² Vodafone's Cross submission p40 paras 20-32.

¹²⁰³ Telecom's submission para 122. MTAS STD – General Terms clause 10.

¹²⁰⁴ Vodafone submission paras 364-367.

¹²⁰⁵ *ibid* Appendix.

¹²⁰⁶ Vodafone Cross-submission p40 para 204.

months' charges (based on a forward-looking estimate or prior actual charges),¹²⁰⁷ and the security is adjusted every six months.¹²⁰⁸

- 57. The Commission indicated that its preliminary view was that the STP does not give undue discretion to the Access Provider, as it only relates to determining a reasonable estimate of forecasts for a three month period and would only be triggered where an Access provider considers the Access Seeker's forecasts are inappropriate.¹²⁰⁹
- 58. The Commission indicated that its preliminary view was that the netting-off approach proposed by 2degrees is not appropriate in relation to situations where the Access Seeker is also the Access Provider.¹²¹⁰

Submissions

Whether credit security requirements should be relaxed for those with a 'clean history'

- 59. CallPlus/Kordia submitted that the STD should include a mechanism that following 24 months of 'clean' credit history with an Access Provider, credit security requirements on the Access Seeker are suspended and only reinstated if the Access Seeker misses a payment.¹²¹¹
- 60. TelstraClear disagreed with the Commission's preliminary views on security requirements and considered that the terms set out in the draft STD were unduly burdensome on Access Seekers.¹²¹²
- 61. CallPlus/Kordia in their cross-submission indicated support for the TelstraClear's proposal outlined in its November 2010 submission that there should be flexibility where the parties have a long history of dealing with each other and proven track record of payment of invoices. This would provide certainty for the Access Seeker who should be able to determine precisely the amount and terms of credit security required, avoiding the interpretation of 'reasonableness'.¹²¹³
- 62. Telecom cross-submitted that it disagreed with the CallPlus/Kordia proposal (summarised above), arguing that '...the inherent rationale for having a security is that unforeseen situations may arise which require an Access Provider to access pre-funded sums that the Access Seeker might not otherwise have, or wish to pay. Having a clean credit history does not affect that principle.'¹²¹⁴
- 63. Vodafone cross-submitted that the approach suggested by CallPlus/Kordia is inappropriate for inclusion in a regulated service. It argues that the purpose of credit security provisions is to protect the Access Provider against the scenario

¹²⁰⁷ Draft STD MTAS Decision p 58, para 290.

¹²⁰⁸ ibid page 58 para 291.

¹²⁰⁹ ibid p 58 para 292.

¹²¹⁰ CallPlus/Kordia's submission p6.

¹²¹¹ TelstraClear's submission p11.

¹²¹² CallPlus/Kordia's Cross-submission p6.

¹²¹³ Telecom Cross-submission para 45.

that CallPlus/Kordia suggest would trigger the protections, but that protection is meaningless if the Access Seeker then is unable to pay.¹²¹⁴

64. There was discussion of this matter at the 11 March 2011 Workshop. CallPlus reiterated its argument for a relaxation of the credit security requirements in the case of an ongoing interconnection service relationship where there had been no default on payment. It emphasised the impact of the requirements in tying up capital for a smaller operator. Vodafone indicated that it was comfortable with a relaxation of the credit security requirement – but at its discretion – for Access Seekers with which it had had long-standing interconnection service relationships with and confidence in, but not a ‘blanket’ relaxation provided in the MTAS STD. There appeared to be general concurrence that the credit security requirements should remain but that the MTAS STD contain an expectation that the Access Provider give due consideration to a request from a creditworthy Access Seeker with which it had had a long-standing relationship with for a relaxation of the requirements.

Whether two months’ security is appropriate

65. Vodafone indicated concern in its submission that the Commission ‘may not have fully appreciated important differences between the MTAS and services provided pursuant to previous STDs’. Specifically, Vodafone suggests that in the case of MTAS billing is monthly in arrears, whereas with previous STDs recurring charges are levied in advance of service provision. Vodafone maintains that, as under the MTAS STD the Access Provider may be without payment for at least three months, extending the period for provision of security to three months is appropriate.¹²¹⁵
66. 2degrees cross-submitted that it disagreed with Vodafone’s suggested changes and indicated that two months is the appropriate period for calculating the amount of security.¹²¹⁶
67. CallPlus/Kordia cross-submitted that they did not support the changes proposed by Vodafone in relation to credit security and support the credit security periods suggested by the Commission in the draft MTAS STD.¹²¹⁷
68. Vodafone cross-submitted that credit security requirements ‘ought to be consistent with the principle applied in other STDs’ and recognition that interconnection is billed in arrears, and for these reasons it would not support a two-month period.¹²¹⁸

Payment Terms - Whether proposed Due Date of not less than 20 days is appropriate

69. Vodafone submitted the ‘due date’ timeframe (by which invoices must be paid) should be maintained as 20th of the month, and did not support the Commission’s change to a minimum of 20 working days after the date of the

¹²¹⁴ Vodafone Cross-submission p41 para 41.

¹²¹⁵ Vodafone’s submission paras pp74-75 330-334.

¹²¹⁶ 2degrees Cross-submission p26 para 7.6.

¹²¹⁷ CallPlus/Kordia’s Cross-submission p6.

¹²¹⁸ Vodafone’s Cross-submission p41 para 205.

invoice. It maintained that its calendar monthly interconnection charges are invoiced on 20th of the month and the proposed change would ‘cause extreme logistical difficulties for Access Providers and Access Seekers, as commercial interconnection and the MTAS will have two different due dates’.¹²¹⁹

70. CallPlus/Kordia cross-submitted that they disagreed with Vodafone that the proposed change for ‘due date’ of invoices to 20 Working Days would ‘cause extreme logistical difficulties for Access Providers and Access Seekers’, suggesting that the 20th of the month is not in fact industry practice. CallPlus/Kordia indicated that they currently manage multiple payment dates across their domestic interconnect arrangements, and that all New Zealand carriers manage multiple payment dates with their international interconnect relationships.¹²²⁰

Liability caps

Summary of the Commission’s preliminary views.

71. In the draft MTAS STD the Commission’s preliminary view was that the liability cap associated with the co-location of an Access Seeker’s equipment into buildings of an Access Provider should be the greater of:
 - \$1,000,000; or
 - if liability is calculated based on 12 months of charges, a maximum of \$5,000,000 in aggregate for all events occurring in any 12 month period.¹²²¹
72. The Commission’s preliminary view was that the liability cap in all other circumstances should be \$500,000 in aggregate for all events occurring in any 12 month period.¹²²²

Submissions

73. 2degrees submitted that liability caps should apply both to the Access Seeker and the Access Provider rather than being for the benefit of only the Access Seeker.¹²²³
74. CallPlus/Kordia¹²²⁴ and TelstraClear¹²²⁵ supported the proposed amendments in respect of liability caps.
75. Vodafone submitted that the Commission ‘appears to have inadvertently replaced a two-way liability cap with a provision that operates only for the

¹²¹⁹ Vodafone op cit para 335.

¹²²⁰ CallPlus/Kordia Cross-submission p7.

¹²²¹ draft STD MTAS Decision page 50 para 297.

¹²²² Ibid para 298.

¹²²³ 2degrees’ submission op cit p1.

¹²²⁴ CallPlus/Kordia’s submission p12.

¹²²⁵ TelstraClear’s submission p11.

benefit of the Access Seeker' by substituting the wording taken from a previous STD.¹²²⁶ Vodafone proposed amended drafting.¹²²⁷

Billing disputes

Summary of the Commission's preliminary views

76. The Commission's preliminary view was that the approach in the STD whereby costs of an independent telecommunications accounting expert (the Expert) to determine whether or not there is a Manifest Error in the invoice are paid by the Access Seeker if there was found to be no Manifest Error and by the Access Provider if there was found to be a Manifest Error, is appropriate. However there does not appear to be a clear reason for splitting costs where the error is below a certain dollar threshold and the relevant clause has been amended accordingly.

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Submissions

77. 2degrees noted in its submission that it appears the revised MTAS STD General Terms have not been redrafted to reflect the views reflected in the Commission's preliminary decision.¹²²⁹
78. CallPlus/Kordia submitted that the party that made the error should pay the costs of the Expert regardless of the amount involved.¹²³⁰
79. Vodafone submitted that the use of the word 'may' instead of 'will' in Clause 3.7 introduces non-mandatory language into the arbitration clause. 'Unless both parties have agreed unambiguously to arbitrate any disputes that may arise, the risk is great that a court will disregard the clause or deem it to be unenforceable'.¹²³¹
80. Vodafone recommended that the STD should reflect the AMINZ Arbitration Appeal Tribunal scheme and provide a right of appeal from an arbitral award to an Arbitration Appeal Tribunal which would be final without right of appeal to the High Court. Vodafone submitted that appeals to the High Court were likely to lead to delay, expense and loss of privacy which would make resolution between the parties more difficult.¹²³² As an alternative, Vodafone submitted that if arbitration provisions contained in the MTAS STD do not allow appeals to an arbitration appeals tribunal under the AMINZ Arbitration Appeal Rules, it would prefer wording that excludes appeals to the High Court.¹²³³

¹²²⁶ MTAS DSTD – General Terms clause 7.1

¹²²⁷ Vodafone submission para 363.

¹²²⁸ draft STD MTAS Decision p 60, para 303.

¹²²⁹ 2degrees' op cit p2.

¹²³⁰ Call Plus/Kordia's op cit p13.

¹²³¹ Vodafone's submission pp75-76 paras 337-345.

¹²³² Vodafone's submission pp76-78 paras 346-353. Vodafone also recommends reinsertion of the wording contained in clauses 3.6.1. to 3.6.5 of the STP in place of the wording of draft MTAS STD clauses 3.7.1 to 3.7.5.

¹²³³ ibid p77 para 351.

81. Vodafone submitted that other clauses of the STP be reinserted into the STP.
¹²³⁴ It made specific comment in relation to Clause 3.7.5 of the draft MTAS STP that provided for the costs of the arbitrator to be borne equally by the parties unless the arbitrator determines otherwise. Vodafone submitted that this position departs from the general rule that ‘costs follow the event’ which serves to discourage parties from pursuing disputes of questionable merit. ¹²³⁵

Termination and suspension

Summary of the Commission’s preliminary views.

82. The STP provided for suspension, force majeure and termination provisions in certain circumstances. The draft MTAS STD Decision indicated that the Commission’s preliminary view was that the following changes were appropriate:
- the provisions relating to fundamental obligations be removed;
 - an Access Provider be able to terminate the supply of the MTAS services only where the Access Seeker has made five or more material breaches in any period of 12 months;
 - suspension must be lifted as soon as is reasonably practical;
 - both an Access Seeker and an Access Provider should be entitled to rely on the force majeure provisions; and
 - neither an Access Seeker nor an Access Provider should be entitled to rely on the force majeure provisions in relation to industrial action involving its own employees, unless that party has taken reasonable actions to prevent that industrial action from occurring. ¹²³⁶
83. In addition the Commission’s preliminary view was:
- that termination due to material breaches should be limited to situations where the actions of the party that has committed the breaches have involved a material transgression of the MTAS with an adverse impact on the other party; and
 - that it is appropriate to provide for an Access Seeker to be able to terminate their rights and obligations under the MTAS STD on two month’s notice. ¹²³⁷

¹²³⁴ Vodafone recommends reinsertion of the wording contained in clauses 3.6.1. to 3.6.5 of the STP in place of the wording of draft MTAS STD clauses 3.7.1 to 3.7.5.

¹²³⁵ ibid. p78 para 355.

¹²³⁶ draft STD MTAS Decision p 62-3, para 310.

¹²³⁷ ibid p 63, paras 311-312.

Submissions

Force majeure

- 84. 2degrees indicated support in its submission for the mutual force majeure provisions, noting that consequential amendments are needed to make the provision of mutual effect.¹²³⁸
- 85. TelstraClear indicated that it considered the amended suspension, termination and force majeure provisions provide a better balance between the interests of Access Seekers and Access Providers.¹²³⁹
- 86. Vodafone submitted that in light of the amended clause 5.1 of the draft General Terms that the force majeure provision apply equally to the Access Seeker and the Access Provider, an additional clause should be inserted providing that the force majeure provisions do not apply with respect to failure to meet payment obligations, which it maintained is consistent with commercial practice. Vodafone also maintained that the amended clause 5.2.12 providing that force majeure in respect of industrial action be limited to industrial action other than by employees of the party relying on the force majeure clause, is inconsistent with commercial practice, and the intention of the force majeure protection provided for in clause 5.5.¹²⁴⁰
- 87. 2degrees cross-submitted that it did not agree that a party claiming the benefit of force majeure protection should be able to where its own employees are striking, and that the ‘fact that the event must be beyond the reasonable control of the affected party should give a sufficient level of comfort in the New Zealand market place’.¹²⁴¹

Fundamental obligation and material breach

- 88. 2degrees indicated support for the Commission’s approach of removing the concept of Fundamental Obligations.¹²⁴² 2degrees submitted that a termination right is now provided (in Clause 6.1.1.of the General Terms) where there has been only one un-remedied material breach, and that the termination right should be qualified to be consistent with the Commission’s preliminary view¹²⁴³ that termination due to material breach should be limited to situations where the material breach causes an adverse impact on the other party. 2degrees reiterated that, given the essential nature of the MTAS service, the General Terms should be amended to address what it considers would be the ‘harshness of an outright refusal to supply and that the conditions of resupply are appropriate in the circumstances.’¹²⁴⁴

¹²³⁸ 2degrees op cit p1.

¹²³⁹ TelstraClear’s submission p11-12.

¹²⁴⁰ Vodafone submission paras 375-378.

¹²⁴¹ 2degrees cross-submission p27.

¹²⁴² 2degrees submission p1.

¹²⁴³ Draft MTAS STD p63, para 313.

¹²⁴⁴ 2degrees’ op cit. p1.

89. Call Plus/Kordia indicated support their submission for the removal of the concept of ‘fundamental obligation’, additional grace periods in respect of breaches, and the ‘materiality’ standard in relation to termination.¹²⁴⁵
90. Telecom commented in its submission that ICAs are generally two-way arrangements and that concerns ‘relating to the possibility of ICAs being terminated as a result of some breach without providing adequate opportunities to remedy the breach....do not reflect the practical reality which is that cutting off the traffic flow between two parties is not something that any service provider would undertake lightly (whatever the contract may provide).¹²⁴⁶
91. Vodafone submitted that the definition of ‘fundamental obligation’ was a useful addition to the MTAS STD as it clarifies the effect of the early termination provisions. It recommended adding a clause to clarify that any breach of a term requiring payment constitutes a material breach.¹²⁴⁷
92. Vodafone cross-submitted that ‘the inclusion of a material detriment proviso is inconsistent with the approach adopted in previous STDs as it creates unnecessary and unhelpful incentives for parties to “try and get away with it” rather than adhere to the terms of the STD in good faith,’¹²⁴⁸ adding that the proviso adds an additional layer of interpretation, and therefore uncertainty, to the application of the early termination provisions. Vodafone indicated that it would be comfortable with the ‘material breach’ threshold, but not the ‘material detriment’ proviso, arguing that it undermines the principle ‘that where a material breach occurs the breaching party should face every incentive to remedy that breach’. ¹²⁴⁹
93. Vodafone cross-submitted¹²⁵⁰ that it disagreed with 2degrees’ suggested amendments as ‘Termination of supply is termination of that regulated service; it does not imply that supply of interconnection or termination services will cease altogether and not be provided on a commercial basis. A party ought not to be able to avail itself of the benefit of the regulated MTAS where it has caused early termination by not adhering to the terms of the MTAS in the first place’. Vodafone maintained that if clause 6.3 were to be amended as proposed by 2degrees, amendment should also ensure commercial protection for the Access Provider if the Access Provider is required to recommence supply of the MTAS.¹²⁵¹

¹²⁴⁵ CallPlus/Kordia’s submission p12.

¹²⁴⁶ Telecom’s submission paras 117-118.

¹²⁴⁷ Vodafone submission paras 383-386.

¹²⁴⁸ Vodafone cross-submission p42 para 211.

¹²⁴⁹ Ibid p42 paras 212-213.

¹²⁵⁰ Vodafone cross-submission pp 41-42 paras 209-210.

¹²⁵¹ ibid. paras 214-216.

Whether five or more material breaches is appropriate in relation to termination of supply

94. Telecom submitted that whilst accepting the Commission's proposed balancing of Access Seeker and Access Provider rights in the draft MTAS STD, three rather than five material breaches would be more appropriate.¹²⁵²
95. Vodafone submitted that 'Access Providers (or Access Seekers) have a valid interest in being able to take effective action against recidivist Access Seekers (or Access Providers) before ongoing issues become too serious' and noting that each must be 'substantially similar' proposed alternative drafting including a three material breach threshold.¹²⁵³
96. 2degrees in its cross-submission indicated agreement with the Commission's approach that termination be triggered by five material breaches. However it cross-submitted that it would be prepared to agree with Vodafone's changes provided it is made clear that the right to trigger termination under Clause 6.1.1. arises only where the breach has a material adverse effect on the other party, and provided that Vodafone's proposal that material breach is defined, is not adopted by the Commission.¹²⁵⁴

Changes to operational procedures

Summary of the Commission's preliminary views.

97. The Commission's preliminary view was that the provisions of the STP providing for a Liaison Committee to be established (to consider operational issues) was a positive mechanism for addressing operational issues. In other respects, the Commission's preliminary view was that the provisions for changes to operational procedures and technical specifications did not balance the rights of Access Providers and Access Seekers.¹²⁵⁵ Accordingly amendments in the draft STD to the provisions of the STP were made to ensure consistency with the provisions of other STDs.

Submissions

98. TelstraClear in its submission indicated agreement with the Commission's proposed amendments to the operational procedures provisions.¹²⁵⁶
99. Vodafone submitted: 'that the Commission's proposed procedure is protracted and cumbersome... the MTAS are already provided commercially and Access providers have established well-working procedures and experience in optimising those procedures where necessary. Access providers should be

¹²⁵² Telecom's submission para 125. Ref. clause 6.1.2. of the MTAS STD – General Terms.

¹²⁵³ ibid paras 379-382.

¹²⁵⁴ 2degrees cross-submission p27-8.

¹²⁵⁵ draft STD MTAS Decision p64, para 319.

¹²⁵⁶ ibid p12.

afforded an appropriate degree of discretion to continue managing these procedures.¹²⁵⁷

100. Vodafone recommended a new process whereby the Access Provider proposes a change and notifies all Access Seekers of the proposed change. Where fewer than 25% of Access Seekers object to the proposal, the Access Provider notifies the Commission and implements the change; where more than 25% of Access Seekers object, the proposal is referred to the Commission for a ruling within 10 working days.¹²⁵⁸
101. In its cross-submission 2degrees indicated that it was comfortable with the Commission's approach to dealing with operational procedures, but that that it would be prepared to accept, in general, Vodafone's proposal.¹²⁵⁹ However, in such a case 2degrees submitted that the following changes would be necessary:
 - an Access Seeker should be able to trigger the change process regardless of whether the Access Provider agrees;
 - rather than the threshold being no more than 25% Access Seekers objecting to the change, the requirement should be that 75% of Access Seekers accept the change (thereby placing the onus on the proposer to ensure a significant level of support from the industry); and
 - the notice period be extended to 20 Working Days (in order to enable the proposer to seek required support).

Disclosure of information

Summary of the Commission's preliminary views.

102. The Commission reversed the provision from the STP in relation to legally binding requests or requirements, proposing that all parties disclose confidential information to the extent that they are bound to do so in relation to that request or requirement. It considered it inappropriate for an STD to require a party to resist a request or requirement they consider legally valid and binding.¹²⁶⁰

Submissions

103. 2degrees submitted that there may be circumstances in which the Notifying Party is restricted by law from notifying the Supplying party and submits that the relevant provision be qualified in this regard.¹²⁶¹
104. CallPlus/Kordia indicated support for the amendments to the draft MTAS STD in respect of disclosure of information.¹²⁶²

¹²⁵⁷ Vodafone submission paras 388-389.

¹²⁵⁸ ibid. para 391.

¹²⁵⁹ 2degrees Cross-submission p28.

¹²⁶⁰ draft STD MTAS Decision p65, para 322.

¹²⁶¹ 2Degrees op cit p2.

¹²⁶² CallPlus/Kordia submission p13.

Post implementation review

Summary of the Commission's preliminary views.

105. The Commission's preliminary view was that a broad approach to monitoring the impact of the MTAS STD is appropriate and that provisions were included in the draft MTAS STD requiring that Access Providers submit information on a quarterly basis to the Commission relating to retail mobile subscriber numbers, average revenue per subscriber, volumes of for MTAS voice calls and SMS, average prices for MTAS voice calls and SMS, and on-net / off-net price differentials. ¹²⁶³

Submissions

106. TUANZ, in its submission, called for post-implementation review of pricing and of the MTAS determination's impact on retail prices in order to evaluate 'pass through' of savings to users. ¹²⁶⁴
107. Vodafone submitted that the Commission could extend its monitoring to include retail FTM prices, to see whether MTR reductions impact on retail prices as expected. Vodafone also suggested that to enable more informed monitoring of the market, the Commission should be more specific about the form that it expects benefits to mobile market competition to take. Vodafone suggested that the Commission should monitor negative impacts for low-use mobile customers from FTM. ¹²⁶⁵

Terms that may be varied

Summary of the Commission's preliminary views.

108. The Commission proposed that all terms of the STD may be varied except for the following:

General Terms

- the Standard Access Principles – clause 2.31
- Dispute resolution – clause 3
- Charging principles – clause 17
- Rights not excluded – clause 32
- Amendment – clause 31

Schedule 1 Service Descriptions

- FTM Call Termination Service – Annex 1
- MTM Call Termination Service – Annex 2
- Text Message Termination Service – Annex 3

Schedule 2 Price List

- Annex 1 – clause 1
- Annex 2 – clause 1

¹²⁶³ draft STD MTAS Decision p65, para 324

¹²⁶⁴ TUANZ submission p2.

¹²⁶⁵ Vodafone submission p18-19.

Annex 3 – clause 1

Implementation Plan

All provisions of the Mobile Termination Access Services Implementation Plan.¹²⁶⁶

Submissions

109. 2degrees submitted that although it had no objection in principle to the approach proposed by the Commission it notes that the service descriptions in the Annexes to Schedule 1 are dependent on definition elsewhere in the draft STD – MTAS Terms, and that it may be appropriate that the inclusion of these annexes to Schedule 1 on the list of terms that may not be varied by an RTD would not preclude an RTD covering amendments to related conditions, including non-discrimination provisions it has proposed.

¹²⁶⁶Draft STD MTAS Decision p65-66, para 326.

APPENDIX 10: SUMMARY OF SUBMISSIONS ON IMPLEMENTATION PLAN

Purpose

1. This Appendix summarises submissions on the implementation plan. A summary of the Commission’s preliminary views in the draft MTAS STD on the implementation plan is set out in paragraph 664 of Section I.

Timetable for implementation

Submissions

CallPlus and Kordia

2. CallPlus and Kordia submitted that the timelines suggested did not “reflect the actual time required to effect {the required} change.” They proposed a reductions in timeframes for situations where there are physical changes required, situations where there are no physical changes required and situations where an Access Seeker was increasing its capacity. They also proposed a change to the definition of “Implementation Working Day” to narrow the exception provided in that definition.¹²⁶⁷

Federated Farmers and TelstraClear

3. Federated Farmers¹²⁶⁸ and TelstraClear¹²⁶⁹ supported the Commission’s proposal for changes to cost-based MTRs for voice to come into force immediately. Federated Farmers consider that providing a level playing field is the best way to promote competition for the benefit of end-users. TelstraClear stated that “Delaying the introduction of cost-based MTRs would only forestall the development of competition in the mobile market and deprive New Zealand consumers of the associated benefits.”

Telecom

4. Telecom submitted that it is not practical or workable to require network design to occur within 5 working days, and proposed an extension to 20 working days for an Access Provider to provide a proposal, with a further 10 working days to assess any material changes requested by an Access Seeker.¹²⁷⁰

Vodafone

5. Vodafone submitted that the timeframe for the reconciliation process should be extended to 40 days.¹²⁷¹

¹²⁶⁷ CallPlus and Kordia submission on the draft MTAS STD page 5, section b.

¹²⁶⁸ Federated Farmers submission on the draft MTAS STD page 2, paragraphs 3.1-3.2.

¹²⁶⁹ TelstraClear submission on the draft MTAS STD page 13, paragraph 43.

¹²⁷⁰ Telecom submission on the draft MTAS STD page 37, paragraph 130.

¹²⁷¹ Vodafone submission on the draft MTAS STD pages 90-91, paragraphs 419-420.

Cross-submissions

CallPlus and Kordia

6. CallPlus and Kordia cross-submitted that a 20 day timeframe would be appropriate, given they could “comfortably make the necessary reconciliations well within the 20 Working Days suggested by the Commission.”¹²⁷²

Telecom

7. Telecom cross-submitted that their timelines for implementation were carefully assessed based on the work that would be required by Telecom and its suppliers, and therefore they did not agree with CallPlus and Kordia’s view that the timeframes should be reduced.¹²⁷³

Vodafone

8. Vodafone cross-submitted that the timeframes in the draft Implementation Plan should be retained, as these had been proposed after input from 2degrees and Telecom, and allow for sufficient time for an Access Provider to ensure delivery of the MTAS.¹²⁷⁴

Outcome of the pre-Conference workshop

9. At the 11 March 2011 Workshop Telecom and Vodafone reiterated their views that the timeframes did not reflect the work available, and 2degrees indicated that it considered the timeframes in the draft Implementation Plan were reasonable, although acknowledged that the timeframes for the reconciliation process were challenging.

Should implementation be sequential

Submissions

CallPlus and Kordia

10. CallPlus and Kordia submitted that implementation activities should be able to proceed in parallel, instead of in sequence, so as not to delay implementation.¹²⁷⁵ CallPlus and Kordia also submitted that specific clauses in the Operations Manual should be identified, so that the pre-requisites are clear.¹²⁷⁶

¹²⁷² CallPlus and Kordia cross-submission on the draft MTAS STD page 4, section (a).

¹²⁷³ Telecom cross-submission on the draft MTAS STD page 11, paragraph 42.

¹²⁷⁴ Vodafone cross-submission on the draft MTAS STD page 52, paragraph 271.

¹²⁷⁵ CallPlus and Kordia submission on the draft MTAS STD page 6, section c.

¹²⁷⁶ CallPlus and Kordia mark-ups to the Mobile Termination Access Implementation Plan page 3, clause 3.1.2(c).

Cross-submissions

Vodafone

11. Vodafone cross-submitted that CallPlus and Kordia's proposed changes to prerequisites should not be adopted, as these provisions included important testing requirements which need to be carried out before full implementation of the MTAS services.¹²⁷⁷
12. Vodafone also cross-submitted that references to the operations manual should be retained as "an Access Seeker should be willing to familiarise themselves with the necessary operational procedures to ensure Access Seeker compliance with the STD."¹²⁷⁸

Definition of "Implementation Working Day"

Submissions

CallPlus and Kordia

13. CallPlus and Kordia proposed a change to the definition of "Implementation Working Day" to narrow the exception provided in that definition.¹²⁷⁹

Cross-submissions

Vodafone

14. Vodafone cross-submitted that the definition of "Implementation Working Day" was intended to create an exception for days where network changes have been suspended ie during a "brown-out" or "network freeze", and that this would not disadvantage an Access Seeker. However, Vodafone proposed an amended definition to better reflect this intent.¹²⁸⁰

Refund or credit as a result of reconciliation process

Submissions

Vodafone

15. Vodafone submitted that the Commission's proposal for a refund to be made after the reconciliation process had occurred should be modified to provide for a credit to be allowed, in line with common commercial practice.¹²⁸¹

¹²⁷⁷ Vodafone cross-submission on the draft MTAS STD pages 51-52, paragraph 268.

¹²⁷⁸ Vodafone cross-submission on the draft MTAS STD page 51, paragraphs 262-265.

¹²⁷⁹ CallPlus and Kordia submission on the draft MTAS STD page 5, section b.

¹²⁸⁰ Vodafone cross-submission on the draft MTAS STD page 51, paragraphs 262-265.

¹²⁸¹ Vodafone submission on the draft MTAS STD pages 90-91, paragraphs 419-420.

*Cross-submissions*CallPlus and Kordia

16. CallPlus and Kordia cross-submitted that the refund approach proposed by the Commission should be retained, and they did not support Vodafone's proposed credit approach, as it would potentially involve substantial amounts of 'credits' accruing before the regulated price is implemented.¹²⁸²

Outcome of the pre-Conference workshop

17. At the 11 March 2011 Workshop there was general agreement that:

- a credit should be provided for any overpayment identified as part of the reconciliation process after changes are made to billing systems to reflect the prices and pricing principles determined in this MTAS STD, with the Access Seeker having the right to request that the overpayment be refunded to them; and
- if the timeframes for any reconciliation process were to remain at 20 Working Days, an Access Seeker requested a refund rather than a credit, and the Access Provider that was required to pay a refund but could not calculate and pay the refund within the 20 Working Days, the Access Provider should be required to pay interest on the amount refunded for the period from the end of the 20 Working Days until the refund was made.

¹²⁸² CallPlus and Kordia cross-submission on the draft MTAS STD page 3, section (a).

APPENDIX 11: REQUIREMENTS FOR MONITORING IN RELATION TO ON-NET OFF-NET PRICE DIFFERENTIATION

Purpose

18. The following tables specify the information that 2degrees, Telecom and Vodafone must provide to the Commission, as required under paragraph 568 of Section F of this MTAS STD. This information must be provided to the Commission within 20 Working Days of the close of each calendar month.

Table 39: Voice services information - volumes

		Month and year
Volume from mobile retail voice calls (in minutes actual and billed¹²⁸³)	Actual minutes	Billed minutes
Outgoing off-net minutes to other mobile networks		
Total on-net minutes (to and from own mobile network)		

Table 40: Voice services information - revenue

Revenue from mobile retail voice calls (in \$)	Month and year
Revenue from outgoing off-net minutes to other mobile networks	
Total revenue from on-net minutes (to and from own mobile network)	

¹²⁸³ Billed minutes when charged per minute and billed minutes forgone when charged by subscription.

Table 41: SMS service information - volume

Number of SMS messages received/sent (in numbers)	Month and year
Number of outgoing off-net SMS messages to other mobile networks	
Total number of on-net SMS messages (to and from own mobile network)	

Table 42: SMS service information - revenue

Revenue from SMS messages received/sent (in \$)	Month and year
Revenue from outgoing off-net SMS messages to other mobile networks	
Total revenue from on-net SMS messages (to and from own mobile network)	

Table 43: Subscriber numbers

Total number of retail mobile connections	Month and year
Cellular mobile telephone subscribers, active in the past 90 days (as at the end of month)	
Numbers of pre-paid subscribers that have ported off the network or have become inactive within the past month (ie have no activity in the past 90 days)	
Number of post-paid subscribers that have ported off the network or have ceased their post-paid service and have not replaced it with a pre-paid service within the past month	

19. In relation to the revenue figures in Table 40 and Table 42 above, 2degrees, Telecom and Vodafone must apply the following attribution rules:
- where an MNO receives a subscription fee for access to one service (voice or SMS), the entire access fee revenue should be allocated to the relevant service;

- where an MNO receives an access fee purely for an on-net voice or SMS package, this is attributed directly to the relevant on-net service; and
- where an MNO receives an access fee for a bundled product with voice and SMS components, then the voice and SMS services will be allocated revenue in line with the “fair value accounting” principle (ie deriving a fair value for each component of the service and allocating the access fee to these components in proportion with the fair values). This is determined in two ways depending on the type of bundle under consideration, as set out below:
 - Where the individual components of the bundle are limited to a certain volume, the value of the component is derived by pricing the maximum usage gained by paying the access fee at the headline retail rate; or
 - Where the individual components of the bundle are unlimited in terms of usage, the fair value ratio of the components is derived by using historic analysis of the respective post-paid and pre-paid revenue splits.

The access fee revenue is then allocated across the voice and SMS services in the same proportion.

APPENDIX 12: SUMMARY OF MINOR DRAFTING CHANGES FROM DRAFT MTAS STD

Purpose

1. The following table summarises submissions of interested parties on minor drafting changes and sets out minor drafting changes made from the draft MTAS STD by the Commission following submissions and also changes made on the Commissions own initiative.

Clause of draft STD	Submitter	Submission	Final Determination
1.2	Vodafone	Submission p71 paras 315-317. Vodafone recommended replacing ‘or an Access Provider {Access Seeker} Group member’ whenever this phrase occurs with ‘or an Access Provider {Access Seeker} Group Member incorporated in New Zealand’ Vodafone expressed concern that the Commission’s amendment may inadvertently capture overseas incorporated companies within the company group who should not be subject to the determination. Would also require amendment to Clauses 1.3, 1.6.1(a), 1.9, 1.10, 1.14.1(a), 2.27.1 and 2.28.1.	The Commission considers that no change to the draft STD drafting is necessary as the services apply only in New Zealand. Clause 1.7 provides clarification.
1.6	Vodafone	Submission p71, paras 318-319. Vodafone recommended that the phrase ‘..any number in any 026 or 024 range..’ be replaced with ‘...any number in any 026 number range allocated to a pager service or 024 number range allocated to an access service in Antarctica..’ {also applies to 1.14}. Vodafone considered that this would clarify the intent of this provision.	The Commission has amended subclause 1.6 for consistency with the Number Administration Deed.
1.11	2degrees	Submission- comments on General Terms p 1. 2degrees submitted that reference to international inbound roamer is inconsistent with other	The Commission has amended the subclause to ensure consistency.

Clause of draft STD	Submitter	Submission	Final Determination
		descriptions of such users in the draft MTAS STD General Terms, should be made consistent.	
1.14	Vodafone	Submission p71 paras 318-319. Vodafone recommended that the phrase ‘..any number in any 026 or 024 range..’ be replace with ‘...any number in any 026 number range allocated to a pager service or 024 number range allocated to an access service in Antarctica..’ {also applies above to 1.6}.	The Commission has amended the subclause for consistency with the Number Administration Deed.
2.11	Vodafone	Submission pp71-72, paras 320-321. Vodafone suggested a minor amendment to make Clause 2.11 consistent with Clause 2.8. as follows: ‘2.11 Following a Request, the Access Seeker will make available and provide to the Access provider...’	The Commission has amended this subclause for consistency with Clause 2.8.
	2degrees	MTAS- STD – General Terms (2degrees mark-up p13). 2degrees proposed amending 2.11 of the so that the obligation of Access Seeker reciprocity applies to the Access Seeker as an Access Provider and in respect of an Access Provider as an Access Seeker.	The Commission has made the change proposed by 2degrees, as this is consistent with its views regarding Access Seekers that are Access Providers and Access Providers that are Access Seekers.
		Cross-submission pp 44-45, paras 227-229. Vodafone indicated disagreement with this proposal arguing that the purpose of Clause 2.11 is to ensure a reciprocal service is available for MTM. Vodafone recommends reinstating Clause as drafted in the draft STD as follows: ‘Following a request, the Access Seeker will make...a telecommunications service that is the same as the Mobile Termination Access Services as if it was an Access Provider	

Clause of draft STD	Submitter	Submission	Final Determination
		under these Mobile termination Access Terms, mutatis mutandis'	
2.17 (now 2.15)	2degrees	Submission Comments on General Terms p1. 2degrees suggested that there could be a responsibility for conveying calls and messages outside the scope of the MTAS service, and clarification was required.	The Commission has added clarification in this subclause (now 2.15).
	Vodafone	Cross-submission p50 para 258. Vodafone responded: 'We do not necessarily object to this drafting, but note that it is superfluous'.	
2.21 (now 2.19)	Telecom	Submission Appendix. Telecom submitted that for consistency with the amendment to Clause 2.11, the words 'in accordance with the Implementation plan' should be inserted after obligation to 'make available' the MTAS.	The Commission has added clarification in this subclause (now 2.19).
2.29.3	2degrees	Cross-submission p26. 2degrees submitted that consequential amendments need to be made in relation to ongoing adjustment of the security in (i) and (j) so that the tests are consistent.	The Commission has made the drafting changes (following its final determination that credit security of 2 months is appropriate).
3	CallPlus/Kordia	Submission p13. CallPlus/Kordia expressed support for the changes to dispute resolution procedures.	
3.2	Vodafone	Submission p78, paras 357-358. Vodafone submitted that reference to 'questions' in the definition of 'dispute' in Clause 3.2 should be deleted as this would potentially include matters which are more in the nature of advisory opinions.	The Commission has not adopted the proposed change, to ensure consistency with previous STDs.
3.3 (see clause 3.9)	Vodafone	Submission pp78-79, paras 359-360). Vodafone submitted that its understanding of the purpose of Clause 3.3 was to provide, in circumstances where there was a dispute about a party's rights under the Act, that such a	The Commission has reinserted the relevant subclause, for clarification, as new clause 3.9.

Clause of draft STD	Submitter	Submission	Final Determination
		<p>dispute could be resolved in accordance with the procedures set out in the Act and the dispute resolution provisions would not take precedence over those procedures and the rights of a party under the Act.</p> <p>Vodafone requested either reinsertion of Clause 3.3 or clarification in the final reasons paper why Clause 3.3. has been deleted.</p>	
	2degrees	<p>Cross submission p27 under 7.6.). 2degrees responded to Vodafone ‘While we would be prepared to agree to the inclusion of Clause 3.3, we do not see what it adds to clause 3.7’.</p>	
3.7	Vodafone	<p>Submission pp 76-78, paras 348-353). Vodafone submitted that the provisions of clauses 3.9-3.14 of the STP be reinstated. Vodafone recommended the use of the Arbitrators’ and Mediators’ Institute of New Zealand (AMINZ) Arbitration Appeal Tribunal Scheme. It argued that an award by an Arbitration Appeal Tribunal would be final and the parties would not have the right of appeal to the High Court and thereby avoid delay, expense and loss of privacy to the parties. As an alternative, Vodafone indicated that it would prefer wording that precludes entirely appeals to the High Court of the arbitral award.</p>	<p>The Commission has not adopted the proposed change as this would be inconsistent with previous STDs.</p>
	2degrees	<p>Cross-submission p27. 2degrees cross-submitted: ‘We do not agree with the proposal that disputes be settled in accordance with the AMINZ Arbitration Protocol. The effect of contracting out of appeals to</p>	

Clause of draft STD	Submitter	Submission	Final Determination
		the High Court (which AMINZ allows the parties to do, and VFNZ has proposed) and agreeing to confidentiality (imposed by AMINZ) would be to confine any appeal to a private forum'	
	Vodafone	Submission p75-79, paras 337-360. Maintains that the effect of the replacement of the word 'will' with 'may' may make the arbitration provisions set out in Clause 3.7 invalid and unenforceable. Vodafone argues that the use of non-mandatory language is a serious mistake that can lead to litigation and costly delay. It recommends the mandatory word 'will' be used in Clause 3.7.	The Commission has not adopted the proposed change as this would be inconsistent with previous STDs.
	2degrees	Cross submission ibid. Responds that Vodafone's 'suggested change of 'may' to 'will' needs further revision. As drafted, the effect would be that any dispute not resolved at mediation will automatically be referred to arbitration without either party doing anything. Presumably, that is not what Vodafone intended. A dispute should not be referred to arbitration without one party taking the step of giving notice'.	
3.7.5	Vodafone	Submission p78, paras 354-356. Submitted that Clause 3.7.5 {whereby costs will be borne equally by the parties unless the arbitrator determines otherwise} departs from the usual position that the unsuccessful party is required to pay costs. It recommended reinstatement of the wording contained in clauses 3.6.1 to 3/6.5. of the STP and replacing Clause 3.7.5 as follows:	The Commission has not adopted the proposed change as this would be inconsistent with previous STDs.

Clause of draft STD	Submitter	Submission	Final Determination
		‘Any award of the costs and fees of the arbitrator and/or of the parties shall be determined by the arbitrator, applying the principle that ‘costs follow the event’, in the arbitrator’s sole and absolute discretion. Any decision of the arbitrator as to the award of any costs and fees shall be final and shall not be subject to challenge or appeal.’	
3.8-3.15	Vodafone	Submission pp76-78 paras 346-353. Vodafone recommended that STP clauses 3.9 to 3.14 be reinserted into the STD, reflecting the AMINZ Arbitration Appeal Tribunal scheme and providing for no right of appeal to the High Court.	The Commission has not adopted the proposed changes as this would be inconsistent with previous STDs.
	Vodafone	Marked-up MTAD STD – General Terms. Vodafone made a number of proposed amendments to 3.8. and 3.15.	
	2degrees	Cross-submission p27. 2degrees did not accept Vodafone’s proposed amendments to clauses 3.8.1 to 3.8.6 and 3.10-3.15 and submitted that they should not be accepted.	
4.2	Telecom	Submission Appendix. Telecom noted a formatting error – 4.2.3 should be removed and the words ‘any Calls and Text Message’ indented.	The Commission has corrected the formatting error.
5	2degrees	Submission Comments on General Terms p1. 2degrees agreed that the force majeure provisions should be mutual. Consequential amendments to 5.2.13, 5.3, 5.4, 5.5 and 5.6 are needed to make the provision of mutual effect.	The Commission has made the appropriate consequential amendments to provide mutual force majeure provisions.
	Vodafone	Submission p81 para 376. Vodafone indicated that references to ‘Access Provider’ should refer to ‘Access Provider or Access Seeker’.	

Clause of draft STD	Submitter	Submission	Final Determination
5.1	Vodafone	Submission p81 paras 375-376. Suggested that in light of Clause 5.1 an additional clause be inserted providing that the force majeure provisions do not apply with respect to payment obligations, consistent with commercial practice.	The Commission has not inserted the proposed additional clause as this would be inconsistent with previous STDs.
5.2.12	Vodafone	Submission p81 para377. Vodafone submitted that the Clause (providing that industrial action is limited to that other than by employees of the party relying on the force majeure clause) is inconsistent with commercial practice and the intention of the force majeure protection as provided for in Clause 5.5.	The Commission has made appropriate modifications to ensure consistency with previous STDs.
	2degrees	Cross submission p27. 2degrees indicated that it did not agree that a party claiming the benefit of the force majeure protection should be able to do so where its own employees are striking.	
5.10	2 degrees	Mark-up of MTAS STD General Terms. 2degrees suggested an additional clause proposing an 'Independent Audit' process triggered by the Access Seeker believing 99% success rate for SMS has not been attained.	The Commission has made no change to this subclause. The Commission does not consider that an Independent Audit is necessary, and in light of the potential cost is not appropriate in the circumstances.
	Vodafone	Cross-submission pp48-49 paras 246-250. Vodafone maintained that 2degrees' proposal is inconsistent with commercial practice (in general interconnection arrangements not being subject to defined service levels), imposes a disproportionate cost and an unrealistic delivery standard.	
6.1	2degrees	Submission comments on General Terms p1. 2degrees submitted that Clause 6.1.1. should be qualified to be consistent with the preliminary	The Commission has not adopted the proposed change as it is of the view that it does not add clarity.

Clause of draft STD	Submitter	Submission	Final Determination
		view that termination due to material breaches should be limited to situations where the material breach causes an adverse impact on the other party.	
6.1.2	Telecom	Submission para 125. Telecom submitted that three rather than five material breaches would be more appropriate.	The Commission has not made any changes to the number of material breaches as it considers five appropriate.
	Vodafone	Vodafone pp83-83. Vodafone recommends three rather than five material breaches.	
	2degrees	Cross submission pp 27-28. 2degrees indicated comfort with Commission's approach although would be prepared to agree Vodafone's (and Telecom's) proposals subject to certain conditions.	
6.3	2degrees	Submission comments on General Terms p1. 2degrees submitted that the termination right should be qualified to be consistent with the Commission's preliminary view that termination due to material breach should be limited to situations where the material breach causes an adverse impact on the other party.	The Commission has not made any changes to the subclause as it considers that the material threshold is appropriate and subclause 6.1.1. provides Access Seekers with 20 Working Days to cure a breach.
	Vodafone	Cross submission pp 41-42 paras 209-210. Vodafone indicated disagreement with 2degrees suggested amendments to Clause 6.3.	
6.4 (new clause)	Vodafone	Mark-up of draft General Terms. Vodafone recommended the an additional clause: 'For the avoidance of doubt, breach by a party of any obligation requiring payment by one party to the other under these Mobile Termination Access Terms constitutes a material breach for the purposes of this Clause 6'	The Commission has not adopted the proposed clause as in its view it does not add clarity.
	2degrees	Cross submission p28. 2degrees	

Clause of draft STD	Submitter	Submission	Final Determination
		indicated that it did not agree with Vodafone that the concept of material breach should be defined.' It would be relatively easy for a party to be in technical breach of a payment obligation, but that breach and its effects may not be material in nature'.	
10	Telecom	Submission Appendix. Telecom submitted that the proposed amendments to Clause 10 could be read as meaning the Call Handover Obligations allow FTM calls to be handed over at points outside the relevant coverage area, as the only available Handover Point would be the most 'expedient'. It recommended including: 'This means that an Access Seeker cannot originate FTM Calls outside of the LICA Group(s) within which it has elected to install a Handover Point'.	The Commission has not adopted the proposed amendments. The matter is covered by Clause 4, Annex 1, of Schedule 3
	Vodafone	Submission p79 paras 364-367. Vodafone submitted that the Commission has not carried its preliminary view (relating to Access Seeker interconnect at only one or two of the three handover points) proviso that an Access Seeker is only able to hand over FTM calls that originate in the coverage area that the relevant handover point serves, through to an amended Clause 10.3	
10.3	Telecom	Submission Appendix. Telecom noted a typographical error – in second last line, add a 't' to 'hose'.	The Commission has corrected the typographical error.
20.12.3	2degrees	Submission comments on General Terms p1. 2degrees submitted that there may be circumstances where the Notifying Party is restricted by	The Commission has amended the clause to provide clarification.

Clause of draft STD	Submitter	Submission	Final Determination
		law from notifying the Supplying Party and the provision should be so qualified	
21.11	Vodafone	Submission p87-88 paras 402-404. Vodafone submitted that hand-off codes are required for all ported calls and text messages, and the lower case references to ‘call’ and ‘text message’ should be reinstated. {Provided drafting}.	The Commission has made no change because the inclusion of non-FTM or MTM Calls, or SMS from other than a mobile, is outside the scope of the MTAS STD.
	Vodafone	Cross submission p50 para 259. 2degrees’ suggested amendment the language used in Clause 20.12.2 should be used.	
21.12.3	2degrees	Mark-up to draft MTAS STD – General Terms. 2degrees recommended deletion of ‘all’.	The Commission has not made any change in response to the proposal given
	Vodafone	Cross submission p50 para 260. Vodafone disagreed with 2degrees proposed deletion of the word ‘all’ in Clause 21.12.3(b) because ‘all call query’ is the correct term.	Vodafone’s explanation that ‘all call query’ is the correct term.
21.12.4	Vodafone	Submission p 86 para 398. Vodafone submitted that ‘only’ should be added so Clause reads: ‘disclose the Confidential Information only to the extent...’ to clarify the extent of the Receiving Party’s obligation and to provide assurance to the Supplying party that confidential information will be disclosed only to the extent necessary.	The Commission has made the suggested amendment.
21.12.13	Vodafone	Submission p87, paras 400-401. Vodafone submitted that as currently drafted the proposed amendments obscure rather than clarify the required response where the number portability database fails, particularly as it fails to distinguish between re-routing to a third party or re-routing to the other party. It indicated that Clause 21.12.13 appears to impose a charge for	The Commission has made no change as this subclause is intended to allow for an Access Seeker charge where the Number Portability Database fails.

Clause of draft STD	Submitter	Submission	Final Determination
		re-routing calls that have been misdirected as a result of a fault with the number portability database. Vodafone recommended deleting proposed 21.12.3 to restore clarity as to the obligation of each party.	
Schedule 1 Annexes 1-3	2degrees	Submission comments on General Terms p2. 2degrees noted that Annexes 1-3 to Schedule 1 would not be able to be varied. It suggested that it may be appropriate to ensure that RTD covering amendments to related definitions would not be precluded.	The Commission has not made the change proposed. 2degrees understanding of what terms are variable is correct. However, the Commission considers that as it must approve any RTD this provides adequate safeguard.
Annex 3 to Schedule 3, Clause 5.9	Telecom	Submission Appendix. Telecom submitted that the drafting refers to 'a third party' without requiring that third party to be a Network Operator, or an Access Seeker under an STD. It submitted that the uncertainty regarding what sort of arrangements may be in place between the third party and the Access Provider is not appropriate: 'The right to transit text messages needs to be limited to Network Operators who have an interconnection agreement with the Access Provider (including provisions permitting the handover of text messages), or to a Network Operator who is itself an Access Seeker under an STD.'	The Commission has made a change to reflect its determination that only Access Seeker transit is covered by this STD.
	Vodafone	Submission p70, paras 306-308. Vodafone submitted that it would be useful to reinstate the drafting deleted to clarify that the third party transmission of SMS is outside the scope of MTAS. Vodafone recommended reinstating the deleted text so that the final paragraph of Clause 5.9 pf	

Clause of draft STD	Submitter	Submission	Final Determination
		Annex 3 to Schedule 3 reads: ..but, for the avoidance of doubt, that Text message shall not be a Chargeable Text message for the purposes of the Mobile Termination Access Terms....'	
Annex 3 to Schedule 3, Clause 5.10	2degrees	Comments on General Terms p3. 2degrees submitted that this clause provides for no liability for any failure by the Access Provider to process, transmit or store Text Messages. Text messages received by the Access Provider from the Access Seeker Network but not delivered to the end-user can be charged for. It submitted that the clause should be deleted and clauses inserted to provide that if an audit determines that the Access provider has failed to deliver 99% or more text messages handed over by the Access Seeker, the Access provider is to refund payment in respect of undelivered Text Messages plus interest to the Access Seeker.	The Commission has determined that no change is appropriate as this is covered by the general obligation to deliver text message to a Designated Destination.
Annex 3 to Schedule 3, 5.10	Vodafone	Cross submission p49 para 251. Vodafone submitted that the word 'not' should be inserted between the words 'shall' and 'be a failure'.	The Commission had made the proposed change to correct a drafting error.
Annex 3 to Schedule 3, Clause 6.1 (e) 7& (f)	2degrees	Comments on General Terms p3. 2degrees submitted that these subclauses should be deleted. The Access Provider's rights in these clauses are in part duplicative of Clause 6.1.(c) and (d), and in part additional and excessive. The rights given the Access Provider in Clause 6.1. (a) and (b) adequately protect the Access provider additional exposure in this regard.	The Commission has made no change in response to the proposal. The Commission does not consider these provisions to be unduly repetitive.
Annex 3 to	2degrees	Submission comments on	The Commission has made a

Clause of draft STD	Submitter	Submission	Final Determination
Schedule 3, Clause 6.2(b) & (d)		General Terms p3. 2degrees submitted that consequential amendments are needed in paragraphs (b) and (d) so that Clause 6.2 relates to Text Messages sent from particular subscribers rather than text Messages sent from both particular subscribers and groups of subscribers.	consequential amendment to reflect the Commission's view in the draft MTAS STD.
Annex 3 to Schedule 3, Clause 6.2 & 6.5	2degrees	Submission comments on General Terms p3. 2degrees submitted that consequential amendments are needed in paragraphs 6.2 (b) and (d) and (e) and (f).	The Commission has made appropriate consequential amendments to clauses 6.2 and also to 6.5.
Annex 3 to Schedule 3, Clause 6.3	Vodafone	Submission pp70-71 paras 309-313. Vodafone recommended deletion of this requirement. Vodafone maintained that the proviso added to Clause 6.3(a) limits an Access Provider's ability to proactively manage spam before the customer is aware of the issue, noting that a lack of customer complaints is a sign that an Access Provider is delivering a high level of service. Customer service would be degraded for off-net spam if the requirement is adopted.	The Commission has made no change to this clause because it considers an Access Provider should only be able to suspend the MTAS service where there is an end-user complaint.
	2degrees	Submission comments on General Terms p29. 2degrees indicated disagreement with Vodafone that the Access Provider needs to be able to suspend the service to particular numbers without there being a requirement for that customer to have complained.	
Annex 3 to Schedule 3, Clause 6.4	2degrees	Submission comments on General Terms p3. 2degrees submitted that clauses 6.1-6.3 of Annex 3 to Schedule 3 should be subject to Clauses 4.2 and 4.3 of the General Terms.	The Commission has amended the clause in order to provide clarity.
Subschedule	Vodafone	Submission p88, paras 405-406.	The Commission has made no

Clause of draft STD	Submitter	Submission	Final Determination
4A, Clause 2.10.2		Vodafone recommended reinstating Clause 2.10.2. It argued that the requirement for the Access Seeker (to notify the Access Provider of any outage that occurred on the Access Seeker network) is important for Access Providers, as a fault on the Access Seeker's network may cause issues for the Access Provider and its customers.	change to this clause because the Access Provider will have this information through its reciprocal obligations and that the MTAS STD is focused on termination.
	2degrees	Cross submission p29. 2degrees cross submitted that it did not regard outages in the Access Seeker network relevant.	
Subschedule 4C, Clause 2.4	Vodafone	Submission p88-89, paras 407-410. Vodafone proposed amending Clause 2.4.2. so that it reads 'for any lawful purpose' only. It argued that the words following 'necessary for the supply of MTAS' may prevent the Access Provider from undertaking legitimate business practices, noting that Access providers use numbering information for a range of legitimate and lawful purposes. For the same reason it proposes consequential amendment of Clause 6.2.3.	The Commission has made the proposed amendment to aide clarity.
Subschedule 4C, Clause 2.7	CallPlus/Kordia.	Submission p9 & Mark-up of General Terms p 105. CallPlus/Kordia proposd deletion of this clause. They submit that 'manifestly incorrect' is not defined and the notification and request procedure is not practical for a small Access Seeker in the case of a larger transit customer.	The Commission has made no change because it considers the Clause is reasonable and clear.
	Vodafone	Cross-submission p49 para 253 Vodafone disagree with CallPlus/Kordia: '..if there is any reasonable debate as to the correctness or otherwise of an A-number, the A-number	

Clause of draft STD	Submitter	Submission	Final Determination
		cannot be manifestly incorrect by definition. This is a commercial standard that has worked well in New Zealand for many years..'	
Subschedule 4C, Clause 3.1.3	Telecom	Submission p89 para 411-412. Telecom recommended deleting the added words and reinstating Clause 3.3.3 of Schedule 4C as originally drafted. It argued that the proposed insertion is not consistent with current market practice in New Zealand for interconnection terms.	The Commission has made no change as it does not consider that there should be a bar on which calls the Access Seeker should choose to present.
	2degrees	Cross submission p29. 2degrees cross submitted that it did not agree with the deletion proposed by Vodafone.	
Subschedule 4C, Clause 6.2.3	2degrees	Submission p88-89, paras 407-410). 2degrees, for the reasons above in 2.4 recommend the deletion of the words 'for the supply of MTAS'.	The Commission has made the proposed change to aide clarity.