

Annex 1

Case 0805807

Analysis of the markets for call origination and termination on the public telephone network at a fixed location (Markets 2-3)

1 August 2011

TABLE OF CONTENTS

Summary	4
1. Background and framework for the market analysis	5
1.1 Background.....	5
1.2 Legal framework for the market analysis	6
2. Overviews and developments in the market	8
2.1 General development and developments in the retail market.....	8
2.2 Interconnection	11
2.3 Overview of market players	12
3. Definitions of the relevant markets	14
3.1 Market definition - general	14
3.1.1 The product market	14
3.1.2 The geographic market.....	15
3.2 Market definition in previous analysis	17
3.3 Definition of the product markets.....	18
3.3.1 Recommendation's definition of the call origination market.....	18
3.3.2 Recommendation's definition of the termination markets.....	19
3.4 Definition of the Norwegian product markets	20
3.4.1 Mobile telephony.....	20
3.4.2 VoB	21
3.4.3 Internal use versus external offers.....	22
3.4.4 Indirect interconnection and traffic for resale	23
3.4.5 Calls to value-added services	23
3.4.6 Calls to ISPs	24
3.4.7 Connection services etc.....	24
3.4.8 Calls to/from other networks.....	24
3.5 Conclusion of definition of the product markets	24
4. Analysis of the market for call origination on the public telephone network provided at a fixed location.....	26
4.1 Introduction	26
4.2 Definition of the relevant geographic market for call origination.....	26
4.3 Market share	27
4.4 Profitability and price development	28
4.5 Innovation.....	29
4.6 Entry barriers	29
4.6.1 Control over infrastructure that is difficult to duplicate and sunk costs	30
4.6.2 Economies of scale and scope	30
4.6.3 Access to financial resources	31
4.6.4 Access to distribution and sales channels	31
4.6.5 Barriers to expansion.....	32
4.6.6 Regulatory entry barriers.....	32
4.7 Provider behaviour	33
4.7.1 Bundling of products/product differentiation.....	33
4.7.2 Leverage of significant market power to closely related markets.....	33
4.8 Conditions on the demand side.....	34
4.8.1 Market power/countervailing buyer power	34
4.8.2 The customers' options and any costs of switching provider/lock-in effects ...	35
4.8.3 Customers' access to information	36

4.9	Conclusion on significant market power and designating a provider with significant market power in the call origination market	36
5	Analysis of the markets for call termination on individual public telephone networks provided at a fixed location	38
5.1	Introduction	38
5.2	Definition of the geographic market for termination.....	38
5.3	Market shares and price developments.....	39
5.4	Entry barriers and potential competition	41
5.5	Conditions on the demand side.....	42
5.5.1	Buyer power in an assessment of significant market power in general	42
5.5.2	Factors of general importance for exercising buyer power in the relevant market	43
5.5.3	NPT's assessment of whether the specific providers are subjected to buyer power	45
5.5.4	Summary of buyer power	48
5.6	Conclusion of significant market power and designating of providers with significant market power within the termination markets.....	48

Summary

On 24 March 2006, the Norwegian Post and Telecommunications Authority (NPT) issued a decision in the wholesale markets for call origination, termination and transit services on the fixed public telephone network (markets 2 and 3 in the ESA's latest Recommendation on relevant product markets for *ex ante* regulation, and the former market 10 in the preceding Recommendation from 2004).

This document contains NPT's updated market analysis of the relevant markets for call origination on the public telephone network provided at a fixed location and call termination on individual public telephone networks provided at a fixed location (markets 2 and 3). The document forms annex 1 to the decisions on specific obligations imposed in the said markets. The market analysis will provide the basis for applying sector-specific measures in markets in which a provider or providers with significant market power is/are identified. Chapter 1 contains a description of the background and legal framework for the market analysis. Chapter 2 gives a short description of the overall developments in the fixed telephony markets.

Chapter 3 contains NPT's definitions of the relevant markets. As before, NPT has found it appropriate to incorporate the analyses of the markets for call origination and termination of public telephone services in the fixed network into one document¹. The market definitions are based on NPT's previous market definitions, as well as the revised Recommendation. After a re-assessment, NPT upholds its assessments of the market definitions in the previous analysis. The *call origination market* is defined as encompassing the conveying of all types of calls from end users that are connected to the fixed electronic communications network at the lowest point for exchanging interconnection, while the *termination markets* are defined as covering the conveying of voice calls from the lowest point for exchanging interconnection to end users who are connected to the fixed electronic communications network.

Chapter 4 contains the analysis of whether a provider with significant market power exists in the wholesale market for call origination on the public telephone network provided at a fixed location (market 2). NPT believes that Telenor ASA continues to have significant market power in this market. As in the previous analysis, NPT has placed special emphasis on the company's large market share, the major entry barriers (partly as a result of dependency on the access network) and the fact that options for end users are, to a large extent, limited to offers based on call origination from Telenor.

Chapter 5 contains an analysis of the wholesale markets for call termination in individual public telephone networks provided at a fixed location (market 3). As with the previous analysis, NPT has found that all providers who offer such a service and have influence over their own termination charge have significant market power for the termination of calls to their own end users. This means that Altibox AS, Hafslund Telekom AS, Intelcom Group AS, Network Norway AS, NextGenTel AS, Orange Business AS, TDC AS, Tele2 Norge AS, Telenor ASA, TeliaSonera Norge AS, Telio Telecom AS, Ventelo AS and Verizon Norway AS all have significant market power in their respective markets for termination of voice in the fixed network. NPT has placed special emphasis on the entry barriers within the individual relevant markets being absolute, and that there are no other factors, such as buyer power, that have a sufficient disciplinary effect on the exercising of the market power.

¹ The wholesale market for transit services in the fixed public telephone network is not included in the ESA's new Recommendation on relevant markets from 2008. NPT has therefore conducted a separate analysis of this market. See NPT's analysis and decision of 1 August 2011.

1. Background and framework for the market analysis

1.1 Background

1. The regulatory framework for electronic communication is based on five directives adopted by the European Union (EU).² These directives entered into force for Norway on 1 November 2004. The directives have been implemented in Norwegian law through the Electronic Communications Act and appurtenant regulations.
2. The framework will provide a basis for harmonisation of the regulation in the EU/EEA area, limit entry barriers and facilitate sustainable competition for the benefit of the users.
3. NPT will undertake market analyses based on the pre-defined markets as stipulated in the EFTA Surveillance Authority Recommendation on relevant markets (the Recommendation)³. Such market analyses provide the basis for assessing whether providers with significant market power in the relevant market exist. If the Authority finds a basis for designating a provider(s) with significant market power in a relevant market, the Authority will impose one or more specific obligations pursuant to the Electronic Communications Act, chapter 4.
4. In NPT's decision of 24 March 2006, Telenor was designated as a provider with significant market power and specific obligations were imposed in the markets for call origination and termination in the public telephone network at a fixed location. In the said decision, Get AS (formerly SmartCall AS and UPC Norge AS), Hafslund Telekom AS (formerly Priority Telecom Norway AS), Intelecom Group ASA (formerly Consorte AS), NextGenTel AS, Orange Business Norway AS (formerly Equant Norway AS), TDC AS (formerly TDC Song AS), Tele2 Norge AS, TeliaSonera Norge AS (formerly NetCom AS), Telio Telecom AS (formerly Telio AS, Ventelo Norge AS and Verizon Norway AS (formerly MCI WorldCom AS) were also designated as providers with significant market power and specific obligations were imposed in the market for termination on the public telephone network at a fixed location.
5. Altibox AS (formerly Lyse Tele AS) entered into an agreement with Telenor on direct interconnection in May 2007. NPT subsequently conducted a separate analysis of the company's offer of termination, and on 8 April 2008 Altibox was designated as a provider with significant market power in its own termination market.
6. These decisions were based on NPT's market analyses of the said dates. See annex 1 to the decisions. The basis for the Authority's market definitions in market analyses and

² Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services (Framework Directive); Directive 2002/20/EC on the authorisation of electronic communications networks and services (Authorisation Directive); Directive 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities (Access Directive); Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive); Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications).

³ EFTA Surveillance Authority Recommendation of 5 November 2008 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation pursuant to the Act referred to at point 5cl of Annex XI to the EEA Agreement (Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services), as adopted by Protocol 1 thereto and by the sectoral adaptations contained in Annex XI to that Agreement.

decisions from 2006 and 2008 was the three wholesale markets for fixed line telephony that made up markets 8-10 in the ESA's Recommendation on relevant product markets for *ex ante* regulation from 2004.⁴

7. The ESA's current Recommendation on relevant markets⁵ entered into force on 5 November 2008. The ESA's Recommendation corresponds to the European Commission's Recommendation⁶ of 17 December 2007. In the current Recommendation, the number of relevant markets for *ex ante* regulation has been reduced from 18 to 7. The wholesale market for transit services on the fixed public telephone network (former market 10) was one of the markets that were removed from the Recommendation. In the following, the two remaining markets are referred to as the call origination market and the termination market respectively, or alternatively the wholesale markets for call origination and termination on the fixed network.

8. As described in the document "Methodology for Market Analysis"⁷ (the methodology document), work on the market analyses may be divided naturally into three phases:

1. Define relevant markets by defining relevant product markets and defining markets geographically.
2. Undertake market analyses of each of the relevant markets, with a view to uncovering whether any provider(s) has/have significant market power in the market.
3. Designate undertakings with significant market power in each of the relevant markets and issue decisions on specific obligations for undertakings designated as a provider with significant market power.

9. This document contains NPT's assessments in phases 1) and 2) for the wholesale markets for call origination and termination on the fixed network. The analysis forms annex 1 to the decisions on specific obligations imposed on providers with significant market power in the said markets.

1.2 Legal framework for the market analysis

10. The Electronic Communications Act's definition of significant market power in Section 3-1 reads:

"A provider has significant market power when the provider individually or jointly with others has economic strength in a relevant market affording the provider the power to behave to an appreciable extent independently of competitors, customers and consumers. Significant market power in one market may result in a provider having significant market power in a closely related market."

11. The term "significant market power" in the Electronic Communications Act is very close to the competition law standard "dominant position" ("dominance"). It follows from

⁴ EFTA Surveillance Authority Recommendation of 14 July 2004.

⁵ EFTA Surveillance Authority Recommendation of 5 November 2008 with the Commission's Explanatory Note.

⁶ Commission's Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation pursuant to Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services.

⁷ Methodology for market analysis 11 June 2009, NPT.

Norway's obligations under the EEA Agreement that the designating of providers with significant market power is to be carried out in accordance with the guidelines and recommendations prepared by ESA under the Framework Directive for electronic communications services. These are:

- Guidelines on market analysis and assessment of significant market power (herein referred to as "the Guidelines")⁸
- Recommendation on relevant markets

12. According to the Guidelines, an assessment of relevant markets and significant market power must be based on a market analysis. The assessment is to accord with competition law methodology. The Guidelines and the Recommendation, together with the provisions of the Electronic Communications Act, particularly Sections 3-1 to 3-3, will therefore form the legal framework for the market analysis. However, the Guidelines are not exhaustive, and in its methodology document NPT has therefore elaborated on the criteria for the market analysis on certain points. If the Guidelines and the Recommendation are amended, NPT will amend this document accordingly. The prevailing methodology document indicates the methodic basis for the market analyses undertaken by NPT. This analysis is based on the methodology document dated 11 June 2009.

13. The market analyses will be subject to regular review. In markets with frequent and comprehensive changes, such reviews may be carried out relatively frequently. These market analyses are therefore limited in the extent to which they are forward-looking, cf. paragraph 20 of the Guidelines. This analysis has a time horizon of two to three years.

14. In accordance with the Electronic Communications Act, *ex ante* regulation of providers with significant market power is only to be used where this is necessary in order to achieve sustainable competition in the relevant or adjacent markets. In the Norwegian market, regulatory obligations may only be imposed on providers with significant market power in those markets in which ESA or NPT has decided that sector-specific regulation is necessary. In each of these relevant markets NPT must assess the extent to which sustainable competition exists.

15. The document 'Methodology for Market Analysis' prepared by NPT (the methodology document) is not legally binding, but expresses NPT's understanding of the guidelines to which NPT is obliged to adhere. The market analyses will therefore be undertaken in accordance with the views and assessments expressed in the methodology document. Should there prove to be discrepancies between the methodology document and the Guidelines or the Recommendation, the Guidelines and Recommendation will take precedence.

16. The document 'Methodology for Market Analysis' in no sense regulates the Norwegian Competition Authority's assessments in accordance with the Competition Act. Even though NPT's assessments according to the methodology document will largely be based on competition law methodology, NPT's assessments will be based on the need for general *ex ante* regulation. The assessments of the competition authorities will, as a rule, be done *ex post* in connection with specific cases. NPT and the Competition Authority's assessments in accordance with the two sets of rules may therefore differ even within the same or overlapping markets.

⁸ EFTA Surveillance Authority Guidelines 14 July 2004.

2. Overviews and developments in the market

2.1 General development and developments in the retail market

17. The markets for public telephony services in the fixed network were liberalised in 1998, and the liberalisation enabled new providers to enter the market with new offers that compete with Telenor's offers.

18. In the summer of 1999, carrier pre-selection and number portability were introduced. Using carrier pre-selection, Telenor's competitors could offer all fixed calls as a bundled product, while number portability helped improve the competitive conditions for Telenor's competitors who based their service on direct access (predominantly to business customers).

19. The first competing offers after the liberalisation were mainly based on prefix traffic and direct connection, i.e. subscriptions and traffic via the provider's own and/or leased accesses. While there have been offers of access to the public telephone network at a fixed location to business customers from Telenor's competitors since liberalisation, the situation regarding offers to retail customers was different.

20. Shortly after liberalisation, many of Telenor's competitors sought an access/subscription product in the wholesale market so that they could offer a comprehensive telephony product package incorporating both subscription and calls. In autumn 2001, NPT imposed an obligation on Telenor to offer such a product, and Telenor launched its product at the end of 2002/beginning of 2003. However, the decision was removed by the Ministry of Transport and Communications on 10 June 2003 due to the lack of warrant for such an obligation. Telenor nevertheless chose to continue to offer the Wholesale Line Rental product.

21. At the beginning of 2004, the first Voice over Broadband (VoB) service for residential customers was launched. This type of service had existed in the business market a few years previously, but in a limited scope. Today, VoB is offered by providers both with and without their own access network. At the end of 2010, there were approximately 513,000 broadband telephony subscriptions broken down into 488,000 residential subscriptions and 25,000 business subscriptions.⁹ The majority of these subscriptions were established as replacements for PSTN/ISDN subscriptions. Also at the end of 2010, the total number of PSTN/ISDN subscriptions was 1,132,000 and the total number of fixed telephony subscriptions was almost 1,649,000. PSTN/ISDN and broadband telephony thus constituted 68.7 % and 31.1 % respectively of the total market for fixed telephony subscriptions at the end of 2010.

22. Figures 1 and 2 show the development in demand for fixed telephony for subscriptions/connections and calls respectively. Figure 3 shows the development in traffic from the fixed network and mobile networks respectively. Table 1 shows the development in demand for broadband telephony measured by number of subscriptions.

⁹ The number of broadband telephony subscriptions in the business market is uncertain. Several providers report the number of voice channels/lines and not subscriptions.

Analysis of the markets for call origination and termination on the public telephone network at a fixed location

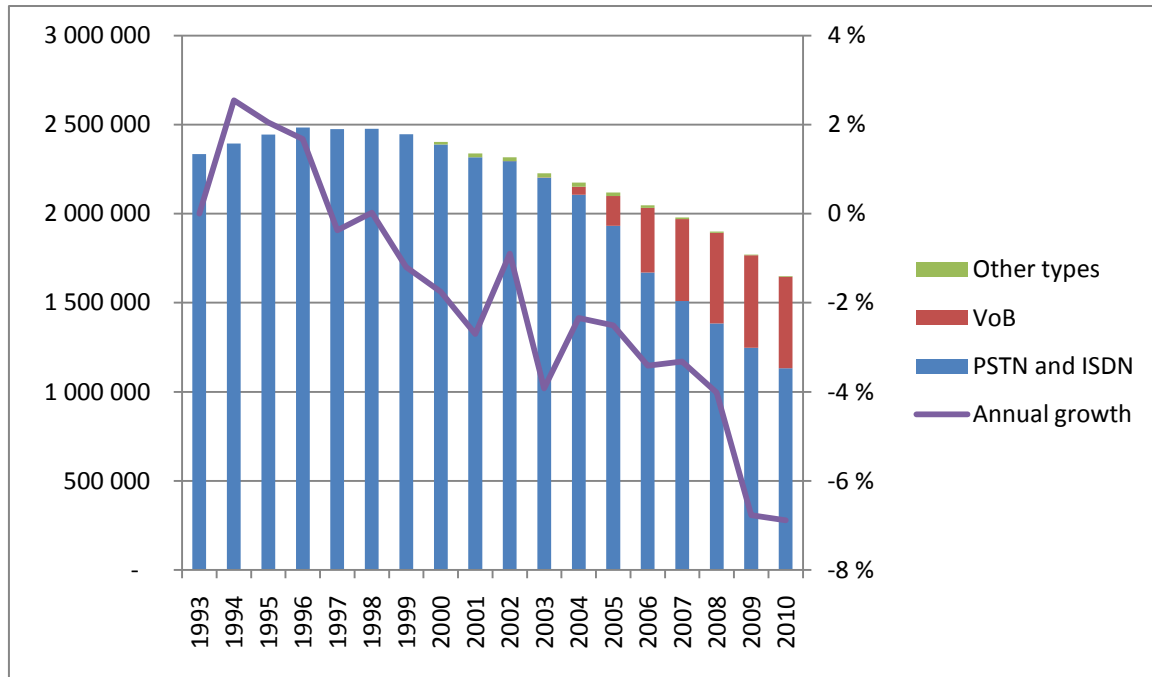


Figure 1: Total number of fixed telephony connections. Annual percentage change in total number of connections. Source: NPT

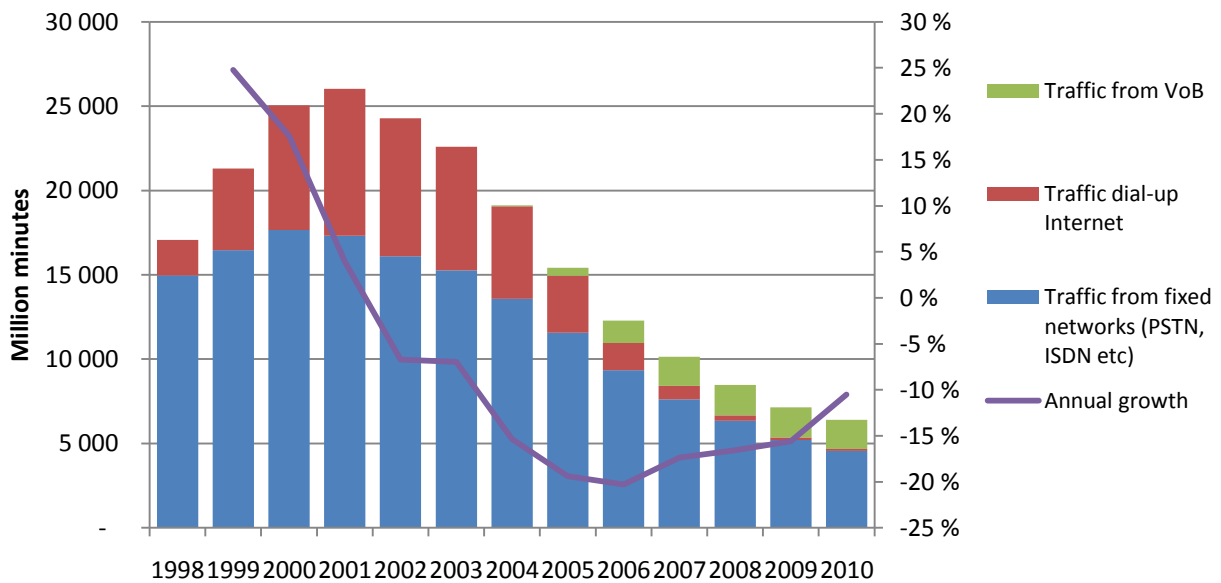


Figure 2: Traffic volume from fixed-line telephones and annual volume change in per cent. Source: NPT

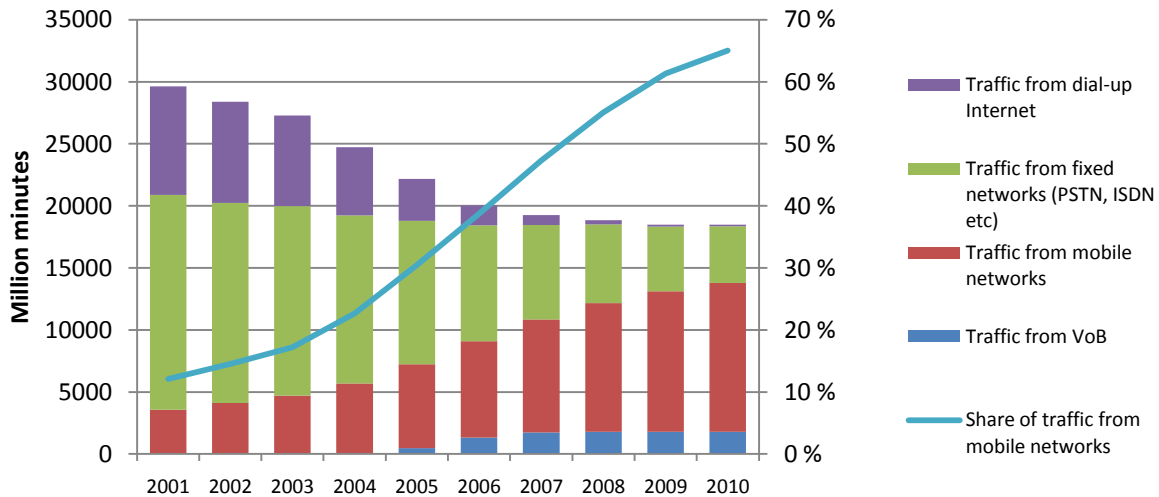


Figure 3: Total traffic volume from fixed network and mobile networks. Source: NPT

	2005	2006	2007	2008	1 st half 2009	2009	1 st half 2010	2010
VoB	165 974	360 650	451 824	498 629	502 429	500 425	487 186	488 211
Telephony via cable TV	20 933	13 684	10 276	7 227	6 162	5 305	4 284	3 646

Table 1: Development in number of subscriptions for broadband telephony and telephony via cable TV for the residential market

23. Developments on the demand side show that both the number of fixed-line subscriptions and traffic volume are steadily decreasing. Additionally, the growth in the number of broadband telephony subscriptions has declined since 2006, and as shown in table 1, was negative in 2009 and 2010 (however, looking at first and second half of 2010 it seems that the number of subscriptions have stabilised). The table also shows that the number of telephony subscriptions via cable TV has fallen considerably in the last six years.

24. Figure 1 shows the number of fixed telephony subscriptions from 1993 to the end of 2010. The decline since the previous analysis¹⁰ is clear. At the end of 2010, approximately 41 % of all Norwegian households did not have a fixed telephony subscription. This is an increase of 5 percentage points from the end of 2009. The share of households with no fixed telephony subscription at the end of the first half of 2005 was 17 %. The share of broadband customers with broadband telephony has increased from 19 % at the end of 2005 to 31 % at the end of 2010 (in 2009 the share was 33 %).

25. Figure 2 shows the development in traffic volume from fixed telephony from 1998 to the end of 2010. After 2001, a clear decline can be seen in traffic volume. There has also been a substantial reduction since the previous analysis, and the traffic has more than halved since 2005 (59 % reduction).

26. The reduction in the number of fixed telephony subscriptions is mainly due to the growth in end users opting to use only mobile telephony. This applies especially to the younger segment of the population. Mobile telephony usage is close to 100 % in the adult segment of the population, and as the call rates for mobile telephony drop, many people no

¹⁰ The market analysis of 24 March 2006 is based on 2005 half-year figures.

longer see the need for fixed line services. A relatively high fixed subscription price for fixed telephony may play a role in the decision to terminate the fixed telephony subscription.

27. Attractive offers from the mobile providers will also contribute to realising the transition from combined use of fixed telephony and mobile telephony to solely mobile telephony. One example of this is TeliaSonera Norge's launch of the service "NetCom Hjemme" in 2010. This service enables customers to retain their fixed telephony number, but incoming calls will be forwarded to different family members through an automated switchboard solution. Where the originating end user calls from another fixed telephone the call will be charged as for other calls in the fixed network, which could save costs since calls from the fixed to mobile network normally cost more than calls from fixed to fixed. These calls will be regarded as traffic to the fixed network, and are therefore also included in market 3.

28. Figure 3 shows that the transition to using mobile telephony has led to a reduction in traffic volumes for fixed telephony. The mobile-originated traffic constituted 65 % of the total traffic in 2010, 61 % in 2009 and 55 % in 2008. The substantial reduction in dial-up Internet has also led to a considerable reduction of the traffic volume for fixed telephony.

2.2 Interconnection

29. Two or more networks are often involved in the conveying of telephone calls. Traffic that is conveyed between networks is known as interconnection, while the sites where the traffic is transferred from one network to another is referred to as points of interconnection.

30. Interconnection can occur in a number of variants depending on which provider end users are customers of.

31. The majority of end users within fixed telephony are still connected to Telenor's network, and this means that other providers will be dependent on having interconnection with Telenor, either directly or indirectly via another provider that has an interconnection agreement with Telenor. Most calls on the fixed network in Norway will originate and/or terminate in Telenor's network, and the majority of providers of a certain size have therefore established direct interconnection with Telenor. Telenor's key position in the market also means that many of the providers use Telenor to transfer traffic between themselves (transit). Telenor is the only provider with a nationwide access network. The core network that conveys interconnection is divided into 12 interconnection areas with a total of 13 points of interconnection.

32. Telenor's standard interconnection agreement ("Samtrafikkavtalen") is currently the basis for interconnection between Telenor and other providers. The interconnection agreement contains three basic services relevant to the fixed telephony markets: call origination, termination and transit. In 2009, Telenor merged its business areas for fixed and mobile networks, whereby the interconnection agreement now also includes connection and traffic exchange to the company's mobile network.

33. Call origination on the fixed network is purchased by providers that use carrier pre-selection or prefix in order to draw traffic from Telenor's network as a basis for offers of traffic to end users. Termination on the fixed network is purchased by providers who will convey traffic that terminates with end users in Telenor's network. Transit services are purchased by providers that convey traffic to a third provider to which the provider does not

have direct interconnection. The merging of Telenor's interconnection agreements means that Telenor no longer treats calls from other providers' fixed network to Telenor's mobile network as transit. The providers do not, therefore, pay for this transit, but instead pay a termination charge that is equal to the regulated price in the market for voice call termination on individual mobile networks (market 7).

34. Interconnection in Telenor's fixed network is currently offered at two levels; local and national (described as inside and outside the interconnection area respectively in the interconnection agreement). Most other countries in Europe offer interconnection at three levels; local, regional and national.

35. At the time of the previous market analysis, no direct interconnection between other providers had been established to NPT's knowledge. This situation has since changed. NPT has received information from several of the providers that they have entered into direct interconnection agreements between themselves in recent years. These agreements are mainly used to exchange interconnection in the mobile network, but the agreements also enable the exchange of interconnection from the fixed network. In some cases, traffic is also exchanged from the fixed network via these new interconnection interfaces, but not necessarily both ways (some providers choose to send traffic back in transit via Telenor).

2.3 Overview of market players

36. The providers of fixed telephony in the retail market currently use various business models in order to realise their services, and many do not have their own interconnection offers. Of the 75 providers of fixed telephony (68 of which provide broadband telephony) at the end of 2010, only the following 13 have their own termination offer:¹¹ Altibox AS, Hafslund Telekom AS, Intelcom Group AS, Network Norway AS, NextGenTel AS, Orange Business AS, TDC AS, Tele2 Norge AS, Telenor ASA, TeliaSonera Norge AS, Telio Telecom AS, Ventelo AS and Verizon Norway AS. This means that the vast majority of the providers have indirect agreements on interconnection, and to varying degrees rely on other providers for the service production. Altibox, Hafslund Telekom, TDC and Ventelo are examples of providers that also produce telephony services and process interconnection on behalf of other providers.

37. The degree of control with the access network also varies between the providers. At one end of the scale is Telenor with its nationwide copper access network, which is used to offer both PSTN/ISDN and broadband telephony. A number of providers use Telenor's access network as a basis for offering PSTN/ISDN through carrier pre-selection/prefix and the purchase of call origination from Telenor (indirect connection). This applies to TDC, Tele2 and Ventelo, among others. For traffic that is to be terminated with end users that use carrier pre-selection/prefix, Telenor undertakes the termination of the call since the end user is physically connected to Telenor's network. NPT is aware that TDC, Tele2 and Ventelo also have business customers on their own access (direct connection, normally realised via leased lines). In such cases, these companies will be responsible for the termination of calls to the relevant end users.

38. There are also a large number of providers offering broadband telephony. The largest of these is Telio Telecom, which delivers its broadband telephony service via the broadband

¹¹ In connection with this, NPT acts in accordance with interconnection agreements on the termination of voice, and by so doing disregards offers of termination of traffic to ISPs, cf. sections 3.3.2 and 3.4.6.

connection to the end customer and is thus an access-independent provider. The partners in the Altibox collaboration also provide broadband telephony, but this is based on their own expanded fibre access. NextGenTel and Ventelo also offer broadband telephony to their broadband customers.

39. TeliaSonera Norge offers fixed telephony combined with mobile telephony through, for instance, the product NetCom Hjemme. TeliaSonera Norge and Network Norway also offer such combined solutions in the business market.

40. A number of the providers covered in this market analysis only offer their fixed telephony services in the business market. Intelcom Group, Orange Business Norway, TDC and Verizon Norway are examples of such companies. The two latter providers are specially aimed at international companies/organisations and are affiliated with France Telecom Group and Verizon respectively.

41. The majority of Telenor's competing providers have been represented in the Norwegian telecoms market for the last 10 years. A number of Telenor's competitors offer triple play solutions¹² in the retail market (e.g. the Altibox partners and NextGenTel), based on their customer accesses or the purchase of operator access from Telenor. Several of these offers can also be combined with mobile telephony services.

42. Figures obtained by NPT for 2009 show that approximately 3.1 billion terminated minutes of voice traffic were sold in the fixed network in this year. The corresponding figure for the first half of 2010 is approximately 1.6 billion minutes. Figure 4 below shows the breakdown of terminated traffic minutes between the providers who control termination, based on the figures for the first half of 2010. Providers with less than 1 % of terminated traffic are not included in the figure.

¹² Triple-play means that Internet access, broadband telephony and TV/film hire can be supplied in the same access line.

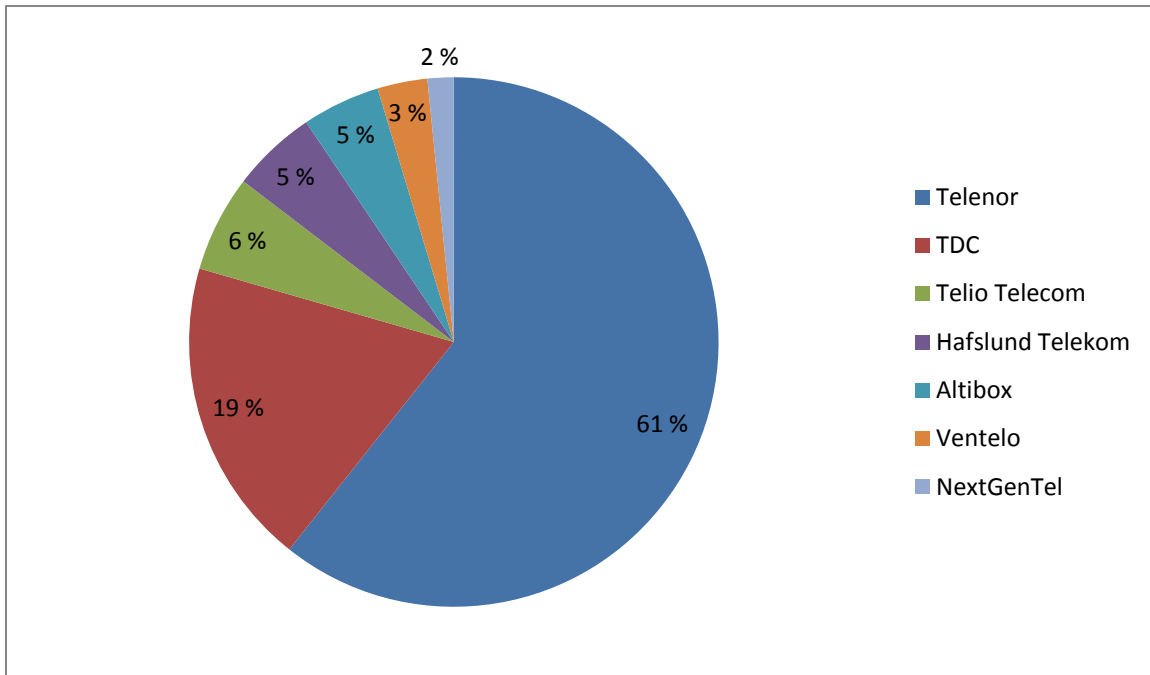


Figure 4: The providers' share of the total number of fixed network-terminated minutes in 2010. Providers with less than a 1 % market share are not included in the figure. Source: NPT¹³

3. Definitions of the relevant markets

3.1 Market definition - general

43. As already mentioned, the market analyses are based on the Recommendation, and NPT must also assess whether ESA's predefined markets are appropriate for Norwegian conditions. A description/definition of the product markets and a definition of the geographic market will be given.

44. When defining the relevant markets, the same method will be applied as for market definitions within competition law. In certain cases, however, markets defined by the competition authorities may deviate from markets defined in ESA's Recommendation or by national regulatory authorities pursuant to article 15, no. 3 in the Framework Directive¹⁴.

3.1.1 The product market

45. A relevant product market comprises products or services (the terms are used interchangeably below without difference in meaning) that are sufficiently substitutable. The starting point for the definition of a relevant product market is an assessment of demand-side substitutability. However, substitutability may also exist on the supply side, and may then be relevant in the definition of the relevant market.

¹³ The figures are encumbered with a certain degree of uncertainty as a result of inadequate reporting by some providers. However, the uncertainty will not have a bearing on the conclusions drawn by NPT in the analysis since the discrepancies are considered to constitute a marginal share of the total number of terminated minutes in the fixed network.

¹⁴ Paragraph 26 of the Guidelines.

46. Demand-side substitutability exists when two or more products in the market are, in the perception of the end user, mutually exchangeable or substitutable on the basis of characteristics, price and area of utilisation.

47. Supply-side substitutability exists when providers of other (non-substitutable) products, as a response to a marginal price change in the short term, can change their production or distribution and offer substitutable products without incurring significant additional costs or substantial risk.

48. An acknowledged method of analysing substitutability is the so-called “hypothetical monopolist test” (SSNIP test), where efforts are made to find the best-defined market in which a hypothetical monopolist can exercise market power¹⁵. This test assesses the effect of a small, but significant (in practice 5-10 %) and lasting price increase in the relevant product, based on the assumed price level in a market with effective competition. All other prices are assumed to be unchanged. The effect of the price increase in the relevant market and the overall effect on the producer’s revenues are then assessed. Determining whether the price increase will be profitable for the producer is key.

49. The method depends on a significant amount of data that will often be difficult to produce. The Recommendation does not make use of the SSNIP test an absolute requirement in market definitions for the market analyses. The description of the SSNIP test in the Recommendation should be understood as a description of a procedure and a set of criteria for assessing market definitions. Similar methods may therefore also be used.

50. The hypothetical assessment should be supplemented by actual information on behaviour on the supply and demand sides to the extent that such information is available. On the demand side, factors such as the end users’ access to information, the costs of changing and other lock-in mechanisms should be taken into consideration. On the supply side, account should be taken of the actual potential a provider has to change production as well as any regulatory conditions that prevent rapid market entry by competitors in the market.

51. A further assessment criterion used in market definitions is whether there are joint pricing constraints between products.¹⁶ In such cases, it may be expected that both providers and those demanding the products largely view pricing of the products as one, and that it is therefore the total price that is significant for demand. Such joint pricing constraints may indicate that the products are in the same market, even though in principle neither demand nor supply-side substitution indicates this.

3.1.2 The geographic market

52. Once the relevant product markets are determined, the geographic market is defined. In accordance with the Guidelines, paragraph 57, the geographic market may be defined as the area in which the relevant product is offered on approximately equal and sufficiently homogenous competitive terms. However, paragraph 60 of the Guidelines states that geographic markets within electronic communication have traditionally been defined based on the propagation of the relevant network, and the local jurisdiction for the legal regulation of the market.

¹⁵ “Small but Significant Non-transitory Increase in Price”. See the Guidelines, paragraph 40.

¹⁶ EFTA Surveillance Authority Guidelines, 14 July 2004, chapter 42

53. The relevant geographic market is the area in which the relevant products and services are provided on sufficiently similar or homogeneous competitive terms. When assessing substitutability on the demand side, preferences and geographic purchase patterns should be taken into account if such information is available. On this basis, the markets can be defined regionally within the national borders, nationally or transnationally. However, NPT can only define regional or national markets; the jurisdiction for defining transnational markets is vested with ESA.

54. It might make sense in the case of some product markets to divide them into geographic markets smaller than the national state, since there are local providers of electronic communication services covered by the relevant product market.

55. ERG published “Common Position on Geographic Aspects of Market Analysis (definition and remedies)”¹⁷ (ERG CP) in October 2008, where it recommends that geographic definition of the market is undertaken in different stages. The first step in this process is to identify whether it is necessary to undertake a detailed geographic analysis. “Preliminary analysis”, paragraph 1, page 2 of ERG CP reads:

“Before going into the details of geographic analysis, NRA’s should look at a number of criteria which are easily accessible and indicate whether competitive conditions are such that a national approach to market definition, market analysis and the implications of remedies is justified. Indicators pointing in this direction are:

- The hypothetical monopolist test suggests that there is sufficient demand and/or supply-side substitution between different areas.
- Competitive conditions are sufficiently homogenous:

- Alternative networks either have small coverage and market shares or have (close to) national coverage with similar prices;*
- There is a uniform price of the incumbent operator and similar prices of alternative operators;*
- There are no significant geographical differences in product characteristics.”*

56. In sections 4.2 and 5.2, NPT considers whether there is a need for a detailed geographic analysis in the call origination and termination markets based on the criteria above.

57. Assessment of the relevant geographic market will be somewhat different depending on whether the assessment is made *ex post* or *ex ante*. A definition of geographic markets *ex ante* must inevitably have a wider basis and a more general approach than is taken with a definition *ex post*. An *ex post* definition is based on an actual event for which the extent of the effects can be charted, whilst the forward-looking assessment must be based on somewhat different circumstances. This will therefore also characterise the scope of the assessment of the relevant geographic market.

58. Pursuant to the Electronic Communications Act, Section 1-3, cf. regulation no. 882 of 4 July 2003, the Act is also applicable to Svalbard, Jan Mayen, Norwegian dependencies and the Antarctic. However in regard to Svalbard, exceptions have been made for Chapter 3

¹⁷ http://www.erg.eu.int/doc/publications/erg_08_20_final_cp_geog_aspects_081016.pdf

(significant market power), Chapter 4 (access) and Section 9-3 (consultation procedure). However, electronic communications on Jan Mayen, Norwegian dependencies and the Antarctic are assumed to have very little significance for the market analyses NPT carries out in accordance with the Electronic Communications Act.

59. Further reference to Norway as a local jurisdiction refers to mainland Norway/Norwegian territory.

3.2 Market definition in previous analysis

60. The market definition in NPT's analysis of the markets for call origination, termination and transit services in the fixed public telephone network of 24 March 2006 was based on the description of the relevant markets in the original Recommendations from the ESA¹⁸ and the Commission¹⁹. NPT considered whether the pre-defined markets are appropriate for Norwegian conditions and concluded that the product markets encompassed the following:

The wholesale market for call origination of fixed telephony:

- Conveying of all types of calls (voice calls to fixed and mobile networks and to outside Norway, calls to ISPs and calls to value-added services) from end users that are connected to fixed electronic communication networks to the lowest point for exchanging interconnection. For calls that are made exclusively within one provider's network, the origination part of the call within an interconnection area will be included in the market.²⁰

The wholesale markets for termination of fixed telephony:

- Conveying of voice calls from the lowest point for exchanging interconnection to end users that are connected to fixed electronic communication networks. For calls that are made exclusively within one provider's network, the termination part of the call within an interconnection area will be included in the market (this is of little practical significance to the analysis).
- Termination of voice calls by providers offering such a service on their own network and who have influence over their own termination charge, constitutes separate markets.

For both markets:

- Traffic based on broadband telephony that is adapted for any-to-any connectivity is included in the market.
- Interconnection-related services are included.
- Demand for call origination and termination from own business is likened to demand for corresponding external offers.
- Calls to faxes are treated in the same way as voice calls.

¹⁸ EFTA Surveillance Authority Recommendation of 14 July 2004

¹⁹ Commission Recommendation of 11 February 2003

²⁰ When conveying calls in own fixed network, call origination may terminate at a lower level in the network than the point of interconnection if, for example, both A and B subscribers are connected the same terminal exchange.

61. NPT's assessment does not consider the following services²¹ to be included in the markets:

- Mobile telephony
- Internet offers
- Access to Internet based on broadband or dedicated connection
- Leased lines
- Value-added services

62. The geographic market for call origination was defined as Norway, while the corresponding definition for termination was determined to be the propagation of the individual provider's network. NPT distinguishes here between Telenor, other providers with their own access network and broadband telephony providers without their own access network. For Telenor, this implied that the whole of Norway constituted the geographic market. For broadband telephony providers without their own access network, the geographic market was defined as Norway (NPT put the potential coverage for these networks on a par with the total national broadband coverage).

3.3 Definition of the product markets

63. The definition of the markets for call origination and termination in the public telephone network at a fixed location in the ESA's Recommendation from 2008 remains the same as the definition in the Recommendation of 2004. Neither are there any significant changes with regard to the guidelines issued by the Commission for these markets in the Explanatory Note.²² In sections 3.3.1 and 3.3.2, NPT summarises the most important guidelines from the ESA and the Commission in connection with the definition of the relevant product markets.

3.3.1 Recommendation's definition of the call origination market

64. The Recommendation is based on the retail markets for access and outgoing calls in a fixed location. It emphasises that, in principle, there are several ways for these services to be provided in the retail markets. Establishing, purchasing and leasing electronic communication networks are given as examples, but are considered to be both time-consuming and expensive. A large part of the costs will, in addition, be linked to sunk costs, while the former monopolist, for example, will benefit from economies of scale. It is therefore assumed that high entry barriers exist in the market. An insufficient number of new entrants in the market also indicate that the market is not moving towards effective competition.

65. Furthermore, the legislation on competition is not considered to sufficiently address the access problem, and the market is therefore regarded to be relevant for *ex ante* regulation.

66. In other respects, the Recommendation notes that dial-up Internet is included in the call origination market, despite the fact that dial-up Internet and voice can hardly be regarded as

²¹ Traffic to mobile networks, ISPs and value-adding services will be included in market 2 as stipulated above.

²² On 17 December 2007 the Commission approved the revised Recommendation of relevant markets with a new Explanatory Note. ESA has not written a corresponding Explanatory Note for its Recommendation, but refers to the Commission's Explanatory Note.

substitutes on the demand side²³. The European Commission's assessment places the main emphasis on the fact that end users mostly use the same provider for dial-up Internet as for voice. This means that the end users that want dial-up Internet view voice and dial-up Internet as a bundle offer (even although it is technically possible for different suppliers to provide these two services).

67. On this basis, the Recommendation concludes that the relevant market for call origination consists of both call origination of voice and call origination of calls to ISPs.

3.3.2 Recommendation's definition of the termination markets

68. The Commission considers the termination of voice in the fixed network to be the most difficult input factor in the production of telephony services in the retail market to duplicate. It notes that it is normally possible to choose access at different levels in the network in order to procure termination, but that it is the lowest level of interconnection that is considered to be relevant to the definition of the termination market. This is due to the substitution possibilities on the demand side between the different interconnection levels in the network.

69. The Commission also considers whether there is a basis to extend the market definition in relation to the first Recommendation, but concludes that the market definition should remain the same as in the first Recommendation.

70. The Commission still considers there to be little alternative (substitutability) to termination of voice for providers in the retail market. This is because in most relevant locations there is only one access line, and because it is not technically possible at the moment for providers to terminate calls to specific end customers/locations in other providers' networks. Thus, a provider of call termination services has, in practice, a monopoly on the termination of calls (voice) to its end users.

71. With regard to substitutability in the retail market, it is pointed out that alternatives exist, for example, through termination in mobile networks, voice mail services, call-back services etc. However, the effect of these alternative services will not have a sufficiently disciplinary effect on the termination offer.

72. Thus, a provider of call termination services has, in practice, a monopoly on the termination of calls (voice) to its end users. On this basis the Recommendation concludes that each provider of voice call termination in the wholesale market represents a separate relevant market. However, it is pointed out that this still does not automatically mean that providers will have significant market power. This will depend on an assessment of whether there is a sufficient degree of countervailing buyer power limiting that market power in practice.

73. According to the Recommendation, competitive conditions are completely different for termination of calls to ISPs than for origination of calls to these. The ISPs are indeed dependent on offers of termination in the same way as providers of telephony services in the retail market, but unlike providers of telephony services in the retail market ISPs may choose between different providers of termination in the fixed public network, including switching between different providers. ISPs also have an incentive to choose the provider with the lowest termination charge. Based on this, the Recommendation maintains that the market for

²³ It is worth noting here that dial-up Internet, in spite of the growth in broadband, is still an important end user product in many EU countries.

termination of calls to ISPs is characterised by sustainable competition. It therefore concludes that aside from instances where ISPs have little opportunity to choose among various providers of call termination, the termination of calls to ISPs is not a relevant market for *ex ante* regulation.

3.4 Definition of the Norwegian product markets

74. When determining the market definition in this analysis, NPT has used the market definitions that were applied on 24 March 2006. In this regard, NPT has considered whether there is a need to update and modify the market definitions in view of the changed market conditions.

75. Detailed comments are given where the Authority believes there is a need for updating and modification. It is observed that the statement is linked with the related retail market for fixed telephony services (market 1), cf. paragraph 5 of the Recommendation.

3.4.1 Mobile telephony

76. NPT concluded in the previous analysis that the substitutability between fixed telephony and mobile telephony was not sufficient to include them in the same market. NPT believes that technical conditions related to termination have not changed significantly since the previous analysis. However, within the same time frame, changes have taken place in the market, which means that the prerequisites that were used as a basis for the previous assessment of substitutability between fixed telephony and mobile telephony should be adjusted.

77. In the previous analysis, 81 % of all households had fixed telephony, while the corresponding figure at the end of 2010 was around 59 %. In addition to this, the propagation of mobile telephony is now almost 100 % among the adult population. The share of mobile-originated traffic is now also greater than the fixed network-originated traffic.

78. Price controls on mobile traffic at wholesale level have played a role in reducing the prices in the retail market, and the growth of mobile subscriptions with call minutes included or several subscriptions linked together where it is free to call each other (e.g. “FriFamilie” from Telenor, “Trådløs Familie” from TeliaSonera Norge and “Mobil Familie” from Tele2) has further contributed to making it more attractive to use mobile telephony instead of just having it as a supplement to fixed telephony.

79. On the other hand, it is still cheaper to call between fixed telephones and from fixed telephones to outside Norway than to make these calls between mobile phones and from mobile phones to outside Norway. NPT’s statistics for 2010 show that the share of traffic to outside Norway from fixed telephony in the residential market has increased from around 6 % to approx. 11 % of the total traffic²⁴. There are still customer groups that want to retain fixed telephony despite the reductions in mobile telephony costs. Traditional fixed telephony will continue to be perceived as a safe alternative to other communication solutions, in addition to the benefits of being able to reach several users at the same location.

80. In spite of the downward trend in the number of subscriptions and use of fixed telephony, it is not necessarily the case that the two telephony services will be substitutable within the period covered by this analysis. This is supported by the fact that slightly fewer

²⁴ See table 8 in the report.

than 1.3 million households still had a fixed telephony subscription at the end of 2010 despite the high mobile penetration. In addition is the business market, where the fall in the number of subscriptions has been lower than for the residential market.

81. In NPT's opinion, it is doubtful whether a marginal, but significant, non-transitory price increase in fixed network access will lead to a substantial number of telephony customers replacing fixed telephony with mobile telephony.

82. An assessment of the supply side substitution pulls in the same direction. Relatively large differences still exist in the production of mobile and fixed line telephony. Excluding offers of broadband telephony that are based on other providers' access networks, and resale of subscriptions, the relatively high investment costs in the necessary input factors weighed against the reduction in the number of subscriptions/traffic represent a substantial entry barrier for mobile operators who may consider offering fixed telephony. This means that it is also doubtful whether a marginal, but significant, non-transitory price increase in fixed telephony will result in mobile operators entering the market for fixed telephony.

83. NPT therefore maintains its view that mobile telephony is not included in the retail market for fixed telephony or the associated wholesale markets.

3.4.2 VoB

84. NPT concluded in the previous analysis that broadband telephony that is adapted for *any-to-any connectivity* (category 3)²⁵ was included in the relevant markets. NPT does not believe it is necessary to review all of the areas of assessment again which were used in the previous analysis, but refers to the assessments that were made in section 3.5 of the analysis. Thus, a relatively brief assessment is given below of the basis for continuing to include broadband telephony in the market, including an updated description of the developments in the market for broadband telephony adapted for *any-to-any connectivity*.

85. Broadband telephony category 3 has an interconnection interface with the PSTN/ISDN network and uses numbers in-keeping with the national numbering plan in the same way as traditional telephony. The individual provider does not distinguish between originated traffic from broadband telephony and originated traffic from PSTN/ISDN. Neither do the providers distinguish between termination of traffic to broadband telephony and PSTN/ISDN respectively.

86. If we consider the question of the supply side situation, the needs for administrative support systems will be fairly similar and investments in technical service platforms manageable. It is pointed out in this regard that the opportunities to buy the wholesale products of wholesale line rental and carrier pre-selection reduce the need for infrastructure investments. This means that, in general, there will be no major problems and it will not be particularly expensive for services providers of PSTN/ISDN telephony to also provide a broadband telephony solution or vice versa.

87. This means that a marginal, but significant and non-transitory price change may make providers who only provide either broadband telephony or PSTN/ISDN telephony provide both forms of telephony services. NPT therefore concludes that broadband telephony and PSTN/ISDN telephony are substitutable viewed from the supply side.

²⁵ Broadband telephony category 3 is described in more detail in NPT's principle document on the regulation of broadband telephony ("Regulering av bredbåndstelefoner etter lov om elektronisk kommunikasjon" – in Norwegian only) of 14 June 2006.

88. Viewed from the demand side, NPT believes that broadband telephony that is adapted for *any-to-any connectivity* is substitutable with traditional fixed telephony. In its assessment, NPT considers this form of broadband telephony to have functionality and a quality of service that to a large extent is in-keeping with standard PSTN/ISDN telephony. In addition, telephones will generally be compatible with PSTN/ISDN and broadband telephony. The majority of end users who buy broadband telephony will therefore do so as a replacement for traditional fixed telephony, and as illustrated by the figures below, a large share of the customers have changed over to broadband telephony in recent years.

89. Of the total 1.649.000 fixed telephony subscriptions at the end of 2010, 513,000 customers had broadband telephony. This is five times the number of subscriptions that were used as a basis in the previous market analysis. Broadband telephony made up 31.1 % of the total market²⁶ for fixed telephony subscriptions. The share of customers that had traditional telephony was 68.7 %. Taking the residential market in isolation, 31 % of all households with a fixed broadband connection had broadband telephony by the end of 2010. This is a decline from 33 % at the end of 2009.

90. The Authority has also included this form of broadband telephony in the analysis of the retail market for fixed telephony (market 1)²⁷. NPT also considers in the said analysis whether the fact that no more customers have changed over to broadband telephony services in category 3 may imply a lack of substitutability as a result of major price differences between broadband telephony and PSTN/ISDN telephony. The large share of customers that choose to keep their PSTN/ISDN subscription is, however, partly due to the non-homogenous nature of the customer base. For example, some customer groups (particularly among the elderly customers) are less price sensitive and want to keep PSTN/ISDN almost regardless of the price difference between the two technologies. NPT's analysis of market 1 therefore concludes that broadband telephony is substitutable with PSTN/ISDN telephony.

91. NPT stresses that the market definition is linked to the supply of the telephony service, and not to the actual physical network. The consequence for termination is that although the customers are physically connected to provider A's network and may choose other providers of broadband telephony, it will still not be possible in practice for other providers to undertake the termination of customers whose telephony service is provided by provider A.

92. NPT believes that the assessments in section 3.5 of the previous analysis continue to express the Authority's views on why broadband telephony adapted for *any-to-any connectivity* should be included in the call origination and termination markets. NPT therefore concludes that this type of broadband telephony is included in markets 2 and 3.

3.4.3 Internal use versus external offers

93. Section 3.2.4 of NPT's previous analysis concluded that demand for call origination, termination and transit from own businesses is likened to corresponding external offers. This was because these traffic products are necessary input factors²⁸ in the retail market, which means that the procurement of these elements will constitute the demand in the wholesale market. Whether the procurement is through own production or by purchasing wholesale products through an interconnection agreement is irrelevant.

²⁶ Also includes connections via the cable TV network.

²⁷ Decision of 10 August 2010. See especially section 3.3.2 of the analysis which is included as annex 1 to the decision.

²⁸ Call may be made without the transit element having to be involved.

94. NPT does not consider these conditions to have changed and continues to support the conclusion in the previous analysis. The relevant wholesale markets will therefore cover both internal and external demand for call origination and termination²⁹.

3.4.4 Indirect interconnection and traffic for resale

95. NPT's market analysis of 2006 assessed the relationship between originated/terminated/transit traffic and traffic based on resale or indirect interconnection. There are still a large number of providers that, in order to keep costs down, base the whole or parts of their offer in the retail market on other providers' production of the telephony service. The previous analysis shows that parts of this traffic may be included in the different markets, but that several factors complicate the calculation of the market shares.

96. With regard to indirect interconnection, it is not necessarily the case that the other providers will see which provider's end customers the traffic is terminated to, e.g. if the underlying provider uses the other provider's number series and provider codes. Whether the traffic comes under one market or the other may also be viewed in conjunction with which provider in reality determines the termination charges to call the individual provider.

97. NPT does not believe that these conditions have changed significantly since the previous market analysis. NPT therefore refers to the assessments in section 3.4.2 of the previous analysis.

3.4.5 Calls to value-added services

98. NPT concluded in sections 3.4.3 and 3.6 of the previous market analysis that calls to value-added services should be included in the market for call origination.

99. In 2009, Telenor decided to start phasing out the company's value-added service agreement, and Telenor has previously notified NPT that this product will be discontinued by 31 December 2010³⁰. However, this does not mean that value-added services will cease to exist, but that this traffic will instead be moved over to the regular interconnection platform based on SS7. The arguments for including these calls in the market for call origination are therefore still valid.

100. The Authority further believes that termination of value-added service calls after processing and number conversion in IN (Intelligent Network) equipment may be likened to general termination of voice. Such traffic would thus be included in the markets for termination on the fixed network if the call is routed further to a geographic number on the fixed network. If on the other hand the termination is undertaken directly in the value-added provider's equipment, a situation arises that is similar to termination to ISPs, see section 3.4.6 below. NPT concluded that such termination is not included in the termination markets.

101. NPT does not believe that these conditions have changed significantly since the previous market analysis. NPT therefore refers to the assessments in section 3.4.3 of the previous analysis.

²⁹ In the termination markets, the inclusion of internal traffic is of little significance since each individual network is defined as a separate market where the provider has a 100% market share.

³⁰ The agreement is no longer available at www.jara.no.

3.4.6 Calls to ISPs

102. At the end of 2010, approximately 65,000 customers were reported to have a dial-up Internet connection; a reduction from around 78,000 at the end of 2009. By comparison, there were approx. 1.59 million residential broadband subscriptions at the end of 2010.³¹

103. NPT concluded in 2006 that calls to ISPs should be included in the call origination market (see sections 3.3.2 and 3.3.3 of the market analysis). This was based on an assessment of the substitutability on the supply side, which indicated that origination of voice and origination of calls to ISPs constituted one common market since, on the whole, all such calls from a specific end user originate in the same network. The results of the assessment of termination markets differed, partly because the ISPs themselves choose to terminate the traffic. The ISPs with large volumes of termination traffic can also choose to affiliate themselves with different providers, and NPT assumed here that the market mechanisms could work.

104. Although the number of calls to ISPs continues to fall, NPT believes that no other market changes have taken place that would mean a different conclusion to that of 2006. The Authority therefore assumes that calls to ISPs are included in market 2, cf. the Recommendation.

3.4.7 Connection services etc.

105. As shown in section 3.4.1 of the previous analysis, there are a number of other services that constitute necessary prerequisites for interconnection with Telenor or other providers, in addition to call origination, termination and transit. Telenor has reviewed and simplified the interconnection agreement that was used in the previous market analysis. Examples of necessary services are traffic capacity, carrier pre-selection and portability.

106. NPT does not believe there is any reason to depart from the conclusion of the previous analysis with regard to interconnection-related services, and therefore concludes that these services have a close connection to the relevant markets and can thus be subject to special regulation as a part of the regulation of these markets.

3.4.8 Calls to/from other networks

107. NPT concluded in chapter 3.4.4 of the market analysis from 2006 that parts of calls to/from mobile networks and/or foreign networks may be included in markets 2 and 3 respectively. For example, either the origination element will be a part of market 2 (for calls to another type of network) and the termination not included in market 3, or the termination will take place in market 3 (for calls from other types of networks) and the origination will take place outside market 2.

108. NPT does not believe there is any reason to depart from the conclusion of the previous analysis in this area and therefore concludes that parts of calls to/from mobile networks and/or foreign networks may be included in markets 2 and 3 respectively.

3.5 Conclusion of definition of the product markets

109. Based on the above, NPT believes that the market definition in the Recommendation concerning markets 2 and 3 is also appropriate for Norwegian conditions. NPT upholds the

³¹ The Norwegian market for electronic communication services 2010, www.npt.no

assessments made of the relevant product markets and geographic definitions in the analysis of 24 March 2006.

110. Thus, the wholesale market for call origination on the public telephone network at a fixed location (market 2) encompasses the following:

- Conveying of all types of calls (voice calls to fixed and mobile networks and to outside Norway, calls to ISPs and calls to value-added services) by end users that are connected to fixed electronic communication networks at the lowest point for exchanging interconnection. With regard to calls that take place exclusively within one provider's network, the originating part of the call within an interconnection area will be included in market 2³².

111. Likewise, NPT concludes that the wholesale markets for call termination on individual public telephone networks provided at a fixed location (market 3) encompass the following:

- Conveying of voice calls from the lowest point for exchanging interconnection to end users that are connected a fixed electronic communication network. With regard to calls that take place exclusively within one provider's network, the terminating element of the call within an interconnection area will be included in market 3. However, this has little practical significance to the analysis.
- Termination of voice to own end users for providers who have influence over their own termination charge, constitutes separate markets. The individual market also includes any termination of voice to end users with providers who have indirect interconnection via the provider that controls the termination charge.

112. The following also applies to both markets:

- Traffic based on broadband telephony that is adapted for any-to-any connectivity is included in the markets.
- Interconnection-related services have a close connection to the markets.
- NPT likens demand for call origination and termination from own business to demand for corresponding external offers.
- Calls to faxes are treated in the same way as voice calls.

113. The following services³³ are not included in the markets:

- Mobile telephony
- Internet offers
- Access to Internet based on broadband or dedicated connection
- Leased lines
- Value-added services

³² When conveying calls in own fixed network, origination may end at a lower level in the network than the point of interconnection, e.g. if subscribers A and B are both connected to the same terminal exchange.

³³ Traffic to mobile networks, ISP and value-adding services will be included in market 2, as specified above.

4. Analysis of the market for call origination on the public telephone network provided at a fixed location

4.1 Introduction

114. NPT's analysis of 24 March 2006 concluded that Telenor had significant market power in the market for call origination on the fixed network. NPT believed that Telenor's high market share, the entry barriers and a lack of countervailing buying power meant that the company could, to a large extent, act independently of other competitors, customers and consumers.

115. In this section, NPT makes a new assessment of whether a provider with significant market power exists in the wholesale market for call origination on the public telephone network provided at a fixed location. Since NPT concluded in the previous market analysis that Telenor had significant market power in the said market and the two adjacent wholesale markets, it is natural to base the Authority's new assessment of the call origination market on Telenor's position.

116. As in the previous analysis, the assessments of significant market power are based on the criteria specified in the Guidelines and NPT's methodology document. In the analysis, NPT has assessed the following criteria:

- Market share
- Profitability and price development
- Innovation
- Entry barriers
- Provider behaviour
- Conditions on the demand side

4.2 Definition of the relevant geographic market for call origination

117. Geographic markets within electronic communication have traditionally been defined based on the relevant network's propagation, and the jurisdiction of the legal regulation of the market. Thus, the markets have been regarded as national (see paragraphs 57 and 60 of the Guidelines). However, it may be natural in some markets to divide the market into smaller geographic markets than the national state since there are local providers of the electronic communication services that are covered by the relevant product market.

118. Another key element in the assessment of the geographic definition is the degree to which the relevant product is offered on equal and homogenous competitive terms.

119. As mentioned in section 2.1.3, according to ERG CP, among other things a hypothetical monopolist test should be performed to ascertain whether a more detailed geographic analysis for the market definition is needed. The relevant question is then whether a marginal, but non-transitory price increase (5-10 %) in an area leads to a sufficient number of end users

wanting to move to another area (may not be considered relevant) or whether providers from other areas would start to offer the product in the relevant area in response to the price increase, thus making it unprofitable.

120. NPT concluded in the analysis of 24 March 2006 that the geographic market for call origination was nationwide. NPT places most of the emphasis on the fact that Telenor 1) has a nationwide telephony network and offers call origination throughout Norway based on the network, and 2) that Telenor offers call origination on equal prices and terms throughout the country.

121. In recent years we have seen a continuous increase in alternative providers with their own access network (e.g. local/regional broadband providers and cable TV companies) who offer call origination in geographically defined areas, both in numbers and propagation. However, the number of end users that use alternative providers of access at a local level is still limited, and is insufficient to deem it necessary to create a new definition of the geographic market.

122. NPT therefore considers the geographic market for call origination to be nationwide.

4.3 Market share

123. Assessing the market share is a natural starting point for the analysis of significant market power (dominance), cf. the Guidelines, paragraph 76. A provider's market share should exceed 40 % before this factor indicates possible significant market power. If the market share is over 50 %, it would be exceptional were the provider not to be considered to have significant market power. As a rule, providers with less than a 25 % market share are not considered to have significant market power.

124. As stipulated in section 3.4.3, call origination is included in a separate network in the call origination market on a par with external offers of call origination. Because there is little pricing of internal call origination services, calculating market shares in the call origination market based on revenues is therefore inappropriate.

125. Some of Telenor's competitors offer some of their traffic services in the retail market based partly on purchase of call origination/carrier pre-selection from Telenor and partly on call origination in their own network. NPT does not have an accurate overview of the breakdown for these two variations of services from these providers. This means there is a degree of uncertainty in the calculation of market shares. However, NPT believes this uncertainty is of little significance in assessing whether or not Telenor has significant market power.

126. As shown in figure 5 below, Telenor's market share in the retail markets for traffic has shown a slight fall during the period, but nevertheless still makes up around 58 % of the total market in terms of traffic volume. By comparison, the broadband telephony provider Telio has gone from a very small market share in 2005 (2 %) to 11 % at the end of 2010.

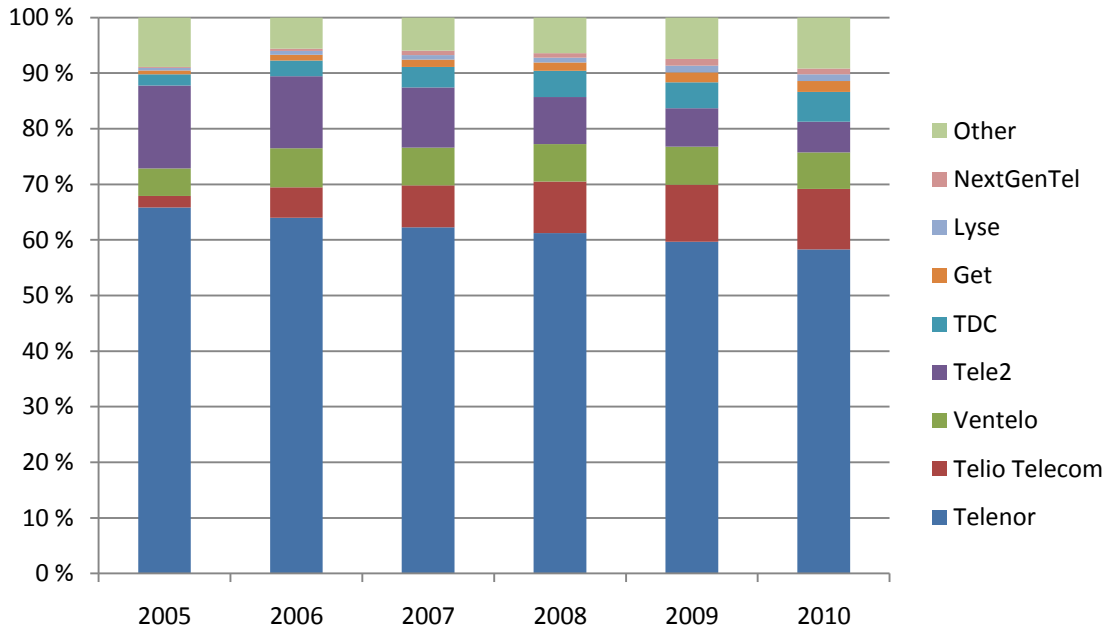


Figure 5: Market shares measured in traffic volume. Providers with less than a 1 % market share are included in the category "Other". Source: NPT

127. In 2010, broadband telephony accounted for 27 % of the total originated traffic volume, and Telenor's share of this traffic was 20 %. If we assume that most of the remaining 73 % is based on PSTN/ISDN and that this traffic is mainly originated in Telenor's network, it is reasonable to draw the conclusion that the share of traffic minutes that are originated in the fixed network by Telenor is between 75 and 80 %. This is because Telenor also sells call origination to several providers who use the company's offer of carrier pre-selection/prefix, alternatively in combination with wholesale line rental. In the previous analysis, Telenor's market share was estimated at around 90 %. This indicates that Telenor reduced its market share by between 10 and 15 percentage points over four years. Despite this reduction, NPT believes it is highly unlikely that Telenor's market share will fall to less than 50 % over the next 2-3 years.

128. Telenor's high market share is therefore a clear indication that the company has significant market power in the call origination market and will continue to do so in the next 2-3 years.

129. However, market shares in isolation are not enough to determine whether a provider has significant market power, and must be viewed in conjunction with the other relevant assessment criteria, cf. the Guidelines, paragraph 76.

4.4 Profitability and price development

130. Profitability and price development are factors that are often considered when assessing whether a provider has significant market power. The external offer of call origination from Telenor is subject to a price cap. This price cap is based on the price that ensued from previous requirements for cost orientation. Telenor's call origination has remained the same since the previous decision in 2006. Telenor's total cost accounting for the three interconnection markets showed a positive margin beyond imputed interest in 2008 and 2009. The Authority is of the opinion that the long-term price controls of the origination product

mean that profitability and price development are not a clear indication of Telenor's market power.

4.5 Innovation

131. As a rule, in markets with a high degree of innovation the opportunity to exercise market power will be more limited than in markets with little innovation. Technological developments may therefore be of significance to potential competition in the market. Innovation resulting from technological developments can therefore contribute to weakening a provider's position in the market in relation to potential competitors.

132. Although this relevant market may be regarded as a "mature" market in which no growth may be expected in the number of connections in the coming years, technological developments may play a role in reducing Telenor's position in the market.

133. The previous analysis noted that the opportunity to offer triple-play solutions has made it more attractive to expand access networks, and this in turn has led to a number of local and regional initiatives to develop alternatives to Telenor's access network.

134. Other important trends that were noted in the previous analysis include the change in the consumer pattern as a result of more consumers choosing to replace fixed telephony with mobile telephony, and that the share with broadband telephony (versus traditional PSTN/ISDN telephony) is increasing.

135. Since the previous analysis, these trends have continued in the same direction, i.e. local and regional broadband providers have continued to expand access networks, more consumers have replaced fixed telephony with mobile telephony, and the share with broadband telephony (versus traditional PSTN/ISDN telephony) has continued to grow. Viewed in isolation, the result is a weakened market position for Telenor in relation to what was the case in the previous analysis. NPT believes that these trends will continue for the next 2-3 years and thereby lead to a further weakening in Telenor's market position in this market.³⁴

4.6 Entry barriers

136. Potential competition from new providers will normally affect a dominant provider's behaviour in the market, including the pricing. Various forms of entry barriers may, however, weaken or remove the basis for potential competition. The potential entry barriers related to the relevant market are discussed below.³⁵

³⁴ Although the growth in the number of broadband telephony subscriptions now appears to have stagnated and perhaps also become negative, it is highly unlikely that broadband telephony subscriptions will be reduced to the same degree as the reduction in the number of PSTN/ISDN subscriptions. This means that the share with broadband telephony (versus traditional PSTN/ISDN telephony) is likely to continue increasing.

³⁵ ESA refers to the entry barriers in the Guidelines, paragraph 81: "In fact, the absence of barriers to entry deters, in principle, independent anti-competitive behaviour by an undertaking with a significant market share."

4.6.1 Control over infrastructure that is difficult to duplicate and sunk costs

137. If a provider controls infrastructure that is difficult to duplicate, and this infrastructure represents an important input factor in the relevant market, this could represent a substantial entry barrier for potential competitors.

138. Call origination will today mainly³⁶ be offered via circuit-switched telephony (PSTN/ISDN) or broadband telephony (IP). While traditional telephony is dependent on an access network, broadband telephony may be provided as an access-independent service, i.e. not dependent on a specific access network to produce call origination. When assessing whether control over the infrastructure represents an entry barrier in this market, a distinction must therefore be made between these two “delivery platforms”.

139. Developing a nationwide access network is capital-intensive and is associated with substantial sunk costs. This is also supported by the fact that although a number of regional expansions have been seen in recent years, Telenor is still the only provider to have a nationwide access network. It is also noted that the main reason for establishing an access network is to be able to offer high-speed Internet access, as well as television and other content services in preference to telephony services.

140. NPT therefore believes that the control over the access network constitutes a major entry barrier for call origination based on traditional telephony (PSTN/ISDN).

141. With regard to broadband telephony on the other hand, NPT believes that the infrastructure does not constitute a major barrier for this market. This is supported by the large increase in the number of broadband telephony providers in recent years.

142. However, the largest share of originated traffic in the fixed network is still based on PSTN/ISDN (approx. 73 % of all originated traffic in the fixed network in 2010). In view of this, NPT believes that the infrastructure in this market still represents a certain entry barrier to potential competitors.

4.6.2 Economies of scale and scope

143. Economies of scale exist when an increase in production brings a fall in average unit cost. This is characteristic of production based on technology with relatively high fixed costs and low variable costs.

144. Economies of scope are reductions in average unit cost when more than one service is produced using common means of production, for example common infrastructure or common administrative systems.

145. Economies of scale and scope can both act as entry barriers for new potential providers and as a competitive advantage for established competitors in the market.

146. In the previous analysis, NPT based its findings on the fact that, as a result of having a nationwide offer within the call origination market, Telenor has a substantial number of customers and a broad product portfolio, major economies of scale and benefits of joint production (economies of scope) in this market in relation to its competitors. It was also considered to be unlikely that any of the other providers in this market would achieve a

³⁶ At the end of 2010, 3,646 telephone subscriptions via cable TV were still registered (not IP-based).

sufficient “critical mass” to benefit from economies of scale in the same way in the coming years.

147. NPT does not believe any significant changes have taken place to indicate that the foregoing is not still applicable today and for the next 2-3 years.

4.6.3 Access to financial resources

148. Access to financial resources is important for a provider’s potential to enter a market. This is of particular significance in markets that require major initial investment (high entry costs). Differences between providers relating to access to financial resources may constitute an entry barrier. In addition, everything else being equal, it will be expected that a provider with market power and good financial standing will be less exposed to competition than a provider with market power without good access to financial resources. Besides, a provider with market power and good access to financial resources will be better able to defend his market share if new competitors enter the market than a provider with market power without good access to financial resources.

149. Regarding the latter, namely the significance of access to financial resources on competitive pressures in the market, there is in general hardly any reason to claim that Telenor has better access to financial resources than potential competitors. It may be assumed that parent companies behind many of Telenor’s competitors also have good access to financial resources.

150. With regard to the significance of access to financial resources in markets that require major initial investments, the Authority assumes that establishing alternatives to Telenor’s access and transmission network will be extremely capital-intensive. These are conditions that may act as entry barriers in this market.

151. As mentioned in the assessment of section 3.4.2, it is not however necessary to develop alternative access networks in order to offer fixed telephony subscriptions. The growth of broadband telephony is thus a factor that has made access to financial resources a lower entry barrier than previously.

4.6.4 Access to distribution and sales channels

152. In markets where the established providers have a well-developed distribution and sales network this may act as an entry barrier for potential new providers. This particularly applies in markets in which there are major costs associated with establishing distribution and sales channels, or where the established providers have concluded exclusive agreements with the largest/most important distribution channels in the market.

153. In principle, distribution and sales channels are not relevant as a criterion for entry barriers in the wholesale origination market since the external offer has only been available from Telenor and has been strictly regulated. At the same time, the internal offer is neither sold nor distributed. On the other hand, the offer of call origination constitutes a consequential demand for telephony in the retail market, and since sales and distribution channels have a certain relevance to the entry barriers in the retail markets for fixed telephony, these channels also have a certain relevance for the call origination market.

154. However, the sale of fixed telephony takes place via channels that are relatively easy to access, for example through direct sales and distributor sales, telephone and/or Internet sales, direct advertising or through agreements with housing associations. Fixed telephony is

normally offered as a comprehensive product consisting of subscription and traffic, alternatively also connected to the Internet and TV. Access to distribution and sales channels is not considered to represent a major entry barrier in this market.

4.6.5 Barriers to expansion³⁷

155. A market with major growth potential is as a rule more attractive to potential new providers than markets in which the total units sold and/or the number of customers has stagnated or is on the way down (known as mature markets). Providers considering entry into a mature market must generally aim to capture customers from the established providers. If there are barriers to growth in a market, these may therefore be looked upon as a possible entry barrier.

156. As noted in section 2.1, the demand in the retail markets for fixed telephony traffic, and thereby also the consequential demand for call origination in the wholesale market, continues to show a falling trend.

157. This is mainly because the need for conveying voice is being covered by mobile telephony to an increasing extent. It is also assumed that the increase in the use of e-mail, SMS and broadband telephony that is not adapted for any-to-any connectivity has contributed to the fall in demand for fixed telephony.

158. There is reason to believe that the growth of the services in these adjacent markets may continue, and that this will simultaneously entail a further decline in the call origination market.

159. The market for call origination can therefore be viewed as a mature market, in which the number of connections cannot be expected to grow in the near future. This means that any new providers in this market, including providers of VoB, must base their operations on capturing customers from Telenor. This is a factor which, in isolation, makes it more difficult for new providers to enter the market, and may therefore be regarded as an entry barrier.

4.6.6 Regulatory entry barriers

160. Regulatory entry barriers exist when the market access is restricted by regulatory conditions, e.g. requirements for authorisation by the authorities, resource restrictions or restrictions out of consideration to health, safety or the environment (direct regulatory restrictions). Furthermore, different forms of price controls may also act as an entry barrier, cf. paragraph 11 of the Recommendation.

161. In principle, the access to the call origination market is not limited by regulatory conditions. In many ways it is the opposite, with regulatory requirements being responsible for bringing about the external offer in the market.³⁸

162. Price controls, or expectations of future price controls, can act both as an entry barrier and affect the behaviour of providers already in the market. The current price ceiling regulation has probably resulted in the prices being lower than they would have been without price controls. In isolation, the price controls may therefore be regarded as an entry barrier

³⁷ The criteria correspond to the “*barriers to expansion*” in paragraph 79 of the Guidelines.

³⁸ Call origination would probably have been just a self-produced part of an end user service if regulatory requirements had not been imposed.

for several external offers of call origination.³⁹ However, this is likely to have a minimal effect on the expansion of the access network since the potential revenues from call origination can only to a very small extent be considered to be the driving force behind expanding such networks.

163. NPT therefore believes that relevant regulatory conditions do not to any significant extent constitute entry barriers in this market.

4.7 Provider behaviour

4.7.1 Bundling of products/product differentiation

164. A high degree of product differentiation, or heterogeneous products, can create customer loyalty and make it difficult for competitors to enter the market, as opposed to where products are more homogeneous. Strong brands may have a similar effect.

165. Bundling of products is a variation of product differentiation. A provider with market power in a relevant market can link (tie together) products in this market with products in another market, so that the provider can provide a bundle of products that are differentiated from the competitors' offer and that the competitors have a limited opportunity to copy. In this way, bundling of products can contribute to market power in one market creating competitive advantages in another market. Such competitive advantages may be relevant to the assessment of significant market power in the latter market.

166. There are few examples of bundling of call origination with other products. One exception that was mentioned in the previous analysis is call origination (or termination) that takes place outside the lowest level in the fixed network, i.e. in "points of interconnection outside the interconnection area". In accordance with the market definition, this offer is to be regarded as a bundling of call origination (or termination) with transit. This form of bundling seems to exist in most comparable countries. However, the bundling is not absolute, and providers may themselves choose whether they want to buy interconnection at the lowest level in Telenor's network or not.

167. Telenor is the largest provider in the retail market for fixed telephony, broadband, cable TV, satellite TV and mobile telephony, and the company therefore has a greater opportunity than its competitors to put together attractive total offers in the residential market. This implies a certain competitive advantage for Telenor at wholesale level, which may help to strengthen the company's position in the call origination market.

4.7.2 Leverage of significant market power to closely related markets

168. Significant market power in one market may help to strengthen a provider's market position in a closely related market. Such leverage of market power may be vertical, i.e. between a wholesale market and an end user market, or horizontal, i.e. between various product markets at the same level in the value chain.

4.7.2.1 Vertical integration

169. A vertically integrated provider is characterised by the provider's activities comprising more than one link in the relevant value chain. A vertically integrated provider will typically

³⁹ Note that the price controls are based on an assumption that duplication of infrastructure is not possible or likely. The purpose of the price controls is therefore to protect the consumers' interests.

have a presence in both infrastructure markets (upstream markets) and end user markets (downstream markets). Through a strong position in the upstream market, vertically integrated providers can try to keep competitors in the downstream market out of this market, for example through the pricing of products in the upstream market or by not offering products in the upstream market to competing providers in the downstream market at all. In this way a vertically integrated provider with a strong position in the upstream market can strengthen his position in the downstream market.

170. In NPT's previous analysis, NPT stipulated that Telenor's strong position in the retail market is an entry barrier for alternative wholesale customers because these can only offer call origination as an input factor to a relatively marginal part of the offer in the retail market. In order to expand in the wholesale market, these providers are largely dependent on capturing customers from Telenor in the retail market. In this way, Telenor's strong position in the retail market for fixed telephony has helped maintain the company's significant market power in the market for call origination.

171. Although Telenor's market share in the retail market has declined in recent years, Telenor still had a market share of almost 67 % of the retail market measured by the number of subscriptions at the end of 2010. In terms of subscription revenues, the company's market share was just below 72 % in 2010. In view of this, NPT believes that Telenor's position in the retail market helps the company to retain its position in the market for call origination.

4.7.2.2 Horizontal integration

172. A provider is horizontally integrated when, through ownership, it has control of different parallel infrastructures that may be used to supply competing products to the end user. In this case the provider can strengthen its market power in a market by preventing competition from an alternative infrastructure over which he has control.

173. The previous analysis asserted that through its strong position in an adjacent market such as the market for cable TV and the market for call origination in mobile networks, Telenor prevents potential competing offers of call origination in the fixed network. It was also pointed out that Telenor's considerable operation within wireless networks (e.g. WLAN) and broadband also help Telenor to maintain its market position in the market for call origination. At the end of 2010, for example, Telenor's market shares were approximately 49 % and 54 % in terms of fixed and mobile broadband subscriptions respectively.

174. NPT does not believe that any significant changes have taken place in Telenor's position in the aforementioned markets to indicate an impaired market position in the market for call origination.

175. NPT therefore stands by its earlier finding that Telenor's strong position in adjacent markets such as cable TV and call origination in mobile networks, and its position within wireless networks and broadband help to maintain Telenor's market position in the call origination market.

4.8 Conditions on the demand side

4.8.1 Market power/countervailing buyer power

176. The presence of customers with bargaining power can restrict a provider's opportunity to behave independently in the market. Such countervailing buyer power may be the result of

a customer's size, purchasing volume or the customer having something to offer, for example better market access to other markets.

177. In the previous analysis, NPT considered the countervailing buyer power for call origination to be low. Perhaps the main reason for this is that there are few alternatives to Telenor's call origination offer, which is mainly due to the high cost of procuring the necessary infrastructure (i.e. access network).

178. Providers whose service is based on the purchase of call origination from Telenor may alternatively focus on offering broadband telephony. However, this is still a relatively limited bargaining chip against Telenor since the largest share of the voice traffic in the fixed network is still based on PSTN/ISDN. This is primarily because many end users prefer traditional telephony (PSTN/ISDN) to broadband telephony. Some end users may also be limited by the lack of access to broadband, but this link must be regarded as being almost inapplicable since the broadband penetration in Norway at the end of 2009 was over 99 %⁴⁰ for all households.

179. As mentioned above, it may be envisaged that countervailing buyer power exists if the call origination customer has something to offer Telenor, such as better market access to other markets. Given Telenor's size and horizontal integration, however, it is highly unlikely that this is a component that strengthens the bargaining position of the countervailing parties.

180. Based on the above, the countervailing buyer power is considered to be relatively small.

4.8.2 The customers' options and any costs of switching provider/lock-in effects

181. Restrictions or costs relating to switching provider increase the potential for a provider with market power to act independently in the market. Such restrictions may be of a practical, technical or financial nature, or may be a result of the end user having greater confidence in existing and well-established providers in preference to new providers, and being unwilling to take the risk that a switch could involve.

182. Since there are no alternatives to Telenor's external offer in the wholesale market for call origination, the assessment of any costs of switching provider in this market does not relate to the costs of switching wholesale provider, but to the costs of buying call origination from Telenor versus the costs of producing call origination.

183. In order to produce call origination based on PSTN/ISDN, the "cost of switching", i.e. the cost of producing call origination, will be high since an operator must develop an access network or use operator access (LLUB) from Telenor. In order to produce call origination based on the IP protocol on the other hand, the "cost of switching" will be much less since broadband telephony can be access independent.

184. The relative share with broadband telephony has increased considerably in recent years, and this is expected to continue. However, fixed telephony is still mainly based on PSTN/ISDN, and this share is also expected to dominate in the next 2-3 years. In view of this, NPT still considers the costs of switching, i.e. the alternative costs of buying call origination from Telenor, to be high.

⁴⁰ NPT's report on high capacity networks ("Høykapasitetnett") of 10 February 2010, section 1.3.3

4.8.3 Customers' access to information

185. In order for customers to be able to make effective choices between providers in a market they must have access to information that enables them to compare the various offers. Complicated price structures and various bonus and discount schemes can restrict the opportunities for effective end user choice and may contribute to strengthening an already dominant provider's position in the market.

186. Factors linked to access to information from other providers are not relevant at wholesale level since there is no alternative external offer of call origination to Telenor's offer. However, because Telenor is also a vertically integrated provider, it may be relevant to consider access to information in the retail market.

187. As with other telephony markets, several services have been established in this relevant market to help an end user compare different offers by using user-specific parameters. One example of such a service is NPT's own price comparison calculator, www.telepriser.no.

188. In view of this, NPT believes that the customers' access to information is not a factor that affects Telenor's position in this market to any significant degree.

4.9 Conclusion on significant market power and designating a provider with significant market power in the call origination market

189. The assessment of significant market power is based on section 3.1 of the Guidelines and on the different criteria discussed above. In accordance with the Guidelines, paragraph 76, NPT has, based on existing market conditions, used a forward-looking market analysis to assess significant market power. The time horizon for this analysis is approximately two to three years.

190. As mentioned in section 1.2, the Electronic Communications Act's condition for significant market power is stipulated in Section 3-1 of the Act. The provision states that:

“A provider has significant market power when the provider individually or jointly with others has economic strength in a relevant market affording the provider the power to behave to an appreciable extent independently of competitors, customers and consumers.”

191. For the sake of clarity, NPT wishes to emphasise that it is significant market power that is the relevant assessment subject and not anti-competitive misuse of significant market power. It is therefore not central to the significant market power assessment whether any market power/dominance is actually misused or not. This does not, however, mean that a provider's behaviour in the market is irrelevant to the assessment of significant market power. Even if structural factors carry the most weight in the significant market power assessment, behaviour that contributes to creating or maintaining competitive advantages for a provider who already has a dominant position in the market may imply a strengthening of this provider's market power.

192. As covered in NPT's assessments in this chapter, the following conditions indicate that Telenor has significant market power in the call origination market:

- Telenor has a very high market share; estimated at 75 - 80 %. Although the market share has decreased somewhat in the last couple of years and the decline is expected

to continue, NPT deems it as improbable that the market share will be less than 50 % during the period covered by the market analysis. This gives a strong indication that Telenor has significant market power.

- The entry barriers are high as a result of dependency on the access network for the part of the offer in the retail market that is based on PSTN/ISDN. The economies of scale and scope are also pronounced here, whilst the market is simultaneously experiencing a decline.
- Telenor is the only provider to offer external call origination. Since the majority of end users who are based on PSTN/ISDN can only choose between offers of fixed telephony that are originated by Telenor, the lock-in effect will be extensive and the countervailing buyer power small. The bargaining power is further impaired by Telenor's lack of incentive to offer call origination.

193. The following circumstances in the call origination market are serving to limit Telenor's significant market power:

- There are relatively low entry barriers linked to broadband telephony, where the providers will be less dependent on Telenor's access network and Telenor's offer of call origination.
- Offers in adjacent markets, such as mobile telephony and broadband, exert considerable pressure on Telenor's call origination offer.

194. The points that indicate that Telenor has significant market power in this market in the time frame covered by the analysis are considered to weigh more than the points that contribute to restricting Telenor's significant market power. In particular, NPT's view is based on the company's high market share, entry barriers and the weak countervailing buyer power. NPT also believes that PSTN/ISDN will continue to be the dominating form of fixed telephony for the next 2-3 years.

195. In view of this, NPT concludes that Telenor ASA still has significant market power in the market for call origination in the fixed public telephone network.

5 Analysis of the markets for call termination on individual public telephone networks provided at a fixed location

5.1 Introduction

196. In the analysis of 24 March 2006, NPT concluded that Telenor and a total of 12 other providers had significant market power in the relevant markets. NPT's assessment placed the emphasis on the providers' 100 % market share in their own networks, the inherent entry barriers in the markets, the providers' incentives to set relatively high termination charges, and the occurrence of steadily higher prices with several of the providers.

197. In this chapter, NPT undertakes a new assessment of whether providers still have significant market power in the relevant markets.

198. The assessments that are used to designate a provider with significant market power shall, according to paragraph 76 of the Guidelines, be based on a forward-looking market analysis on the basis of existing market conditions.

199. The analysis of significant market power is based on the Guidelines and NPT's methodology. The providers' *market share* forms the basis of the analysis. Then *prices and price developments*, *entry barriers* and *potential competition* as well as *market power* or *countervailing buying power* are assessed. In NPT's view, the remaining criteria from the Guidelines provide little or no information that is essential for the assessment of significant market power in the relevant termination markets. For that reason they will not be subject to further discussion.

200. Significant market power may be achieved by one provider alone (single dominance) or together with others (collective dominance). However, the question of collective dominance is not relevant for the markets in question, since there is only one provider in each market.

5.2 Definition of the geographic market for termination

201. As stipulated in section 3.1.2, geographic markets within electronic communication have traditionally been defined based on the propagation of the relevant network, and the local jurisdiction for the legal regulation of the market. The markets have therefore been regarded as national.

202. It might make sense in the case of some product markets to divide them into geographic markets smaller than the national state, since there are local providers of electronic communication services covered by the relevant product market. According to ERG's Common Position mentioned in sections 3.1.2. and 4.2, a hypothetical monopolist test should be performed in order to examine whether a more detailed geographic analysis for the market definition is needed.

203. The relevant question under the hypothetical monopolist test for the geographic definition of the market is whether a marginal, but non-transitory price increase (5-10 %) in an area leads to a sufficient number of end users wanting to move to another area or whether providers from other areas would start to offer the product in the relevant area in response to the price increase, thus making it unprofitable. A price increase in fixed telephony will in itself hardly be a determining factor for whether end users remain in a specific location or not, and is therefore of little relevance in this context. Furthermore, geographic unit pricing at

wholesale level (within the different interconnection areas) and end user level means that dividing the market into several sub-markets is not justified based on this test.

204. Nor, with regard to the quality of the call termination product, is it possible to separate providers or areas from one another. The vast majority of the termination providers are, as already mentioned, also connected to all points of interconnection in Telenor's nationwide network.

205. In NPT's opinion, different competitive conditions do not exist in stable and clearly defined parts of the country to indicate that a geographic division of the market is necessary. For this reason, NPT believes that further analysis of the question of whether the market shall be divided geographically is unnecessary, and a national approach to market definition and analysis is well documented.

206. NPT therefore believes that the geographic markets for termination of voice in the fixed network will still be limited to the individual networks' respective coverage areas in Norway. With regard to broadband telephony providers without their own access network, the total national offer of fixed broadband will constitute the potential geographic market. Norway is defined as mainland Norway/Norwegian land territory, cf. the clarification above.

5.3 Market shares and price developments

207. Assessing the market share is a natural starting point for analysing significant market power (dominance), cf. the Guidelines, paragraph 76. A provider's market share should exceed 40 % before this factor indicates possible significant market power. If the market share is over 50 %, it would be exceptional were the provider not to be considered to have significant market power. As a rule, providers with less than a 25 % market share are not considered to have significant market power.

208. Market share can be measured by revenue, volume or number of customers. Characteristics of the relevant market will be decisive for the choice of market share measurements, cf. the Guidelines, paragraphs 77 and 78.

209. With regard to the markets for call termination on individual public telephone networks provided at a fixed location, according to the market definition there is only one provider in the individual market. Regardless of which market share measurement is used, each provider thus has a 100 % market share in the respective market. Altibox AS, Hafslund Telekom AS, Intelecom Group AS, Network Norway AS, NextGenTel AS, Orange Business AS, TDC AS, Tele2 Norge AS, Telenor ASA, TeliaSonera Norge AS, Telio Telecom AS, Ventelo AS and Verizon Norway AS are therefore all monopolists with regard to termination of calls to own end customers.

210. The companies' market shares in the relevant markets are thus far higher than the thresholds specified by the ESA and the Commission for there to be a presumption that the providers have significant market power. In such situations, the provider is normally regarded as having significant market power. However, market shares alone are not sufficient to determine whether a provider has significant market power, and must be viewed in conjunction with the other relevant assessment criteria, cf. the Guidelines, paragraph 79.

211. Price levels and price developments over time may often indicate the degree of competition in a market, possibly the degree of potential competition, and can thereby provide an indication of whether a provider has market power. In the wholesale markets for

termination of fixed telephony, the definition states, however, that each market only consists of one provider. Since each individual provider does not have competitors within its market, there is per definition no price competition in this market.

212. An assessment of prices and price developments may nevertheless provide useful information in an assessment of market conditions. In NPT's decision of 24 March 2006, a price cap was imposed on Telenor, while other providers of termination were required to determine "reasonable termination charges". The prices should be based on Telenor's prices, but may deviate if special conditions so dictate. Thus, it was up to the providers initially to clarify the termination charges between themselves.

213. However, it became clear soon after NPT's decision was issued that there was disagreement between Telenor and the providers whose termination charges deviated considerably from Telenor's termination charges in relation to what would be the correct termination charge. Consequently, NPT received complaints from Telenor claiming that several of the providers' termination charges could not be regarded as reasonable. Table 2 below shows the individual providers' termination charges within the interconnection area as per March 2006 when NPT undertook the first market analysis.

<i>Provider</i>	<i>Start-up charge</i>	<i>Price per minute standard rate</i>	<i>Price per minute reduced rate</i>
<i>Telenor</i>	<i>5.4</i>	<i>3.8</i>	<i>2.6</i>
<i>Intelecom Group, NextGenTel, Orange, TeliaSonera Norge, Verizon</i>	<i>Same price as Telenor</i>	<i>Same price as Telenor</i>	<i>Same price as Telenor</i>
<i>Get, Hafslund Telekom and Ventelo</i>	<i>11.6</i>	<i>7.1</i>	<i>5.0</i>
<i>Smartcall (part of Get)</i>	<i>11.5</i>	<i>7.0</i>	<i>4.9</i>
<i>TDC</i>	<i>7.4</i>	<i>6.1</i>	<i>4.9</i>
<i>Tele2</i>	<i>5.4</i>	<i>4.1</i>	<i>2.9</i>
<i>Telio Telecom</i>	<i>11.6</i>	<i>6.1</i>	<i>6.1</i>

Table 2: Prices for termination within interconnection area as per March 2006. All prices quoted in øre excl. VAT.

214. Between 2007 and 2009, NPT undertook individual assessments of the termination charges of providers who had set substantially higher prices than Telenor. The termination charges in all of these cases were reduced as a result of regulations imposed by NPT (the decisions were upheld by the Ministry of Transport and Communications).

215. NPT's requirement to correct the providers' termination charges means that the individual provider may set its own start-up and minute prices as long as the total price for an average call does not exceed the cost of a corresponding call to Telenor's fixed network. The various providers⁴¹ have chosen different price structures as shown in table 3 below.

⁴¹ Get discontinued its interconnection offer in 2008 and the company's telephony services are now produced by Hafslund Telekom.

<i>Provider</i>	<i>Start-up charge</i>	<i>Price per minute standard rate</i>	<i>Price per minute reduced rate</i>
<i>Telenor</i>	<i>5.4</i>	<i>3.8</i>	<i>2.6</i>
<i>Intelecom Group, NextGenTel, Orange, TeliaSonera Norge, Ventelo and Verizon</i>	<i>Same price as Telenor</i>	<i>Same price as Telenor</i>	<i>Same price as Telenor</i>
<i>Altibox</i>	<i>0</i>	<i>3.35</i>	<i>5.35</i>
<i>Hafslund Telekom</i>	<i>10.14 (0 reduced rate)</i>	<i>2.2</i>	<i>4.352</i>
<i>TDC</i>	<i>0</i>	<i>5.5</i>	<i>3.96</i>
<i>Tele2</i>	<i>5.4</i>	<i>4.1</i>	<i>2.9</i>
<i>Telio Telecom</i>	<i>0</i>	<i>4.352</i>	<i>4.352</i>

Table 3: Prices for termination within interconnection area per 1 January 2011. All prices are quoted in øre excl. VAT.

216. The above has resulted in almost identical termination charges between the providers since 1 July 2009. Additionally, NPT's intervention aimed at the individual providers shows that the providers are only affected to a limited extent by competition from other providers when setting their own termination charges. None of the six providers voluntarily chose to apply the same price level as the other providers, including the largest provider in the market. Such a pricing strategy would not be possible over time in a market with competition. If there was competition in providing a commodity like termination, the providers would have to be at virtually the same price level to be able to sell their product. The aforementioned assessments help to show that the markets for termination are separate markets in which each individual provider does not face competition.

5.4 Entry barriers and potential competition

217. Potential competition from new providers will normally affect a dominant provider's behaviour in the market, including pricing. Various forms of entry barriers may, however, weaken or remove the basis for potential competition.⁴²

218. The relevant markets are limited to voice termination in the individual provider's fixed network. With the current technology, it is still not possible for anyone other than the provider who has a customer relationship to subscriber B to offer the termination service. This applies both to services based on traditional circuit-switched technology and services based on VoB.

219. The lack of opportunity for others to offer such a service forms the core of the competition problems in this market and is the very reason for the individual networks being regarded as individual markets. Any change in the capability of others to provide such call termination will thus imply a completely different competitive situation in this market. NPT

⁴² In paragraph 81 of the Guidelines, ESA writes the following about entry barriers: 81: "In fact, the absence of barriers to entry deters, in principle, independent anti-competitive behaviour by an undertaking with a significant market share".

sees no indications of any such technology being used within the analysis' time frame of 2-3 years.

220. In such a market, the entry barriers will therefore be absolute, and there is no potential competition. Therefore NPT does not find it necessary to carry out a more detailed assessment of entry barriers such as sunk costs and economies of scale.

221. In addition, the Calling Party Pays principle⁴³ (CPP) in practice reduces the significance of competition in the termination markets since the end customers will not have any incentive to change provider as a result of competitors who offer lower termination charges. The principle further gives the provider who demands high termination charges the opportunity to subsidise its own customers' calls with the revenues from termination. The end customers of the provider who takes the high termination charge may therefore benefit from retaining this provider.

222. Absolute entry barriers, and thereby the absence of potential competition within the time frame of the analysis, mean that Altibox, Hafslund Telekom, Intelecom Group, NextGenTel, Orange Business, TDC, Tele2 Norge, Telenor, TeliaSonera Norge, Telio Telecom, Ventelo and Verizon Norway AS still have significant market power in the markets for voice termination on the fixed network. This also applies to Network Norway, who is not covered by the previous decision in market 3.

5.5 Conditions on the demand side⁴⁴

5.5.1 Buyer power in an assessment of significant market power in general

223. The markets for termination of voice in individual fixed networks are characterised by the providers having a 100 % market share, the absence of competition and no potential competition. There is therefore a strong presumption that providers in these markets may act independently of competitors, customers and consumers, cf. Section 3-1 of the Electronic Communications Act. Buyer power⁴⁵ is a factor that may, nevertheless, provide a basis for providers of termination in the fixed network not having significant market power.

224. The comments to the Commission's Recommendation⁴⁶ state the following:

"However, such a market definition - call termination in individual networks - does not automatically mean that every network operator has significant market power; this depends on the degree of any countervailing buyer power and other factors potentially limiting that market power."

225. NPT believes that buyer power exists when a defined buyer or groups of buyers are sufficiently important for the seller to be able to exercise influence on the price that the seller takes for the goods or service. Exercising buyer power in the individual markets for termination of voice in the fixed network will thus entail buyers of termination affecting the monopolists' setting of own termination charges.

⁴³ The calling party pays principle is where the subscriber placing the call also pays for it.

⁴⁴ The criterion corresponds to the criterion "absence of or low countervailing buyer power" in paragraph 79 of the Guidelines.

⁴⁵ The terms "countervailing buyer power" and "buyer power" are used interchangeably in the following, without any intended difference in meaning.

⁴⁶ Cf. Explanatory Memorandum to Commission Recommendation on Relevant Product and Service Markets (...) (Second edition), page 25.

226. When assessing buyer power in connection with significant market power, however, it is not sufficient to state that providers who demand the termination service potentially have buyer power or that the provider has actually exercised buyer power. The question in this context is whether the seller of termination is subject to buyer power to such a degree that the buyer power provides a basis for departing from the presumption that it may act independently of competitors, customers and consumers. This issue is discussed below in relation to whether the buyer power is sufficiently effective.

227. Buyer power is deemed to be sufficiently effective if it is able to generate virtually the same outcome that could be expected in a market characterised by competition. This entails, among other things, that the providers are prevented from demanding termination charges that are substantially higher than the price that could be expected in a competitive market. Providers of termination services are in a reciprocal relationship in that they act as buyers and sellers of termination in one another's networks. Profits from the call termination product will thus depend on the difference between revenue from termination in the operator's own network and costs for termination in other operators' networks. Reduction of the termination charge by one seller of termination may therefore provide a basis for buyers of termination reducing their own termination charges. Both termination charges that are higher than the price that would be achieved in a functioning market and the absence of such a reduction in the cost level⁴⁷ resulting in the provider reducing its termination charges, may thus indicate that the buyer power is not sufficiently effective.

228. Buyer power is not an absolute term, but refers to the relative power of a buyer in negotiations with a seller for specific goods or services. Thus, the degree of buyer power will vary according to the differing constellations of buyers and sellers.

5.5.2 Factors of general importance for exercising buyer power in the relevant market

229. Factors of general importance for the ability to exercise buyer power in the individual termination markets include:

- If the buyer is able to cover his needs in a way other than by buying from the seller, including the possibility of reducing or refraining from purchasing.
- The regulatory context in which any buyer power is exercised, including any specific obligations, as well as the parties' expectations of the outcome of referring any dispute on the signing or implementation of interconnection agreements to NPT.

230. In many cases, the threat of switching supplier or producing a service internally may form the basis for exercising buyer power. In the individual markets for termination of voice in the fixed network, however, the seller of the termination service has a monopoly in the termination of calls to its own end users. A potential buyer of termination in a specific fixed network will therefore lack alternatives to enable its end users to call end users in the seller's fixed network. The lack of alternatives is a factor that substantially impairs the opportunity for exercising buyer power over sellers of termination in the fixed network.

231. The ability to refrain from buying will often be a strong bargaining chip. Pursuant to Section 4-2, second paragraph of the Electronic Communications Act, NPT may impose an obligation on providers to conclude interconnection agreements. This provision provides the opportunity to impose the purchase of termination in another provider's fixed network when

⁴⁷ Cost level refers to the unit price the seller of termination pays for terminating on other undertakings' networks.

this is necessary in order to ensure any-to-any connectivity. The provision is known to the relevant providers in the market, and NPT has traditionally attached great importance to ensuring any-to-any connectivity. These conditions reduce buyer power by reducing the threat of not buying.

232. If a potential buyer completely refuses to buy termination from one or more sellers of termination in the fixed network, this will mean that the company's own end users can no longer reach the end users in the network where no termination has been purchased. In this case, the party refraining from buying termination will be at risk of his own end users choosing a provider that does not have a similar limitation on its service. The potential for losing end users, and thereby market shares and competitive power, is another factor that reduces the potential to exercise buyer power through the threat of not buying. However, the commercial importance of such assessments must also be viewed in the context of the number of end users with the seller of termination.

233. The buyer's threat to reduce his purchasing can also potentially represent a strong bargaining chip. However, the demand for purchasing call termination products at the wholesale level is derived directly from the end users' demand for termination. In this way, a purchase of termination may be viewed as a bundled purchase. Based on the providers' commercial interest in offering any-to-any connectivity, NPT believes that the providers' potential to directly limit its purchase of termination in a specific network provides a very limited basis for exercising buyer power.

234. The providers of termination are in a mutually dependent relationship since, in principle, all providers are forced to purchase termination in one another's networks. To the extent termination charges had been set on the basis of commercial agreements between providers, it may be claimed that all providers of termination services will be able to exercise a degree of buyer power vis-à-vis one another. In this case, a provider could reflect the seller's termination charge in the price the seller himself would have to pay for termination in the buyer's network.

235. However, providers of termination in the fixed network are subject to one form of price control or another, either in the form of a price cap or a requirement to set reasonable termination charges. Providers of termination in mobile networks are also subject to price cap controls. The price cap controls are to prevent exercising buyer power, where a provider that wants to reflect the seller's termination charge in its own termination charge has to do this within the price cap/price control. The empirical data show that providers of termination set their termination charges equal to the price ceiling/price controls. Thus, in practice, a provider's ability to exercise buyer power by threats to raise its own charges will not be an option.

236. Pursuant to Section 4-2, first paragraph of the Electronic Communications Act, providers of access to electronic communications networks and services have the right and obligation to negotiate with other providers for interconnection, including buying and selling termination. If the parties cannot agree, each of the parties may refer the dispute to arbitration with NPT, cf. Section 11-1 of the Electronic Communications Act. The parties may also take a dispute on rights and obligations in individual decisions under the provisions of or pursuant to the said Act to NPT for a decision, cf. Section 11-2 of the Electronic Communications Act.

237. If the parties can have a reasonable expectation of the outcome of referring a dispute on the setting of termination charges to NPT, this expectation may form the basis for exercising

buyer power. In all six cases where the Authority deemed that termination charges deviated strongly from Telenor's termination charges, the Authority concluded that the charges should be reduced. Four of these cases related to specific complaints from Telenor, and this supports the notion that expectations can arise for a certain price range in the market to a degree, which in turn may provide a basis for exercising buyer power. On a more general basis, NPT nevertheless maintains that the result of such a process must be regarded as uncertain, whereby the opportunity to take a dispute on setting the termination charges to arbitration or for a decision by NPT is less suited to strengthening the originating party's buyer power.

238. **In summary**, NPT believes that several factors impair the opportunity to exercise buyer power in negotiations on the purchase of termination on the fixed network. The opportunities for exercising buyer power over sellers of termination on the fixed network are thus extremely limited. NPT will now discuss whether there are factors that on an individual basis indicate that the companies covered by the analysis are subjected to buyer power that is sufficient to change the presumption that the providers may behave independently of the market.

5.5.3 NPT's assessment of whether the specific providers are subjected to buyer power

239. In addition to the factors mentioned in the previous section, buyer power may be exercised on the basis of:

- The buyer's importance to the seller by virtue of the buyer's purchase volume.
- Whether the buyer can offer anything of interest to the seller, such as access to other markets.

240. The buyers of termination of voice in the fixed network consist of other fixed network providers and mobile providers. Telenor is the largest seller and buyer of termination in the fixed network. In addition to buying termination for its own mobile and fixed network customers, Telenor also acts as a supplier of transit services for other mobile and fixed network providers.

241. Negotiations on interconnection ordinarily take place bilaterally between providers. Based on Telenor's role as the largest buyer of termination in the fixed network, NPT believes that the company has the greatest prerequisites for exercising buyer power. This is supported by the fact that the company's standard interconnection agreement is used as a basis for the interconnection agreements that Telenor has entered into with other providers.

242. The assessment in this chapter will therefore be based, to a large extent, on Telenor's opportunities for exercising buyer power. To the degree that the analysis shows that this company would not be in a position to discipline the analysed providers' termination charges, it is assumed that the other buyers of termination would also not be in a position to exercise buyer power that provides a basis for deviating from the presumption that the company has significant market power.

243. The termination charges of all providers are subject to some form of price controls. As part of its assessment of buyer power, NPT will choose what is called a "modified greenfield approach", namely disregarding the obligations in the market that are the subject of a market analysis. This means that when assessing buyer power, NPT must mainly consider how the companies set their termination charges before they are subject to price controls. Additionally, the price controls do not prevent buyer power from being able to push the

prices further down. It is therefore also relevant to consider the providers' behaviour after the price controls have been imposed.

5.5.3.1 Assessment of whether Telenor is subjected to sufficient buyer power

244. Telenor is clearly the largest provider of termination in the fixed network in Norway. Telenor's share in 2010 of the total externally sold termination measured in minutes was approximately 61 %⁴⁸. This is based on the fact that the Telenor group has incentives to ensure maximum profitability for the business as such, and that the mobile business will not therefore exercise significant pressure to set the termination charge for calls to Telenor's fixed network.

245. NPT believes that none of the other providers of termination appear to have anything to offer Telenor that is sufficiently attractive that it could discipline Telenor's pricing. NPT's experiences with the different termination markets also indicate that there is no basis for stating that one or more other providers, either together or on their own, are in a position to subject Telenor to buyer power that is effective enough to change the presumption that Telenor has significant market power. Telenor has been subject to price cap controls since 2006 and since then has operated with a termination charge that has been identical to this price cap.

5.5.3.2 Assessment of whether TDC is subjected to sufficient buyer power

246. TDC is the second largest provider of termination in the fixed network in Norway. In 2010, the company was responsible for 19 % of all externally sold terminated minutes on the fixed network. If TDC was to be subjected to sufficient buyer power, it would be natural to assume that Telenor was responsible for this. However, NPT does not believe there is an empirical basis for stating that Telenor's bargaining power has had such a disciplinary effect on TDC's termination charge that it provides a basis for departing from the presumption that TDC has significant market power. Reference is made to section 5.3 of this analysis. Telenor has incentives not to pay more for termination to other providers than the company itself receives for termination in its own network, and this case shows that it was only after NPT's intervention that TDC's termination charges were adjusted downwards to the same level as Telenor. TDC has otherwise operated with a termination charge that is identical to the requirement imposed by NPT.

5.5.3.3 Assessment of whether Hafslund Telekom, Telio Telecom and Ventelo are subjected to sufficient buyer power

247. Measured in number of minutes, around 6 % of all externally sold termination in the fixed network went to Telio Telecom's network in 2010. Corresponding figures for Hafslund Telekom and Ventelo were 5 and 3 % respectively. Although these respective companies' shares of the total termination have been relatively small, they have in some periods operated with termination charges that have been well in excess of Telenor's own termination charges. Any exercising of buyer power in order to reduce these prices would in that respect be expected to emanate from Telenor. However, NPT's experience is that the opposite has been the case with regard to the relationship between Telenor and these three providers. Reference is made to section 5.3 above on NPT's intervention aimed at the aforementioned providers of termination.

⁴⁸ Measured as a share of termination of voice from other fixed or mobile networks.

248. It should also be noted that these cases showed that Telenor was not actually in a position to exercise sufficient buyer power over providers with termination charges that deviated substantially from Telenor's own charges. The way that the interconnection agreement is formulated gives the providers an opportunity to increase their own termination charges unilaterally. There is therefore no basis with regard to these three providers to depart from the presumption that they have significant market power. Hafslund Telekom, Telio Telecom and Ventelo have, in practice, been subject to price controls since the second half of 2008, and since NPT imposed a requirement to adjust the termination charges have been operating with prices that correspond to this requirement.

5.5.3.4 Assessment of whether Altibox is subjected to sufficient buyer power

249. Altibox established its offer of interconnection in the previous control period, but in 2010 was responsible for 5 % of all externally sold terminated minutes on the fixed network. Altibox has also operated for periods with termination charges well above Telenor's charges. Telenor opposed this when, upon entering into an interconnection agreement in 2007, it was proposed that asymmetrical termination charges were set at the same level as several of the other smaller providers of termination in the fixed network. As indicated in section 4.1.3 of the Ministry of Transport and Communications' appeal decision⁴⁹ on the designating of Altibox as a provider with significant market power, however, Telenor's buyer power was not sufficient to counter the company's setting of termination charges that were 100 % higher than Telenor's after signing the interconnection agreement.

250. In the decision, the Ministry did not preclude Telenor from having sufficient buyer power in connection with negotiations on new interconnection agreements, but referred to section 4.2 of the interconnection agreement, which provides for the provider notifying a price increase afterwards. The Ministry therefore agreed with NPT that Telenor's buyer power was not sufficient to prevent Altibox from acting independently of its customers and competitors in this market.

251. It is NPT's view that there are still no conditions that provide a basis for departing from the presumption that Altibox has significant market power. In practice, the company has been subject to price controls since 1 July 2009, and since then has operated with a termination charge in line with NPT's requirement.

5.5.3.5 Assessment of whether Intelcom Group, Orange Business Norway, Network Norway, NextGenTel, Tele2, TeliaSonera Norge and Verizon Norway are subjected to sufficient buyer power

252. These companies combined currently represent a marginal share of the total number of terminated voice minutes in the fixed network. Of the said operators, NextGenTel had the largest market share in 2010 (2 %). These providers are characterised as follows:

- They have a very limited offer of termination in relation to Telenor
- The counter party in the negotiations is, for the most part, large (Telenor)

253. Smaller providers can normally be expected to be more exposed to pressure in the negotiations than the larger providers. The relatively low traffic volume of the smaller providers, however, leads to the price set by the smaller providers giving a relatively small

⁴⁹ Decision of 22 October 2008.

return on the larger providers' total interconnection costs, and may therefore pull in the opposite direction.

254. Like Telenor, these providers also have an incentive to set high termination charges, but their prices have mainly followed Telenor's prices in the previous control period. There may be many reasons for this, including historical factors or the benefits of simplicity. In Tele2's case, the company will be dependent on Telenor as a buyer of wholesale line rental, but on the other hand, Telenor's buyer power will be impaired as a result of this and other interconnection products being subject to different forms of regulation. For the entire period since the previous market analysis, Tele2 has otherwise maintained a marginally higher termination charge than Telenor.

255. Although it is less clear how the buyer power manifests itself for these providers, NPT nevertheless believes that there is nothing to indicate to a sufficient degree that the Authority should depart from the presumption that these companies also have significant market power for termination of voice in their own networks.

5.5.4 Summary of buyer power

256. The lack of alternative providers and the opportunity to ensure any-to-any connectivity through interconnection obligations mean that the opportunities for exercising bargaining power over sellers of termination of voice on the fixed network are strongly reduced.

257. NPT has found no basis to indicate that Telenor, TDC, Hafslund Telekom, Telio Telecom, Ventelo and Altibox are subject to sufficient buyer power in their respective termination markets.

258. With regard to some of the smaller providers it is less clear if they have been subject to a certain degree of buyer power. However, NPT believes that none of the companies have been subject to buyer power to such a degree that there is a basis to depart from the presumption that the providers may act independently of customers, competitors and consumers in the markets for termination of voice on their own fixed networks.

259. As explained above, the key question is whether the companies concerned are subjected to buyer power that can discipline the companies' termination charges to the level they could expect in a market characterised by competition. NPT believes that the price level of several of the companies, particularly before they were subjected to price controls, but also afterwards, clearly shows that this is not the case.

260. Accordingly, NPT's conclusion is that the buyer power that the analysed providers are subject to is not sufficiently effective to depart from the presumption that the providers have significant market power in the market for termination of voice on their own fixed networks.

5.6 Conclusion of significant market power and designating of providers with significant market power within the termination markets

261. The assessment of significant market power is based on section 3.1 of the Guidelines and the various criteria discussed in chapter 4 above. In accordance with the Guidelines, paragraph 76, NPT has, on the basis of existing market conditions, based the assessment of

significant market power on a forward-looking market analysis. The time horizon for this analysis is approximately two to three years.

262. As mentioned in section 1.2, the Electronic Communications Act's condition for significant market power is stipulated in Section 3-1 of the Act. The provision states that:

“A provider has significant market power when the provider individually or jointly with others has economic strength in a relevant market affording the provider the power to behave to an appreciable extent independently of competitors, customers and consumers.”

263. For the sake of clarity, NPT wishes to emphasise that it is significant market power that is the relevant subject of assessment and not anti-competitive misuse of significant market power. It is therefore not central to the assessment of significant market power whether any market power/dominance is actually misused or not. However, this does not mean that a provider's behaviour in the market is irrelevant to the assessment of significant market power. Even if structural factors carry the most weight in the assessment, behaviour that contributes to creating or maintaining competitive advantages for a provider who already has a dominant position in the market may imply a strengthening of this provider's market power.

264. Altibox AS, Hafslund Telekom AS, Intelcom Group AS, Network Norway AS, NextGenTel AS, Orange Business AS, TDC AS, Tele2 Norge AS, Telenor ASA, TeliaSonera Norge AS, Telio Telecom AS, Ventelo AS and Verizon Norway AS are separately sole providers of termination of voice to their own end users, which corresponds to the relevant markets. They all accordingly have a 100 % market share.

265. The assessment of price developments for termination of voice in section 5.3 also shows that the providers do not have incentives to voluntarily reduce their termination charges down to a level that corresponds to a market with competition. Because the entry barriers within the individual relevant markets are absolute there is consequently no potential competition within the time horizon of the analysis. As a starting point, all providers will therefore stand to have significant market power. There would have to be compelling factors with a disciplinary impact on market power for this not to be the case. Such factors may primarily be assumed to be associated with countervailing buyer power.

266. As indicated in the findings above, NPT does not believe that countervailing buyer power can reduce the providers' exercising of market power for termination of calls on their own networks to a sufficient degree.

267. In view of this, NPT concludes that Altibox AS, Hafslund Telekom AS, Intelcom Group AS, Network Norway AS, NextGenTel AS, Orange Business AS, TDC AS, Tele2 Norge AS, Telenor ASA, TeliaSonera Norge AS, Telio Telecom AS, Ventelo AS and Verizon Norway AS have significant market power in the respective markets for termination of voice on individual fixed networks.