EN

Case No COMP/M.5669 -
CISCO/ TANDBERG

Only the English text is available and authentic.

REGULATION (EC) No 139/2004
MERGER PROCEDURE

Article 6(1)(b) in conjunction with Art 6(2)
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PUBLIC VERSION

MERGER PROCEDURE
ARTICLE 6(1)(b) DECISION IN CONJUNCTION WITH ARTICLE 6(2)

To the notifying party:

Dear Sir/Madam,

Subject: Case No COMP/M.5669 – Cisco/ Tandberg
Notification of 8 February 2010 pursuant to Article 4 of Council Regulation No 139/2004[1]

1. On 8 February 2010, the Commission received a notification of a proposed concentration pursuant to Article 4 of the Regulation No 139/2004 by which the undertaking Cisco Systems, Inc ("Cisco", United States of America, hereinafter the "notifying party"), acquires within the meaning of Article 3(1)(b) of the Merger Regulation sole control of the whole of the undertaking Tandberg ASA ("Tandberg", Norway and United States of America) by way of public tender offer.

I. THE PARTIES

2. Cisco is globally active in the development and sale of networking products for the Internet. Cisco designs, manufactures, and sells Internet Protocol (IP)-based networking and

[1] OJ L 24, 29.1.2004 p. 1 ("the Merger Regulation"). With effect from 1 December 2009, Articles 81 and 82 of the EC Treaty have become Articles 101 and, 102, respectively, of the Treaty on the Functioning of the European Union ("TFEU"). The two sets of provisions are, in substance, identical. For the purposes of this Decision, references to Articles 101 and 102 of the TFEU should be understood as references to Articles 81 and 82, respectively, of the EC Treaty where appropriate. The TFEU also introduced certain changes in terminology, 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.

other products related to the communications and information technology industry and provides associated services. Its offering includes high-quality "immersive" video communications solutions.

3. Tandberg offers a broad range of video communication solutions including immersive systems for dedicated rooms, systems for multi-purpose conference rooms, and personal video conferencing systems.

II. THE OPERATION

4. On 1 October 2009, Cisco through its wholly owned indirect subsidiary, Cisco Systems Netherlands Holdings B.V., announced its intention to make a public tender offer to acquire all of Tandberg's outstanding shares. The tender offer is subject to the acceptance by shareholders representing more than 90% of the capital and voting rights of Tandberg at the end of the offer period, as well as the granting of required regulatory clearances. The first condition was fulfilled on 4 December 2009, when Cisco declared to control more than 90% of Tandberg's shares. As a result of the proposed transaction, Cisco will acquire sole control of Tandberg and the proposed transaction constitutes a concentration within the meaning of Article 3(1)(b) of the EC Merger Regulation.

III. UNION DIMENSION

5. This operation does not have a Union dimension within the meaning of Articles 1(2) and (3) of the Merger Regulation because (i) Tandberg's Union turnover in 2008 was […] and (ii) […].

6. However, on 16 October 2009, the notifying party informed the Commission by means of a reasoned submission that the concentration was capable of being reviewed under the national competition laws of Cyprus, Germany, Ireland, Portugal, Spain, the United Kingdom and Norway and requested that it should be examined by the Commission. The Member States competent to examine the concentration did not express their disagreement to the request for referral within the period laid down by the EC Merger Regulation.

7. The notified concentration is therefore deemed to have a Union dimension pursuant to Article 4(5) of the Merger Regulation.

IV. RELEVANT MARKETS

A. Relevant Product Markets

1. Video communications solutions

8. Within the broad "unified communications" sector, the proposed transaction concerns notably video communications solutions ("VCS").

9. Unified communications products and services are used by business customers of all sizes to improve workgroup and collaborative communications, and are designed to provide a simple and consistent user experience across all types of communications (telephone, fax, email, voicemail, voice and videoconference, instant messaging, etc.).

10. VCS (which the notifying party submits is traditionally referred to as video conferencing) are a set of interactive telecommunications technologies that allow users at two or more locations to interact via two-way video and audio transmissions simultaneously. Such interaction requires that each location be equipped with hardware components known as endpoints. These endpoints include video inputs (cameras), video outputs (screens[2]), audio inputs (microphones), audio outputs (loudspeakers), control devices (such as IP telephones) and coder-decoders ("Codecs") (which enable digital compression and decompression of audio and video streams)[3].

11. The notifying party submits that VCS form a continuum from personal-computer based software, used with webcams, to high-end multi screen solutions that according to the notifying party would include "telepresence"[4] systems. However, the notifying party states that broad distinctions can be made between: (i) dedicated-room solutions; (ii) multi-purpose room-based solutions; and (iii) executive office/desktop communications systems, which include PC-based solutions, on the basis of the different methods of deployment.

12. Dedicated-room solutions[5] are designed to create an *immersive* experience. These systems typically combine multiple large high-definition ("HD") screens, fixed-focus HD cameras, microphones and loudspeakers, that provide for life-size images of participants and directional audio, with bespoke furniture, tailored lighting and other fittings that are designed to make conditions at all connected locations comparable and give videoconference participants a sense of being in the same room as those on the far end of the conference.

13. Multi-purpose room-based solutions use the same basic components (codecs, cameras, screens, microphones, loudspeakers) as dedicated-room systems. However, the solution is intended for a pre-existing room that can be used for purposes other than video conferencing. Consequently, there is greater flexibility regarding the number and placement of components. Products include roll away endpoints, screen-top cameras designed to work on separately purchased displays and stand-alone devices designed to plug into multiple different types of

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[2] Depending on the chosen deployment method, endpoints can be composed of a single-screen or multiple-screens (such as three-screens). These screens may be high definition (‘HD’) or standard definition (‘SD’).

[3] Codecs are software-driven devices connected to the audio and video input/output components on one side, and data or telephone networks on the other. Codecs provide digital compression of audio and video streams, so that they can be transmitted as labeled packets with minimal delay (“latency”) to codecs on the far end of the communication, which then decompress and reassemble the packets into the audio and video feed experienced by the participants. Codecs can be standalone software-driven hardware devices, or they can be integrated with other endpoint components (*e.g.*, codec software on a PC, or set-top camera/codec integrated units).

[4] According to the notifying party, telepresence is a high-quality immersive system characterized by life size images, proper positioning and perspective. Cisco Telepresence products are mostly dedicated-room products.

[5] According to the notifying party, dedicated-room base solutions include mainly three screens solutions (usually a screen size of 50-inches or greater).

input/output devices. Many of these products are designed to impart an immersive experience based on audio and video alone (without the uniform room design used by products in the dedicated-room solutions segment).

14. Executive office/desktop communication systems are designed for locations in which space is normally too limited for use of room systems and only one or two persons participate in videoconference (for example an individual office or home office). The main difference between many executive office systems and multi-purpose executive systems is often the size of the display.

15. The notifying party claims that a sub-segmentation of the VCS market on the basis indicated above is not meaningful to define distinct product markets in light of the high degree of supply-side and demand-side substitutability between VCS products. In this regard, the notifying party submits that all VCS products use the same or similar basic component and technologies and suppliers typically offer a range of VCS, using common and interchangeable components to create solutions for different requirements. As regards demand-side substitutability, the notifying party submits that there is a demand continuum between the different segments to the extent that different types of VCS offer customers the same end-use functionality, albeit with a lower or higher degree of sophistication and performance. According to the notifying party, customers choose across the whole range of VCS. Moreover, products primarily intended for one type of deployment can easily be used in another.

16. For the same reasons, the notifying party also submits that it is not meaningful to distinguish between video and telepresence video communications products. Some industry analysts recognize that market players deliberately use the term 'telepresence' loosely to market as telepresence a wide range of what would be considered traditional video conferencing equipment.

17. The market investigation confirmed a growing trend toward a unified communication market; however, it indicated that such an overall market does not yet exist. Moreover, despite confirming some degree of supply-side substitutability, the vast majority of the respondents to the market investigation do not support an overall market for VCS. On the contrary, they brought evidence of a narrower product market definition based on the above three segments, revealing limited demand-side substitutability.

18. In the event of a small, non-transitory change in prices, respondents to the market investigation almost unanimously indicated that customers would not switch from dedicated-room solutions to multi-purpose room-based solution and vice-versa, nor would they switch between multi-purpose room-based solution and executive office/desktop communication systems and vice-versa. According to these respondents, while there is a significant difference in price between products of different segments[6] demand for different VCS is not mainly

[6] Strong price differences are observed between the dedicated room, multi-purpose room and executive desktop segments. Indeed, while the 2009 average selling price of Cisco's CTS-3000 (dedicated room) was EUR […], it was EUR […] for the CTS-1000 (multi-purpose room) and EUR […] for the CTS-500 (executive desktop). Over the first three quarters of 2009, the average selling price of Tandberg's T3 (dedicated room) was EUR […], while it was EUR […] for the Tandberg T1 (multi-purpose room) and EUR […] for the Tandberg 1700 MXP (executive

driven by price but by the specific needs of each customer. The market investigation clearly indicated that products of different segments are different in terms of quality and functionality, each segment addressing different requirements from different users. This is further confirmed by the fact that when launching a procurement process, customers usually indicate the specific VCS that they require.

19. The market investigation provided indications that telepresence should not be considered a separate market; however it is not conclusive on this point. Several respondents suggested that telepresence is a distinct market on the ground that it requires a higher degree of sophistication (large bandwidth and sophisticated installation). However, the majority of the respondents consider telepresence to simply indicate "immersive" experience and to be part of the dedicated-room solutions segment. Finally, some respondents indicated that telepresence can be used as a marketing term to define a user experience as a result of enhanced HD resolution and ease of use, in which case telepresence can be found also in the multi-purpose room-base solutions segment.

20. The analysis of the data provided by the parties indicates that the conditions of competition vary significantly between the dedicated-room, multi-purpose room and executive office/desktop communication solutions. In particular, the identity and position of the parties and their competitors differ strongly between the different segments, as illustrated by their respective market shares and the opportunities databases submitted by the parties. For example, Cisco is the market leader for dedicated rooms, but only has a limited presence in multi-purpose rooms, while the reverse is true for Tandberg. In addition, Tandberg's main competitor, as identified in the opportunity database submitted to the Commission, is Cisco in the vast majority of cases for dedicated room solutions, while it is by far Polycom for multi-purpose rooms (Cisco is listed more often than Polycom as Tandberg's main competitor in multi-purpose rooms only for very high-end solutions). Tandberg's opportunity database also lists other companies such as Lifesize (and to a smaller extent Aethra[7], Huawei, and Sony) as Tandberg's main competitors for a number of potential deals including multi-market room solutions; this is not the case for dedicated rooms solutions, where only Cisco and (to a much smaller extent) Polycom are identified as Tandberg's main competitors.

21. The market investigation further indicated that a distinction could be made within each segment of VCS between products that are ready-built (standard) and those that are custom-built solutions due to a significant difference in price between the two solutions[8]. Moreover, customized solutions serve different purposes and customers request them when they need particular, non-standard functions. In these circumstances, end-customers use integrators to create more customized solutions.

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desktops).

7 On 3 February 2010, Radvision announced that it was acquiring selected assets of Aethra (an Italian company active in the market for VCS) including intellectual property, technology for high definition endpoints, selected inventory, some fixed assets and some selected supplier and distribution contracts.

8 Some respondents indicate that prices of custom built solutions can be 30% up to 100% higher (according to one respondent the price difference ranges between 50-75%) than standard built solutions due to additional technologies and specialized project services.

22. Finally, it should be noted that, software based solutions that, together with a USB camera and a microphone offer video communications running on personal computers could appear to be part of the market for executive/desktop solutions. The difference between solutions that need a separate dedicated hardware and solutions that are software based are becoming increasingly blurred, particularly as PC-screen sizes increase and technologies improve, in particular the image quality available through the use of the native encoding and decoding capabilities provided by PC microprocessors. The Commission considers that it is not necessary to conclude on whether software based videoconferencing solutions belong to the same market as executive/desktop solutions as the same conclusion applies irrespective of the above possible distinction. However, the increasing importance of software based solutions as alternatives of hardware solution is considered in the competitive assessment

23. In light of the above analysis, the Commission considers that dedicated-room VCS, multi-purpose room-base VCS and executive office/desktop VCS constitute three separate markets. Moreover, the Commission considers that for the purpose of the assessment of the present transaction, it is not necessary to conclude on whether telepresence is a separate market and on whether a distinction should be made between ready-built and custom-built solutions, given that the same conclusion applies irrespective of the above possible distinctions.

2. ***Multi-point control units***

24. VCS require the ability to integrate seamlessly multiple endpoints into a single conference. For communications that are not simply "point-to-point" connections between comparable formats (for example, single-screen images in standard definition), additional hardware and software may be needed. Connection of multiple endpoints that use different image formats (e.g. standard definition vs. high-definition, video/audio vs. audio only), normally requires a so-called MCU ("multi point control unit")

25. According to the notifying party, MCUs can be partially substituted with scalable video coding ("SVC"). In this regard the notifying party submits that an SVC would only substitute MCU's transcoding functionality if all of the endpoints are also using SVC; moreover SVC does not substitute other MCU capabilities such as conferencing management.

26. The market investigation clearly indicated that MCUs and SVC do not belong to the same market. Indeed, respondents to the market investigation almost unanimously stated that they do not consider SVC as a valid alternative to MCUs as they do not perform the same functions; according to some respondents SVC is not a multipoint conferencing solutions but a standard video protocol. A few respondents have however indicated that SVC could partially substitute MCUs when there are a limited number of installed points[9].

27. The market investigation also indicated that within the market for MCUs further segmentations might be possible. Several respondents indicated that a distinction could be made between high-end and low-end MCUs in light of a difference in price and capabilities (in particular regarding the number of ports or whether the MCUs support HD or SD).

[9] See replies received to (i) question 69 of the Commission's questionnaire to competitors; (ii) question 56 of the Commission's questionnaire to end customers; and (iii) question 60 of the Commission's questionnaire to distributors.

However, the market investigation also brought evidence that MCUs broadly perform the same functions and thus could be considered as part of an overall market for MCUs: to the extend that MCUs support commonly agreed standards, any MCU can work with all standard based VCS system.

28. For the purpose of the assessment of the present transaction, the exact definition of the relevant product market for MCUs can be left open, given that the proposed transaction does not raise any competition concerns under any alternative market definition.

B. Relevant Geographic Market

29. According to the parties, the geographic scope of the markets for VCS and MCUs are worldwide for the following reasons: (i) the same technology is used for VCS throughout the world; (ii) VCS suppliers are global companies with worldwide activities; (iii) many of the end-user customers and the larger channel partners/distributors are businesses with international or even global operations; (iv) transport costs are an insignificant factor in this industry when compared to the value of the products in question; (v) there are no regulatory or other barriers affecting the sale of video communication products in different territories.

30. Most respondents to the market investigation consider the markets for VCS and MCUs to be at least EEA-wide, if not worldwide, in scope, on the ground that there are no significant differences in price levels, technical specifications or competitive conditions on a worldwide level.

31. Moreover, the market investigation confirms the notifying party's claim that suppliers can provide solutions at a global level and end-user customers and large channel partners/distributors are often large companies active at a worldwide level. Finally, some respondents indicate that they purchase solutions centrally for different sites on a worldwide level.

32. The Commission's analysis of the parties' data indicates that, although they are relatively limited in magnitude, there remain differences in prices and margins of VCS solutions between Europe and non-European regions. In addition, the presence of Chinese companies, such as Huawei, is still very limited in Europe, which is another element suggesting that some regional considerations still matter for the choice of a VCS company.

33. While the Commission sees reasons to assume that the geographic scope of the above markets to be at least EEA-wide, if not worldwide[10], the exact definition of the relevant geographic market for VCS and MCUs can be left open, as the conclusions of the competition assessment would be the same regardless of the geographic market considered.

[10] Some respondents refer to EMEA as the possible geographic scope of the markets in exam. As illustrated below, the market shares at a EMEA level are very similar to those at a EEA level, as Middle East and Africa only represent a small amount of sales.

V. COMPETITVE ASSESSMENT

A. Horizontal overlaps

1. *VCS*

(i) Dedicated-room solutions

34. The parties' estimated value of this segment is EUR […] and EUR […] in 2008 worldwide and in the EEA respectively, while market is growing at a fast pace. An independent expert, Frost & Sullivan, predicts six-year compound annual growth rates in videoconferencing endpoint revenues of [10-20]% from the end of 2009 and [30-40]% in telepresence from 2007 to 2014. According to this independent expert, growth of telepresence is being fuelled by the global requirement for improved communications between distantly located individuals and teams. For organizations, the high costs of travel, security and environmental impact represent an important driver to invest in videoconferencing, particularly considering the fact that these products offer increasing quality in high definition images and sound, ease of use and reliability.

35. Since the introduction of its dedicated room solutions in October 2006, Cisco has rapidly gained market share to become the market leader in the EEA and worldwide in 2009. From the information submitted by the notifying party, it appears that in 2009 Cisco held a market share of [30-40] % and [30-40] % in terms of value in a dedicated-room solutions market in the EEA and worldwide respectively. The information submitted by the notifying party also indicates that the proposed transaction will increase Cisco's market share by [10-20]% and [5-10]% in the EEA and worldwide respectively resulting in combined market shares of [40-50]% and [30-40]% in the EEA and worldwide respectively. As can be seen in table 1 below, in 2009, the market share of the merged entity will approximately double that of its next competitor, HP (which, from the information submitted by the notifying party appears to hold market shares of [20-30]% and [20-30]% in 2009 in the EEA and worldwide respectively).

Table 1: 2008 and 2009 EEA and worldwide market shares in terms of value of the main players in the dedicated-room solutions segment[11]

	Market share 2009 (worldwide)	Market share 2009 (EEA)	Market share 2008 (worldwide)	Market share 2008 (EEA)
Cisco	*[30-40]%*	*[30-40]%*	*[20-30]%*	*[30-40]%*
Tandberg	*[5-10]%*	*[10-20]%*	*[0-5]%*	*[0-5]%*
HP	[20-30]%	[20-30]%	[40-50]%	[30-40]%
Polycom	[10-20]%	[10-20]%	[10-20]%	[10-20]%
Teliris	[10-20]%	[10-20]%	[10-20]%	[10-20]%
Others	[10-20]%	[10-20]%	[5-10]%	[5-10]%

Source: Notifying party's best estimate, Form CO, page 84. The Commission has then calculated full year 2009 on the basis of the notifying party's best estimates Q3 and H12009.

[11] Variations in market shares of VCS vendors from one year to another are an indication of the significant impact that each individual transaction has on a market that is still quite small. For instance, the EEA dedicated-room market is valued at euro […] million per year and is characterized by high price solutions of over € […].

36. In relation to telepresence systems, the notifying party provided estimates based on a definition of "telepresence systems" as including all HD video conferencing systems (thus including also HD endpoints in the market for multi-purpose room solutions). According to these estimates the proposed transaction would result in a combined EEA market share of approximately [40-50]% (Cisco [5-10]%; Tandberg [40-50]%) and a combined world wide market share of approximately [40-50] % (Cisco [5-10]%; Tandberg [30-40]%)[12].

37. An independent expert[13] estimates Cisco and Tandberg's respective world wide market shares (in terms of value for the first half of 2009) in relation to ready-built telepresence systems[14] were [40-50]% and [10-20]% respectively. This would result in a combined market share of [60-70]% for the merged entity.

38. Because of perceived differences in the market shares presented by the notifying party and by other sources, the market investigation seeks to reconstruct the market shares of the main players in the dedicated room solutions market in the EEA and world wide. This market reconstruction reveals significantly higher market shares (in terms of value) for the merged entity than the notifying party's estimates. Indeed, the market reconstruction[15] indicates a combined EEA market share of [60-70]% and a world wide combined market share of [60-70]%. Similarly, the market shares for the merged entity also appears to be above [60-70]% in relation to possible narrower EEA and world wide markets for ready built dedicated room solutions[16].

39. The notifying party submits that the market shares may not fully reflect the relative competitive strength of suppliers post merger due to a number of factors: (i) the EEA dedicated room-based solutions market is relatively small in terms of value and losing or winning a deal may cause significant changes in vendors' market shares; (ii) most VCS are sold following a procurement process, which means that VCS could be characterized as a bidding market; (iii) the competitive constraints exercised by channel partners (which can be either 'integrators' such as large telecommunication groups or value added resellers ('VARs'); and (iv) anticipated rapid expansion and technological evolution of market.

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12 Considering telepresence as encompassing all HD solutions clearly leads to an adjustment of the parties' and competitors' market shares. Particularly, Tandberg's shares are higher than Cisco in light of the much higher overall sales of Tandberg in multi-purpose room solutions market.

13 Frost & Sullivan, Telepresence Global Market 2009 Update, December 2009, page 74.

14 The market shares refer only to ready-built telepresence systems, however, as sales of custom-built solutions are limited, they may be used as a proxy for telepresence in general.

15 The figures provided by the notifying party are a combination of both Cisco and Tandberg best estimates and data provided by industry analysts such as Wainhouse. The Commission's market reconstruction is based on the figures provided by each competitor for its own sales during the market investigation, combined with the figures from Cisco and Tandberg for the parties' sales. In a limited number of cases, missing figures were aligned with those from the parties and inferred from the market shares as calculated by the parties.

16 Cisco has no sales of custom-built solutions.

40. Moreover, the notifying party submits that no competition concerns will arise as a result of the proposed transaction since: (i) the merged entity will continue to face competition from a number of strong competitors post merger; (ii) Cisco and Tandberg's product offerings are centred at different points along the product continuum of pricing and functionality offered by VCS; (iii) absence of substantial switching cost for customers; (iii) brand loyalty is not a particularly defining feature of the market; and (v) strong incentives for new entry (such as low entry barriers, the increasing interoperability between different suppliers' solutions and the possibility of selling via VARs and systems integrators).

General appreciation made by customers and distributors

41. The market investigation did not reveal significant customer and distributor concerns in relation to the effects of the proposed transaction in the dedicated room-based solutions space[17], as the market is expected to steadily grow. However, customers and distributors might underestimate the parties' ability to limit the interoperability of their solutions with those of their competitors. In fact, the Commission notes that the majority of end customers have indicated that they have in the past encountered problems of interoperability between VCS sourced from different suppliers (including the parties' products)[18]. Moreover, competitors, which are required to implement the technical aspects necessary in order to have their products interoperate with those of other vendors, also raised concerns with regard to interoperability.

Evolution of market shares

42. On the relatively small EEA dedicated-room solutions segment which is characterized by high price solutions, the market investigation did not overall confirm the notifying party's submission that the market shares indicated above do not fully reflect the relative competitive strength of suppliers post merger.

43. However, it is observed that market share data submitted by the notifying party and retrieved from competitors in the context of the market investigation for the period 2007 – 2009 indicate that market shares evolve fairly quickly[19].

Channel partners

44. Most of Cisco and Tandberg's sales are made in combination with channel partners. These include large and sophisticated companies such as IBM, Siemens and large telecommunications service providers such as BT, Telefonica and AT&T. Some channel partners are also active in the market for video communication with their own systems

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[17] Wainhouse Research, an independent sector analyst, summing up its views of the proposed transaction, states that "*it is hard to see how this can be bad for end user customers*" Wainhouse Research, Cisco to Acquire Tandberg – Part 2, 13 October 2009.

[18] See replies received to question 42 of the Commission's questionnaire to customers.

[19] In particular, Cisco: from [10-20]% in 2006 to [30-40]% in 2009 at worldwide level and from [5-10]% in 2006 to [30-40]% in 2009 in the EEA. Tandberg: from [0-5] % in 2007 to [5-10] % in 2009 at worldwide level and from [5-10]% in 2006 to [10-20]% in 2009 in the EEA.

assembled on the basis of components of various vendors.

45. As regards the notifying party's submission that channel partners exercise significant competitive pressure on the merging parties, as explained above, the market investigation brings evidence that custom built solutions (assembled by channel partners) and standard video conferencing solutions might not belong to the same product market. The Commission does not consider it necessary to determine the exact market definition, as sales of custom-built solutions are so limited that they do not alter the competitive assessment of the case. Consequently, channel partners providing custom built solutions do not appear to exercise significant competitive pressure on the merging parties in the EEA and worldwide dedicated-room solutions market. However, rather than simply distributing dedicated room systems, certain channel partners, notably, large telecommunications companies, also provide value-added services in relation to these VCS products (such as management and integration with other related technologies). These telecommunications providers do appear to be exercising some degree of competitive pressure on market players within the dedicated room based solutions segment.

Procurement process

46. The market investigation confirmed that the procurement process for VCS does share similarities with a bidding market. Indeed, customers appear to often procure their VCS needs through Requests for Proposals ("RFPs") or tenders sent to manufacturers and distributors. The characteristics of a bidding market could in certain circumstances limit the power that undertakings could derive from high market shares. However, the market investigation notably indicated that end customers are not *de facto* independent when launching RFPs and tenders due to interoperability issues that may arise with the installed base (that is, the products already being used at a customer's site). Therefore, the fact that sales are typically organized through a bidding process is not in itself sufficient to alleviate competition concerns; rather, an analysis of tender data is necessary to determine whether the merging parties are close competitors and exert a competitive constraint on each other, as detailed in the next section on closeness of competition.

47. In any event, in addition to the fact that the merged entity would enjoy a clear market leader position significantly ahead of its next competitors, other important factors, such as those discussed in the following paragraphs, contribute to reinforce competition concerns arising from the transaction in the dedicated room solutions segment in the EEA and worldwide.

Closeness of competition

48. The majority of competitors and channel partners consider Cisco and Tandberg to be each others' closest competitors on this market in the EEA and worldwide. The majority of end customers also indicate that Cisco is amongst Tandberg's three closest competitors and vice versa.

49. In this regard, the parties submitted an econometric analysis of Cisco's discount in the VCS

market[20]. The analysis tests, in its base specification, whether the identification of Tandberg as a competitor for a particular deal in Cisco's "won deals" database is associated with a higher discount offered by Cisco, controlling for a number of variables (including customer industry, deal size, time period and channel partner type). The model estimated by the parties' economic advisors indicates an absence of statistically significant correlation between Tandberg's identification as a competitor and the level of Cisco's discount.

50. The Commission reviewed the analysis carried out by Cisco's economic advisors and concluded that it did not provide robust and convincing evidence that the transaction is unlikely to lead to anticompetitive effects. Indeed, the report does not provide a convincing model of the determinants of Cisco's discounts. For example, the model estimated by the parties' economic advisors does not only suggest, in most specifications, that Tandberg's participation to a tender had no statistical significant effect on Cisco's discount, but also that none of the other identified competitors had any significant effect on Cisco's discounts, which raises questions regarding the explanatory power of the estimated model. In addition, the results do not appear robust to a number of changes to the model's specification[21].

51. The analysis of the parties' opportunity datasets carried out by the Commission suggests that the parties are close competitors for dedicated-room solutions. In particular, an analysis of Tandberg's opportunities database suggests that Cisco is considered Tandberg's main competitor in the vast majority of cases for dedicated room solutions, while Cisco's data shows that Tandberg competes with Cisco for deals involving dedicated room solutions as often as Polycom and more often than HP, while all other competitors rarely appear in Cisco's database[22].

52. Furthermore, whilst the notifying party includes Chinese brands (notably Huawei) amongst those exerting strong competition on the merging parties, Chinese competitors are not frequently mentioned by respondents as rivals exercising significant constraints on the merging parties, notably at EEA level.

Barriers to entry

(i) Barriers linked to interoperability

53. The market investigation revealed significant barriers to entry in the VCS space in relation to the current lack of full interoperability notably in the dedicated room solutions market, and in particular the absence of three screens to three screen interoperability. Indeed, interoperability has posed significant difficulties for new entrants to compete and is in fact

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[20] CompassLexecon, "*An analysis of Cisco's price discounting on its European videoconferencing transactions as a function of the competitors Cisco faced*" and "*An analysis of Cisco's discounts: Further checks of robustness*".

[21] For example, if all control variables are not interacted with regional dummies in the worldwide regression in the supplemental analysis, the coefficient on Tandberg's presence becomes positive and significant, while the coefficient on Polycom's presence appears negative and significant.

[22] Teleris and Lifesize are not part of Cisco's drop down menu in which competitors are identified, which Cisco indicates is not designed specifically for videoconferencing solutions. However, the market investigation confirmed that Teleris and Lifesize's presence was in any case limited in the dedicated-room segment.

considered by competitors as the main barrier to entry/expansion in the VCS space[23]. Moreover, as mentioned above, the majority of end customers have indicated that they have in the past encountered problems of interoperability between VCS sourced from different suppliers (including the parties' products)[24].

54. The notifying party estimates[25] that the combined installed base for dedicated room systems for the merging parties would be [30-40]% in the EEA (Cisco [20-30]%; Tandberg [10-20]%) and [30-40]% worldwide (Cisco [20-30]%; Tandberg [5-10]%)[26]. Benefiting post-merger from a large combined installed base, the merged entity could benefit from a 'lock-in effect' which would make it more difficult for the other players (and any new entrants) to effectively compete with the merged entity due to the current interoperability issues (in particular those between Cisco's three screen solutions and those of its competitors) in the EEA and worldwide dedicated room solutions market. However, as the market is developing very rapidly[27], the advantage deriving from the installed base is not as significant as the mere figure may suggest[28].

(ii) Definition and current level of interoperability

55. Interoperability for VCS can refer both to the possibility for different endpoints (different brands or models belonging to different segments) to communicate with each other, and to the possibility for an endpoint to function correctly on a given network infrastructure. The latter is addressed paragraphs 125-145 of this decision.

56. Interoperability between different endpoints must occur at four levels, that is video, audio, control and transport interoperability. Video interoperability can be native between two end points and/or achieved by using an MCU; interoperability may involve the transcoding[29] between different compression standards and different endpoint types[30]. Audio interoperability may require transcoding between different audio compression standards[31]. Control interoperability may require translation between signaling standards[32]. It may also

[23] See replies received to question 82 of the Commission's questionnaire to competitors.

[24] See replies received to question 42 of the Commission's questionnaire to customers

[25] Notifying party's estimates in relation to installed base for dedicated room systems as at quarter 3, 2009, Form CO, page 88.

[26] The average life cycle of a VCS endpoint is approximately five years.

[27] See paragraph 34.

[28] Interoperability will become even more crucial in the future as VCS, which are currently used mostly intra-company will also be used increasingly inter-company.

[29] That is, decoding a signal sent using one compression standard and re-encoding that signal using a different endpoint compression standard.

[30] For instance HD and SD.

[31] Such as between G.711 and AAC-LD, currently used by Cisco.

[32] Such as between H.320/H.323 and SIP standards.

require management interoperability to enable, for instance, interoperability between scheduling tools. Transport interoperability involves the way data packets are transferred over the network[33].

57. From the information submitted by the notifying party, it appears that Cisco currently lags behind Tandberg and other competitors (notably Polycom and LifeSize) as regards interoperability. The notifying party explains that […][34]. Also Cisco addressed network firewall traversal issues (associated with sending multiple high bandwidth video streams across firewalls) by choosing to multiplex different streams of video, voice and presentation data together.

58. The notifying party considers that multiplexing offers significant advantages for user experiences and simplifies firewall traversal and audio synchronization.

59. These decisions limited the interoperability between Cisco's endpoints, in particular three-screen endpoints, and competing three-screen and single-screen endpoints.

60. The market investigation confirmed the lack of interoperability of Cisco's solutions, especially on the high-end segments of the VCS markets, while most Cisco's close competitors (e.g. Tandberg and Polycom) are considered to interoperate in a satisfactory manner.

61. The market investigation indicated that, although the combined entity would most likely still have an incentive to develop interoperability with its main competitors post-merger, it may have, in the absence of appropriate remedies, an increased incentive to use its proprietary Telepresence Interoperability Protocol ("TIP") protocol to strategically restrict interoperability, thereby raising barriers to entry.

(iii) TIP protocol

62. Cisco claims that […].

63. This would be why Cisco has developed the TIP protocol, which describes the multiplexing technology used by Cisco to communicate between its various systems and therefore enables interoperability between Cisco endpoints and other vendors' endpoints, as well as, according to Cisco, between non-Cisco endpoints. According to the notifying party, TIP is specifically intended to address three-screen to three-screen interoperability and would allow users of Cisco endpoints to enjoy the benefits that multiplexing brings[35]. TIP does not affect communication between non-Cisco endpoints.

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[33] This has been facilitated by the wide adoption of the Real-time Transport Protocol (RTP).

[34] […].

[35] Multiplexing refers to the integration of three different signals – notably those associated to the three different screens– into a single data steam, notably allowing for lower latency.

64. Cisco launched publicly TIP on 10 November 2009 and made many public statements about its attachment to interoperability. Cisco has since circulated protocol license agreements to other vendor endpoints, while making it available on internet for third parties. […] have signed the said agreement. By virtue of the license, Cisco is offering to license all future patents that are necessary to implement TIP at a zero royalty and will make updates relevant to TIP available to any licensee. Cisco is also committing to remain compatible with at least the two previous versions of TIP so as to avoid a breakage in compatibility in the event of any future proprietary developments of TIP by Cisco[36].

65. As regards three-screen and single-screen endpoint compatibility, the notifying party submits this issue has only gained traction in the last three years and inter-company video conferences with such systems are only beginning, while the practical relevance for TIP is for such communications. Besides, it is claimed that the recent market introduction of Cisco's Media Experience Engine ('MXE') 5600 and Cisco UVC 5230 (which is one of the MCUs supplied by Cisco, while the MXE provides certain functions of an MCU but has no call-control capabilities and therefore needs to function with the CUCM, Cisco's Unified Communication Manager software) enables interoperability between Cisco's HD three screen systems and single screen HD systems from Tandberg and Polycom (as well as with other vendors' endpoints in the future).

66. Cisco has begun discussions with the IMTC[37] standards development organization regarding the creation of a multi-vendor working group to develop such a standard.

67. The market investigation examined whether and the extent to which the proposed transaction will affect interoperability in the VCS space, and to which extent TIP will be a positive step in that direction.

(iv) Results of the market investigation

68. First, the investigation confirmed the lack of interoperability between three-screens to three screens solutions while it appears to have reached a satisfactory level between other VCS segment. Interoperability between three-screens to three screens solutions is particularly difficult to establish because in addition to the exchange of audio and video signals, communications from three to three screens must also take into account the coordination between the three screens and the respective audio and video signals (usually treated as three different streams, but also possibly multiplexed through one single stream).

69. Second, the investigation revealed contrasted views on the announcement of the Cisco TIP protocol.

70. On the one hand, end-customers and distributors, which generally identify interoperability as a paramount requirement and raise the current difficulties to interoperate with Cisco's VCS

[36] The notifying party submits that no such proprietary developments are planned.

[37] The International Multimedia Teleconferencing Consortium, which "*promotes the adoption of industry-wide interoperability standards in teleconferencing products*"

as well as the fact that Cisco had until now favored closed environments (intentionally providing limited interoperability between its VCS and those of its competitors), broadly welcome TIP as a positive step towards interoperability[38].

71. Many customers expressed the view that a limitation of interoperability by the merger entity would be commercially very risky at it would be perceived to go against the industry, which require common standards. An important distributor (AT&T) remarked that it is its belief that Cisco is acquiring Tandberg to achieve better interoperability as requested by AT&T and other users. Refusing supply or rendering more difficult interoperability of its MCU's with other supplier's endpoints would diminish the value of the newly combined entity, not enhance it. Some distributors and end-customers indicated in their reply to the market investigation that they would likely react negatively towards Cisco products if the merged entity were not supporting VCS from competitors.

72. On the other hand, competitors almost unanimously raised concerns in relation to the TIP protocol, suggesting that (i) such a protocol would not provide any advantage compared to the degree of interoperability that can be achieved with existing open standards while (ii) it would enable Cisco, post merger, to "control industry-wide interoperability".

73. Some competitors notably focused on Cisco's alleged aversion toward interoperability and its past behavior in neighboring markets such as the IP voice communication endpoint market where Cisco, instead of adopting open-standards protocols developed by the IETF (the Internet Engineering Task Force, which is one of the leading standards development organizations in the segment) such as the Session Initiation Protocol ('SIP'), adopted its own proprietary protocols (SCCP). Cisco however claims that SCCP was initially used instead of SIP because of the early development of SIP at the time and Cisco also licensed SCCP (over […] licenses including licenses to Tandberg, Polycom and Sony for video endpoints).

74. Instead of the development of a proprietary protocol, these competitors consider that standardization bodies are the relevant organization to develop standards and criticize Cisco's view according to which it would not be possible for such an organization to commonly agree on a standard within a short time frame. The competitors usually consider this reluctance to abide by the usual standardization process and to favor proprietary protocols instead as the indication that a protocol developed by Cisco would be probably biased in Cisco's favour.

75. As regards the substance and the performances of TIP, and while most responding competitors have not had access to the exact content of TIP, the latter is criticized on the ground that (i) there are no indications that it would enable better results than existing and available standards, (ii) it would not solve the remaining issue of interoperating with Cisco's network infrastructure and call signaling components such as CUCM (the Cisco Unified Communication Manager, which is the main call control software developed by Cisco), and (iii) would not provide all functionalities which are necessary to interoperate in a seamless manner (e.g. the "one button to push" capabilities).

76. In terms of procedure, the license agreement proposed by Cisco to acquire TIP was regarded

[38] See replies received to question 47 of the Commission's questionnaire to customers and see replies received to question 49 of the Commission's questionnaire to distributors.

by several competitors as strongly biased in favor of Cisco:

a. First, the agreement would be asymmetric in the sense that the providers of VCS which would adopt TIP would have to provide Cisco with any update they will develop in the future. In some competitors' view, this would result in limited incentives for them to develop innovative applications since they could not use them to differentiate their products from those of Cisco.

b. Second, Cisco would on the contrary not be obliged to disclose such updates, and would therefore always benefit from a first mover advantage by refusing to make public certain updates.

c. Third, even in the case where Cisco would make such update available, it would still benefit from the delay between the release of new products and the time needed by its competitors to develop VCS taking these updates into account.

d. Finally, Cisco would control the process certification, which according to the agreement could only be granted by Cisco, meaning that Cisco could eventually refuse to certify any competing product.

77. However, the market investigation indicated that a majority of end-customers and distributors consider that interoperability will eventually prevail, taking as long as one year for the various manufacturers to reach agreement upon the standards and then another 6-12 months to embed the standards. Besides, IDC, an independent industry analyst, "*expects the quality of endpoint interoperability in terms of call quality and ease of use between Cisco and Tandberg products to lead Cisco's interoperability with other endpoints*"[39].

78. In addition, Cisco submitted a note on the parties' incentives to provide interoperability,[40] which argues that the merged entity would not have an incentive to limit interoperability, in particular because consumers demand interoperability and interoperability is key to the development of the industry due to network effects. Cisco also submitted internal documents and presentations referring to this growing demand for interoperability from customers, which was confirmed unambiguously by customers during the market investigation.

79. The note submitted by Cisco also presents "*an economic model of incentives for interoperability*". However, as the author recognizes, this model is just a very simple illustration of the costs and benefits of compatibility for the merged entity. The model set out in the note consist of a simple inequality which indicates that if the merged entity were to limit interoperability, on the one hand, it could possibly increase prices as a result of higher market power, but on the other hand, it would not benefit from the larger market that interoperability would bring.

80. The note does not provide convincing evidence concerning the likely parameters of its interoperability model. In particular, the note does not provide convincing evidence on likely

[39] IDC, "*Tandberg Acquisition Puts Cisco's money where its vision lies*", 2 October 2009.

[40] Richard Gilbert, "*Economic Incentives for Videoconferencing Compatibility*", 17 February, 2010.

magnitude of interoperability on market size. In order to grasp the larger market that interoperability may bring, the note presents "suggestive calculations" based on an application of Metcalfe's law (which states that if the value of each user in a network is proportional to the number of other users, then the total value of the network is proportional to the square of the number of users). However, as the author recognizes, "Metcalfe's law has not been shown to apply to videoconferencing systems, and even if it does apply, an increase in *value* is not the same as an increase in *demand*", which is the parameter considered in the model. Similarly, there is no attempt in the note at providing any estimation on what could be the likely price effect or effect on market share of a strategy aiming at limiting interoperability.

81. Yet, the market investigation clearly confirmed that there is a strong case for interoperability, in particular as interoperability is key for consumers and network effects are important in this industry. For example, internal documents from Cisco suggest that […]. As this specific constraint will disappear post-merger, the merged entity's incentive to provide interoperability will be decreased. Although there will most likely still be a case for interoperability post-merger, and the market investigation has confirmed that interoperability is seen as the way forward in this industry, Cisco's incentive to interoperate with different parties will not be identical pre- and post-merger. In particular, it can not be excluded that even though the merged entity may still have an incentive to develop interoperability with its main competitors, it could have an increased incentive to strategically restrict interoperability with new entrants or less important competitors, a strategy considered in some older internal technical documents from Cisco, which could be implemented in the absence of an adopted industry standard (or appropriate remedies).

(v) Other barriers to entry

82. Several respondents to the market investigation have also indicated that access to distribution channels is important in order to enter the market. However, access to distribution channels does not appear to be difficult as the vast majority of distributor channels sell products from various vendors and exclusive contracts are not common. Moreover, access to distribution is not a significant barrier to entry for new entrants that are already active in neighboring markets as they already have their distribution network that could be used to market dedicated-room solutions.

83. Indeed, VCS vendors that are active in neighbouring markets (such as multi-purpose room market) do not appear to face high barriers to entry into the dedicated room market, particularly in light of supply-side substitutability, and they can be perceived as exercising some degree of competitive constraint. Tandberg is an example. Its presence in the multi-purpose room based solutions and executive office/desktop segment may be seen to have contributed to enabling it to overcome barriers to entry/expansion in the dedicated room solutions segment.

84. Further, although as mentioned, Chinese brands are not currently perceived as a strong competitive constraint, they could expand in the future. Huawei or ZTE for instance have large parent companies active at multinational level in the broad telecom sector.

(vi) Conclusion on barrier to entry

85. In light of the above, pre-merger, entry and expansion is on balance very difficult notably as a consequence of a lack of sufficient interoperability between vendors' solutions. The transaction would increase this difficulty.

86. While the TIP protocol could to some extent solve the remaining interoperability difficulties between three-screens VCS, the structure of the license agreement relating to the protocol raises concerns in the sense that it could provide Cisco with a significant time and technological advantage on its competitors which would systematically have to catch up on Cisco's developments and would have limited ability to differentiate from Cisco. Although the combined entity would most likely still have an incentive to develop interoperability with its main competitors post-merger, it may have, in the absence of appropriate remedies, an increased incentive to use its proprietary TIP protocol to strategically restrict interoperability, thereby raising barriers to entry.

87. It is therefore concluded that the transaction raises serious doubts as to its compatibility with the internal market in relation to all possible product and geographic market definitions of the dedicated room solutions space, notably EEA and worldwide markets for dedicated room solutions and the narrower EEA and worldwide markets for ready-built dedicated room solutions.

(ii) Multi-purpose room-based solutions

88. According to the parties, this segment represents a turnover of EUR […] million and EUR […] million in 2008 worldwide and in the EEA respectively.

89. Tandberg is the second largest market player in a multi-purpose room-based solutions market worldwide and second in the EEA. However, the information submitted by the notifying party indicates that given Cisco's limited market share, the increment in market share resulting from the proposed transaction will be minimal ([0-5] % at both an EEA and worldwide levels).

Table 2: 2008 and 2009 EEA and Worldwide market shares (in terms of value) in a multi-purpose room-based solutions market

	Market share 2009 (worldwide)	**Market share 2009** (EEA)	**Market share 2008** (worldwide)	**Market share 2008** (EEA)
Cisco	*[0-5]%*	*[0-5]%*	*[0-5]%*	*[0-5]%*
Tandberg	*[30-40]%*	*[40-50]%*	*[30-40]%*	*[40-50]%*
Polycom	[30-40]%	[20-30]%	[30-40]%	[20-30]%
Lifesize	[5-10]%	[5-10]%	[5-10]%	[5-10]%
Sony	[5-10]%	[5-10]%	[5-10]%	[5-10]%
Others	[10-20]%	[10-20]%	[10-20]%	[10-20]%

Source: Notifying party's best estimate, Form CO, page 85. The Commission has then calculated full year 2009 on the basis of the notifying part's best estimates Q3 and H1 2009. Rounding effects.

90. The market investigation sought to reconstruct the market shares of the main players in the multi-purpose room-based segment. Although the market reconstruction reveals slightly higher market shares for Tandberg, it confirms that the increment in market share brought about by the

proposed transaction would indeed be minimal (below [0-5]% in the EEA and below [0-5]% worldwide as regards the multi-purpose room-based solutions market and will not vary significantly in relation to a possible narrower market for ready built multi-purpose room-based solutions).

91. The market investigation revealed that whilst end customers view Tandberg as being amongst one of the leading players in the multi-purpose room-based market, Cisco's presence is much more limited and customers do not generally view Cisco as exercising a strong constraint on Tandberg in the segment for multi-purpose room solutions.

92. The analysis of the parties' opportunity datasets carried out by the Commission suggests that the parties are not as close competitors for multi-purpose room solutions as for dedicated room solutions. In particular, an analysis of Tandberg's opportunities database indicates that Polycom is in the vast majority of cases identified as Tandberg's main competitor for deals including multi-purpose room solutions. Cisco appears far less frequently, as did LifeSize, Aethra and other competitors. This is confirmed by an analysis of Cisco's "won deals" and "lost and active" datasets, which indicate that for deals including multipurpose room solutions (i.e. deals including Cisco's 1000s series), Cisco's competitors included mainly Polycom and HP. This suggests that for multi-purpose solutions there is no indication that the parties exert a significant competitive constraint on each other.

93. Several other viable competitors, including Polycom (with a market share of [20-30]% and [30-40]% at EEA and worldwide levels), LifeSize (with market shares of [5-10]% in the EEA and worldwide) and Sony (with market shares of [5-10]% and [5-10]% in the EEA and worldwide respectively) are present on the market and may be expected to continue to exercise competitive constraints on the merged entity post merger[41].

94. Respondents to the market investigation also indicated that new entry into the multi-purpose room-based solution segment is very likely.[42]

95. Moreover, unlike the dedicated room solutions market, interoperability does not appear to pose significant barriers to entry in relation to the multi-purpose room solutions space.[43] Interoperability appears to be developing rapidly in relation to single-screen systems. Single screen interoperability between Cisco and other endpoints is already possible using the CUVC 3000 series of MCU and the newly released CUVC 5000 series of MCU for HD. The recent Cisco MXE can serve similar purposes. Besides, while Cisco does not currently offer native point-to-point interoperability with other vendors, a software update allowing for such service on

[41] The notifying party and some respondents to the market investigation have indicated that Sony will soon be exiting the VCS space in the EEA. However, Sony has not issued an announcement confirming this expectation. Even if Sony exited the EEA market, the competitive assessment on the different product markets would not be significantly altered. Moreover, Sony's products could still be distributed by some channel partners.

[42] See replies received to question 38 of the Commission's questionnaire to distributors; (ii) question 69 of the questionnaire to end customers; and (iii) question 81of the Commission's questionnaire to competitors.

[43] See replies received to question 70 of the Commission's questionnaire to end customers and question 84 of the questionnaire to distributors.

Cisco endpoints will be released soon.

96. Furthermore, the market investigation did not reveal any customer concerns in relation to the multi-purpose room-based solutions space.[44]

97. In light of all the above, , it is concluded that the proposed transaction will not raise serious doubts as to its compatibility with the internal market in relation to all possible product and geographic market definitions of the multi-purpose room-based solutions space.

(iii)Executive office/desktop communications systems

98. According to the parties, this segment represents a turnover of EUR […] million and EUR […] million in 2008 world wide and in the EEA respectively.

99. Tandberg is the largest market player worldwide and the second largest market player the EEA relation to executive office/desktop communications systems. However, the information submitted by the notifying party the increment to market share resulting from the proposed transaction will be small ([0-5] % at EEA level and [5-10] % at worldwide level).

Table 3: 2008 and 2009 EEA and Worldwide market shares (in terms of value) in an executive office/desktop communications systems market

	Market share 2009 (worldwide)	**Market share 2009** (EEA)	**Market share 2008** (worldwide)	**Market share 2008** (EEA)
Cisco	*[5-10]%*	*[0-5]%*	*[0-5]%*	*[0-5]%*
Tandberg	*[40-50]%*	*[40-50]%*	*[40-50]%*	*[40-50]%*
Polycom	[30-40]%	[30-40]%	[30-40]%	[30-40]%
Sony	[10-20]%	[10-20]%	[10-20]%	[10-20]%
Others	[0-5]%	[5-10]%	[5-10]%	[0-5]%

Source: Notifying party's best estimate, Form CO, page 86. The Commission has then calculated full year 2009 on the basis of the notifying party's best estimates Q3 and H1 2009. Rounding effects.

100. Data used to establish this table capture only sales of executive office/desktop communications systems and do not reflect the increasingly important use of software-based videoconferencing solutions running on personal computers. Should market shares including sales of software-based solutions be considered, the parties' shares would be significantly lower.

101. It is important to note that there is a significant growth of PC-based systems, driven by a number of converging trends. The emergence of Scalable Video Coding technology is enabling more practical inclusion of platforms with lower resolution cameras and/or displays (such as PCs not equipped with HD cameras) without degradation of other participants' videoconference quality. SVC is particularly suited for use with PC-based videoconferencing because it relies on the processing power of the remote endpoint. As the central processing units and graphics chipsets of PCs become more powerful and more versatile, they substitute more effectively for the digital signal processing function that MCUs provide. As PC-screen

[44] See replies received to question 72 of the Commission's questionnaire to end customers.

sizes increase and technologies improve, PC-based videoconferencing applications and solutions running on personal computers (such as Microsoft's Live Meeting and Office Communications Server, as well as Skype) are expected to become an important competitive constraint in the executive office/desktop solutions market.

102. The market investigation revealed that whilst end customers view Tandberg as being one of the main players in executive office/desktop solutions, they do not generally view Cisco as exercising a strong constraint on Tandberg in this market.

103. Furthermore, other viable competitors, including Polycom (with a market share of [30-40]% and [30-40]% at EEA and worldwide levels) and Sony (with market shares of [10-20]% and [10-20]% in the EEA and worldwide respectively) are present on the market and may be expected to continue to exercise competitive constraints on the merged entity post merger.

104. The Commission's analysis of the parties' opportunities datasets for dedicated office/desktop solutions leads to similar conclusions as for multi-purpose room solutions. Indeed, Tandbergs' opportunities dataset clearly indicates that Tandberg's main competitor in executive office/desktop solutions is Polycom, far before Cisco, Lifesize, Aethra and other providers.

105. The market investigation also indicated that there has been a recent entry into the executive office/desktop communications segment, notably by Vidyo, a company offering new solutions precisely focusing on SVC.[45]

106. Unlike the dedicated room solutions segment, interoperability does not appear to pose significant barriers to entry[46] in the executive office/desktop communications space.[47]

107. Furthermore, the market investigation did not reveal any customer concerns in relation to the executive office/desktop communications space.[48]

108. In light of all the above, it is concluded that the proposed transaction will not raise serious doubts as to its compatibility with the internal market in relation to all possible product and geographic market definitions of the executive office/desktop solutions space.

2. MCUs

109. According to the parties, this market represents a turnover of EUR […] million and EUR

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45 See replies to (i) question 67 of the Commission's questionnaire to end customers; question 81 of the Commission's questionnaire to distributors; and question 80 of the Commission's questionnaire to competitors.

46 See replies to question 70 of the Commission's questionnaire to end customers and question 84 of the Commission's questionnaire to distributors.

47 The executive office/desktop communications space is standards based and therefore interoperability does not appear to pose significant barriers to entry.

48 See replies to question 72 of the Commission's questionnaire to end customers.

[…] million in 2008 worldwide and EEA-wide respectively. The table below indicates Tandberg's market shares and those of its main competitors on EEA and worldwide standalone MCU markets.

110. The market for the sale of MCUs can be expected to be driven by the growth of the VCS market, and consequently to grow at a roughly similar pace in the near future.

Table 4: 2008 and 2009 EEA and Worldwide market shares (in terms of value) in a standalone MCU market

	Market share 2009* (worldwide)	**Market share 2009*** (EEA)	**Market share 2008** (worldwide)	**Market share 2008** (EEA)
Tandberg[49]	*[40-50]%*	*[50-60]%*	*[30-40]%*	*[50-60]%*
Cisco	*[5-10]%*	*[5-10]%*	*[5-10]%*	*[5-10]%*
Polycom	[20-30]%	[20-30]%	[20-30]%	[20-30]%
Radvision	[5-10]%	[0-5]%	[5-10]%	[0-5]%
Others	[10-20]%	[5-10]%	[20-30]%	[10-20]%

Source: Notifying party's best estimate, Form CO. The Commission has then calculated full year 2009 on the basis of the notifying party's best estimates Q3 and H1 2009. Rounding effects.

111. To the extent that both Tandberg and Cisco sell standalone MCUs to end customers/VARs/systems integrators, a technical horizontal overlap may be seen to exist between the merging parties' activities. However, whilst Tandberg manufactures its own MCUs, Cisco does not. Instead, Cisco sources all its MCUs from Radvision, an independent company. Moreover, the notifying party has indicated […]. Indeed, the market investigation does not reveal any significant customer and distributor concerns in this regard. Furthermore, as indicated in the table above, other viable competitors, including Polycom and Radvision are present on this market and may be expected to continue to exercise competitive constraints on the merged entity post merger. Further analysis on the functioning of the MCU market is made in section V.B. *Vertical link: Multi-point control units (upstream) and video communications solutions (downstream)'*

112. In light of all the above, it is concluded that the proposed transaction will not raise serious doubts as to its compatibility with the internal market in relation to the horizontal overlap arising on the EEA and worldwide MCU markets.

B. Vertical link: Multi-point control units (upstream) and video communications solutions (downstream)

113. The notifying party considers standalone hardware based MCUs as a vertically affected market for the purpose of the present transaction. Tandberg has been present in the MCU space since its acquisition of Codian, a previously independent third party MCU manufacturer, in September 2007[50].

[49] Tandberg's market share rose sharply since 2006 (from [20-30]% worldwide and [30-40]% EEA-wide), mostly to the detriment of Polycom and (to a lesser extent) Radvision.

[50] Please refer to table 4 above for market shares on EEA and worldwide MCU markets.

114. The Commission investigated the impact of this vertical link on competition and concluded that it does not give rise to any input and/or customer foreclosure concerns specific to the proposed transaction for the following reasons.

115. According to paragraph 31 of the Guidelines of the assessment of the Non-Horizontal mergers under the Council Regulation on the control of concentration between undertakings (" the non-horizontal merger guidelines"), "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".

116. In the present case, VCS competitors […] currently do not purchase Tandberg's MCU's. Tandberg supply standalone MCUs to distributors and service providers.

117. According to the notifying party, this is unlikely to change post-merger as primarily the parties' competitors do not want to depend on endpoint competitors for reliable supplies of MCUs and because of concerns about "information leakage"[51]. This is also explained by the current structure of the VCS industry where no significant endpoint vendor sources MCUs directly from a vertically-integrated endpoint competitor such as Polycom or Tandberg[52]. Therefore, the proposed transaction would bring about no relevant change as a result of the proposed transaction.

118. Even if post-merger the combined entity decided to stop supplying Tandberg's MCU's on a standalone basis to customers such as distributors and service providers, such decision seems unlikely to have a material impact on endpoint competitors.

119. Indeed, the market investigation indicated that there are alternative effective suppliers on the upstream market for stand-alone MCUs worldwide and in the EEA such as Radvision and Polycom. Other competitors seem to emerge such as Huawei and ZTE. While some respondents to the market investigation pointed out that MCUs and VCS are often of the same brand for functionality reasons and that Tandberg provides the most complete MCU in terms of quality and capabilities, the market investigation also indicated that these competing suppliers are able to provide similar MCUs and that there are no capacity constraints. Therefore, even if the combined entity stopped supplying distributors and service providers post-merger, alternative upstream suppliers would still remain to serve these customers.

120. The combined entity would have an incentive to foreclose rivals' access to inputs only if it anticipated increased revenues in the downstream market for VCS capable of compensating

[51] "*Information leakage*" refers to the risk that discussing the necessary innovations with an integrated MCU vendor may lead to leakage of the endpoint vendor's confidential information regarding its commercial plans to an endpoint competitor.

[52] In this respect, the notifying party submits that currently, nearly all end-point systems vendors competing with Tandberg have access to their own MCU design, obtained through in-house development, acquisition or OEM arrangements with a non-integrated MCU supplier.

for the loss of upstream revenue for MCUs. As far as upstream revenues are concerned, the combined entity would lose significant profits if it restricted access to its MCUs on a stand-alone basis […].[53] On the other hand, the merged entity would be unlikely to gain significant endpoint sales if it were to restrict access to its MCUs. Indeed, the market investigation confirmed that there are alternative sources which provide similar MCUs; it thus appears unlikely that a significant number of customers would switch endpoints to access the merged entity's MCU. Since the upstream losses in profits for the combined entity if it were to engage in input foreclosure exceed the likely downstream gains, the merged entity would not have an incentive to carry out such a strategy.

121. Further, the market investigation confirmed that interoperability is essential also at the MCU level. The majority of the respondents confirmed that customers' choice of MCUs is in part based on the degree of interoperability with videoconferencing endpoints made by a number of vendors. According to the notifying party, any attempt to disadvantage the combined entity's endpoint rivals by breaking interoperability at the technical / MCU level would lack factual support. In particular, any attempt to limit interoperability with other vendors' endpoints would have to involve implementing proprietary standards at the codec level rather than at the MCU level. Finally, degrading Codian's interoperability benefits would eliminate Tandberg's current commercial success which is the ability to interoperate with third-party endpoints[54].

122. Customer foreclosure can also be excluded as a result of the proposed transaction. Currently, Cisco is Radvision's largest customer by revenue. However, Radvision has successfully diversified its customer base including competitors of Cisco such as LifeSize, and Samsung[55].

123. The market investigation confirmed that the merged entity will neither have the ability nor the incentive to foreclose Radvision from selling MCUs to video communication vendors, even if the combined entity were to procure all of its MCU needs from Codian as post-merger competition on the downstream market will remain strong and Radvision will continue to have access to a sufficiently large alternative customer base.

Conclusion on vertical assessment

124. In light of the above, it can be concluded that the concentration does not raise serious doubts with regard to its vertical dimension.

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53 In the parties' answer to the Commission's questions of 16 February 2010, the parties' economic advisors estimate that Tandberg's yearly profits from stand-alone MCU sales are approximately […].

54 Some examples of EEA customers that have heterogeneous installed bases of videoconferencing equipment are: […].

55 On 1 October 2009, Radvision announced that over the past two years, it has been implementing a strategy to broaden and deepen its partner and customer base and has recently introduced a more complete and refreshed product portfolio. Radvision will continue to execute this strategy. Radvision announced cooperation with Samsung, Alcatel-Lucent, and IBM, as well as LifeSize.

C. Conglomerate assessment

125. With respect to the markets in which Cisco is active and which could be considered as neighboring to video communications (such as unified communications, enterprise telephony solutions, contact centers, PC-software based collaboration/communications products, web-conferencing, and data networking equipment) the notifying party submits that the proposed transaction will not give rise to conglomerate concerns as a result of the proposed transaction.

126. According to the notifying party, while Cisco's possibilities to foreclose competitors are very limited for all the above neighboring markets, it has neither an incentive to do so nor would any foreclosure strategy affect competition.

127. Cisco's market shares in all the above potential neighboring markets are not at a level that could give rise to foreclosure concerns.

128. In particular, in the overall unified communication and collaboration market Cisco's market share is [20-30] % in the EMEA in 2007 and [20-30]% in 2008. Its leading competitors are Avaya/Nortel ([20-30]% 2007/2008) and Alcatel-Lucent ([20-30]% 2007/2008). At worldwide level, Cisco's market share is approximately [20-30]% in both 2007 and 2008. Its main competitors are Avaya/Nortel and Siemens.

129. As regards enterprise telephony solutions, Cisco estimates that its EEA-wide market share of Private Branch Exchanges ("PBXs") is well below [20-30]% and close to [20-30]% worldwide. Its competitors include Aastra, Alcatel-Lucent, Avaya/Nortel, Microsoft, Mitel, Nec, Panasonic, and Siemens. If only IP PBX systems were considered, Cisco's market share would be [30-40]% in Western Europe, where its main competitors are Avaya/Nortel with around [20-30]%, Siemens with approximately [10-20]% and Alcatel-Lucent with approximately [10-20]%. Worldwide, Cisco's market share estimate is approximately [40-50]% followed by Avaya/Nortel [20-30]%, Mitel Networks [10-20]% and Siemens [50-60]%[56].

130. In contact centres, Cisco's share is well below [20-30] %, alternative players include Avaya/Nortel, Genesys (owned by Alcatel-Lucent) and Aspect. In the Avaya/Nortel decision of 2009, the Commission found that Cisco's market share in contact centres is approximately 10-20% in both EEA and worldwide.

131. As regards PC-software based collaboration/communication products, Cisco's total revenues are small, below […] million EUR in 2008 and below […] million in the first six months of 2009. Among the leading players in this market are Microsoft and IBM.

132. In web-conferencing, Cisco's share in Western Europe in 2008 is [30-40]%. Its leading competitors are Intercall/Genesys Conferencing with [10-20]%, Microsoft [10-20]%, Netviewer [5-10]%, and Citrix and BT with each [5-10]%. At worldwide level, Cisco's share is [50-60]% in 2008 followed by Microsoft [10-20]%, Citrix [10-20]%, Intercall [5-10]% and

[56] See Commission's decisions of 18 November 2009 in case COMP/M.5607 Avaya / Nortel.

Adobe [0-5]%. According to the notifying party, customers can switch providers without incurring new hardware or software expense due to the application of the "software-as-a-service" model.

133. As regards, data networking equipment, considering narrow market segments, Cisco shares has declined in recent years. In particular, with respect to routers, Cisco's share is [50-60]% for the first quarter of 2009, declined from approximately [70-80]% in 2006. In the sub-segment for Ethernet switches, Cisco's share is approximately [60-70]% in the fist quarter of 2009, declining from around [70-80]% in 2006.

134. Further, the notifying party argues that bundling/foreclosure strategies are also very limited. Neither technical nor pure/commercial bundling would be a viable foreclosure strategy for the combined entity. While some forms of mixed bundling would theoretically be possible, they would we difficult to implement in practice as (i) the products in question are not complementary and therefore are not necessarily purchased at the same time and by the same entities; (ii) alternative effective competitors are present in video communication equipment that could easily deploy counterstrategies to address any potential pricing advantage of the bundles that the merged entity might offer; and (iii) effective competitors with sufficient scale will remain post-merger.

135. It should be noted that the vast majority of customers and distributors did not express any competition concerns against the proposed transaction; on the contrary, some respondents indicated that they see this transaction as a positive event for the VCS market. A few competitors expressed concerns with respect to possible conglomerate effects as a result of the proposed transaction. In particular, they claim that Cisco would be able - through the use of proprietary protocols - to limit competitors' video conferencing and telepresence endpoints from operating efficiently within Cisco's unified communication network.

136. The Commission analysed the impact of the potential conglomerate effects on competition as a result of the proposed transaction and concluded that it does not give rise to any serious doubts specific to the proposed transaction for the following reasons.

137. First, according to the non-horizontal merger guidelines[57], in order to be able to foreclose competitors, a firm must have a significant degree of market power in at least one of the relevant markets.

138. Cisco is the leader in networking infrastructure, however its market share in all the above neighboring markets are not indicative of a significant degree of market power and in any event not at a level that could give rise to foreclosure concerns. More significant market shares only arise under very narrow market definitions (for example in particular types of switches and routers), however without leading to foreclosure concerns in the present case in which only a mixed bundling strategy seem to be possible as result of the proposed transaction.

139. In addition, voice and video traffic flows over networks including routers and switches

[57] In particular, see paragraphs 23, 95 and 99.

from many other players such as Juniper, Alcatel-Lucent, HP-3Com, Avaya-Nortel. In this regard, the market investigation confirmed that Cisco would not control post-merger any must have products in the networking equipment market for which other companies would not have one or several fully viable alternatives.

140. Second, according to the vast majority of the respondent to the market investigation no bundling practices between VCS and networking infrastructures (PBX, routers and switches) has been observed in the past, with such products not necessarily purchased at the same and by the same customers. In particular, the products have different lifecycle and different replacement/update priorities for customers and this is also valid for data networking equipment. The notifying party submits that Cisco must respect standards regarding internet quality of service ("QoS")[58] issued by the International Telecommunications Union and Internet Engineering Task Force, and thus any strategy to advantage network traffic involving its own endpoint would likely have a negative impact on its overall networking equipment business. Therefore, technical and/or pure/commercial bundling can be excluded as a result of the proposed transaction.

141. Furthermore, mixed bundling would also be difficult to implement post-merger. The market investigation confirmed that the products in question (such as networking equipments and video communications solutions) are not complementary - companies usually require both but will rarely make purchasing decisions at the same time - and that in any event rivals would be able to deploy effective and timely counter-strategies in response to possible bundling/discount practices engaged by the merged entity post-merger. Respondents to the market investigation quoted for example the strategic alliances formed by Polycom with Siemens Enterprise Networks and Juniper Networks.

142. Third, interoperability based on common standards is essential for transfer of data over networks. The market investigation indicated that Cisco, as a leader in the market for networking infrastructure (such as switches, routers or IP-PBXs[59]), could have the ability to foreclose its competitors on the market for VCS by limiting the possibility to other than Cisco VCS to function on a Cisco infrastructure. However, the vast majority of the respondents also indicated that Cisco's incentive to engage in such strategy would be very limited and not commercially viable as customers of Cisco's competitors in VCS could deploy networks from other providers (such as Avaya, Alcatel-Lucent).

143. One competitor claimed that Cisco engages in a "systematic and widespread campaign" of providing or offering for free, or nearly free, telepresence endpoints to major, global accounts

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[58] A competitor expressed specific concerns about QoS. The issue was investigated in-depth by the Commission and discarded. For instance, it was demonstrated that a network administrator could easily change the QoS setting of an endpoint. Moreover, in a mixed environment, it is technically not possible that delays due to the network would cause the Cisco endpoint user to have a better experience in terms of latency than a competitor endpoint user.

[59] For a more detailed analysis of the (IP) PBX market, see Commission decision in case COMP/M.5607 Avaya / Nortel, where, while leaving the definition open, the Commission noted that ‘the majority of the respondents to the market investigation clearly revealed that TDM and IP-based PBXs can coexist within hybrid environments using gateways and could therefore possibly be part of a global PBX market (paragraph 16).

and other customers. According to the data provided by the notifying party, the promotions involving free endpoints have been strictly limited. In particular, such promotions have had an upper limit […] and were generally limited to customers with large video-conferencing deployments and […]. The data provided by the notifying party also shows that free units represent […] of all Cisco endpoints sold to customers since the launch of the Cisco Telepresence range in 2006[60].

144. Finally, similarly to other vendors, Cisco's VCS sales appear to be generally independent from other networking infrastructure products. In this respect, the market investigation indicate that customers pursue a "best of breed" strategy, in the choice of networking equipment trying to select the best product from different vendors.

Conclusion on conglomerate assessment

145. Against this background, it can be concluded that the concentration does not raise any serious doubts with regards to its possible conglomerate dimension.

VI. COMMITMENTS SUBMITTED BY THE NOTIFYING PARTY

A. Description of the remedies proposed before the market test

146. In order to address the competition concerns raised by the Commission, the notifying party has submitted on 8 March 2010 a set of remedies including, *inter alia*, the assignment of the management of the updates of TIP to an independent industry body. The Commission conducted further discussions with the parties, as it appeared that the assignment of solely the management of the updates of TIP would not address the concerns raised during the market investigation.

147. On the basis of such discussions, on 15 March 2010, the notifying party have offered an amended set of commitments according to which Cisco would:

- during a short interim period pending fulfillment of Cisco’s next commitment below, license TIP royalty free to any interested third party. TIP will be posted on Cisco's website and will be downloadable under the terms of a license agreement;
- divest its copyright to TIP and assign the management of its updates an independent industry body within 120 days following the adoption of the decision. Cisco will contact IMTC (International Multimedia Teleconferencing Consortium) for this purpose. In the event that IMTC does not assume this role, Cisco will create a new independent organization with the purpose of assigning copyright to TIP and managing TIP. Membership to this organization will be open to any and all interested parties, including Internet application developers and service providers, teleconferencing hardware and software suppliers, telecommunications service providers, teleconferencing service

[60] The calculation refers to telepresence endpoints such as CTS-3000 and CTS 3200 (and related upgrades). However, according to the notifying party, even taking into account all Cisco video-conferencing endpoints (including the CTS-1000 and the CTS-5000) free units accounted […] of all Cisco video-conferencing endpoints sold to customers from October 2006 to December 2009.

providers, end users, educational institutes, government agencies, and non-profit corporations. The independence of the industry body will be monitored by a Trustee;

- create a source code library for the new version of TIP (TIP version 7). Access to this library will be made available under an open source license. Once the copyright and the management of the updates of TIP will be assigned to an independent industry body, the latter will be the steward of the open source library;
- ensure that within 90 days of the effective date, competitive endpoint vendors and their customers will be able to interoperate with virtually all of the combined entity's installed base of multi-screen systems, even if those competitive vendors have not yet implemented TIP on their own endpoints or MCUs. All that is needed for a multi-screen to multi-screen conference using TIP is that one of the parties (or indeed a third-party service provider) has a Tandberg Telepresence Server in place. Moreover; the commitment to implement TIP natively on all multi-screen, multi-codec endpoints that are released after the end of 2010 provides additional interoperability opportunities for those competitive vendors who also decide to implement TIP natively on their endpoints. Customers of such competitive vendors will then be able to a have multi-screen to multi-screen point-to-point communications with Cisco/Tandberg systems without the need for an MCU, a way of creating sessions that is typically used in communications involving a small number of endpoints. Cisco would also implement TIP in its products at least until two years after the date on which a recognized standards setting body adopts an industry standard for multi-screen interoperability and until Cisco has successfully implemented this standard in its video communications products.

148. The notifying party indicated that the proposed commitments will increase interoperability between end-points in the market for VCS and in particular in the dedicated-room market.

149. The effective implementation of the remedies will be ensured through the appointment of a Monitoring Trustee familiar with the standard setting procedures, subject to upfront approval from the Commission

150. The Commission assessed the appropriateness of the remedies offered and carried out a market test.

B. Outcome of the market test

151. The market test has generally confirmed that an appropriate interoperability remedy is adequate to address the competition concerns described in Section V above. End-customers and distributors generally considered that the remedies proposed by the notifying party would be sufficient to alleviate any possible concerns in relation to the transaction. However, several competitors claimed that the scope of the remedy seemed insufficient.

152. In more detail, the respondents generally agree with the structure of the proposed remedies, and notably that it is necessary that Cisco divests its proprietary rights attached to TIP and develops an open-source library.

153. Distributors and customers consider that the industry will implement TIP and its

successors within a timeframe of 6 to 18 months[61]. Moreover, as some competitors, […], signed the previous TIP license agreement, it is very likely that they will also sign the new license.

154. As regards the choice of IMTC as the preferred independent body to which IP rights attached to the TIP protocol would be assigned, many respondents provide a positive answer, while some others suggest that a standardization body – instead of a business organization – would be more appropriate. However, the concerns expressed do not necessarily relate to the assignment of the copyrights of TIP and the management of its updates, but rather to the perceived need to develop an industry standard in a short period of time.

155. As regards the scope of the remedies, some competitors indicated that interoperability would remain too limited because of Cisco's ownership of specific extensions to the signaling protocols SCCP and/or SIP, which would be needed in addition to TIP to interoperate between Cisco endpoints and competing endpoints.

156. Finally, the Commission considers that the concerns raised by competitors - such as those concerning (i) the transition period, (ii) the exact obligations of Cisco as regards future updates, (iii) the scope of the TIP protocol and the necessary documents to ensure interoperability, (iv) the appropriateness of the Mozilla open source license, and (v) the time period during which Cisco will continue to implement and support TIP after the adoption of a commonly agreed standard, are appropriate and relevant and therefore conducted further discussion with the notifying party in order to address them.

C. Analysis of the final set of remedies

157. On the basis of these discussions, the notifying party submitted the final set of commitments on 24 March 2010. The commitments were fine-tuned in order to clarify the notifying party's obligations. Notably, under the final version of the commitments, and in addition to the issues mentioned above, Cisco will:

- with regard to the transition period, grant any interested third party a royalty-free license to any current and future Cisco claims in Cisco patents essential for the implementation of TIP ;
- with regard to Cisco's obligations for future updates, ensure backward compatibility between the current version of TIP and the forthcoming TIP 7 and commit to implement and support new versions of TIP;
- with regard to the scope of TIP, commit to make available its current and future implementation Profiles documents available to any third party by posting them on the web-site and provide the necessary documentation in addition to the source code licensed under the open source license. While it has been argued that the documents which would be made available by the notifying party would not suffice for interoperability developments, the Commission considers that this concern is expressed essentially by one respondent only and that the remedy process in itself, as described in para 162 will likely address the issue.

[61] The implementation processes conducted by […] confirm the validity of the suggested timeframe.

- with regard to the choice of the license, use an Apache license for the open source library attached to the TIP Version 7;
- implement and support TIP in its products at least until three years after the date on which a recognized standards setting body adopts an industry standard for multi-screen interoperability.

158. In addition, the Commission also asked Cisco to clarify a number of elements related to the interoperability features that TIP will enable:

- Notably, Cisco confirmed the fact that TIP allows for HD interoperability: "*TIP is designed to provide HD interoperability (at 720p or 1080p, and up to 30 frames per second) between the three screens of a Cisco CTS 3X00 endpoint and any standards-compliant competitive endpoint like the Tandberg T3, the Polycom TPX, the Huawei 3006, or the LifeSize Conference 200."*. Notably: "*no further licensing of Cisco-proprietary protocols is necessary for such interoperability. Using TIP, a third party's three-screen endpoint can display all three screens (not just the active screen) and the presentation data stream used in a three-screen solution in the same way that a Cisco three-screen endpoint would be able to do*";

  Cisco however acknowledged that interoperability would be more complex with other endpoints (notably from HP and Teliris), as this was envisaged: "*TIP could also provide interoperability with other non-standards compliant three-screen systems such as HP Halo Collaboration Studio and the Teliris VirtualLive 3-screen configuration, but interoperability with HP and Teliris would require an intermediate step of converting video signals from those products to H.264. This is a result of engineering choices HP and Teliris have made, specifically not using H.264 for video compression*". The Commission does not consider that the above complexities are of a nature endangering the effectiveness of the proposed remedy;

- Regarding video compression, Cisco confirmed that the TIP Specification does not require the use of Context Adaptive Binary Arithmetic Coding (CABAC). Rather, Cisco has engineered its codecs and the software that controls them to allow CABAC to be turned to « OFF » during the call set-up. Indeed, in its Telepresence Server MCU, Tandberg has not implemented CABAC. Rather, the Telepresence Server turns off CABAC and is able to communicate with Cisco CTS endpoints via standard Context Adaptive Variable Length Coding (CAVLC) encoding[62];

[62] The one current limitation of « base-line» CAVLC encoding is that a competitive endpoint that does not use the more advanced CABAC-encoding cannot currently connect to Cisco endpoints via a Cisco CTMS switch (as opposed to via a TIP-enabled MCU). Cisco will update its CTMS switches to support the turning off of CABAC during a multi-point call. This update is currently scheduled to be included in a software release Cisco anticipates completing by July 1. However, even in this short interim period, the current inability to connect via CTMS with base-line CAVLC encoding does not imply any limitation of interoperability that will be enabled through TIP.

- Cisco also confirmed that, beyond TIP, no further licensing of Cisco-proprietary protocols would be necessary to interoperate with Cisco solutions. On the contrary, such extensions would not be needed for initiating video conferences, as the example of Tandberg shows. Regarding SIP in particular, Cisco points to the fact that *"SIP extensions are not used at the stage of exchanging media between Cisco multi-screen video-conferencing systems. TIP is all that is required for the exchange of media streams between TIP compliant multi-screen systems (if need be, connected via a TIP-enabled MCU)"*[63] Cisco-proprietary extensions are needed only for special additional features[64];

- In the commitments submitted on 24 March 2010, Cisco declares that the commitment package includes all rights, documents and information that Cisco controls and has not previously made available for license and that is necessary to enable third party multi-screen videoconferencing endpoints to interoperate with Cisco video endpoints at HD quality, with resolutions of 720 p and 1080 p, at 30 frames per second.

159. Besides, a remedy designed to ensure interoperability, in particular by exposing the Cisco/Tandberg installed base of VCS endpoints to competitors, benefits all existing players and new entrants from the time the transaction closes. This is particularly significant given that additional competition in the video communications market may come from a variety of different sources, ranging from competitors focused on driving down production costs to unified communication market participants such as Avaya, IBM or Microsoft who would use their unified communications offering to drive video sales. Furthermore, the commitment has a worldwide scope. Therefore, it facilitates market entry or expansion irrespective of where the competitor or its target customers are located.

[63] In particular, the notifying party explains that setting up a video conference involves two separate steps: initiation of the conference (by establishing the initial connection to another video endpoint), and, once the conference is initiated, the exchange of media. Any video conference can be set up by any SIP-compliant endpoint regardless of whether the IP-PBX system in question uses proprietary SIP extensions. Once a video conference has been initiated, TIP can be used to add information to data packets that are exchanged between endpoints by tagging packets with information about their source (*e.g.*, left camera, right camera, or center camera). Thus, while SIP is a call control standard, TIP is not a call control standard. There are no barriers to setting up a video calls to and from third-party video endpoints via CUCM. For call initiation where a third-party video endpoint is connected to a Cisco CUCM, customers commonly use video conferencing endpoints made by Cisco competitors with Cisco enterprise telephony systems; there are therefore no significant barriers to setting up a video calls to and from third-party video endpoints via CUCM. Tandberg document that dates from a time when CUCM was based on the proprietary SCCP protocol identifies trunking as the way in which Tandberg interacted with CUCM (then called Call Manager). CUCM also allows standard SIP endpoints to connect as “generic” endpoints. This is what Tandberg has also done historically: it connects to CUCM by means of a protocol stack using the standard SIP interface. The same is true of LifeSize and other vendors. No license from Cisco is required for this purpose. Publicly available documents describe what generic SIP endpoints need to do to connect to the CUCM; publicly available documentation accompanying the two most recent CUCM releases describe the use of a “generic” SIP interface, which requires no license from Cisco to access.

[64] As an example, one CUCM proprietary extension enables a third-party SIP phone to connect the calling party on hold to Cisco unified communication’s Music on Hold server. Possibilities of product differentiation should remain. As argued by a channel partner in the reply to the market test, "*minimal interoperability standards necessarily being set, differentiation remains key in order to guarantee product development and overall progress*".

160. Since Cisco single-screen systems also use TIP and because TIP will be implemented and supported on all Cisco's MCUs, the commitment also facilitates interoperability with single-screen systems. It is also possible that TIP might be used for interoperability between competing vendors' endpoints.

161. Cisco will appoint a Monitoring Trustee, subject to approval by the Commission, before the closing of the transaction. The Monitoring Trustee, who shall be familiar with standard setting procedures in the IT sector and have the experience, competence and independence necessary for their appointment, will supervise the implementation of the Commitments and other obligations set out in the Decision. This ensures that the remedy, whose limited complexity does not lead to a risk of its effectiveness from the outset, will be effectively implemented. Cisco will publish the Monitoring Trustee's name and contact details on the website Cisco uses to describe TIP and its licensing program and will note the Monitoring Trustee's role in overseeing Cisco's fulfilment of its obligations under the Commitments.

162. Regarding IMTC (or the independent industry body), it is true that such organization is not a standardization body; however, it would have a broad membership composed notably of companies active in videoconferencing. IMTC has already created within its organization a Telepresence Multi-streaming Activity Group to create "use cases" to define the scope of a standard for multi-screen interoperability which includes leadership from co-chairs from Cisco and Polycom. The Commission highlights that the remedy is designed in a manner ensuring to a sufficient degree that IMTC (or the independent industry body) will ultimately elaborate an industry-based proposal for a standard protocol; this proposal will then be submitted to a standard setting organization (like the IETF). The process set by the commitments thus addresses the expressed concerns.

163. In light of the above and on the basis of Cisco's statements, the Commission considers that the proposed clear cut remedy would be as effective as a divestment of a business. The associated timeframe of the commitment ensures timely results. As a consequence, the commitments, as submitted on 8 March 2010 and further modified on 15 and 24 March 2010, are suitable for remedying serious doubts as to the compatibility of the concentration with the Internal Market and the EEA.

E. Conditions and obligations

164. Under the first sentence of the second subparagraph of Article 6(2) of the Merger Regulation, the Commission may attach to its decision conditions and obligations intended to ensure that the undertakings concerned comply with the commitments they have entered into vis-à-vis the Commission with a view to rendering the concentration compatible with the common market.

165. In accordance with the basic distinction described above, the decision in this case is conditioned on the full compliance with the requirements set out in Sections 1, 2, 3 and 4 of the Commitments submitted by the notifying party on 24 March 2010 (conditions), whereas the other Sections of the Commitments constitute obligations on the notifying party.

166. The Commission has concluded that the remedies submitted by the notifying party are

sufficient to remove the serious doubts raised by the concentration. Accordingly, subject to the full compliance with the commitments submitted by the notifying party, the Commission has decided not to oppose the notified operation and to declare it compatible with the common market and with the EEA Agreement. This decision is adopted in application of Article 6(1)(b) and Article 6(2) of the Merger Regulation.

167. The detailed text of the commitments is annexed to this decision. The full text of the annexed commitments forms an integral part to this decision.

VII. CONCLUSION

168. For the above reasons, the Commission has decided not to oppose the notified operation as modified by the commitments and to declare it compatible with the internal market and with the functioning of the EEA Agreement, subject to full compliance with the conditions and obligations contained in the commitments. This decision is adopted in application of Article 6(1)(b) in conjunction with Article 6(2) of the Merger Regulation.

For the Commission
(signed)
Joaquín ALMUNIA
Vice-President of the Commission

COMMITMENTS PACKAGE

Pursuant to Article 6(2) of Council Regulation (EC) 139/2004 (“Merger Regulation”), Cisco Systems Inc. (“Cisco”) submits the commitments specified below (the “Commitments”) in order to enable the European Commission (the “Commission”) to declare the proposed concentration (the “Concentration”) between Cisco and Tandberg ASA ("Tandberg") compatible with the common market by means of a decision pursuant to Article 6(1)(b) of the Merger Regulation (“Decision”).

These Commitments shall take effect upon receipt of the Commission’s Decision declaring the Concentration compatible with the common market and will be binding on Cisco, its subsidiaries, successors and assigns. These Commitments are offered exclusively in the context of the Concentration between Cisco and Tandberg and are without prejudice to the position of Cisco and/or its subsidiaries in future cases examined by the European Commission.

Cisco’s commitments are worldwide. Specifically, Cisco’s obligation to license TIP for evaluation and implementation purposes, and to license the open source library for TIP 7 shall be applicable to any licensee located anywhere in the world. Likewise, Cisco’s assignment of the TIP protocol and TIP 7 source code library to the IMTC or another independent industry body will require the IMTC or other industry body to grant worldwide licenses to implementers of TIP located anywhere in the world.

This text shall be interpreted in the light of the Decision to which the Commitments are attached as conditions and obligations, and in the general framework of Community law, in particular in the light of the Merger Regulation, and by reference to the Commission Notice on remedies.

DEFINITIONS

Cisco
Cisco Systems Inc. and Tandberg ASA, and companies and/or affiliated businesses controlled by these entities after the Consummation of the Concentration.

Consummation of the Concentration
The date on which Cisco, through Cisco Netherlands Holding B.V., acquires at least 90% of the share capital in Tandberg as provided for in the offer document of the voluntary public offer of 1 October 2009, as amended by the improved offer dated 16 November 2009.

Effective Date
The date of the Decision, unless otherwise specified.

Independent Industry Body
The International Multimedia Telecommunications Consortium ("IMTC"), or a consortium of companies the creation of which Cisco will initiate, meeting the requirements of Section 2.2 of these Commitments.

Implementation Profiles
Documentation that Cisco has developed or develops in the future to illustrate specific choices that Cisco has made between implementation options provided for in TIP

Parties
Cisco, Tandberg and their respective subsidiaries.

Prospective Implementer
A Company or institution that downloads the TIP Specification under the TIP License Agreement.

Recognized Standard Setting Body
An internationally recognized standards development organization with broad membership active in past standards development efforts in the area of internet protocol streaming media standards, for example the Internet Engineering Task Force.

Review Section
Has the meaning given to it in Section 7.

TIP
Telepresence Interoperability Protocol, which is referred to as the TIP Specification in the TIP License Agreement at **Appendix 1**.

TIP License Agreement
Agreement as described in Section 1.1 below and in the form provided in **Appendix 1**.

1. COMMITMENTS REGARDING LICENSING TIP TO THIRD PARTIES

1.1 During an interim period pending fulfilment of Cisco's commitment to divest its rights to TIP and assign responsibility for managing and updating TIP to an Independent Industry Body in accordance with Section 2 below, Cisco commits to provide any third party (a "Prospective Implementer") a worldwide royalty-free license to any claim in any of its current or future patents essential for the implementation of the Telepresence Interoperability Protocol (the "Protocol" or "TIP") and the Implementation Profiles by means of the TIP License Agreement attached to this Commitments Package as **Appendix 1**. The TIP License Agreement provides that any Prospective Implementer can download the TIP Specification and Implementation Profiles from Cisco's website. For third parties wishing to evaluate TIP prior to deciding whether to license TIP, Cisco will provide the Protocol and Implementation Profiles under a time-limited (90 day) evaluation license. The Evaluation License is attached to this Commitments Package as

Appendix 2. The TIP License Agreement, the Evaluation License, the Protocol and Implementation Profiles will be made available on the website Cisco uses to describe TIP and its licensing program immediately following the Consummation of the Concentration.

1.2 For the avoidance of doubt, Cisco will also offer the terms of this TIP License Agreement to any third party that has already signed an agreement with Cisco regarding licensing of TIP prior to the Effective Date and give each such company the opportunity to substitute the TIP License Agreement. Again for the avoidance of doubt, Cisco commits, at the request of a third party that has already signed a TIP-related licensing agreement prior to the Effective Date, to release that third party from the terms of its prior agreement to license TIP. Likewise, as soon as Cisco divests its rights to TIP as required under Section 2 below, Cisco will release any licensee under the TIP License Agreement from its obligations under that agreement.

1.3 Cisco will publish the TIP License Agreement and the Evaluation License on its website.

2. COMMITMENTS REGARDING DIVESTMENT OF RIGHTS AND ASSIGNMENT OF CHANGE CONTROL FOR TIP TO AN INDEPENDENT INDUSTRY BODY

2.1 Cisco commits to divest its copyright to TIP, and assign responsibility for managing and updating TIP, to an Independent Industry Body as soon as reasonably possible, but in any event within 120 days following the Effective Date.

2.2 Cisco has approached the International Multimedia Telecommunications Consortium (IMTC) for this purpose. If, and only if, the IMTC does not agree to accept the assignment of copyright to TIP and assume responsibility for further standardization of TIP, Cisco will create a not-for-profit consortium (referred to in these commitments as Independent Industry Body), which would not be controlled (solely or jointly) by Cisco within the meaning of Article 3 of the Merger Regulation. Membership of this organisation will be open to any and all interested parties, including Internet application developers and service providers, teleconferencing hardware and software suppliers, telecommunications service providers, teleconferencing service providers, end users, educational institutes, government agencies, and non-profit corporations. Members will have equal voting rights, and decisions regarding the finalization of revisions to TIP would be based on the consensus views of members, as is typical in the internal procedures of standards development organizations. The Independent Industry Body will make available all information necessary to apply the TIP Protocol and Implementation Profiles to those wishing to enter the market. The Independent Industry Body will make publicly available information on its decision making procedures and publish its decisions. Cisco will assume all reasonable costs related to the creation of such an Independent Industry Body and pay reasonable expenses necessary for its ongoing work.

2.3 Cisco will assign its copyright to the TIP Specification, and grant a worldwide royalty-free patent license to the IMTC or other Independent Industry Body. The license will include the pertinent terms of the TIP License Agreement, as well as all rights necessary to modify and create derivative works, and to license the TIP Specification to implementers on a royalty-free basis. The license will also include the right to sublicense Implementation Profiles to implementers, also on a royalty-free basis. Cisco's license to the IMTC or other Independent Industry Body will be a blanket license to all Essential Claims (as defined in the TIP License Agreement), if any, that Cisco holds or may hold in the future, for use in implementing TIP. After assigning copyright for the TIP specification to IMTC or another Independent Industry Body, Cisco will have the same rights to the TIP protocol as those enjoyed by any other member of IMTC or Independent Industry Body.

2.4 If it is not available by the Effective Date, Cisco also commits to assign to the IMTC or other Independent Industry Body the copyright to the next version of the TIP protocol (version 7), the development of which is underway at Cisco, and which Cisco would continue to work on by dispensation of the IMTC or other Independent Industry Body. TIP version 7 will be backwards compatible with TIP version 6, the current version of TIP, and will contain no less functionality than that contained in TIP version 6.

3. COMMITMENTS REGARDING OPEN SOURCE LIBRARY AND OPEN SOURCE LICENSING

3.1 Cisco will publish a source code library for its TIP version 7, which will be made available under an open source license. Cisco will publish the source code library as soon as possible after the Effective Date, but not later than 1 July 2010. Work beyond that point would take place under an open source structure, in which interested developers propose improvements to the code library. Cisco will request that the IMTC or other Independent Industry Body assume stewardship over the source code library for TIP version 7. Cisco would participate in the open source development effort along with other interested developers. The open source license Cisco anticipates using is the Apache Software Foundation's Apache License, Version 2.0, available here: http://www.apache.org/licenses/. The source code Cisco distributes under the open source license will contain embedded comments (descriptions and annotations). Developers will be able automatically to generate a HTML manual containing these comments. When it releases the source code for TIP version 7, Cisco will also publish a TIP Version 7 API Guide for programmers.

4. COMMITMENT TO IMPLEMENT TIP

4.1 Beginning on the Effective Date and continuing until a time at least three years after the date on which a Recognized Standard Setting Body adopts an industry standard for multi-screen interoperability, Cisco agrees to implement and support TIP:

(a) as of the Effective Date, on all codecs it ships with the Cisco CTS500, 1000, 1100, 1300, 3000, or 3200 products, or any successor products to any of those products, thereby enabling interoperability with the installed base of Cisco TelePresence endpoints through implementation of TIP on competitive products;

(b) within 90 days following the Effective Date, on the Tandberg Telepresence Server MCU to connect Cisco multi-screen endpoints with competitive single- and multi-screen endpoints; and

(c) no later than 31 December 2010, *(i)* on all other current and future HD-capable MCUs Cisco makes available and promotes for multi-screen interoperability, to connect Cisco multi-screen endpoints with competitive single- and multi-screen endpoints, and *(ii)* natively, on the codecs provided with any new multi-screen, multi-codec videoconferencing endpoint Cisco first makes available for sale after 31 December 2010. The 31 December 2010 date for the implementation of TIP on additional MCUs reflects anticipated testing effort with the large number of Tandberg and third-party endpoints with which MCUs must successfully interoperate.

4.2 As of the Effective Date, Cisco will implement and support the latest version of TIP which Cisco has publicly released. As new versions of TIP are finalized by the IMTC or another Independent Industry Body, Cisco will implement and support those versions as soon as reasonably possible. Cisco will publish and make available for evaluation and licensing updated Implementation Profiles as soon as reasonably possible following the finalization of new versions of TIP.

4.3 Cisco will notify the Commission promptly upon the finalization of an industry standard for multi-screen interoperability.

5. MONITORING TRUSTEE

5.1 APPOINTMENT

5.1.1 A Monitoring Trustee shall be appointed in accordance with the procedure described in Section 5.1.2. The Monitoring Trustee shall be independent of the Parties, possess the necessary experience, competence and qualifications to carry out its mandate and shall neither have nor become exposed to a conflict of interest. In particular, the Monitoring Trustee shall be familiar with standard setting procedures in the IT sector. The Monitoring Trustee shall be remunerated by Cisco in a way that does not impede the independent and effective fulfilment of the Monitoring Trustee's mandate. Cisco will publish the Monitoring Trustee’s name and contact details on the website Cisco uses to describe TIP and its licensing program and will note the Monitoring Trustee’s role in overseeing Cisco’s fulfilment of its obligations under the Commitments.

Proposal by the notifying party

5.1.2 No later than one week after the Effective Date, Cisco shall submit a list of three or more persons whom Cisco proposes to appoint as the Monitoring Trustee to the Commission for approval.

The proposal shall contain sufficient information for the Commission to verify that the proposed Monitoring Trustee fulfils the requirements set out in Section 5.1.1 and shall include:

(a) the full terms of the proposed mandate, which shall include all provisions necessary to enable the Monitoring Trustee to fulfil its duties under these Commitments;

(b) the outline of a work plan, which shall describe how the Monitoring Trustee intends to carry out its duties under these Commitments.

Approval or rejection by the Commission

The Commission shall have the discretion to approve or reject the proposed Monitoring Trustee and to approve the proposed mandate subject to any modifications it deems necessary for the Monitoring Trustee to fulfil its obligations. If only one potential Monitoring Trustee is approved, Cisco shall appoint or cause to be appointed the individual or institution concerned as Monitoring Trustee. If more than one potential Monitoring Trustees are approved, Cisco shall be free to choose the Trustee to be appointed from among the names approved. The Monitoring Trustee shall be appointed within one week of the Commission's approval, in accordance with the mandate approved by the Commission.

New proposal by the notifying party

If none of the Monitoring Trustee candidates suggested by Cisco have been approved, Cisco shall propose at least two more candidates within one week of being informed of the rejection, in accordance with the requirements and procedure set out in the aforementioned rules.

Trustee nominated by the Commission

If all further proposed Trustees are rejected by the Commission, the Commission shall nominate a Trustee, whom Cisco shall appoint, or cause to be appointed, in accordance with a trustee mandate approved by the Commission.

5.1.3 Cisco undertakes not to consummate the Concentration until it has appointed a Monitoring Trustee approved by the Commission.

5.2 MONITORING TRUSTEE'S MANDATE

5.2.1 The Monitoring Trustee shall assume its specified duties in order to ensure compliance with the Commitments. The Commission may, on its own initiative or at the request of the Monitoring Trustee or Cisco, give any orders or instructions to the Monitoring Trustee in order to ensure compliance with these Commitments. The Monitoring Trustee's mandate shall include, in particular, the following responsibilities:

(a) to submit to the Commission a detailed work plan describing how it intends to monitor compliance with the obligations and conditions attached to the Decision within two weeks from the date of appointment of the Monitoring Trustee. In particular, the detailed work plan should include details on how the Monitoring Trustee intends to monitor *(i)* the divestment of Cisco's copyright to TIP and assignment of responsibility for managing and updating TIP to an Independent Industry Body; and *(ii)* the publication of the source code library for TIP version 7 and the assumption of stewardship over the source code library by an Independent Industry Body.

(b) to monitor Cisco’s compliance with the conditions and obligations attached to the Decision;

(c) to deal with complaints on the implementation, monitor the setting up of the Independent Industry Body and report to the Commission in particular on the appropriateness of the structure of the Independent Industry Body;

(d) to propose to Cisco such measures as the Monitoring Trustee considers necessary to ensure Cisco’s compliance with the conditions and obligations attached to the Decision;

(e) to advise and make a written recommendation to the Commission as to Cisco’s compliance with the conditions and obligations attached to the Decision;

(f) to provide to the Commission a report on 1 July and 31 December of every year during the term of the Commitments as indicated in Section 6.3 of these Commitments, sending Cisco a non-confidential copy at the same time, on: (a) the progress of the discharge of the Monitoring Trustee's mandate, identifying any respects in which the Monitoring Trustee has been unable to discharge its mandate; and (b) the progress made by Cisco to comply with the conditions and obligations attached to the Decision.

(g) The Monitoring Trustee shall promptly also report in writing to the Commission, sending Cisco a non-confidential copy at the same time, if it concludes on reasonable grounds that Cisco is failing to comply with these Commitments;

(h) to mediate any disagreements relating to the execution of the Commitments; if mediation is agreed to by the other party or parties to the disagreement in question, and submit a report upon the outcome of the mediation to the Commission; and

(i) at any time, to provide to the Commission, at its request, a written or oral report on matters falling within the scope of these Commitments.

(j) to submit promptly to the Commission a report once it considers that a Recognised Standard Setting Body has adopted an open standard for multi-screen interoperability.

5.2.2 The reports provided for in Section 5.2.1 shall be prepared in English.

5.2.3 Cisco shall provide the Monitoring Trustee with such assistance and information, including copies of all relevant documents, as the Monitoring Trustee may reasonably require in carrying out its mandate.

5.2.4 The Monitoring Trustee shall have full and complete access to any of Cisco's books, records, documents, management or other personnel facilities, sites, technical information necessary for fulfilling its duties and Cisco shall provide the Monitoring Trustee upon request with copies of any document.

5.2.5 Cisco shall indemnify the Monitoring Trustee (and, where appropriate, its employees and agents) (each an Indemnified Party) and hold each Indemnified Party harmless, and hereby agrees that an Indemnified Party shall have no liability to Cisco for any liabilities arising out of the performance of the Monitoring Trustee's duties under the Commitments, except to the extent that such liabilities result from the wilful default, recklessness, gross negligence or bad faith of the Monitoring Trustee (or, where appropriate, its employees, advisors and agents).

5.2.6 At Cisco's expense, the Monitoring Trustee may appoint advisors, subject to the Commission's prior approval, if the Monitoring Trustee considers the appointment of such advisors necessary for the performance of its duties under the mandate, provided that any fees and other expenses incurred by the Monitoring Trustee are reasonable. Only the Monitoring Trustee shall be entitled to issue instructions to the advisors. Paragraph 5.2.5 shall apply mutatis mutandis.

5.3 TERMINATION OF MANDATE

5.3.1 If the Monitoring Trustee ceases to perform its functions under the Commitments or for any other good cause, including the exposure of the Monitoring Trustee to a conflict of interest:

(a) the Commission may, after hearing the Monitoring Trustee, require Cisco to replace the Monitoring Trustee; or

(b) Cisco, with the prior approval of the Commission, may replace the Monitoring Trustee.

5.3.2 If the Monitoring Trustee is replaced, the Monitoring Trustee may be required to continue in its function until a new Monitoring Trustee is in place to whom the Monitoring Trustee has affected a full hand over of all relevant information. The new Monitoring Trustee shall be appointed in accordance with the procedure referred to Section 5.1.2.

5.3.3 Aside from being removed in accordance with Section 5.3.1, the Monitoring Trustee shall cease to act as Monitoring Trustee only after the Commission has discharged it from its duties after all the Commitments with which the Monitoring Trustee has been entrusted have been implemented. However, the Commission may at any time require the reappointment of the Monitoring Trustee if it subsequently appears that the Commitments might not have been fully and properly implemented.

5.3.4 Without prejudice to Cisco's general right to seek a review under Section 7 of these Commitments, upon request by Cisco, the Commission shall consider whether to discharge the Monitoring Trustee from its duties once it is satisfied that Cisco has fulfilled its obligations under Sections 1, 2 and 3 of the Commitments, and has continuously met its obligations under Section 4 until such a request has been made.

6. GENERAL PROVISIONS

6.1 If the Concentration is abandoned, abrogated, unwound, not approved or disapproved by a relevant Government Authority, or otherwise terminated, then these Commitments shall automatically cease to apply.

6.2 If the approval of the Concentration by another governmental authority is made subject to requirements that are potentially inconsistent with these Commitments, Cisco may request a review and adjustment of these Commitments in order to avoid such inconsistencies.

6.3 The term of these Commitments shall be either (a) five years from the date of the adoption of the Decision; or (b) three years after a Recognized Standard Setting Body has adopted an open standard for multi-screen interoperability, whichever is shorter.

7. REVIEW SECTION

7.1 The Commission may, where appropriate, in response to a request from Cisco showing good cause and accompanied by a report from the Monitoring Trustee:

(a) Grant an extension of the time periods foreseen in the Commitments, or

(b) Waive, modify or substitute, in exceptional circumstances, one or more of the undertakings in these Commitments.

7.2 Where Cisco seeks an extension of a time period, it shall submit a request to the Commission no later than one month before the expiry of that period, showing good cause. Only in exceptional circumstances shall Cisco be entitled to request an extension within the last month of any period.

24 March 2010

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duly authorized to act for and on behalf of Cisco Systems Inc.

Annex 1

Telepresence Interoperability Protocol (“TIP”) License

Published March 2010

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The TIP Specification provides a protocol for interoperability between videoconferencing products, including streaming of audio, video, and data to and from videoconferencing products. We offer this license to encourage interoperability between competitive videoconferencing products that exist as of the date of this license or that may come to exist in the future. The TIP Implementation Profiles (“Profiles”) offer additional information regarding Cisco’s implementation of the TIP Specification, and are intended to facilitate interoperability with Cisco TelePresence products. The TIP Specifications and the Profiles are referred to collectively as the “TIP Documents”.

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“Essential Claim” means a claim of a patent, whether or not issued as of the date of this Agreement, that is necessarily infringed by implementing the required portions of the TIP Specification or any aspect of the Profiles that is required for interoperability with a Cisco TelePresence product. A claim is necessarily infringed only when there is no technically or commercially reasonable way to avoid infringement of that claim when following the requirements of the Specification or Profiles to make a Compliant Implementation. Notwithstanding the foregoing, Essential Claim does not include any claim that, if licensed, would require a payment of royalties by the licensor to a person or entity that is not affiliated with the licensor.

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Annex 2

Telepresence Interoperability Protocol ("TIP") and Implementation Profiles

Evaluation License

Published March 2010

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