Project no. 13.03/12854

Public version

Metrics for mobile monitoring

Discussion paper

Date: 13 June 2014

CONTENTS

Introduction

1. Section 9A(1(a)) of the Telecommunications Act 2001 (Act) requires us to "monitor competition in telecommunications markets and the performance and development of telecommunications markets".[1] This monitoring role is distinct from the Commission's other roles and functions under the Act, including the Commission's power to undertake a Schedule 3 investigation.

2. Currently we monitor mobile telecommunications markets through:

   2.1 information collected and analysed as part of our annual monitoring activities

   2.2 information provided under the 2011 Mobile Termination Access Service Standard Terms Determination (MTAS STD).

3. Mobile telecommunications markets have changed significantly in terms of both supply and demand in the three years since the MTAS STD. We consider it appropriate to review whether:

   3.1 all the monitoring information provided under the MTAS STD continues to be relevant,

   3.2 in the context of our s.9A monitoring, if alternative monitoring metrics will better give effect to our s.9A responsibilities.

4. This paper sets out our preliminary views on the reasons for reviewing the current mobile monitoring methodology and asks industry's and other interested parties opinion on:

   4.1 our preliminary view on the metrics to be collected outside the annual questionnaire;

   4.2 any other measures that will assist us in our on-going assessment of the competitive dynamics of mobile markets; and

   4.3 our preliminary view that, given that mobile markets have changed significantly over the past three years, the monthly data provided under the MTAS STD no longer provides enough insights into competition in, or performance or development of, mobile telecommunication markets.

[1] Section 9A of the Telecommunications Act 2001, Functions of Commission in relation to sector monitoring and information dissemination
(1) In addition to the other functions conferred on the Commission by this Act, the Commission—
(a) must monitor competition in telecommunications markets and the performance and development of telecommunications markets

We are interested in your views

5. We ask the parties to submit their opinion on the Commission's preliminary views by 27 June 2014, outlining major issues, questions and potential concerns that you would like to discuss at the workshop.

6. We are proposing to hold an informal workshop on 4 July 2014, after receiving submissions to this paper, in order to discuss the parties' views on the revised methodology to monitor competition, performance and development of mobile telecommunications markets.

7. To attend this workshop, please bring your colleagues responsible for collecting the required data (e.g. IT and marketing). Please indicate in submissions who is likely to attend and provide contact details: we will confirm conference details.

8. Please address your submissions to telco@comcom.govt.nz.

Background

Section 9A

9. Section 9A(1(a)) of the Telecommunications Act 2001 (Act) requires us to monitor two aspects of telecommunications markets - 'competition in' and the 'performance and development of' telecommunications markets. We consider these two aspects to be distinct but closely related:

    9.1 'Competition' is not defined in the Act. We consider competition in this context to have the same meaning as it does under the Commerce Act 1986, where competition is understood to be the process by which rival firms compete. Factors which influence that process and which identify how competitive a market is include: market concentration, barriers to entry and expansion, countervailing buyer power, consumer switching costs and any other matters which may restrict consumer choice. Prices and their relationship to costs can also be an indicator of the degree of competition.

    9.2 Similarly, 'performance and development' are not terms defined in the Act. Performance implies an analysis of the operation of the markets, while development examines how the markets have evolved, and are likely to evolve, over time.

10. Our monitoring role is not, however, open ended: information collected needs to have regard to the purpose for which the Commission's monitoring function exists, as well as the broader purposes of the Act. Where we collect metrics to inform our assessment of how the market works (ie, how it is performing) and how that may change in the future (ie, how it is developing), these should be relevant to the ultimate question of telecommunications market competition. It follows that when collecting data for monitoring competition in telecommunications markets, we should seek metrics that allow us to understand these characteristics of telecommunications markets.

11. As part of our monitoring role for mobile telecommunications markets we currently monitor and report on:

    11.1 The state of communications market in New Zealand, in our Annual telecommunications monitoring report, under s9A of the Act;

    11.2 International price benchmarking, in our International price comparison for retail mobile telecommunications services, under s9A of the Act; and

    11.3 Cross-network traffic and revenue for voice and text, in our Mobile monitoring report, under the MTAS STD

Current monitoring under the MTAS STD

12. Paragraph 567 of the MTAS sets the objectives for the monitoring

> 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.

13. The information required under the MTAS STD was intended to ensure that we could observe the evolution of most of the main features of the market in 2011:[2]

> 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.

[2] MTAS executive summary paragraph iv

14. In particular, the disclosure requirements under the MTAS STD enable an overview of the competition concerns identified in 2011:[3]

> 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 operator 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).

15. The Commission used to produce a quarterly report on the information received.

Current monitoring under s9A

16. Section 9A of the Act specifies neither the metrics nor the periodicity of the monitoring. Nevertheless, our monitoring has evolved with the Annual telecommunications monitoring report.

The relationship between the current mobile reports

17. Table 1 compares the Mobile monitoring report (Mobile report) with the information collected for the Annual telecommunications monitoring report (Telecommunications report).

18. As the table shows, most of the information collected for the mobile monitoring is also being collected for the Telecommunications report, apart from churn and actual minutes. But the Telecommunications report collects more detailed information on mobile markets and other sort of information.

19. The complementarity of both reports lies in the periodicity. Since the Telecommunications report includes more information on mobile markets and also information on the fixed sector and the wholesale sector, it is published only once a year with a delay of almost one year from the date when the last information was collected. The mobile report, on its turn, had the purpose of providing regular overview of the trends of particular market features.

20. The Telecommunications report is updated every year to mirror developments in the market. The Mobile report has never been updated, so its scope is limited to the competition concerns identified in 2011.

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3 MTAS paragraph v

Table 1 – Mobile metrics on reports

Metrics	**Mobile report**	**Telecommunications report**
Total number of subscribers prepaid and on-account	Included	Included
Customer churn rates (prepaid and on-account)	Included	Not included
On-net and off-net traffic volumes	Included • SMS • billed minutes • actual minutes	Included • SMS • billed minutes
On-net and off-net revenue for mobile to mobile calls and SMS	Included	Included
Other	No other information required	More detailed information on retail subscribers, traffic and revenue Information on Wholesale revenue Information on capital expenditure
Frequency	**Mobile monitoring**	**Telecommunications report**
Frequency	Data collected monthly and reported quarterly (last report published in October 2013 including data up to April 2013)	Data collected annually and reported annually (last report published in May 2014 including data up to June 2013)
Update frequency of information collected	Not updated	Updated annually

Mobile market

21. Telecommunications markets are dynamic and the mobile market has been particularly vibrant. Significant developments have occurred over the last three years on the supply side and on the demand side (discussed below) such that we consider it is now an appropriate time to review the monitoring methodology to ensure that we are monitoring the right metrics, at the appropriate frequency, to inform an assessment of competition in, and the performance and development of mobile telecommunications markets.

Supply side

22. The most significant changes since 2011 on the supply side of the market are:

    22.1 There are now three established mobile providers. When the MTAS STD was published, the two largest operators (Telecom and Vodafone) collectively held approximately 92% market share by subscriber. That percentage has now dropped to 75%.

    22.2 The MTAS STD set a glide path for Mobile Termination Rates (MTR). The MTR for voice MTAS services has dropped from 7.48 NZcpm in May 2011 to 3.56 NZcpm on 1 April this year (last reduction under the current applicable glide path).

    22.3 Prices for the most popular mobile plans have been dropping and are below OECD averages.

    22.4 Technology developments and new spectrum allocation allow for significantly different services: data is becoming the primary service as mobile broadband coverage expands, bundling of data voice and text is now predominant and machine-to-machine is gaining importance in the mobile portfolio.

Demand side

23. Customer preferences have changed along with the services provided, suggesting that other factors need to be observed in order to fully understand the dynamics of mobile markets.

24. Table 2 below illustrates customers' preference for plans combining different services, such as the $19 plan.

Table 2 – Mobile weekly expenditure by all private households

	Nominal expenditures		Var
	2009-10	**2012-13**	
Cellphones and accessories	746,700	2,341,600	214%
Prepaid cellphone cards and other top-ups	4,838,500	4,723,900	-2%
Cellphone plans (voice+SMS+data)	3,425,100	4,850,900	42%
Stand-alone calls	2,504,800	1,482,900	-41%
Stand-alone internet	5,688,400	4,178,000	-27%

Source: Adapted from Statistics NZ survey - Household expenditure of ICT

25. Other changes include:

    25.1 Data usage doubling year on year; and

    25.2 Consumers adopting alternative ways of communicating, using over-the-top (OTT) services, such as voice and text messages.

Impact of changes in the mobile market on our monitoring activity

26. The observable changes suggest that monitoring metrics must include plans that bundle groups of services, and also that revenue allocation methodologies must be reviewed.

27. Internet traffic over mobile networks is doubling year on year and there are also new services emerging or gaining importance, such as over-the-top services, and machine-to-machine services; metrics covering voice and text only provide a partial view of the mobile telecommunications sector.

28. We still consider that some metrics related to the mobile sector may be collected only once a year, being part of the Telecommunications report. However, that periodicity is not adequate for information that is time sensitive.

29. Therefore we propose a revised range of metrics that may replace the ones collected under the MTAS STD, which have been the basis for the Mobile report.

30. The revised set of metrics included in Attachment 1 - Mobile markets performance metrics and the respective definitions included in Attachment 2 – Definitions, will also allow us to compile international comparisons. The exact frequency of collecting and reporting the information is still open to discussion.

31. We look forward for your submissions on this discussion paper.

32. Following this process, we are likely to commence a s30R review of the disclosure obligations in paragraph 567 of the MTAS STD. As part of that review, we will consider whether disclosure obligations related to the MTAS should be retained in the MTAS STD, or whether they should be included, as appropriate, in our annual mobile monitoring activities under our general s.9A powers.

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Attachment 1 - Mobile markets performance metrics

Connections

<table>
<tr><td colspan="2">Report content:
HHI based on number of connections, by customer segment
Trends in number of subscribers (total)
Mobile penetration
Trends in connections by customer and service segmentation
International benchmarking</td><td>Report frequency:
Monthly data with collection frequency to be determined</td></tr>
<tr><td>Data to be collected
Active connections (last 90 days)</td><td>Customer segmentation
Prepaid
On-account residential
On-account business</td><td>Service segmentation
Stand-alone services/add-ons
    Voice/SMS
    Data-only
    On-net add-ons
    Roaming add-ons
    M2M (machine-to-machine)
Bundles
    Voice/SMS/Data ≤1GB
    Voice/SMS/Data >1GB < 5GB
    Voice/SMS/Data ≥ 5GB
    Combining fixed services
    Combining mobile media content
SIM cards for tourists</td></tr>
</table>

Traffic

Report content: *Trends in each type of traffic by customer segmentation* *International benchmarking*	**Report frequency:** *Monthly data with collection frequency to be determined*
Data to be collected <u>Domestic traffic</u> Voice minutes on-net Voice minutes off-net Outbound/Inbound SMS on-net SMS off-net Minutes mobile-to-fixed Minutes fixed-to-mobile Minutes mobile-to-international Minutes international to mobile MB of traffic data from M2M SIM cards MB of data traffic 3G MB of data traffic 4G Use of OTT: voice minutes and messaging <u>Roaming</u> Traffic from domestic customers when roaming overseas Voice minutes /SMS/ data Traffic from overseas customers roaming in NZ Voice minutes /SMS/ data	**Customer segmentation** Prepaid On-account residential On-account business

Revenue

Report content:	**Report frequency:**
HHI based on revenue by customer segment *Trends in revenue (total)* *Trends in revenue by customer and service segmentation* *International benchmarking* *Average pricing development over the year (Total Revenue/Total traffic by service)*	*Monthly data with collection frequency to be determined*

Data to be collected	**Customer segmentation**	**Service segmentation**
<u>Revenue from domestic traffic</u>	Prepaid On-account residential On-account business	Stand-alone services/add-ons Voice/SMS Data-only On-net add-ons M2M Other Bundles Voice/SMS/Data ≤1GB Voice/SMS/Data >1GB < 5GB Voice/SMS/Data ≥ 5GB Combining fixed services Combining media content
<u>Revenue from roaming</u>		
Revenue from domestic customers when Roaming overseas		NA
Revenue from overseas customers roaming in NZ	NA	NA

Barriers to switching

Report content: *% of ported numbers Vs active subscribers* *International benchmarking*	**Report frequency:** *Monthly data with collection frequency to be determined*
Data to be collected Churn	**Customer segmentation** Prepaid – domestic plans / tourist SIM cards On-account residential On-account business M2M cards

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Attachment 2 – Definitions

Information to be provided	Definition
Connections	
Connection	SIM card
Active	Made or received calls or accessed the internet within the prior 90 days
Customer segmentation	
Prepay	Involves the purchase of blocks of usage in advance
Residential Customer	SIM card associated with account not identified as business
On-account non-business	Services are paid after they are consumed by way of a regular account where SIM card is associated with account NOT identified as business
On-account business	Services are paid after they are consumed by way of a regular account where SIM card is associated with account identified as business
Service segmentation	
Stand-alone services	
Voice	All mobile voice (casual rate and add-ons) not sold in a bundle
On-net add-ons - Voice	Part of the previous service that has a lower tariff for on-net calling

Short Message Service (SMS)	All texting (casual rate and add-ons) not sold in a bundle
On-net add-ons - SMS	Part of the previous service that has a lower tariff for on-net texting
Data-only	Add-ons for data/data packs
Roaming add-ons	Add-ons for domestic customers when roaming overseas
SIM cards for tourists	SIM cards for visitors to New Zealand
Machine-to-Machine (M2M)	SIM Cards exclusively used for the communication between equipment or from equipment to people Includes, among other, payment terminals using mobile network, telealarm, telesecurity, telemedicine, telemetry, telematics, etc.
Voice over IP	Number of “Skype like” calls
Instant Messaging (ISM)	Number of messages in ISM format
Bundles	
Voice/SMS/Data	Plans combining the three services
Combining fixed services	Mobile plans associated with fixed services
Combining media content	Mobile plans including media
Traffic	
Minutes	Actual minutes

Inbound	Minutes originated on an external mobile network (national) and terminated on the mobile provider network
Outbound	Minutes originated on the mobile provider network and terminated on an external mobile network (national)
2G	MB from 2G networks
3G	MB from 3G networks
4G	MB from 4G networks
Switching	
Churn	SIM cards that have ported off the network or have become inactive within the past month (ie have no activity in the past 90 days)