Case No COMP/M.6095 -ERICSSON/ NORTEL GROUP (MSS & GLOBAL SERVICES)

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# REGULATION (EC) No 139/2004 MERGER PROCEDURE

Article 6(1)(b) NON-OPPOSITION Date: 02/03/2011

Date. 02/03/2011

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#### **EUROPEAN COMMISSION**



In the published version of this decision, some information has been omitted pursuant to Article 17(2) of Council Regulation (EC) No 139/2004 concerning non-disclosure of business secrets and other confidential information. The omissions are shown thus [...]. Where possible the information omitted has been replaced by ranges of figures or a general description.

Brussels, 02.03.2011 C(2011) 1538 final

**PUBLIC VERSION** 

MERGER PROCEDURE ARTICLE 6(1)(b) DECISION

#### To the notifying party:

Dear Sir/Madam,

Subject:

Case No COMP/M.6095 - ERICSSON/ NORTEL GROUP (MSS &

**GLOBAL SERVICES**)

Notification of 13 January 2011 pursuant to Article 4 of Council Regulation No 139/2004<sup>1</sup>

- 1. On 13 January 2011, the Commission received a notification of a proposed concentration pursuant to Article 4 of Council Regulation (EC) No 139/2004 by which the undertaking Telefonaktiebolaget LM Ericsson ("Ericsson", Sweden), the parent company of the Ericsson Group, acquires within the meaning of Article 3(1)(b) of the Merger Regulation sole control over all assets of the Multi-Service Switching business ("the Nortel MSS Business") of Nortel Networks Corporation ("Nortel", Canada) and certain of its subsidiaries, by way of purchase of assets.
- 2. After examination of the notification, the Commission has concluded that the operation falls within the scope of the Merger Regulation and does not raise serious doubts as to its compatibility with the internal market and the EEA agreement. After having been informed that it could not be excluded at that stage of the procedure that the notified operation might raise serious doubts as to its compatibility with the internal market, on 10 February 2011, the notifying party submitted commitments designed to eliminate the serious doubts identified by the Commission, in accordance with Article 6 (2) of the Merger Regulation. Specifically, Ericsson committed to enter into an agreement to extend the existing supply agreement for MSS of Nortel with Alcatel-Lucent until [...]. In light of the agreement reached between Ericsson and Alcatel-Lucent to extend the MSS supply agreement between Nortel and Alcatel-Lucent on 18 February 2011 (referred to below as the "Extended Agreement"), the

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OJ L 24, 29.1.2004, p. 1 ("the Merger Regulation"). With effect from 1 December 2009, the Treaty on the Functioning of the European Union ("TFEU") has introduced certain changes, such as the replacement of "Community" by "Union" and "common market" by "internal market". The terminology of the TFEU will be used throughout this decision.

Commission considers that no serious doubts arise from a possible input foreclosure of Alcatel-Lucent from the UMTS<sup>2</sup> market (as explained below), so that the commitments submitted by the notifying party are not necessary.

#### I. THE PARTIES

- 3. Ericsson is a provider of telecommunication equipment and related services to mobile and fixed network operators serving customers in over 175 countries. It comprises four main business units: Networks, Global Services, Multimedia, and CDMA and GSM Businesses.
- 4. The Nortel MSS Business is active globally in the sale of MSS switches to service providers delivering in real-time a variety of data, voice, and video services. The MSS Business also provides certain associated services such as maintenance and support.

# II. THE OPERATION AND CONCENTRATION

- 5. Pursuant to an asset sale agreement of 24 September 2010, Ericsson will acquire substantially all assets of the MSS Business of Nortel<sup>3</sup>. As a result, Ericsson will acquire sole control over the MSS Business.
- 6. Therefore, the proposed transaction constitutes a concentration within the meaning of Article 3(1)(b) of the Merger Regulation.

#### III. EU DIMENSION

- 7. While the aggregate EU-wide turnover of the MSS Business exceeded EUR 100 million for the year 2009, this operation does not have an EU dimension within the meaning of Article 1 of the Merger Regulation, because it did not generate revenues of more than EUR 25 million in each of at least three Member States<sup>4</sup>.
- 8. However, on 13 November 2010, the notifying party informed the Commission in a reasoned submission that the concentration was capable of being reviewed under the national competition laws of eight Member States (Austria, Cyprus, Germany, Greece, Italy, Romania, Slovakia and United Kingdom) and Norway subsequently requested the Commission to examine it. None of the Member States that were competent to examine the concentration, nor Norway, indicated its disagreement with the request for referral within the period laid down by the Merger Regulation.

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Universal Mobile Telecommunications System.

On 14 January 2009, Nortel and certain of its Canadian and US subsidiaries including Nortel Networks Inc and Nortel Networks Limited initiated creditor protection proceedings under the respective regimes of Canada and the US. Additionally, Nortel Networks UK Limited and Nortel's EMEA Subsidiaries obtained an administration order form the English High Court of Justice. Secondary proceedings have been filed by Nortel subsidiaries in France, Israel and other jurisdictions. Nortel is currently focusing on the remaining work under the creditor protection proceedings.

This will still be the case even if the EU turnover of the CDMA Business and the JV interest is added to the turnover of the MSS business under Article 5(2) of the Merger Regulation (the combined EU-wide turnover is approximately EUR [...] million and turnover does not exceed EUR 25 million in each of at least three Member States). The transaction relating to the acquisition of Nortel's North American GSM Business did not involve any EU turnover.

9. The case is therefore deemed to have an EU dimension according to Article 4(5) of the Merger Regulation.

#### IV. COMPETITIVE ASSESSMENT

- 10. Both Ericsson and the Nortel MSS Business are MSS suppliers.
- 11. In addition, Ericsson is also active in the provision of complete networking solutions to telecommunication operators, mostly in the GSM<sup>5</sup>, CDMA<sup>6</sup>, UMTS/W-CDMA<sup>7</sup> and VoIP<sup>8</sup> technologies where MSS are used as an input<sup>9</sup>.
- 12. The MSS Business has two divisions: (i) the MSS Data Business ([...]% of the MSS Business turnover) that supplies MSS to network operators and large enterprises for fixed network communications, and (ii) the MSS Platform Business ([...]% of the MSS Business turnover), which provides MSS as a critical input for former Nortel's network equipment solutions in CDMA, GSM, UMTS or VoIP. Both divisions sell the same hardware products but to different customers and for different uses.
- 13. Between 2007 and 2009, Nortel sold its businesses for the supply of mobile network infrastructure (also referred to as "downstream businesses") but retained its business for the supply of MSS switches (also referred to as the "upstream business"), which are a common input to its former mobile network infrastructure businesses.
- 14. The Nortel MSS Business supplies MSS switches to the following purchasers of Nortel's former mobile network infrastructure businesses:
  - (i) UMTS/W-CDMA- Alcatel-Lucent acquired Nortel's UMTS/W-CDMA infrastructure business (including in the EEA) in 2007.
  - (ii) GSM- Kapsch-Group Beteiligungs GmbH ("Kapsch") acquired assets comprising Nortel's EMEA and Taiwan GSM/GSM-R<sup>10</sup> business as well as assets comprising Nortel's North American GSM-R business in 2010. At the same time, Ericsson acquired assets comprising Nortel's predominantly North American GSM business.

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<sup>5</sup> Global System for Mobile.

<sup>6</sup> Code Division Multiple Access.

W-CDMA is a wideband spread-spectrum 3G mobile telecommunication air interface that utilizes code division multiple access.

<sup>&</sup>lt;sup>8</sup> Voice over Internet Protocol.

Mobile network equipment can be grouped into technology generations, with each subsequent generation increasing both transmission capacity and technological capability. Equipment generations can be classified into 2/2.5G, 3G and 4G products. Most operators in the EEA have GSM (2G) and UMTS (3G) installed networks. 4G Long term evolution (LTE), the last generation, is currently being tested and will be rolled out in the next years.

GSM-R, also referred to as GSM-Railways is an international wireless communications standard for railway communication and applications based on GSM technology.

- (iii) CDMA Ericsson acquired Nortel's predominantly North-American CDMA infrastructure business in 2009.
- (iv) VoIP Genband Inc. ("Genband") acquired Nortel's VoIP (Carrier VoIP and Application Solutions, "CVAS") infrastructure business for fixed line networks in 2010.
- 15. These customers use the MSS switches supplied by the Nortel MSS Business for incorporation into their own products and solutions (such as radio network controllers and media gateways) for mobile and/or fixed line network infrastructure.
- 16. Therefore, vertical relationships arise between Nortel's MSS Business and Ericsson in relation to the supply of UMTS/W-CDMA, GSM and CDMA mobile network infrastructure, as well as in relation to the supply of VoIP services for fixed line networks. Except in relation to the CDMA and GSM businesses which it acquired from Nortel, Ericsson currently has no supply relationship with Nortel's MSS Business.

#### A. Market definition

#### (1) MSS switches

#### Relevant product market

- 17. Switches are devices used in the transmission of data. They channel incoming data from an input port to the specific output port that will take the data to its intended destination. Over the past years, switching devices have evolved from having only voice transport capability to include data transport capability and now multi-media or "triple-play" capability.
- 18. In a previous decision<sup>11</sup>, the Commission considered the market definition for products in the switching and routing industry identifying five main categories of switches: (i) TDM switches<sup>12</sup>, (ii) ATM switches<sup>13</sup>, (iii) MSS switches<sup>14</sup>, (iv) IP/Ethernet switches<sup>15</sup>, and (v) MPLS switches<sup>16</sup>.
- 19. Switches and routers are combination of software and hardware devices, and are essential parts of telecommunication networks. They are the "knots" of a network in

These are older generation digital circuit switches using time division multiplexing technology to transport voice and data communications. This was the main switch technology used by network operators during the 1980s and early 1990s.

<sup>11</sup> Commission decision of 24.06.2006 in Case COMP/M.4214 - Alcatel/Lucent Technologies.

<sup>13</sup> This was the main technology used for data and voice in the EEA and worldwide beginning of the 1990s.

These were developed in the early 2000s to integrate multiple protocols, primarily ATM architecture, and are referred to as ATM/MSS switches or MS WAN switches.

<sup>15</sup> These switches allow multi-media and triple-play services to be offered.

These multi-protocol label switches were developed to function with both digital protocols and newer IP protocols. They provide both switching and routing capability.

the sense that they are used to interconnect different parts of a network, and notably to route and exchange data packets between the various sub-networks. They analyse information contained in data packets to determine to which sub-network it must be transferred. Although it is not always possible to establish the precise difference between switches and routers in marketing or technical terms, routers are generally larger devices that connect different networks together while switches are generally used within the same network.

- 20. Switches are consequently used by telecom operators, and are either purchased on a stand-alone basis (usually with services associated, such as maintenance) or, more generally, as part of integrated networking solutions.
- 21. The Commission however left open whether the relevant product market for switches should be (i) segmented on a product-by-product basis (*i.e.* based on different protocols and technologies); (ii) segmented into separate markets for switches and routers; or (iii) a broader market including switches and routers<sup>17</sup>.
- 22. For the purpose of the present transaction, the notifying party considers the narrowest possible market, namely the sale of MSS switches.
- 23. The market investigation revealed that sub-markets could also be considered, namely the MSS switches used as a platform for network infrastructure solutions, and customized for that purpose, as opposed to those used on a stand-alone basis.
- 24. However, for the purpose of the assessment of the proposed transaction, the exact definition of the relevant product market can be left open, given that the proposed transaction does not raise any competition concerns under any alternative product market definition.

# Relevant geographic market

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- 25. In line with previous Commission's decisions, the notifying party submits that the geographic scope of the market for all categories of networking products (including switches and routers) is at least EEA-wide, if not worldwide, due to customers and suppliers having an EEA, if not worldwide, presence, and the evolution of IP technology and EEA/worldwide standardisation. In addition, prices and tenders for these products are normally negotiated on an EEA, if not worldwide, basis and transport costs are not a determining factor when considering suppliers<sup>18</sup>. This was confirmed by the market investigation.
- 26. For the purpose of the assessment of the present transaction, the exact definition of the relevant geographic market (EEA or worldwide) for all categories of networking products (including switches and routers) can be left open as the proposed transaction does not give rise to any competition concerns under any alternative geographic market definition.

Commission decision of 24.06.2006 in Case COMP/M.4214 - Alcatel/Lucent Technologies, paragraph 37 and Commission decision of 12.02.2010 in Case COMP/M. 5732 - Hewlett-Packard/3COM, paragraph

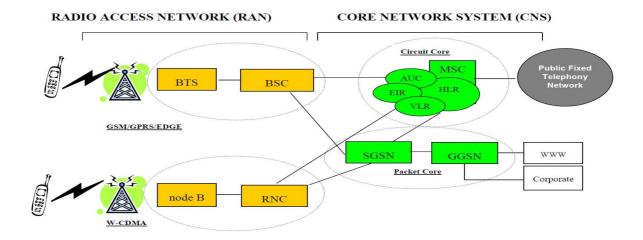
Commission decision of 24.06.2006 in Case COMP/M.4214 - *Alcatel/Lucent Technologies*, and Commission decision of 12.02.2010 in Case COMP/M. 5732 - *Hewlett-Packard/3COM*.

#### (2) Mobile telecommunications network infrastructure

# (i) UMTS/WCDMA – GSM

# Relevant product market

27. The notifying party submits that regardless of the technology used, mobile network equipment has two principal components as presented below: (i) the RAN<sup>19</sup>, which performs the radio functions of the mobile network and (ii) the CNS<sup>20</sup>, which manages information flows within the mobile network, providing call control and security functions such as location updating and authentication.



- 28. In GSM and UMTS/W-CDMA based networks, the two major components of RAN are: (i) the Base Transceiver Station ("BTS"), the original recipient of voice or data signals from a caller's handset, known as "Node B" in UMTS/W-CDMA technology, and (ii) the Base Station Controller ("BSC"), which connects two or more BTSs, receiving information from all of the BTSs in a given region and directing that information to the CNS referred to collectively as a Base Station Subsystem.
- 29. In its decision in Case COMP/M.4297 Nokia/Siemens, the Commission concluded that RAN elements and CNS elements constitute separate product markets. Moreover, the Commission concluded that within the overall market for RAN, a distinction should be made according to technology and particularly that CDMA technology on the one hand constitutes a separate market from GSM and UMTS/W-CDMA technologies<sup>21</sup>.
- 30. While the vast majority of the respondents to the market investigation confirmed that the Commission's findings in the Nokia/Siemens case<sup>22</sup> are still relevant, some

<sup>20</sup> Core Network Systems.

<sup>19</sup> Radio Access Network.

<sup>&</sup>lt;sup>21</sup> Commission decision of 13 November 2006 in Case COMP/M. 4297 – *Nokia / Siemens*, para. 26 and following.

<sup>22</sup> Commission decision of 13 November 2006 in Case COMP/M. 4297 – Nokia / Siemens.

- claimed that with regard to RAN the industry is experiencing some convergence in technology and that in the future the distinction between CDMA, GSM and UMTS/W-CDMA technology might no longer be relevant.
- 31. However, for the purpose of the assessment of the proposed transaction, the exact definition of the relevant product market (GSM/UMTS RAN/CNS) can be left open, given that the proposed transaction does not raise any competition concerns under any alternative product market definition.

# Relevant geographic market

- 32. In line with a previous decision<sup>23</sup>, the notifying party submits that the markets for mobile network infrastructure equipment and associated mobile services are global or at least EEA-wide in scope due to (i) the international standardisation of mobile telecommunication networks equipment and related services, (ii) the fact that contracts are concluded on a global basis, and (iii) the limited regional variations in cost and price.
- 33. The market investigation has evidenced that most competitors and customers consider the market for mobile network equipment to be at least EEA-wide if not global along the line submitted by the notifying party.
- 34. For the purpose of the assessment of the present transaction, the exact definition of the relevant geographic market (EEA or worldwide) can be left open as the proposed transaction does not give rise to any competition concerns under any alternative geographic market definition.

#### (ii) VoIP

# Relevant product market

- 35. Ericsson supplies primarily IP Multimedia Subsystem ("IMS")-standardised VoIP solutions.
- 36. The Commission has considered VoIP very briefly in a previous decision<sup>24</sup> in the context of the provision of fixed-line telephony services to end customers. However, this is not relevant to the present case.
- 37. The notifying party submits that VoIP comprises a family of methodologies, communications protocols, and transmission technologies for the delivery of voice communications and multimedia by means of the Internet protocol (as opposed to telecommunications delivered over traditional mobile or fixed line networks).
- 38. VoIP services are available for fixed line and mobile applications<sup>25</sup>. However, at present there is no market for VoIP for mobile applications as it is not currently cost

<sup>23</sup> Commission decision of 13 November 2006 in Case COMP/M. 4297 – *Nokia / Siemens*, para. 47-48 and 52-53.

<sup>&</sup>lt;sup>24</sup> See Commission decision of 29 June 2009 in Case COMP/M.5532 *Carphone Warehouse/Tiscali*, para.9.

- effective. Therefore, the notifying party submits that the market for VoIP today is essentially a market for VoIP for fixed applications.
- 39. The supply of VoIP infrastructure to fixed line networks covers primarily the following:
  - (i) Providing soft switching of legacy telephony, i.e. providing IP based communication platforms within the fixed-line network for improved speed and delivery of voice communications. This is an intra-network product for improved operability for the fixed-line network which does not directly impact the end user.
  - (ii) Providing solutions for VoIP provided by single service IMS-like solutions based on Session Initial Protocol (SIP) or older protocols. This provides the end user with end-to-end voice communications over the Internet and typically a specialized handset must be used.
  - (iii) Providing equipment for VoIP provided by multi-service 3GPP standardised IMS solutions. This is the same service as (ii) above but based on fully standardised IMS solutions rather than IMS-like solutions.
- 40. The customers for these products are fixed-line network operators. The essential function of these solutions is the same (to provide voice and data transmission through the Internet in the fixed line network) and the infrastructure (soft switches, media gateway and application servers) supplied for these different VoIP are broadly similar.
- 41. Some telecom operators require that the VoIP services be (almost) equivalent to the existing PSTN<sup>26</sup>, often referred to as "legacy services". Others have more "relaxed" requirements. The first segment can be implemented by using legacy soft switches while the latter can be implemented by an IMS system (following the 3GPP standard) or by solutions partially following the IMS standard (possibly mixed with non-standard elements), usually referred to as "IMS-like" systems. The boundaries between these solutions are very blurred. A telecom operator may start with requiring legacy services but change to more "relaxed" requirements as the solutions are developed in more detail. There is thus a high degree of substitutability between the different types of solutions from the customer's perspective. In addition, most suppliers of VoIP for fixed line networks are network infrastructure suppliers which tend to supply the full set of products / solutions. This suggests a single market for all types of VoIP infrastructure is appropriate.
- 42. However, for the purpose of the assessment of the proposed transaction, the exact definition of the relevant product market for VoIP infrastructures can be left open, given that the proposed transaction does not raise any competition concerns under any alternative product market definition.

# Relevant geographic market

<sup>&</sup>lt;sup>25</sup> VoIP can also be provided over Internet (e.g. Skype) and over corporate LAN's but according to the notifying party the services differ from telecom and other solutions elements are needed.

<sup>&</sup>lt;sup>26</sup> Public Switched Telephone Network.

- 43. According to the notifying party, the geographic scope of the VoIP infrastructure market is global or at least EEA-wide as (i) the same equipment is used for VoIP infrastructure worldwide and (ii) contracts in the VoIP infrastructure market are competed globally.
- 44. For the purpose of the assessment of the present transaction, the exact definition of the relevant geographic market for VoIP infrastructures (EEA or worldwide) can be left open as the proposed transaction does not give rise to any competition concerns under any alternative geographic market definition.

# **B.** Competitive assessment

# (1) Horizontal effects

- 45. According to information submitted by the notifying party, MSS switches used are an out-of-date technology and suppliers sell these switches only as add-ons, extensions or replacement for use in the existing networks of their customers. Indeed, add-ons or replacements are typically supplied only by the customers' existing vendor because of the proprietary nature of MSS systems.
- 46. As a result, the notifying party claims that [...] and all of the MSS equipment sales made by Ericsson and the Nortel MSS Business in the last [...] years consisted of replacements, add-ons and extensions in the existing networks to existing customers who could not realistically switch to any alternative MSS equipment<sup>27</sup>.
- 47. According to the notifying party, while Ericsson and Nortel's combined market share for MSS in 2010 would be [20-30] [30-40]% worldwide and [30-40] [40-50]% in the EEA, it submits that the proposed transaction will have no effect because, as discussed above, the MSS market is no longer competitive and the parties do not compete in the supply of MSS products and services.
- 48. The market investigation revealed that, as regards the question whether MSS switches are a legacy technology, a distinction should be made between (i) MSS used on a standalone basis and (ii) MSS as part of a platform solution. In particular, the market investigation confirmed the argument of the notifying party that the MSS on standalone basis are a legacy product and that the only sales made are replacements, add-ons and extensions of existing networks to existing customers.
- 49. With respect to MSS as part of a platform, the market investigation indicated that MSS are still a relevant input for the former Nortel network solutions, GSM, UMTS/W-CDMA, CDMA and VoIP.
- 50. Regardless of the application in which the switches are used, the market investigation did not reveal any concerns resulting from the parties' overlaps in the supply of MSS switches following the proposed transaction.

# (2) Vertical effects

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Over the past years, MSS switch sales have fallen sharply as Service Providers have shifted investment to IP/Ethernet switches and MPLS switches. According to Dell'Oro Routers Report 4Q08, the worldwide market for MSS switches was worth approximately USD [...] billion in 2006, USD[...] billion in 2007 and it was estimated to reach USD [...] million in 2009.

- 51. Vertical relationships arise between the Nortel MSS Business and Ericsson in relation to the supply of UMTS/W-CDMA, GSM and CDMA mobile network infrastructure, as well as in relation to the supply of VoIP services for fixed line networks.
- 52. Given that Ericsson is the only customer of Nortel's MSS switches for use in its CDMA infrastructure (because it acquired the Nortel's CDMA business in 2009), the notifying party considers that the CDMA mobile network equipment is not a vertically affected market for the purpose of the present transaction.
- 53. Ericsson considers that the market for VoIP is not vertically-affected as its EMEA market share on the downstream VoIP market for fixed line applications is only [5-10]% (and [0-5]% worldwide)<sup>28</sup>.
- 54. However it is considered that, from a technical point of view, this market is vertically-affected as the parties' combined market share for MSS switches is higher than 25% (see paragraph 47 above). This is even more so as the Nortel MSS switches are a proprietary solution when used as an input for the downstream markets such as VoIP.
- 55. The Commission has therefore assessed the risk of input foreclosure for Ericsson's competitors on the downstream markets for GSM, VoIP, and UMTS/W-CDMA following the proposed transaction.

# (i) MSS switches as an input for GSM (2G) mobile network equipment

- 56. The proposed transaction will give rise to a vertical link between Nortel's MSS Business and Ericsson's downstream GSM network equipment business. Ericsson is however not dependent on Nortel's MSS switch.
- 57. The Nortel MSS Business supplies MSS switches to one of Ericsson's competitors, Kapsch, for use in Kapsch's GSM Business, acquired from Nortel in 2010. Kapsch has acquired this business among other reasons to enhance its position in GSM-R, a special adapted solution for rail and underground transportation. Ericsson does not provide GSM-R solutions anymore and no longer competes with Kapsch in this market segment.
- 58. The market investigation confirmed that the market for GSM mobile network infrastructure solutions is competitive with a number of significant players such as Nokia-Siemens/Motorola, Ericsson, Alcatel-Lucent as well as the new market entrants from China, Huawei and ZTE.
- 59. The notifying party provides an estimate of the market shares as follows:

**Table 1: GSM Infrastructure Equipment, EEA (volume)** 

	2008		2009 %		2010 %	
	RAN	CNS	RAN	CNS	RAN	CNS
Huawei	[0-5]	[0-5]	[20-30]	[0-5]	[40-50]	[0-5]
Ericsson	[40-50]	[80-90]	[40-50]	[80-90]	[30-40]	[60-70]

Genband only acquired the VoIP business for fixed-line applications from Nortel, therefore no foreclosure issues can arise in respect of the supply of VoIP for mobile applications in Ericsson's view.

Nokia Siemens	[30-40]	[10-20]	[20-30]	[10-20]	[10-20]	[20-30]		
Alcatel-Lucent	[5-10]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]		
Motorola NB	[0-5]	[0-5]	[5-10]	[0-5]	[0-5]	[0-5]		
Kapsch/Nortel	[5-10]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]		
ZTE	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]		
Total volumes								
	[]	[]	[]	[]	[]	[]		

Source: Ericsson best estimates (excludes GSM-R)

**Table 2: GSM Infrastructure Equipment, Global (volume)** 

	2008		2009 %		2010 %		
	RAN	CNS	RAN	CNS	RAN	CNS	
Ericsson	[30-40]	[40-50]	[30-40]	[40-50]	[30-40]	[50-60]	
Huawei	[10-20]	[20-30]	[20-30]	[20-30]	[20-30]	[10-20]	
Nokia Siemens	[20-30]	[20-30]	[20-30]	[10-20]	[20-30]	[20-30]	
Alcatel-Lucent	[5-10]	[0-5]	[5-10]	[5-10]	[5-10]	[5-10]	
ZTE	[0-5]	[0-5]	[5-10]	[5-10]	[0-5]	[0-5]	
Motorola NB	[5-10]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
Kapsch/Nortel	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
Total volumes							
	[]	[]	[]	[]	[]	[]	

Source: Ericsson best estimates (excludes GSM-R)

- 60. Ericsson has an estimated market share of [30-40]% for GSM RAN equipment in the EEA in 2010. Kapsch is much smaller with a share of [0-5]%. [...]
- 61. The notifying party claims that it will have neither the ability, nor the incentive, to adopt a foreclosure strategy with respect to Kapsch's access to MSS switches for its GSM/GSM-R network solution for the following reasons.
- 62. Firstly, Nortel and Kapsch are party to a supply agreement (the "Nortel GSM Supply Agreement"), according to which Nortel is obliged to provide Kapsch with certain MSS products and services, including MSS switches. Ericsson is to assume Nortel's rights and obligations under the GSM Agreement, which would grant Kapsch a contractual protection until at least [...].
- 63. Secondly, Kapsch does not use Nortel's MSS switches in its RAN products, and if the market is defined as narrowly as GSM RAN products, the notifying party submits that no foreclosure issue could arise in relation to this segment.
- 64. While Kapsch can use Nortel's MSS switch for CNS equipment, it has a de minimis share of supply of CNS equipment in the EEA. Moreover, it does not have its own CNS portfolio in the EEA [...]. Thus, according to the notifying party there is no realistic possibility of foreclosure issues arising in relation to CNS products.
- 65. Moreover, the notifying party submits it will have no incentive to withhold supply of MSS switches from Kapsch post-transaction, because Ericsson's Nortel-based GSM Business and Kapsch's GSM Business are [...].
- 66. Therefore, if a customer of Ericsson's Nortel-based GSM Business requires access to network (RAN) components, Ericsson [...].

- 67. As a result, if Ericsson were to withhold MSS switches from Kapsch, this would significantly undermine the relationship that it has with Kapsch in the GSM context. In particular, [...].
- 68. During the market investigation, Kapsch confirmed [...]. Even in the case where Ericsson would have the right to terminate its supplies of MSS switches to Kapsch, it is unlikely that it would have the incentives to do so due to [...].
- 69. In any event, the GSM market is competitive with sufficient credible downstream competitors whose costs would not be raised as they do not source switches from the MSS Business. These include Nokia-Siemens, Huawei, Alcatel-Lucent and ZTE which together account for an estimated [60-70]% of the market in 2010. Competition from these firms would constitute a sufficient constraint on Ericsson to prevent prices increase post-transaction.

#### Conclusion

70. In view of the above, it can be concluded that no input foreclosure issues will arise with respect to the supply of GSM (2G) mobile network infrastructure as a result of the proposed transaction.

#### (ii) MSS switches as an input for the supply of VoIP solutions

- 71. Ericsson is active in supplying VoIP equipment for public networks. The proposed transaction will give rise to a vertical link as MSS switches are an input for VoIP equipment. Nortel's MSS business supplies MSS switches to a competitor of Ericsson, Genband, for use in the VoIP business that Genband acquired from Nortel.
- 72. VoIP services are available for fixed line or mobile applications and according to Ericsson, Genband acquired only the VoIP business for fixed line applications from Nortel and [...]. Therefore, no foreclosure issue can arise with respect to the supply of VoIP for mobile applications and the analysis below will focus on the supply of VoIP infrastructure to fixed line networks.
- 73. Ericsson supplies primarily IP Multimedia Subsystem (IMS)-standardised VoIP solutions. Genband also supplies these solutions, as well as other types of VoIP solutions for fixed line networks. MSS switches are however an obsolete technology for VoIP as the industry is now shifting towards IP-based solutions.
- 74. According to the information provided by the notifying party, Ericsson's and Nortel/Genband's market share of the supply of VoIP equipment for fixed networks in 2010 is [5-10]% and [10-20]% in the EMEA<sup>29</sup> and [0-5]% and [10-20]% worldwide respectively. The market is fragmented and there are alternative competitors including Huawei ([10-20]% in the EMEA and [10-20]% worldwide), Italtel ([5-10]% in the EMEA and [0-5]% worldwide), Nokia Siemens ([5-10]% in the EMEA and [5-10]% worldwide), Alcatel-Lucent ([5-10]% in the EMEA and [5-10]% worldwide) and Cisco ([5-10]% in the EMEA and [5-10]% worldwide).

Source: Infonetics report – it does not provide market shares for the EEA. Ericsson believes that the EMEA figures are broadly representative of the position in the EEA. Ericsson is also unable to provide market share information based on sub-segments of VoIP (i.e. specifically for IMS standard solutions) as third party market reports do not analyse the market based on these segments.

75. According to the notifying party, no risk of input foreclosure will arise as a result of the proposed transaction as Ericsson is a relatively small player in the market for VoIP infrastructure and Genband has a larger share but still less than 20%. It is therefore highly unlikely that Ericsson would have the incentive to foreclose Genband from access to Nortel's MSS switches as it is unlikely that it would benefit in the downstream market from any such strategy.

#### Conclusion

76. In view of the above, no input foreclosure issues will arise with respect to the supply of VoIP infrastructure to fixed line networks as a result of the proposed transaction.

# (iii) MSS switches as an input for UMTS/W-CDMA (3G) mobile network equipment

- 77. Ericsson supplies UMTS based mobile network infrastructure products to operators of mobile networks. The Nortel MSS Business supplies MSS switches to one of Ericsson's competitors, Alcatel-Lucent, for use in the UMTS/W-CDMA mobile infrastructure business which the latter acquired from Nortel in 2007.
- 78. Nortel and Alcatel-Lucent are party to an OEM supply agreement ("the OEM Agreement") of [...] (which took effect on [...]), according to which Nortel is obliged to provide Alcatel-Lucent with certain MSS products and services, including MSS switches, for an initial term of [...] years[...].
- 79. As a result of the proposed transaction, Ericsson is to assume Nortel's rights and obligation under the OEM Agreement and is contractually obliged to continue to supply Alcatel-Lucent until the end of [...].

# Third party's complaint

- 80. On 19 November 2010, the Commission received a complaint from Alcatel-Lucent with respect to possible vertical effects as a result of the proposed transaction.
- 81. Alcatel-Lucent is concerned that Ericsson, as a competitor in the 3G downstream market (i.e. the market for the provision of 3G networking infrastructures to telecommunication operators) could have incentives, following the expiration of the OEM Agreement at the end of [...], to foreclose its access to the MSS [...] switches, an input that is essential to Alcatel-Lucent's business in the downstream markets for the supply of UMTS/W-CDMA networks and network equipment.
- 82. According to Alcatel-Lucent, the incentive to foreclose would stem from the fact that the incremental revenue that Ericsson would derive from foreclosing Alcatel-Lucent from accessing this critical input would be much higher than that what it would obtain from continuing to supply the MSS [...] product, notably because, over the next three years, Alcatel-Lucent's UMTS revenue at risk and directly addressable by Ericsson would be very significant. This would therefore represent a possibility for Ericsson to grow its market shares of UMTS network equipment.
- 83. Alcatel-Lucent submits that due to the proprietary nature of the Nortel MSS, third-party suppliers of mobile network equipment do not offer available substitutes of the MSS [...] and Alcatel-Lucent is unable to introduce in the short to medium term a replacement Radio Network Controller that uses a hardware platform different from

- that of the MSS [...]. Even if Alcatel-Lucent were to receive all the necessary rights and information to manufacture the MSS [...], this would nevertheless prove uneconomical as the MSS [...] is to a certain extent a legacy product.
- 84. As a result, should Ericsson cease to supply Nortel's MSS [...] platform and related maintenance services to Alcatel-Lucent, Alcatel-Lucent's position and credibility as a competitor in the UMTS/W-CDMA market would be seriously compromised.

The notifying party's position

- 85. The notifying party claims on the contrary that it will have neither the ability nor the incentive to foreclose Alcatel-Lucent's access to Nortel's MSS switches.
- 86. According to Ericsson, [...].
- 87. As regards the existing sales to Alcatel-Lucent, Ericsson would lose one of the main customers of the MSS Business on the upstream market. Alcatel-Lucent is [...], expected to generate approximately [...]% of the margins for the MSS platform switch which is sourced from Nortel (MSS [...]) and approximately [...]% of the total MSS Business sales.

Table 3: Sales Forecasts of MSS to Alcatel Lucent

Year	2010	2011	2012	2013	2014
Sales to Alcatel-Lucent	\$[]	\$[]	\$[]	\$[]	\$[]
Total sales of the MSS business	\$[]	\$[]	\$[]	\$[]	\$[]
% Alcatel-Lucent / Total	[]%	[]%	[]%	[]%	[]%

Source: Nortel internal forecasts for sales to Alcatel-Lucent, discounted cash flow model submitted to the Commission for total sales of the MSS business (base case scenario).

- 88. As regards the sales that Ericsson could gain from such a strategy, the notifying party claims that a foreclosure strategy would not be beneficial for Ericsson's downstream UMTS/W-CDMA infrastructure business.
- 89. First, the notifying party claims that Alcatel-Lucent is not a significant competitor to Ericsson and therefore the volume of business which Ericsson would be likely to capture from any foreclosure strategy in respect of Alcatel-Lucent would be limited. Alcatel-Lucent does not supply any CNS products (which incorporate Nortel's MSS switches) and as such there is no overlap in this regard.
- 90. Second, Alcatel-Lucent and Ericsson compete only to a limited degree and therefore any gains from a foreclosure strategy would be limited. Out of the over [...] operators in Europe supplied by Ericsson, Alcatel-Lucent has supplied UMTS infrastructure to only [...] of them.
- 91. Finally, according to Ericsson, were Ericsson to pursue a withholding strategy that prevented Alcatel-Lucent from supplying its established UMTS infrastructure customers in Europe, Ericsson would expect to be put under significant pressure by customers to supply Alcatel-Lucent. These customers have strong buyer power and could exert a significant constraint on Ericsson to avoid disruption problems.

92. The notifying party estimates that in 2010 it accounted for approximately [40-50]% in volume of the supply of UMTS RAN infrastructure in the EEA ([30-40]% worldwide) while Alcatel-Lucent accounted for approximately [0-5]% (a declining share of the market; [5-10]% worldwide). Ericsson provides an estimate of the market shares as follows:

**Table 4: EEA Market Shares UMTS Infrastructure (volume)** 

	2008		20	09	2010			
			%		%			
	RAN	CNS	RAN	CNS	RAN	CNS		
Ericsson	[40-50]	[80-90]	[40-50]	[80-90]	[40-50]	[60-70]		
Nokia-Siemens	[20-30]	[10-20]	[30-40]	[10-20]	[30-40]	[20-30]		
Huawei	[20-30]	[0-5]	[10-20]	[0-5]	[10-20]	[0-5]		
Alcatel-Lucent	[10-20]	[0-5]	[5-10]	[0-5]	[0-5]	[0-5]		
ZTE	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]		
Motorola NB	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]		
	Total volumes							
	[]		[]	[]	[]	[]		

Source: Ericsson best estimates

**Table 5: Worldwide Market Shares UMTS Infrastructure (volume)** 

	2008			09 %	2010 %		
	RAN	CNS	RAN	CNS	RAN	CNS	
Ericsson	[40-50]	[40-50]	[30-40]	[40-50]	[30-40]	[50-60]	
Nokia Siemens	[20-30]	[20-30]	[10-20]	[10-20]	[10-20]	[20-30]	
Huawei	[10-20]	[20-30]	[20-30]	[20-30]	[20-30]	[10-20]	
Alcatel-Lucent	[5-10]	[0-5]	[5-10]	[5-10]	[5-10]	[5-10]	
ZTE	[0-5]	[0-5]	[10-20]	[5-10]	[5-10]	[0-5]	
Motorola NB	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
Total volumes							
	[]	[]	[]	[]	[]	[]	

Source: Ericsson best estimates. (2010 estimates are based on Q1 to Q3 figures

93. In addition, the notifying party submits that the market for mobile network infrastructure solutions is competitive with the presence of a number of significant players such as Ericsson, Nokia-Siemens, Alcatel-Lucent and the new market entrants from China, Huawei and ZTE.

Extended Agreement between Ericsson and Alcatel-Lucent

- 94. On 18 February 2011, Ericsson and Alcatel-Lucent reached an agreement to extend the existing supply agreement of Nortel with Alcatel-Lucent (the "Extended Agreement").
- 95. The key provisions of the Extended Agreement are as follows:
  - (i) The initial term of the OEM Agreement will be extended to [...]
  - (ii) [...]

- (iii) [...]
- (iv) [...]
- (v) [...]
- (vi) [...]
- (vii) [...]
- (viii) [...]
- (ix) [...]
- (x) [...]
- 96. In addition to the Extended Agreement, Ericsson and Alcatel-Lucent agreed to extend the Development Agreement until [...]. Under such agreement Alcatel-Lucent procures certain development and other services from Nortel that form part of the MSS Business. [...].

Assessment of the potential input foreclosure strategy

- 97. The Commission investigated the impact of this vertical link on competition. According to paragraph 31 of the Guidelines of the assessment of the non-horizontal mergers<sup>30</sup>, "input foreclosure arises, where, post-merger, the new entity would be likely to restrict access to the product or services that it would have otherwise supplied absent the merger, thereby raising its downstream rivals' costs by making it harder for them to obtain supplies of the input under similar prices and conditions as absent the merger".
- 98. The proposed transaction would entail a change in the incentives of the MSS manufacturer (Nortel then Ericsson) to supply Alcatel-Lucent with MSS switches, since Ericsson is also one of the main competitors of Alcatel-Lucent on the downstream market for the manufacture and sale of UMTS/W-CDMA solutions, while this was not the case for Nortel prior to the present transaction.
- 99. According to paragraphs 41-42 of the Guidelines on the assessment of non-horizontal mergers, the incentives for a vertically integrated firm to engage in input foreclosure depend on the likely profitability of such strategy. The merged firm faces a trade-off between lost profit in the upstream market and the profit gains to be made in the downstream market.
- 100. In the present case, Ericsson would have an incentive to foreclose rivals' access to inputs only if it anticipated increased revenues in the downstream market for UMTS/W-CDMA capable of compensating for the loss of upstream revenue for MSS.
- 101. Should Alcatel-Lucent be foreclosed and its position effectively weakened, Ericsson would stand to gain sales on the downstream market for UMTS/W-CDMA RAN.

Guidelines on the assessment of non-horizontal mergers under Council Regulation on the control of concentrations between undertakings, OJ C 265, 18 October 2008, p.6.

- 102. Since Ericsson is one of the leading players on the UMTS/W-CDMA RAN market (with an estimated 2010 market share in volume of [40-50]% (EEA) or [30-40]% (worldwide) and in value of [20-30]% (EMEA) or [30-40]% (worldwide)), it would be in a position to acquire a significant share of Alcatel-Lucent's customers on the downstream market. According to Ericsson's estimates, Alcatel-Lucent has an estimated 2010 market share in volume of [0-5]% (EEA) and [5-10]% (worldwide) on the UMTS/W-CDMA RAN market (see tables 4 and 5 above). The Dell' Oro report estimates that Alcatel-Lucent's 2010 market shares in UMTS in value are [10-20]% (EMEA) or [10-20]% (worldwide).
- 103. A simplified calculation of Ericsson's incentives to foreclose consists in assuming that Ericsson will capture a share of Alcatel-Lucent's sales that is equivalent to its existing market share on the market for UMTS RAN, i.e. [30-40]% of approximately USD [...] billion<sup>31</sup>, that is USD [...] million. This should be compared with the sales to Alcatel-Lucent that would be lost upstream, i.e. USD [...] million according to Ericsson's business plan for 2010 (see table 3 above). Although any conclusion from this simplified calculation should be handled cautiously, the significant difference between the potential gain and the limited risk of loss suggests that a successful foreclosure strategy could be profitable for Ericsson.
- 104. Given the respective sizes of the upstream and downstream markets and Ericsson's position downstream, a *prima facie* quantitative analysis comparing potential sales lost upstream to potential sales gained downstream suggests that such a foreclosure strategy is likely to be profitable for Ericsson.
- 105. As regards the effect of an input foreclosure strategy on the downstream 3G UMTS RAN market, Ericsson would be able to consolidate its leading market position in the UMTS RAN market and a supplier risks disappearing or being weakened in a market that is already concentrated. While Ericsson would not necessarily acquire a dominant position, the foreclosure of Alcatel-Lucent could be detrimental to customers, notably due to switching costs that Alcatel-Lucent customers would incur.
- 106. It is true that there would remain non-foreclosed competitors such as Nokia Siemens and Huawei with a market share higher than that of Alcatel-Lucent, should Alcatel-Lucent be foreclosed post merger.
- 107. However, the markets for mobile network solutions are bidding markets. As previously indicated by the Commission<sup>32</sup>, this implies that the market shares of the parties do not necessarily give indication of the competitive constraint that the market players exert on each other and the market power that the notifying party could obtain as a result of a successful input foreclosure strategy.
- 108. As regards the ability of Ericsson to engage in an input foreclosure strategy, it appears that the Nortel MSS switch (which is proprietary) is a critical element for the UMTS

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<sup>&</sup>lt;sup>31</sup> [10-20]% of a total worldwide market of USD [...] billion according to Dell' Oro figures.

See Commission decision of 13 December 2000 in Case COMP/M.1940 - Framatome / Siemens / Cogem / JV, Commission decision of 20 July 2005 in Case COMP/M3653 Siemens / VA Tech, Commission decision of 10 July 2003 in Case COMP/M.3148 Siemens / Alstom Gas and Steam Turbines and Commission decision of 15 December 2010 in Case COMP/M.6007 - Nokia Siemens Networks / Motorola Network Business.

- network solutions sold to Alcatel-Lucent's customers, including their maintenance, as Alcatel-Lucent purchased Nortel's UMTS business in 2007. This is confirmed in a Nortel management presentation prepared for the sale of the business.
- 109. The majority of respondents to the market investigation also suggest that it would take a few years for Alcatel-Lucent to develop equivalent products thereby confirming that at least in the short term Alcatel-Lucent is dependent on the Nortel MSS. Therefore, in the absence of a renewal of the existing supply agreement beyond [...], Ericsson would have had the ability to foreclose it when the current OEM supply agreement with Nortel expired at the end of [...].
- 110. However, the provisions of the Extended Agreement of 18 February 2011 (as explained in paragraphs 94 to 96 above) address the competition concerns expressed by Alcatel-Lucent during the market investigation and will ensure that Ericsson will not have the ability to engage in any input foreclosure strategy post-merger for the Nortel MSS switches for the following reasons.
- 111. First, Ericsson is contractually obliged to continue to supply [...]MSS switches to Alcatel-Lucent for [...] years. Alcatel-Lucent will therefore have security of supply of MSS Switches for the [...] year term of the Extended Agreement. [...].
- 112. Second, the [...] year term of the Extended Agreement provides Alcatel-Lucent with a sufficient time period to develop an alternative to the Nortel MSS switch. On expiry of the Extended Agreement, Alcatel-Lucent will therefore be able either to extend further the Extended Agreement or to use an alternative solution which it has developed in-house.
- 113. Third, Ericsson will not [...], except in exceptional circumstances and agreed with Alcatel-Lucent in advance.
- 114. Moreover, the arbitration provisions in the Extended Agreement provide an effective check of Ericsson's compliance with the Extended Agreement and solve any dispute between the parties.
- 115. Finally, Alcatel-Lucent confirmed that in its view the provisions of the Extended Agreement adequately safeguard its position and are sufficient to address any potential foreclosure concerns.
- 116. Based on the above, it can be concluded that Ericsson has no ability to foreclose Alcatel-Lucent in the UMTS market. For the purposes of the present decision, it is not necessary for the Commission to take a position on whether Ericsson would have an incentive to foreclose Alcatel-Lucent post-merger and on the potential impact of an input foreclosure strategy on the UMTS RAN market.

#### Conclusion

117. In view of the above, no input foreclosure issues will arise with respect to the supply of UMTS/W-CDMA mobile network infrastructure as a result of the proposed transaction.

# V. CONCLUSION

118. For the above reasons, the European Commission has decided not to oppose the notified operation and to declare it compatible with the internal market and with the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of the Merger Regulation.

For the Commission (signed) Joaquín ALMUNIA Vice-President