Annex 1
Case: 0906783

Analysis of the market for voice call termination on Lycamobile Norway Ltd's individual mobile network (market 7)

13 May 2010

Contents

Summary and conclusion

This document contains the analysis that the Norwegian Post and Telecommunications Authority (NPT) has conducted of the market for voice call termination on Lycamobile Norway Ltd's (Lyca) individual mobile network (market 7). The analysis is to be viewed in conjunction with NPT's analyses of 27 September 2010, in which the Authority found that NetCom[1], Network Norway, TDC, Tele2, Telenor and Ventelo all have significant market power in the markets for voice call termination on the companies' respective mobile networks.

Chapter 1 contains a description of the background and framework for the analysis.

The relevant market is defined in chapter 2. In its Recommendation, ESA defined the relevant product market as voice call termination on individual mobile networks. NPT considers the product market for voice call termination on Lyca's mobile network to concur with the Recommendation. There is no sufficient potential for substitution, either on the supply or demand side, or other conditions that make it relevant to expand the product market. The product market is thus defined as voice call termination on Lyca's mobile network.

NPT has further defined the market geographically. The analysis concludes that the geographic market is limited to the coverage area of Lyca's mobile network in Norway. The relevant market is thus defined as voice call termination on Lyca's mobile network in Norway.

An analysis is made in chapter 3 of the relevant market with a view to considering whether Lyca has significant market power. In NPT's assessment, the most relevant criteria for this analysis are *market shares, prices and price developments, an overall assessment of entry barriers and potential competition,* in addition to *countervailing buying power*[2].

Lyca is the only provider of voice call termination in its virtual mobile network. The company therefore has a 100% market share. The entry barriers within the relevant market are absolute within the time horizon of the analysis, and there is therefore no potential competition during the period.

In view of this, NPT presumes that Lycra has significant market power. A conclusion of significant market power cannot, however, be based on market shares alone. NPT has therefore considered whether conditions exist that can have a sufficient disciplinary effect on Lyca's potential to act independently of the market. These factors are assumed primarily to relate to countervailing buying power. NPT sees no evidence to suggest that any buyers have sufficient buyer power to have a disciplinary effect on the setting of Lyca's termination charges.

In view of this, NPT has concluded that Lyca has significant market power in the market for voice call termination in its own mobile network.

[1] NetCom changed its name to TeliaSonera Norge AS in 2011.
[2] In the following, the terms "countervailing buying power" and "buyer power" are used synonymously.

1 Background and framework for the analysis

1. This document contains the analysis that the Norwegian Post and Telecommunications Authority (NPT) has made of the market for voice call termination on Lycamobile Norway Ltd's (Lyca) mobile network. The analysis is an annex to the draft decision on Lyca.

2. On 27 September 2010, NPT issued a decision in the markets for voice call termination on individual mobile communication networks. The markets are referred to in the decision as the markets for voice call termination on individual mobile networks (market 7). The following providers were designated as undertakings with significant market power in the decision, and specific obligations were imposed on these:

- NetCom AS (NetCom)
- Network Norway AS (Network Norway)
- TDC AS (TDC)
- Tele2 Norge AS (Tele2)
- Telenor ASA (Telenor)
- Ventelo AS (Ventelo)

3. Lyca entered into an MVNO agreement with NetCom at the end of 2009 and agreements on direct interconnection with Telenor and NetCom in spring 2010. Lyca introduced its offer of mobile services in the retail market in 2010, thus making the company a provider of voice call termination in the mobile network.

4. NPT has defined the product market and the geographic market, and made an analysis of the relevant market. The market analysis is used as a basis when applying sector-specific remedies in the relevant market.

5. The markets and the associated analyses will be subject to regular reassessments. In the analysis of the markets for voice call termination on individual mobile networks dated 27 September 2010, NPT indicated that the Authority intended to prepare new analyses of these markets within two to three years. In the next review of the markets, NPT will include Lyca in the assessments together with other providers in market 7. This analysis is therefore limited to a time horizon of approximately two years.

6. As described in the document 'Methodology for Market Analysis'[3] (the methodology document), the work on market analyses may be divided naturally into three phases:

   1. Define relevant markets by defining relevant product markets and defining geographic markets.
   2. Carry out market analyses of each of the relevant markets, with a view to uncovering whether any undertakings have significant market power.
   3. Impose obligations on undertakings designated as having significant market power.

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[3] Metode for markedsanalyse, 11 June 2009, NPT

7. The market analyses shall be based on the "modified greenfield approach". [4]

8. This analysis contains NPT's assessments in phases 1) and 2).

9. In Section 3-1 of the Act relating to electronic communications (Electronic Communications Act), significant market power is defined as follows:

> *"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."*

10. It follows from 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 (EFTA Surveillance Authority) under the framework directive for electronic communication services:

- The guidelines on market analyses and the assessment of significant market power (herein referred to as "the Guidelines")[5]
- Recommendation on relevant markets (herein referred to as "the Recommendation")[6]

11. Further information on legal frameworks for the analysis and method for market definition is given in NPT's analyses of market 7 dated 27 September 2010.

2 Market definition

2.1 General comments on market definition

12. In connection with the market analyses, NPT must consider whether the ESA's pre-defined market is appropriate for Norwegian conditions. A description/definition of the product market shall be given and the geographic market defined. The definition of product and geographic market is herein referred to as the relevant market.

13. A product market is basically made up of products or services (the terms are used synonymously in the following) that are sufficiently substitutable. The basis for the product market definition is an assessment of substitutability on the demand side. However, substitutability may also exist on the supply side and may then be relevant in the definition of the product market.

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[4] A "modified greenfield approach" means that the market is assessed on the assumption that the relevant market is not subject to sector-specific *ex ante* regulation. Regulation in adjacent markets is, nevertheless, taken into account.

[5] EFTA Surveillance Authority Guidelines 14/07/2004.

[6] EFTA Surveillance Authority Recommendation 05/11/2008 with the Commission's Explanatory Note.

14. Once the relevant product markets are determined, the geographic market is defined. The geographic market definition is also based on substitution on the supply and demand side. 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 similar and sufficiently homogeneous conditions of competition.

2.2 Description of Lyca

15. Lyca entered into an MVNO agreement with NetCom in December 2009 and launched its services in the Norwegian retail market in April 2010.

16. A virtual provider (Mobile Virtual Network Operator, MVNO) does not have its own radio network, but enters into agreements with providers who have their own mobile network on access to the radio portion of this network. An MVNO has its own core network, switching network and associated support systems, as well as its own mobile network code (MNC). An MVNO provider will enter into its own interconnection agreements with other providers in a similar way as mobile network operators (MNO) and by doing so control the access to terminating voice telephony with its end users.

17. Lyca has a presence in several countries in Europe as an MVNO provider, and its head office is in Ireland. The majority of the company's network components are located outside Norway and are used in the company's retail offer in numerous countries. Lyca's website states that the company has 6 million customers worldwide. In its first year of operations, Lyca in Norway sold exempt from public disclosure [[redacted][7]] prepaid subscriptions, i.e. cash cards.

18. The company's strategy is aimed at reaching customers in what may be described as the ethnic segment of the population. Exempt from public disclosure [[redacted].]

19. Lyca has direct interconnection agreements with Telenor and NetCom. The interconnection agreement with Telenor also includes an agreement on transit. Thus, Lyca's interconnection offer to other providers goes through Telenor's network.

2.3 Definition of the market

2.3.1 Product definition in the Recommendation

20. In this section, NPT summarises the most central guidelines on the definitions of the product markets in the Commission's Explanatory Note[8].

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[7] E-mail from Lyca dated 12 January 2011.

[8] 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.

21. The Commission considers voice call termination in mobile networks to be an input factor for calls that are originated both in fixed and mobile networks. Furthermore, the Commission emphasises the market failure in the termination markets as a result of the "calling party pays' (CPP) principle. According to the principle, only the party placing the call (the calling party) pays for the call. Because the termination charge is determined by the owner of the network who receives the call (terminating provider), the calling party has a very limited opportunity to influence the termination charge. Since the recipient of the call does not pay for incoming calls, the recipient will have little incentive to switch network operator in the event that its own network operator increases the charge for voice call termination in its mobile network. The CPP principle now prevails throughout Europe. The Commission states that the same market characteristics apply to SMS termination. Based on demand and supply substitution, however, the Commission believes that SMS termination constitutes a separate market from voice call termination.

22. The Commission concludes that the relevant markets under a CPP regime are voice call termination on individual mobile networks. One consequence of the definition is that all mobile operators are sole suppliers (monopolists) of termination on their own mobile network. However, it is pointed out that this still does not automatically mean that providers will have significant market power. Whether the providers have significant market power in their own termination market will depend on whether sufficient countervailing buying power exists to limit their potential to act independently of the market.

2.3.2 Definition of the product market

23. In its market analysis of 27 September 2010, NPT assessed the substitutability on the supply and demand side based on Norwegian market conditions. The assessment is based on similar assessments in previous analyses of the markets for voice call termination on mobile networks. The Authority has concluded that the relevant product markets in Norway shall continue to be defined as voice call termination on individual mobile networks, in-keeping with the definition of market 7 in the Recommendation. There are no sufficient opportunities for substitution, either on the supply or demand side, or other conditions that make it relevant to change the definition of the product markets.

24. NPT does not believe that either market or technical conditions related to termination on mobile networks have changed since this assessment was undertaken. Lyca is an MVNO in NetCom's network and controls its own termination in a similar way as other MVNOs in the Norwegian market. NPT sees no indication of special conditions in Lyca's offer of termination that demonstrate a basis for deviating from the market definition that was made in the analysis of 27 September 2010.

2.3.3 Definition of the geographic market

25. In the market analysis of 27 September 2010, NPT concluded that the geographic markets for voice call termination on mobile networks shall be defined as the individual mobile networks' respective coverage areas in Norway, including coverage that is attained through an agreement on national roaming or MVNO access.

26. Through the MVNO agreement with NetCom, Lyca achieves the same coverage as NetCom, i.e. almost the whole of Norway. There are no special conditions

in Lyca's offer of termination that indicate a basis for defining the geographic market for Lyca any differently to that of other operators in market 7.

2.3.4 Conclusion of market definition

27. The relevant product market encompasses voice call termination on Lyca's mobile network.

28. The market covers voice call termination on both the GSM and UMTS networks. The market also includes termination on voice mail services. Time-metered traffic to mobile-based M2M subscriptions in the 4x, 58x, 59x and 9x number series are included in the market.

29. The geographic market corresponds to the relevant mobile network's coverage area in Norway.

3 Analysis of the market

3.1 General – significant market power

30. According to paragraph 76 of the Guidelines, the assessments applied in designating undertakings with significant market power shall be based on a forward-looking market analysis, which in turn is based on existing market conditions.

31. The relevant subject of assessment is the existence of significant market power, and not anti-competitive misuse of a dominant position. 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. Although structural aspects are given the greatest weight in the assessment, the provider's behaviour will also be significant to the conclusion of significant market power.

32. The analysis of significant market power is based on the Guidelines and NPT's methodology document. *Market shares* form the basis for the analysis. *Prices and price developments, entry barriers* and *potential competition* are then considered, in addition to *countervailing buying power*. In NPT's view, the remaining criteria from the Guidelines provide little or no information that is essential to the assessment of significant market power in the relevant termination market. For that reason they will not be subject to further discussion.

3.2 Market shares

33. The assessment of significant market power is based on the analysis of market shares, cf. the Guidelines, paragraph 76. The ESA notes that the Commission assumes that single dominance is normally to be found among providers with more than a 40% market share. The ESA further states:

> *"According to established case-law, very large market shares - in excess of 50% - are in themselves, save in exceptional circumstances, evidence of the existence of a dominant position. An undertaking with a large market share*

may be presumed to have SMP, that is to be in a dominant position, if its market share has remained stable over time."

34. Market shares can be measured by revenue, volume or number of customers. Which measurements of market shares are most relevant will depend on the characteristics of the relevant market, cf. the Guidelines, paragraphs 77 and 78.

35. For the markets for termination of calls on individual mobile networks it follows from the market definition that there is only one provider in the individual market. Regardless of which market share measurement is used, each mobile provider thus has a 100% market share in the respective market. As with other providers of termination, Lyca thus has a monopoly on the termination of calls to its own end users.

36. Lyca's market share is far higher than the threshold value that the ESA and the Commission have specified in order for the presumption that a provider has significant market power to exist. The assessment of market shares thus indicates that Lyca has significant market power in the relevant market.

37. Significant market power cannot, however, be substantiated by market shares alone, but must be viewed in conjunction with the other relevant assessment criteria, cf. the Guidelines, paragraph 79.

3.3 Prices and price developments

38. The price level and price developments over time can often indicate the degree of competition in a market, and thereby imply that a provider has significant market power. However, in the markets for call termination on mobile networks, it follows from the definition that each market consists solely of a single undertaking. Since no individual provider has competitors in its market, there is by definition no price competition in this market. An assessment of prices and price developments may nevertheless provide useful information in an assessment of competitive conditions.

39. Lyca established itself in the market in spring 2010. The company's termination product has not been subject to price controls.

40. Lyca's termination charges when entering the market were NOK 0.90. As of 1 July 2010, the termination charge was reduced to NOK 0.75, and as per 1 January 2011 the charge was further reduced to NOK 0.40. Lyca's termination charge therefore seems to follow the termination charge of other MVNO providers such as TDC and Ventelo.

41. Although Lyca's price level has followed other MVNO providers, the company's prices are considerably higher than both Telenor and NetCom's prices. Telenor and NetCom have the lowest termination charges in the Norwegian market. Lyca's price strategy would not have been possible in a market with competition. If there was competition in providing a homogenous commodity like termination, the providers would have to be at virtually the same price level to be able to sell their product. The price level for Lyca therefore indicates that the company is not exposed to sufficient competition, and is able to set its prices above a competitive level.

3.4 Entry barriers and potential competition

42. Potential competition from new operators will normally affect a dominant operator's behaviour in the market, including its pricing. The existence of entry barriers can, however, impair or remove the basis for potential competition.[9]

43. The relevant market is defined as voice call termination Lyca's virtual mobile network. Current technology does not provide the capability for providers other than Lyca to offer termination in the company's own mobile network. Within the time horizon of the analysis, it does not therefore seem possible for other providers to establish themselves in this termination market. The entry barriers will therefore be absolute. Thus, there is no potential competition. Consequently, NPT does not find it necessary to carry out a more detailed assessment of entry barriers such as sunk costs and economies of scale.

44. In addition, the Calling Party Pays principle[10] (CPP) will in practice reduce the potential for competition in the termination markets. This principle enables the operator with high termination charges to subsidise its own customers' calls with revenues from termination. Thus, end users of an operator with a high termination charge will not have an incentive to change provider.

45. Absolute entry barriers, and thereby the absence of potential competition within the time horizon of the analysis, indicate that Lyca has significant market power in the market for termination of voice on its own mobile network.

3.5 Buyer power/countervailing buying power[11]

3.5.1 Buyer power in an SMP assessment in general

46. The markets for voice call termination on individual mobile networks are characterised by the undertakings having a 100% market share, absence of competitors and no potential competition. There is therefore a strong presumption that undertakings in these markets can act independently of competitors, customers and consumers, cf. Section 3-1 of the Electronic Communications Act.

47. Buyer power is a factor that can provide a basis for providers of termination on mobile networks nevertheless not having significant market power. In the comments on the Commission's Recommendation[12] it states:

> *"A market definition for call termination on each mobile network would imply that currently each mobile network operator is a single supplier on each market. However, whether every operator then has market power still depends on whether there is any countervailing buying power, which would render any non-transitory price increase unprofitable."*

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[9] In paragraph 81 of the Guidelines, the ESA writes the following about entry barriers: "In fact, the absence of barriers to entry deters, in principle, independent anti-competitive behaviour by a undertaking with a significant market share".
[10] The calling party pays principle is where the subscriber placing the call also pays for it.
[11] The criterion corresponds to the criterion "absence of or low countervailing buying power" in paragraph 79 of the Guidelines.
[12] Cf. Explanatory Note page 44.

48. NPT believes that buyer power exists when a defined buyer or group of buyers is sufficiently important to the seller that the said buyer or group of buyers is able to exercise influence on the price that the seller takes for the goods or service. Thus, exercising buyer power in the individual markets for voice call termination on mobile networks will mean that buyers of termination can influence the monopolists' setting of their own termination charges.

49. However, in assessing buyer power in connection with significant market power it is not enough to ascertain that providers who demand the termination service potentially have buyer power or state that the provider has actually exercised buyer power. The question here is whether the seller of termination is exposed to such a degree of buyer power that the buyer power provides a basis for deviating from the presumption that he is able to act independently of competitors, customers and consumers. This issue is discussed in the following in relation to whether the buyer power is sufficiently effective.

50. 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 means, among other things, that the operator is prevented from having termination charges 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 a seller of termination can therefore provide a basis for the buyers of termination also reducing their termination charges. Both the existence of higher termination charges than the price the operator would have achieved in a functioning market and the lack of cost reduction through reduced termination charges by other providers being reflected in the provider's own termination charge can thus indicate that the buyer power is not sufficiently effective.

51. Buyer power is not an absolute concept, but refers to the relative strength a buyer has in bargaining with a seller for specific goods or services. Thus, the degree of buyer power will vary according to the different constellations of buyers and sellers.

52. Some factors generally serve to reduce the ability to exercise buyer power in the markets for voice call termination on mobile networks. NPT considers such factors in section 3.5.2. NPT then examines factors of significance to whether Lyca is exposed to buyer power that is considered to be sufficiently effective.

3.5.2 NPT's assessment of whether Lyca is exposed to buyer power

53. In its decision of 27 September 2010, NPT described general factors that reduce the potential to exercise buyer power in negotiations for the purchase of termination on mobile networks. The Authority's conclusion was that the potential to exercise buyer power towards sellers of termination on mobile networks is extremely limited.[13] NPT considers the assessments in the decision to also be valid in the

[13] Decision 27 Sept 2010, Annex 1 (analysis of the markets for termination of voice on mobile networks) section 3.5.2.

assessment of whether Lyca is exposed to buyer power that can be regarded as sufficiently effective.

54. NPT discusses in the following whether conditions exist which, on an individual basis, indicate that Lyca is exposed to buyer power that is sufficient to change the presumption that the providers can act independently of the market.

55. Exempt from public disclosure.[14] [[redacted].] Lyca's interconnection with NetCom is regulated in an agreement with NetCom. The agreement means that Lyca's termination charge for national traffic shall be at least as good as Lyca's termination charge is to other providers, provided that this does not conflict with public regulation.

56. Lyca has been an operator in the Norwegian mobile market for a relatively short period of time. The share of mobile-terminated traffic that is terminated on Lyca's mobile network is marginal for the time being (below 0.5%). Smaller providers are normally expected to be more exposed to pressure in negotiations than larger operators. The relatively low traffic volume that is terminated with Lyca, however, means that the termination charge set by Lyca has a relatively small effect on the larger operator's total traffic costs, and can therefore pull in the opposite direction.

57. The buyers of voice call termination on mobile networks consist of other fixed operators and mobile operators. The largest buyers in Norway are Telenor and NetCom. In addition to buying termination for its own mobile and fixed network customers, Telenor acts as a transit services provider for other mobile and fixed network operators. In view of Telenor and NetCom's roles as the biggest buyers of termination on Norwegian mobile networks, NPT finds that these companies are most able to exercise buyer power.

58. Lyca's termination prices mean that the company takes the same price as other MVNOs in Norway with the exception of Tele2[15]. The company's termination charge has thus been NOK 0.75 from 1 July 2010, and was reduced to NOK 0.40 from 1 January 2011. In isolation, this may be an indication that the company is exposed to buyer power.

59. NPT believes it is relevant to view Lyca's pricing in conjunction with NPT's previous regulation of the termination markets in mobile networks, including NPT's decision of 27 September 2010. In the decision, which covered all providers of termination in Norwegian mobile networks with the exception of Lyca, symmetrical termination charges were imposed on all relevant providers within the period of the

[14] Exempt from public disclosure, cf. section 13 of the Freedom of Information Act, cf. section 13 first paragraph number 2 of the Public Administration Act.

[15] Tele2 has been allowed to have a higher termination charge since the company is contributing to the development of a third mobile network in Norway, cf. the Ministry of Transport and Communications' decision of 19 May 2009 to Tele2.

decision. NPT assumes that the price controls of the providers of termination on mobile networks are known to Lyca, and may have had a disciplinary effect on the company's pricing.

60. The need for quick regulation of Lyca's termination product must be viewed in light of what prices the company charges for the termination service and the relative volume that terminates on the company's mobile network. If Lyca had set prices at a higher level than other providers of termination, the company could expect the company's prices to be regulated quicker than otherwise. Any excess profit as a result of higher termination charges could thus be expected to be transitory. In view of the foregoing, NPT believes that it is reasonable to assume that Lyca's pricing can be viewed as a reflection of what price level the company deemed to be possible without price controls being undertaken quickly.

61. Although Lyca has set termination charges at the same level as comparable operators, its prices are higher than Telenor and NetCom. Telenor and NetCom's termination charges were NOK 0.50 and NOK 0.30 respectively in the two relevant periods. NPT believes it is contrary to presumptions that Telenor and NetCom would have allowed the company to charge a considerably higher price than Telenor and NetCom charge themselves, if they could both exercise a sufficient degree of buyer power. Since Telenor and NetCom are not considered to be in a position to exercise a sufficient degree of buyer power, NPT assumes that smaller buyers of termination on Lyca's mobile network are also not in a position to exercise such influence on Lyca's pricing.

62. NPT believes that the price level set by Lyca for its termination product shows that the company has incentives and opportunities for setting prices that are higher than the company could have achieved in a market with functioning competition.

63. In view of this, NPT believes that there are indications that Lyca has been exposed to buyer power. However, the buyer power that Lyca is exposed to is, in NPT's opinion, not sufficiently effective to deviate from the presumption that the company can act independently of customers, competitors and consumers in the market for termination of voice on its own mobile network.

3.6 Conclusion

64. Lyca is the only provider of termination of voice on its virtual mobile network that corresponds to the relevant market. The company therefore has a 100% market share. The assessment of price developments in voice call termination in section 3.3 also shows that Lyca does not have an incentive to voluntarily reduce its termination charges to a level corresponding to a market with competition. The entry barriers within the relevant market are absolute, and there is therefore no potential competition within the time horizon of the analysis. In principle, Lyca will therefore be in a position 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 can primarily be assumed to be associated with countervailing buying power.

65. As stipulated above, NPT does not believe that countervailing buying power will be able to reduce Lyca's exercising of market power for termination of voice on its own mobile network to a sufficient degree.

66. In view of this, NPT concludes that Lyca has significant market power in the market for voice call termination on its own mobile network.