ISSN NO. 0114-2720
J 4485

COMMERCE COMMISSION

Decision No. 423

Determination pursuant to the Commerce Act 1986 in the matter of an application for clearance of a business acquisition involving:

TELECOM NEW ZEALAND LIMITED

and

2 GHZ SPECTRUM

The Commission:	M J Belgrave (Chair) M N Berry P J M Taylor
Summary of Application:	The acquisition by Telecom New Zealand Limited of Radio Frequency Spectrum management rights and licences in the 2 GHz band auctioned by the New Zealand Government.
Determination:	Pursuant to section 66(3)(a) of the Commerce Act 1986, the Commission determines to give clearance for the proposed acquisition.
Date of Determination:	15 March 2001

THIS REPORT CONTAINS NO CONFIDENTIAL MATERIAL

CONTENTS

THE PROPOSED ACQUISITION **1**

THE PROCEDURES **1**

THE PARTIES **2**

TELECOM NEW ZEALAND LIMITED ("TELECOM") 2
2 GHZ AUCTION 2

INDUSTRY BACKGROUND **2**

BACKGROUND TO THE NZ TELECOMMUNICATIONS ENVIRONMENT 2
MOBILE TELEPHONY 3
First generation (1G) functionality *3*
Second generation (2G / 2.5G) functionality *3*
Third generation (3G) functionality *4*
Internet access and mobile technology *4*
Significance of convergence and impact on demand for spectrum *5*
Spectrum currently utilised *5*

AUCTION OF RADIO FREQUENCY SPECTRUM IN THE 2GHZ BAND **5**

Background *5*
Current Spectrum Auction *6*

MARKET DEFINITION **6**

INTRODUCTION 6
IDENTIFYING RELEVANT MARKETS 7
THE MARKETS RELEVANT TO THE CURRENT APPLICATION 8

THE MARKET FOR THE PROVISION OF MOBILE TELEPHONY SERVICES **9**

INTRODUCTION 9
CURRENT COMPETITION 10
NEW ENTRY 10
VIEWS OF MARKET PARTICIPANTS 11
CONCLUSION ON DOMINANCE IN THE MARKET FOR THE PROVISION OF MOBILE TELEPHONY SERVICES 11

THE MARKET FOR THE PROVISION OF THIRD GENERATION MOBILE TELEPHONY SERVICES **12**

INTRODUCTION 12
COMPETITION ANALYSIS 12
CONCLUSION ON DOMINANCE IN THE MARKET FOR THE PROVISION OF THIRD GENERATION MOBILE TELEPHONY SERVICES 13

OVERALL CONCLUSION **13**

DETERMINATION ON NOTICE OF CLEARANCE **14**

THE PROPOSED ACQUISITION

1. Pursuant to section 66(1) of the Commerce Act 1986 (the Act), Telecom New Zealand Limited (Telecom) gave notice to the Commission on 5th March 2001 (the application), seeking clearance for the proposed acquisition by it, or any interconnected body corporate of it, of Radio Frequency spectrum management rights and licences comprising specifically of:

   (a) management rights for 15 MHz for 20 years in the radio frequency range 1920 to 1980 MHz (the 3G band), together with management rights for the corresponding frequencies in the range 2110 to 2170 MHz (the 3G natural pair band); and

   (b) management rights for 25 MHz for 20 years in the frequency range 1710 to 1785 MHz together with management rights for the corresponding frequencies in the range 1805 to 1880 MHz (the 2G band); and

   (c) where the incumbent licensee of spectrum covering whole or part of one or more lots of management rights referred to in (b) above is granted a licence of 1, 2, 3 or 5 years, (an incumbency licence), a technically identical licence for five years less the period of the incumbency licence (intermediate licence) and/or a technically identical licence for 15 years commencing at the expiry of the intermediate licence (the beyond licence); and

   (d) the additional licence lots in the auction as set out in the Schedule to this application.

THE PROCEDURES

2. The application was registered by the Commission on the 5th March 2001. Section 66(3) of the Act requires that the Commission, within 10 working days after the date of registration of the application, or such longer period agreed by the applicant, gives, or declines to give, a clearance for the acquisition. The tenth working day after the registration of the application is the 19th March 2001.

3. Telecom requested confidentiality of certain information contained within the application. In accordance with section 100 of the Act, the Commission made a confidentiality order prohibiting the publication or communication of that information for a period of 20 working days from the date on which the Commission makes a final determination. When the confidentiality order expires, the provisions of the Official Information Act 1982 will apply to the information that was subject to the order.

4. The Commission's determination is based on an investigation conducted by its staff and their subsequent advice given to the Commission. In the course of their investigation, Commission staff have discussed the application with a number of parties. These parties included:

   - CLEAR,

- Ministry of Economic Development,
- TelstraSaturn,
- TUANZ; and
- Vodafone.

THE PARTIES

Telecom New Zealand Limited ("Telecom")

5. Telecom is a wholly owned subsidiary of the Telecom Corporation of New Zealand Limited. Telecom is a supplier of a broad range of telecommunications services in New Zealand, Australia, and the Pacific Rim. These services include local, national, international and value-added telephony services, cellular, data, leased-line, internet and directory services.

2 GHz Auction

6. The management rights and licences which are the subject of the application are among the rights and licences recently offered for auction by the Crown. The auction has been administered by the Radio Spectrum Management Group of the Ministry of Economic Development which is also the issuer and administrator of radio spectrum licences within New Zealand.

7. The Radio Spectrum Management Group maintains a public register of spectrum rights and radio licences.

8. The management rights and licences offered at auction relate to frequencies, some of which could currently be encumbered. In some instances the acquirer may need to reach an accommodation with an existing user of that part of the spectrum. All encumbrances relating to particular lots were specified in the auction catalogue. In addition, the Crown does not guarantee that the lots offered at auction are suitable for the purpose for which they are being acquired. Nevertheless, the Commission has been advised by the Ministry and others that it is likely that the lots offered are likely to support a number of additional second generation mobile telephony networks and several third generation radio telephony networks.

INDUSTRY BACKGROUND

Background to the NZ telecommunications environment

9. Mobile communications have been available in New Zealand since the 1940s. In the beginning conventional (or private) mobile radio was the only option for mobile

communications. This provided the simplest of services – open broadcast of voice services over a radio channel.

10. Since the early 1980s global mobile communications have been revolutionised by advancing technology. In 1982 paging services were introduced to New Zealand, followed in 1987 by the introduction of analogue cellular services using the US 'AMPs' cellular standard. Competition arrived with the introduction of competing GSM cellular services in 1993.

11. The most common application of wireless technology within New Zealand is for mobile phone use with two cellular network operators currently serving the market. In its early years, mobile communications were considered expensive and purely a business tool. However, the trend now is towards mass ownership of cellphones. It is estimated that mobile phone penetration now exceeds 40% of the total population with Telecom, New Zealand's largest cellular operator, serving more than 1 million mobile customers. Vodafone, the second largest cellular operator has in excess of 700,000 customers.

12. Much of the cellular growth has occurred in the last two years, with pre-paid cellphones and text messaging proving extremely popular. Growth can also be attributed to active competition between the two operators which has resulted in an overall reduction in monthly access charges and innovative airtime pricing plans.

13. Industry forecasts predict cellphone penetration will have reached 80% by 2005.

Mobile telephony

First generation (1G) functionality

14. At the time that mobile technology was introduced in the late 1980s, cellphones operated on Telecom's analogue network in the AMPS radio-frequency band. Basic telephony was all that was offered, and the cost of operation was significant. These cellular phones were considered to be the first generation (1G) of wireless technology.

Second generation (2G / 2.5G) functionality

15. BellSouth (later acquired by Vodafone) entered the cellular market using digital GSM technology. GSM has become a common standard internationally and has been adopted by many cellular operators. Digital cellular was arguably better suited to wireless data applications which were becoming increasingly common during the mid-1990s. During this time Telecom also acquired spectrum to introduce their digital cellular service known as D-AMPS and which provided an increase in capacity to support a growing number of users.

16. Digital networks, in addition to accommodating low-speed data applications, (typically up to 9.6 kilobits per second (kbps)) have also permitted functions such as caller identification, voice messaging and short text messaging. Internationally, this functionality is known as second generation (2G) wireless technology.

17. Expected developments include the proposed switch by Telecom from its AMPS/D-AMPS cellular system to a CDMA (Code Division Multiple Access) cellular network within the next few months. This standard will provide expanded capacity and improved functionality.

18. Technology developers have focussed on increasing data transmission speeds to achieve rates between 56kbps and 144kbps. Transmission speeds of this magnitude are possible from the use of what many in the industry refer to as "2½G" technology.

19. The other phenomenon occurring simultaneously in the telecommunications industry has been the growth in access to the Internet. The growing dependence on mobility presents global telecommunications technology developers with the challenge to 'converge' these two technologies and deliver all the advantages of the Internet, or any data intensive application over wireless technology. 2G technology does not presently deliver sufficient bandwidth to permit high-speed wireless connection to the Internet. However, extensive trials have been conducted to integrate Internet access and mobile using existing 2½G technology.

Third generation (3G) functionality

20. The introduction of third generation wireless technology, now known as 3G, promises to integrate wireless and broadband applications incorporating voice, data and video. Global expectations are for the technology to offer high speed Internet access in a mobile environment. For example, current 2G mobile offers a data transfer rate of 9.6 kbps. This compares to most common data transfer speeds using a modem over the fixed line network of 56.6 kbps (excluding variants of Digital Subscriber Lines). "3G devices, by contrast, will transmit data at speeds between 144kbps and 2Mbps, about as fast as a cable modem or digital subscriber line"[1].

21. Common international standards specified by the ITU for the operation of 3G technology may also permit cross-network roaming to currently incompatible networks. For example, GSM users (such as Vodafone customers) would be able to 'roam' to competing operator networks who deploy D-AMPS and CDMA technology (such as Telecom), and vice versa.

Internet access and mobile technology

22. There are an estimated 600,000 Internet accounts held by New Zealanders at the end of 1999, up from 315,000 a year earlier.

23. It is expected that much of the information appeal offered by the Internet will also prove popular with cellular customers. Many of the data-intensive applications of the Internet require increased bandwidth to prove feasible. However, many data applications can be delivered by the current 2G and 2½G technology.

24. The International Telecommunications Union (ITU) forecasts that 3G devices will:

---

[1] *The Economic Impact of Third-Generation Wireless Technologies*, October 2000, A Report by the Council of Economic Advisers.

> "function as a phone, a computer, a television, a pager, a videoconferencing center, a newspaper, a diary and even a credit card. It will support not only voice communications but also real-time video and full-scale multimedia".

Future technology developments

25. The date for introducing 3G technology is uncertain. The first country expected to implement 3G is Japan with an estimated launch date of late 2001. However, during discussions related to this application Vodafone indicated their intention to trial 3G services in New Zealand before the end of the year.

Significance of convergence and impact on demand for spectrum

26. Delivering 3G technology will require access to more radio-frequency spectrum in order to meet the demand for increased bandwidth. This requirement has initiated the spate of spectrum auctions occurring internationally[2].

Spectrum currently utilised

27. The two current mobile network operators, Telecom and Vodafone, utilise spectrum in the 825 – 960 MHz range. The Ministry of Economic Development have verified that Vodafone currently hold approximately 15MHz of spectrum, together with the corresponding natural pair, (in the 900 – 960 range), used for the provision of their GSM mobile services. This spectrum is commonly known as TACS B & C.

28. Telecom hold approximately 20MHz of spectrum, together with the corresponding natural pair, in the range 825 – 890 MHz, and utilise this spectrum for the delivery of their first and second generation AMPS (analogue) and D-AMPS (digital) mobile services. Telecom's deployment of CDMA technology next year will also utilise this spectrum, commonly known as AMPS A & B.

AUCTION OF RADIO FREQUENCY SPECTRUM IN THE 2GHZ BAND (1710 – 2300MHz)

Background

29. Access to radio spectrum is an essential requirement for the operation of any form of mobile or wireless communication service. This access may be achieved by acquiring management rights to a specified frequency range or by the receipt of licence to operate within a designated frequency.

30. The Radiocommunications Act also makes provision for a public register of spectrum rights and radio licences and an arbitration process for interference resolution[3].

---

[2] 3G spectrum allocations have already been completed in Japan, U.K. Germany, the Netherlands, Finland and Spain. Australia's 3G spectrum auction is imminent, with the US yet to make 3G spectrum available.

[3] A Spectrum Allocation Strategy, - Discussion paper. Radio Spectrum Management Group, Ministry of Commerce, May 1998.

31. Management rights are not inherently use-specific and in essence establish a right to create spectrum licences within a specific frequency band for any purpose. However, spectrum licences and radio licences tend to be use-specific. They must also be described in technical parameters that enable adequate interference co-ordination.

Current Spectrum Auction

32. The 2 GHz auction, which commenced in June 2000, involved the auction of various management rights and spectrum licences over spectrum in the band spanning the frequency range 1710 - 2300 MHz. This band is capable of supporting second generation (2G) and third generation (3G) United States Personal Communication Services (USPCS) mobile technologies. The auction confers management rights to the spectrum for a 20 year period although there is no obligation on the acquirer to utilise the spectrum acquired.

33. The '3G band', capable of supporting developing mobile technologies spans the range of frequencies from 1920 - 1980 MHz. To ensure effective competition for the provision of 3G services, the Government placed a cap restricting ownership to 15 MHz of 3G spectrum that any single party may acquire.

34. In addition to the cap placed on ownership of 3G band spectrum, the Government has established a pan-Maori Trust (the Trust). The Trust has been granted exclusive rights to purchase management rights to the 1965-1980 MHz block and its 2155-2170 MHz natural pair in the 3G band, at a 5% discount on the lowest 3G spectrum prices paid. There are no preconditions associated with this spectrum and it is expected that the Trust will enter a commercial arrangement with a suitable telecommunications industry participant to utilise the management rights.

35. Given New Zealand's low population density and current level of cellular penetration, the desire to acquire spectrum is not driven by current capacity constraints. The motivation to acquire spectrum is being driven by an increase in the use of broadband applications which demand high-speed access.

36. Many 3G spectrum bidders have expressed their interest in acquiring spectrum as insurance given the unpredictability of the development of the technology. Network operators, both current and potential, are unwilling to limit their future options and considered the acquisition of spectrum as mandatory.

37. During the course of the auction certain rule changes were implemented including the segregation of the auction into two parts, being that for management rights and that for licences. The auction for the management rights component concluded on the 18th January 2001 while that for licences concluded on the 20th February 2001.

MARKET DEFINITION

Introduction

38. The purpose of defining a market is to provide a framework within which the competition implications of a business acquisition can be analysed. The relevant markets are those in

which competition may be affected by the acquisition being considered, and in which the application of section 47(1) of the Act can be examined.

39. Section 3(1A) of the Act provides that:

> "... the term 'market' is a reference to a market in New Zealand for goods or services as well as other goods or services that, as a matter of fact and commercial common sense, are substitutable for them."

40. Relevant principles relating to market definition are set out in *Telecom v Commerce Commission*[4] ("the AMPS A case") and in the *Business Acquisitions Guidelines*[5]. A brief outline of the principles follows.

41. Markets are typically defined in relation to three dimensions: namely, product type, geographical extent, and functional level. A market encompasses products that are close substitutes in the eyes of buyers, and excludes all other products. The boundaries of the product and geographical markets are identified by considering the extent to which buyers are able to substitute other products, or across geographical regions, when they are given the incentive to do so by a change in the relative prices of the products concerned. A market is the smallest area of product and geographic space in which all such substitution possibilities are encompassed. It is in this space that a hypothetical, profit-maximising, monopoly supplier of the defined product could exert market power, because buyers, facing a rise in price, would have no close substitutes to which to turn.

42. A properly defined market includes products which are regarded by buyers or sellers as being not too different (the product dimension), and not too far away (the geographic dimension), and are therefore products over which the hypothetical monopolist would need to exercise control in order for it to be able to exert market power. A market defined in these terms is one within which a hypothetical monopolist would be in a position to impose, at the least, a "small yet significant and non-transitory increase in price" ("*ssnip*"), assuming that other terms of sale remain unchanged.

43. Markets are also defined by functional level (the functional dimension). Typically, production, distribution, and sale occur through a series of stages, with markets intervening between suppliers at one vertical stage and buyers at the next. Hence the functional market level affected by the application has to be determined as part of the market definition. For example, that between manufacturers and wholesalers might be called the manufacturing market while that between wholesalers and retailers is usually known as the wholesaling market.

Identifying Relevant Markets

44. To identify the markets relevant to the application, it is necessary to consider the business activities undertaken by the relevant firms and to assess whether, post-acquisition, dominance would, or would be likely to, result or be strengthened.

45. Thus the relevant market or markets should be defined so as best to expose the competitive forces at play. As stated in the AMPs A case:

---

[4] *Telecom Corporation of New Zealand Ltd v Commerce Commission* (1991) 4 TCLR 473.
[5] Commerce Commission, *Business Acquisitions Guidelines*, 1999.

> 'The boundaries {of the market} should be drawn by reference to the conduct at issue, the terms of the relevant section or sections, and the policy of the statute. Some judgment is required, bearing in mind that "market" is an instrumental concept designed to clarify the sources and potential effects of market power that may be possessed by an enterprise."

The Markets Relevant to the Current Application

46. The assets for which Telecom is seeking a clearance to acquire are management rights and licences to parts of the radio frequency spectrum.

47. Those management rights in the range 1920 to 1980 MHz (and their natural pairs), can be utilised for 3G services, those in the 1710 to 1785 MHz (and their pairs) can be utilised for 2G services. While there is no obligation on the owner of these rights to use the relevant frequencies for a particular purpose (or even to use them at all), indications from those spoken to and from the outcome of the auction are that they will be used for the carriage of mobile telecommunication services.

48. The licence lots included in para 1.1(d) of the application (and described more fully in the Schedule to the application) encompass frequencies currently used for point to point links to augment Telecom's fixed telecommunications network outside the main population centres. It is envisaged that Telecom will continue to use them for that purpose. In any event, no party has suggested that Telecom's acquisition of these licences would inhibit competitive activity by other telecommunication service providers, or give Telecom any market power. The Commission accepts that no market power is associated with these licences. Accordingly it is unnecessary to undertake further competition analysis in respect of the licences included in para 1.1(d) of the application.

49. In previous telephony-related decisions in New Zealand, the Commission and the Courts have found that there are separate product markets for fixed telephone services and for mobile telephone services. While it was recognised that there is some substitutability between fixed and mobile services, the price and functionality of the two services were seen as quite different.

50. The Commission considers that there remain important differences between fixed and mobile services, although it recognises that this may change in the future with technological developments and changes in demand patterns. For the purpose of the current application however the Commission considers that it remains appropriate to place mobile services in a separate market from fixed services.

51. Third generation services will be mobile. However it is difficult to be certain at this time precisely what these services will encompass. To an important extent, this will depend on future technological development. It has been stated that:

> "Today's wireless devices are designed to transmit voice and brief text messages and cannot handle digital multi-media and other high bandwidth Internet content. 3G devices provide high-speed mobile

> connections to the Internet and other communications networks, giving users full access to the rich and commercial possibilities of the information superhighway" [6].

52. The Ministerial Inquiry noted (at page 75 of its report):

> "Mobile data transmission capability is leading to the development of a host of value-added services and is expected to provide a major source of revenue for mobile operators in the future. It is anticipated that mobile phones or other similar devices will become a means of accessing a wide array of information and services. For example, it is expected that mobile phones will be able to serve as 'electronic wallets', enabling cash transactions to take place in a secure environment by means of a smart card inserted into the device. Mobile devices will also enable provision of services triggered by the geographic location of the user. The market for enhanced mobile data services is currently in its infancy but is expected to grow very rapidly. Finally 2½G services are expected to bring the concept of the 'wireless local loop' closer to fruition as they provide functionality closer to that of the fixed-wire network than 1G and 2G networks."

53. The cost of providing 3G functions, whatever they may ultimately turn out to be, and the extent to which consumers will regard them as being clearly superior or different to the functions which could be offered using 2G or 2½G networks remains to be seen.

54. The Commission accepts that in future cases it may conclude that 3G services are not sufficiently distinctive from existing mobile telephony services to place them in a discrete market. However, at this time and in respect of the current application, the Commission considers that it is appropriate for it to take a conservative approach. It recognises that if no market dominance concerns arise in respect of the narrowest product market - that for 3G mobile telephony services - none are likely to arise in respect of broader product markets.

55. Accordingly the Commission has assessed the competitive implications of the proposed acquisition in two product markets; that for the provision of mobile telephony services and that for the provision of third generation mobile telephony services. Both these markets are national in scope.

56. This approach is consistent with that used by the Commission when analysing the Vodafone application (Decision No. 413 of 8 December 2000).

57. The applicant has said that for the purpose of this application, these market definitions may be appropriate, although it has reserved its position in respect of the views it might adopt in the future.

THE MARKET FOR THE PROVISION OF MOBILE TELEPHONY SERVICES

Introduction

58. There are currently two cellular network operators in New Zealand, Telecom and Vodafone. Both networks have near national coverage covering around 97% of the population.

---

[6] *The Economic Impact of Third-Generation Wireless Technologies*, October 2000, A Report by the Council of Economic Advisers.

59. Telecom operates a combined AMPS (first generation) and digital AMPS (second generation) network utilising frequency in the 800 MHz band.

60. Telecom has announced that it expects to launch its CDMA (a 2½G service) commercially in May 2001. It is expected to have the same geographic coverage as Telecom's existing network on launch date.

61. Vodafone operates a digital GSM network also utilising frequency in the 800 MHz band. It acquired this network from BellSouth in August 1998. BellSouth had commenced operating the network in July 1992 in Auckland, expanded to Wellington in late 1994 and then to other parts of the country. Vodafone is in the process of upgrading its GSM network to GPRS with a view to improving its ability to provide high-speed data transmission. As noted by the Ministerial Inquiry into Telecommunications, high-speed data networks of this kind are often referred to as 2½ G networks because they offer high-speed Internet access, but do not yet provide the broadband access needed for data-rich applications such as is envisaged will be a feature of 3G telephony.

Current Competition

62. In its application, Telecom has cited the market shares as at 30 June 2000 used by the Commission in Decision No.413. Based on the number of connections these were:

Telecom	63.6%
Vodafone	36.4%

63. Neither Telecom or Vodafone have been able to provide precise up-to-date figures, although the general perception is that the percentages may now be close to 60% and 40%.

64. As the Commission noted in Decision No.413, and as confirmed by Telecom in its current application, there has been a significant eroding of Telecom's market share since Vodafone took over from BellSouth. In March 1998, BellSouth had less than a 20% market share by number of connections.

65. It appears that Vodafone may currently have some competitive advantages over Telecom – in particular from its GSM network which is compatible with Australian networks and may be able to provide a greater range of services. It remains to be seen whether the introduction by Telecom of its CDMA service is able to check or reverse the trend towards Vodafone.

New Entry

66. In the 1991 Court decision in the AMPS-A case, the Court noted that there are formidable barriers to entry to the mobile telephone services market. It cited the availability of spectrum rights as an absolute barrier (at that time there were only three vehicles for entry to the market – AMPS-A and the two TACS frequency bands), access to the PSTN and possibly access to distribution.

67. As noted above, following the auction a significant amount of additional suitable spectrum rights is now available. Successful bidders in the 2G part of the auction were:

Telecom	25 MHz
Vodafone	15 MHz
TelstraSaturn	10 MHz
Clear	15 MHz
Northelia	10 MHz

68. The amount of spectrum rights acquired by each of these companies is sufficient to operate a 2G national network.

69. Interconnect agreements between telecommunications companies and Telecom providing access to the PSTN are now a common feature of the industry. Further, the distribution market has changed significantly since 1991, and the Commission concluded in its Decision 325 (Telecom/Cellnet of 15 May 1998) that Telecom was not currently dominant in the market for the distribution of cellular services in New Zealand.

70. The key to new entry is now the capital cost of building a new network, including the cost of obtaining the necessary Resource Management Act and other regulatory consents. It is likely that this could be substantial, possibly between $0.5 billion and $1 billion. Nevertheless it is noted that two national cellular networks have been established to date (by Telecom and Vodafone) and telecommunication companies have competed vigorously for spectrum which could be used to support additional networks. The Commission accepts that if a business case can be made for the building of a new network, access to capital will not be an entry barrier. As Telecom has pointed out, the telecommunication companies which secured management rights in the auction have substantial financial backing.

Views of Market Participants

71. During its investigation of the current application, the Commission sought the views of the major telecommunication users group, TUANZ, and of other telephony service providers including Vodafone, TelstraSaturn, and Clear. None of these parties suggested that the proposed acquisition raised such competitive concerns that the application should be declined.

72. Clear, in a written submission, stated that it is not formally opposing Telecom's application. The submission went on to comment on the market power of Telecom in the fixed line and mobile markets and on what it believes are the appropriate regulatory approaches to address competition concerns in these markets. The Commission took note of these additional comments but considers that, in the main, they are not directly relevant to the application before it.

Conclusion on Dominance in the Market for the Provision of Mobile Telephony Services

73. The Commission recognises that making management rights in the 2G band available in the auction has removed an important barrier to new entry into the mobile telephony market. Further, the amount of spectrum in this band which will be under the control of

Telecom is not such as to lessen significantly the potential for new entry. The major telecommunication companies which have expressed an interest in providing mobile telephony services all have rights to sufficient spectrum for a national network.

74. The Commission also recognises that Telecom is currently facing intense competition in this market from Vodafone, and this competition is anticipated to continue into the future.

75. Having regard to these and other relevant factors, the Commission is satisfied that the proposed acquisition of management rights in the 2G band would not result, or would not be likely to result, in Telecom acquiring or strengthening a dominant position in the market for the provision of mobile telephony services.

THE MARKET FOR THE PROVISION OF THIRD GENERATION MOBILE TELEPHONY SERVICES

Introduction

76. At present there are no providers of third generation services as such in New Zealand, although it is recognised that it is likely that these services will encompass services currently being supplied within the 2G and 2½G categories. As discussed in the market definition section above, the extent to which 3G will be likely to offer a clearly different range of services is uncertain at this time. The Commission has taken a conservative approach in placing 3G services in a discrete market.

Competition Analysis

77. As no market aggregation arises in this market, the Commission's principal concern has been whether the proposed acquisition would be likely to prevent or inhibit competition from developing in the market. This could occur if the amount of spectrum covered by the management rights which Telecom was seeking to acquire was such as to leave other potential 3G providers with insufficient spectrum to operate a competing 3G network.

78. Telecom was successful in the auction for rights to 15 MHz (and the necessary pairs) of the 45 MHz on offer. The auction outcome was:

Telecom	15 MHz
Vodafone	10 MHz
Clear	10 MHz
TelstraSaturn	10 MHz

79. The Commission sought comment from successful bidders as to whether 10 MHz is sufficient to operate a national 3G network, and was assured that the engineering advice they had received indicated that it is.

80. In addition, as noted above, the Government has reserved 15 MHz of 3G spectrum for a pan-Maori Trust, at a 5% discount on the lowest 3G spectrum prices paid. This provides the possibility of the Trust, perhaps with a commercial partner, also operating a national 3G network.

81. It is very doubtful that each player with rights to 3G spectrum will build a national 3G network. It is likely that they will be looking to overseas developments before considering the viability of providing different services, although Vodafone has stated that it is looking to use New Zealand as a testing ground for 3G technology and that it will trial 3G services in New Zealand by the end of the year.

82. The Commission is satisfied that the acquisition by Telecom of rights over 15 MHz would not prevent or materially impede new entry into the 3G market.

Conclusion on Dominance in the Market for the Provision of Third Generation Mobile Telephony Services

83. The proposed acquisition does not result in any aggregation in this market. Third generation services have not yet been defined with any precision and the necessary technology is still being developed.

84. If the proposed acquisition proceeds, Telecom will have one of the key ingredients necessary to provide third generation services on a national scale, being the rights to spectrum capable of carrying these services. However this does not foreclose other firms from also providing third generation services. Three other parties each have management rights to 10 MHz in the 3G band and each will be capable of operating a national network over that spectrum. In addition, 15 MHz of 3G spectrum has been set aside for use by a pan-Maori trust.

85. Having regard to these and other relevant factors, the Commission is satisfied that the proposed acquisition would not result, or would not be likely to result, in Telecom acquiring or strengthening a dominant position in the market for the provision of third generation mobile telephony services.

OVERALL CONCLUSION

86. The Commission has considered the impact of the proposed acquisition in the following markets:

- the market for the provision of mobile telephony services; and
- the market for the provision of third generation mobile telephony services.

87. Having regard to the factors set out in section 3(9) of the Commerce Act, and all other relevant factors, the Commission is satisfied that the proposed acquisition would not result, or would not be likely to result, in any person acquiring or strengthening a dominant position in a market.

DETERMINATION ON NOTICE OF CLEARANCE

88. Accordingly, pursuant to section 66(3)(a) of the Commerce Act 1986, the Commission determines to give clearance to Telecom New Zealand Limited, or any of its interconnected bodies to acquire:

    (a) management rights for 15 MHz for 20 years in the radio frequency range 1920 to 1980 MHz (the 3G band) together with management rights for the corresponding frequencies in the range 2110 to 2170 MHz (the 3G natural pair band); and
    (b) management rights for 25 MHz for 20 years in the frequency range 1710 to 1785 MHz together with management rights for the corresponding frequencies in the range 1805 to 1880 MHz (the 2G band);
    (c) where the incumbent licensees of spectrum covering whole or part of one or more lots of management rights referred to in (b) above is granted a licence of 1, 2, 3, or 5 years, (an incumbency licence), a technically identical licence for five years less the period of the incumbency licence (intermediate licence) and/or a technically identical licence for 15 years commencing at the expiry of the intermediate licence (the beyond Licence); and
    (d) the additional licence lots in the auction set out in the Schedule to the application.

Dated this 15th day of March 2001

_____

M J Belgrave
Chair