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**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)
)
Global Crossing Limited and Level 3)
Communications, Inc., Application for Consent)
to Transfer Control of Authority to Provide)
Global Facilities-Based and Global Resale) IB Docket No. 11-78
International Telecommunications Services and)
of Domestic Common Carrier Transmission)
Lines, Pursuant to Section 214 of the)
Communications Act, as Amended)
)
Level 3 Communications, Inc., Petition for)
Declaratory Ruling Under Section 310(b)(4))
Of the Communications Act of 1934, as)
Amended)

COMMENTS OF XO COMMUNICATIONS, LLC

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SUMMARY

The Application and Petition filed by Level 3 Communications, Inc. (“Level 3”) and Global Crossing Limited (“GCL”) (jointly, the “Applicants”) involves the proposed combination of various communications assets. Of these, XO Communications, LLC (“XO”) contends that the horizontal combination of the Tier 1 Internet backbone assets of the Applicants raises the greatest concern. By bringing together the two leading Internet backbone providers (“IBPs”), the transaction will create a “global colossus” that will dominate the market, leading to significantly higher prices and decreased service quality and innovation for all other IBPs and their customers. The Commission, along with the Department of Justice, have a history of carefully scrutinizing the competitive effects (and, for the Commission, public interest implications) of proposed transactions in the Tier 1 Internet backbone market (“Tier 1 Market”) – and either rejecting or conditioning them – because of concerns about market dominance. It should take similar action in regard to this Application and Petition.

One of the most important markets within the Internet eco-system is the Tier 1 Market, where IBPs offer high-capacity, long-haul facilities and exchange traffic directly with each other (peered traffic) or with Internet Service Providers, enterprise customers, content delivery networks, and other customers (transit traffic). Today, the Tier 1 Market, although characterized by significant barriers to entry, is generally considered competitive, where no firm’s share is disproportionately greater than the others. In that market, the Applicants are direct competitors and the two leading firms, both with substantial market shares. Thus, the transaction involves the horizontal combination of assets of the two leading firms in the market, greatly increasing industry concentration – a concern that is further heightened because of the industry’s critical network effects. Post-transaction the Tier 1 Market would be

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transformed from rough equality into one where the leading provider – the combined Level 3/GCL – would have substantial market power and dominate other IBPs and their customers.

In his White Paper attached to these comments, Professor William Rogerson supports this conclusion:

[T]he effect of the transaction will be to create a dominant firm that is disproportionately large relative to other firms in the market and will thus create a danger of tipping. This reduction in competition between IBPs will result in higher prices and reduced innovation.

These concerns become even greater because having a fully competitive Tier 1 Market is fundamental to the health and well-being of the Internet. End-users would be in particular jeopardy as the combined Level 3/GCL threatens to cut off other IBPs and their customers if they do not pay increased fees to exchange traffic.

In these comments, XO analyzes the Tier 1 Market in depth and demonstrates, relying on the analysis of Professor Rogerson, Declarations by its own personnel (Randolph Nicklas, XO Chief Technology Officer, and Marcellus Nixon, XO Director of IP Planning), and other sources, that the proposed combination of Level 3 and GCL would result in substantial harm to competition in that market. XO also discusses how this harm would filter down to ISPs and end-users. In sum, XO demonstrates herein that if the proposed combination is permitted, the new firm will be disproportionately (3 times) larger than all other firms in the market, which, given the network effects in this market, creates a real danger of the market “tipping” entirely in its direction.

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Declaration of Randolph Nicklas, CTO, XO Communications, LLC

Declaration of Marcellus Nixon, Director of IP Planning, XO Communications, LLC

White Paper of William Rogerson, Professor of Economics, Northwestern University

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COMMENTS OF XO COMMUNICATIONS, LLC

Pursuant to the Public Notice issued by the Federal Communications Commission ("FCC" or "Commission") in the above-captioned proceeding on June 9, 2011,¹ XO Communications, LLC ("XO"), by their attorneys, hereby files its comments on the applications filed by Global Crossing Limited ("GCL") and Level 3 Communications, Inc. ("Level 3") (jointly, the "Applicants") for consent to transfer control, pursuant to Sections 214 and 310(d) of the Communications Act, as amended (the "Act")² and Sections

¹ Application Filed for the Transfer of Control of Global Crossing Limited to Level 3 Communications, Inc., Pleading Cycle Established, DA 11-1019 (rel. June 9, 2011). Specific file numbers related to the proposed transaction are hereby incorporated by reference.

² 47 U.S.C. §§ 214, 310(d).

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34 through 39 of the Cable Landing License Act,³ of various subsidiaries of GCL holding domestic and international Section 214 authorizations, cable landing licenses, and satellite earth station licenses to Level 3. XO also comments on the petition filed by Level 3 pursuant to Section 310(b)(4), requesting a declaratory ruling that it would serve the public interest to permit indirect foreign ownership of certain Level 3 subsidiaries holding common carrier wireless and earth station licenses in excess of the 25 percent foreign ownership benchmark.

XO provides communications services domestically and internationally over extensive wireline and wireless facilities it owns directly and leases either on a short or long-term basis. Of greatest relevance to this proceeding, XO operates a fully peered Tier 1 IP (Internet) network with more than 100 private and public peering relationships. It exchanges traffic with peers in ten metropolitan areas in the United States and in 4 locations in Europe and 1 in Asia.⁴ As such, it is highly knowledgeable about that market, and, in these comments, it discusses in depth the competitive and other public interest harms that will arise if the Commission approves the proposed combination of Level 3 and GCL.

I. INTRODUCTION

The Internet has evolved from a government created and relatively limited domestic network into a series of interconnected high-performance private networks providing global

³ 47 U.S.C. §§ 34-39.

⁴ See attached Declaration of Marcellus Nixon, Director of IP Network Planning, XO Communications, LLC, ¶¶ 5-6 (“Nixon Declaration”) and attached Declaration of Randolph Nicklas, Chief Technology Officer, XO Communications, LLC, ¶ 4 (“Nicklas Declaration”).

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reach that are crucial to commerce, social interaction, and political discourse. Within that infrastructure, firms offer services in different product and geographic markets and have developed a variety of relationships enabling the exchange of traffic among them. One of the most important markets⁵ within the Internet eco-system is the Tier 1 Internet backbone market (“Tier 1 Market”), where providers (Internet Backbone providers (“IBPs”)) offer high-capacity, long-haul facilities and exchange traffic directly with each other (“peered traffic”⁶) or with Internet Service Providers (“ISPs”), enterprise customers, content delivery networks (“CDNs”), and other customers (“transit traffic”⁷). Today, the Tier 1 Market, although characterized by significant barriers to entry, is generally considered competitive, where no firm’s share is disproportionately greater than the others. In that market, the Applicants are direct competitors and the two leading firms, both with substantial market shares. As recently characterized by a senior officer of GCL, “Renesys [a business consulting firm], has posted its annual year-end rankings of global Internet providers. Interestingly, Level 3 remains the

⁵ Another key market in which the Applicants participate is the local or regional broadband Internet access market, where ISPs provide connectivity to end-users and hand-off Internet traffic to other providers. However, their share of the broadband Internet access market prior to the proposed transaction is not that significant and will not change perceptibly post-transaction.

⁶ A “peering” relationship is between two parties for the purpose of each party exchanging traffic only for routes on the other party’s network and not to forward traffic to routes on another party’s network. Peering may be on a settlement-free (no cost) basis or on a paid basis.

⁷ A “transit” relationship is between two parties for the purpose of one party obtaining IP connectivity to the other party so that its traffic can be carried to a specified set of remote locations on the Internet or the entire Internet. The first party pays for such connectivity and the ability to exchange traffic.

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undisputed global leader, Global Crossing is second, advancing ahead of Sprint.”⁸ Thus, the transaction involves the horizontal combination of assets of the two leading firms in the market, greatly increasing industry concentration – a concern that is further heightened because of the industry’s critical network effects. Perhaps Renesys best summed up the competitive concern with the proposed combination when it concluded that the new entity, “Level Crossing,” would be a “global colossus.”⁹ In other words, post-transaction the Tier 1 Market would be transformed from rough equality into one where the leading provider – “Level Crossing” – would have substantial market power and dominate other IBPs and their customers. In his White Paper attached to these comments, Professor William Rogerson supports this conclusion:

[T]he effect of the transaction will be to create a dominant firm that is disproportionately large relative to other firms in the market and will thus create a danger of tipping. This reduction in competition between IBPs will result in higher prices and reduced innovation.¹⁰

These concerns become even greater because having a fully competitive Tier 1 Market is fundamental to the health and well-being of the Internet. End-users would be in particular jeopardy as the new “Level Crossing” threatens to cut off other IBPs and their customers if they do not pay increased fees to exchange traffic.

⁸ Global Crossing Blog Central, Paul Kouroupas, Security Officer & Vice President Regulatory Affairs, Global Crossing Limited, Jan. 12, 2011, available at: <http://blogs.globalcrossing.com/?q=category/tags/level-3>.

⁹ Renesys Blog, Level Crossing, Apr. 14, 2011, available at:

<http://www.renesys.com/blog/2011/04/level-crossing.shtml> (“Renesys Blog”).

¹⁰ *Competitive Effects of the Proposed Level 3 Communications-Global Crossing Limited Transaction* at 3-4, White Paper by William P. Rogerson, Professor of Economics, Northwestern University, attached to these comments (“Rogerson Paper”).

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In these comments, XO analyzes the Tier 1 Market in depth and demonstrates, relying on the analysis of Professor Rogerson, Declarations by its own personnel (Randolph Nicklas, XO Chief Technology Officer, and Marcellus Nixon, XO Director of IP Planning), and other sources, that the proposed combination of Level 3 and GCL would result in substantial harm to competition in that market. XO also discusses how this harm would filter down to ISPs and end-users. In sum, XO demonstrates herein that if the proposed combination is permitted, the new firm will be disproportionately (3 times) larger than all other firms in the market, which, given the network effects in this market, creates a real danger of the market “tipping” entirely in its direction.

II. STANDARD OF REVIEW

Pursuant to Sections 214(a) and 310(d) of the Act, and Sections 34 through 39 of the Cable Landing License Act,¹¹ the Commission may not approve the proposed transfer of control of the GCL subsidiaries holding FCC licenses and authorizations to Level 3 unless it is persuaded that the proposed transaction will serve the public interest, convenience and

¹¹ The Cable Landing License Act provides that approval of a license application may be granted “upon such terms as shall be necessary to assure just and reasonable rates and service.” 47 U.S.C. § 35. The Commission does not conduct a separate public interest analysis under this statute. *See, e.g., SBC Communications, Inc. and AT&T Corp. Applications for Approval of Transfer of Control*, Memorandum Opinion and Order, 20 FCC Rcd 18290, 18300 n.59 (2005) (“*SBC-AT&T Order*”); *Verizon Communications Inc. and MCI, Inc. Applications for Approval of Transfer of Control*, Memorandum Opinion and Order, 20 FCC Rcd 18433, 18442 n.58 (2005) (“*Verizon-MCI Order*”); *Application of WorldCom, Inc. and MCI Communications Corporation for Transfer of Control of MCI Communications Corporation to WorldCom, Inc.*, Memorandum Opinion and Order, 13 FCC Rcd 18025 (1998) (“*WorldCom-MCI Order*”).

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necessity.¹² Applicants bear the burden of proving, by a preponderance of the evidence, that the proposed transaction serves the public interest.¹³ The Commission’s review of a proposed merger under the public interest standard, while informed by consideration of the competition policies underlying the Clayton Act, necessarily extends beyond the traditional scope of antitrust review.¹⁴

The likely effect of a proposed merger on the development of competition in relevant markets is the primary touchstone by which proposed mergers are judged. In performing its review, the Commission must consider whether the merger will “accelerate the decline of market power by dominant firms” in the relevant communications market and its “effect on future competition.”¹⁵ To find that a merger is in the public interest, the Commission has

¹² 47 U.S.C. §§ 214(a), 310(d). Section 310(d) of the Act, 47 U.S.C. § 310(d), requires the Commission consider applications for transfer of Title III licenses under the same standard as if the proposed transferee were applying for licenses directly under section 308 of the Act, 47 U.S.C. § 308. *See, e.g., AT&T Inc. and BellSouth Corporation Application for Transfer of Control*, Memorandum Opinion and Order, 22 FCC Rcd 5662, 5672 (¶ 19) (2007) (“*AT&T-BellSouth Order*”).

¹³ *See, e.g., Applications filed by Qwest Communications International Inc. and CenturyTel, Inc. d/b/a CenturyLink for Consent to Transfer Control*, Memorandum Opinion and Order, 24 FCC Rcd 4194, 4199 (¶ 7) (2011) (“*CenturyLink-Qwest Order*”); *AT&T-BellSouth Order*, 22 FCC Rcd at 5672 (¶ 19).

¹⁴ *See, e.g., CenturyLink-Qwest Order*, 24 FCC Rcd at 4199-200 (¶ 9).

¹⁵ *See, e.g., CenturyLink-Qwest Order*, 24 FCC Rcd at 4199-200 (¶ 9); *Applications of Cellco Partnership d/b/a Verizon Wireless and Atlantis Holdings LLC for Consent to Transfer Control of Licenses, Authorizations, and Spectrum Manager and De Facto Transfer Leasing Arrangements and Petition for Declaratory Ruling that the Transaction is Consistent with Section 310(b)(4) of the Communications Act*, Memorandum Opinion and Order and Declaratory Ruling, 23 FCC Rcd 17444, 17462 (¶ 28) (2008) (“*Verizon Wireless-Alltel Order*”); *Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corp. For Consent to Transfer Control of Licenses and Authorizations*, Memorandum Opinion and Order, 19 FCC Rcd 21522, 21544-45 (¶ 42) (2004) (“*Cingular-AT&T Wireless Merger Order*”).

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emphasized that it “must be convinced that it will enhance competition.”¹⁶ A merger will be pro-competitive if the “harms to competition are outweighed by the benefits that enhance competition.”¹⁷ Applicants carry the burden of showing that the proposed merger will not eliminate potentially significant sources of competition.¹⁸ The Commission has observed that “[w]hen facing a changing regulatory environment that reduces barriers to entry, firms that otherwise would compete directly may, as one possible strategic response, seek to cooperate through merger.”¹⁹ Consequently, Applicants must provide that, on balance, the merger will “enhance and promote, rather than eliminate or retard, competition.”²⁰ If Applicants cannot carry this burden, their Application must be denied.²¹

A common circumstance is that the same consequences of a proposed merger that may be beneficial in one sense will be harmful in another. Even if Applicants could show that combining assets may allow the merged entity to reduce transaction costs or introduce new products, the combination may also enhance market power, barriers to entry by potential competitors, or opportunities to disadvantage rivals in anti-competitive ways.²² Applicants bear the burden of overcoming such anti-competitive effects. In considering whether Applicants have made such a showing, the Commission has stated that the unilateral and

¹⁶ *Applications of NYNEX Corp. and Bell Atlantic Corp. For Consent to Transfer Control of NYNEX Corporation and Its Subsidiaries*, Memorandum Opinion and Order, 12 FCC Rcd 19985, 19987 (¶ 2) (1997) (“*NYNEX-Bell Atlantic Merger Order*”).

¹⁷ *Id.*

¹⁸ *Id.*, ¶ 3.

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.*, ¶ 2.

²² *Cingular-AT&T Wireless Merger Order*, 19 FCC Rcd at 21544-45 (¶ 42).

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coordinated effects of a proposed merger are mitigated by competitive forces only to the extent that barriers to entry or expansion are sufficiently low that competitors would “expand or enter with sufficient strength, likelihood and timeliness to render unprofitable an attempted exercise of market power resulting from the merger.”²³ It is not enough for Applicants to show that the anti-competitive effects of a merger are counterbalanced in part by potential pro-competitive effects; their burden is to show that their transaction has the ultimate effect of “affirmatively advancing competition throughout the region.”²⁴

In determining whether a proposed transaction will serve the public interest, convenience and necessity under Sections 214 and 310(d) of the Act, the Commission considers factors in addition to the competitive impact of the transaction. Most notably, when the transaction involves foreign investment, the Commission will consider any national security, law enforcement, foreign policy, or trade concerns presented by the transaction.²⁵ In addition, the FCC will consider any national security, law enforcement, foreign policy, or trade concerns raised by the Executive Branch. In assessing the public interest impact of any national security, law enforcement, foreign policy, or trade concerns, the Commission considers the record and accords the appropriate level of deference to Executive Branch expertise on these issues.²⁶ National security, law enforcement, foreign policy, or trade

²³ *NYNEX-Bell Atlantic Merger Order*, 12 FCC Rcd at 19991-92 (¶ 11).

²⁴ *Id.*, ¶ 14.

²⁵ *See Rules and Policies on Foreign Participation in the U.S. Telecommunications Market*, Report and Order and Order on Reconsideration, 12 FCC Rcd 23891, 23918-21, ¶¶ 59-66 (1997) (“*Foreign Participation Order*”).

²⁶ *Id.*; see *Applications of Cellco Partnership d/b/a Verizon Wireless and AT&T, Inc. For Consent to Assign or Transfer Control of Licenses and Authorizations and Request for Declaratory Ruling on Foreign Ownership*, Memorandum Opinion and Order and

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concerns are also relevant to the Commission’s decision to grant or deny a petition for declaratory ruling under Section 310(b)(4) of the Act.²⁷

Finally, as a pre-condition to approval of any proposed merger, Section 214(c) of the Act authorizes the Commission to impose “such terms and conditions as in its judgment the public convenience and necessity may require.”²⁸ This enables the Commission to impose and enforce transaction-specific conditions on its approval of any such transaction.²⁹ In using this broad authority, the Commission has generally imposed conditions to remedy specific harms or confirm specific benefits likely to arise from transactions and that are related to the Commission’s responsibilities under the Act and related statutes.³⁰

Declaratory Ruling, 25 FCC Rcd 10985, ¶ 93, n. 293 (2010) (“*Verizon Wireless-AT&T Order*”), citing *Foreign Participation Order* at 23918-21.

²⁷

Id.

²⁸

47 U.S.C. § 214(c); see also *CenturyLink-Qwest Order*, 24 FCC Rcd 4200-201 (¶ 10); *Verizon Wireless-Alltel Order*, 23 FCC Rcd at 17463 (¶ 29); *Applications for Consent to the Transfer of Control of Licenses, XM Satellite Radio Holdings, Inc., Transferor, To Sirius Satellite Radio Inc., Transferee, MB Docket No. 07-57*, Memorandum Opinion and Order, 23 FCC Rcd 12348, 12366 (¶ 33) (2008) (“*XM-Sirius Order*”); *AT&T-BellSouth Order*, 22 FCC Rcd at 5674 (¶ 22).

²⁹

See, e.g., *CenturyLink-Qwest Order*, 24 FCC Rcd 4200-201 (¶ 10); *Cingular-AT&T Wireless Merger Order*, 19 FCC Rcd at 21545-46 (¶ 43); *Verizon Wireless-Alltel Order*, 23 FCC Rcd at 17463 (¶ 29); *XM-Sirius Order*, 23 FCC Rcd at 12366 (¶ 33); *AT&T-BellSouth Order*, 22 FCC Rcd at 5674 (¶ 22); see also *Schurz Communications, Inc. v. FCC*, 982 F.2d 1043, 1049 (7th Cir. 1992) (discussing Commission’s authority to trade off reduction in competition for increase in diversity in enforcing public interest standard).

³⁰

See, e.g., *CenturyLink-Qwest Order*, 24 FCC Rcd 4200-201 (¶ 10); *Verizon Wireless-Alltel Order*, 23 FCC Rcd at 17463 (¶ 29); *XM-Sirius Order*, 23 FCC Rcd at 12366 (¶ 33); *AT&T-BellSouth Order*, 22 FCC Rcd at 5674 (¶ 22).

III. THE PROPOSED COMBINATION OF INTERNET BACKBONE NETWORKS AND OPERATIONS WOULD PRODUCE SIGNIFICANT COMPETITIVE HARMS IN THE TIER 1 INTERNET BACKBONE MARKET

A. Introduction to the Internet Backbone Market and the Market Participants

Over the past 15 years, the use of the Internet has exploded, both in terms of users connected and the traffic carried. Today, in the United States, there are approximately 75 million fixed Internet subscriptions (in contrast to less than 10 million a decade ago), representing over 60% of the potential demand.³¹ With the evolution of smartphones, wireless Internet access too has exploded, with revenues rising from virtually zero a decade ago to approximately \$50 billion today.³² The same growth trends are present in most markets around the world. The growth in individuals accessing the Internet has been accompanied by even greater growth in Internet traffic, especially with subscribers accessing greater amounts of video content. In the United States alone, Internet backbone traffic has grown from less than 100,000 terabytes per month in 2000 to more than 2 million terabytes per month today.³³ This level of connectivity and usage is a testament to the importance of the Internet for commerce, social interaction, and political discourse.

The dramatic growth in the Internet is built upon and due to a large number of primarily commercially owned and operated interconnected networks exchanging traffic

³¹ Overview of recent changes in the IP interconnection ecosystem, analysys mason, May 2001, at 9, available at: http://www.analysysmason.com/About-Us/News/Insight/Insight_Internet_connection_Jun2011/ (“analysys report”).

³² CTIA, Wireless Quick Fact, available at: http://www.ctia.org/media/industry_info/index.cfm/AID/10323.

³³ analysys report, at 6.

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through peering (directly connected to all other networks) or transiting (indirectly connected) agreements. There is no central organizing authority – just service provider networks of different types and sizes entering into agreements to exchange traffic.³⁴ Each network is called an autonomous system (“AS”) and has a unique address with relevant routing information.³⁵

This intertwined network structure has evolved from being relatively hierarchical into a more complex framework to meet the expansive and burgeoning demands of end-users and content and applications providers. As noted in the attached Declaration by XO’s Director of IP Network Planning, “the Internet backbone market has changed considerably, primarily due to the growth and evolution of CDNs...[and] an increase in traffic exchange with and among secondary tier IBPs and by peering among ISPs.”³⁶ Yet, he concludes, “Tier 1 IBPs are required and necessary to enable traffic to be exchanged with other Internet backbone networks and their customers throughout the world.”³⁷ They alone ensure all AS’s have connectivity to all other AS’s.³⁸ In other words, the top level structure of the Internet remains intact and continues to be relied upon for critical global connectivity of the Internet. As noted above and as a testament of the importance of the Tier 1 Market, backbone traffic has grown dramatically. For XO itself, peering traffic has been increasing significantly, doubling annually for the past 4 years.³⁹ End-users still utilize their ISPs to access the Internet; ISPs

³⁴ See, Nicklas Declaration, ¶ 5, where he calls the Internet “a confederation of service provider networks that choose to exchange traffic.”

³⁵ *Id.*

³⁶ Nixon Declaration, ¶¶ 16-17.

³⁷ *Id.*, ¶ 17.

³⁸ Nicklas Declaration, ¶ 7.

³⁹ Nixon Declaration, ¶ 8.

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generally transit traffic to IBPs; and, IBPs peer among themselves, directly exchanging traffic without any intermediate provider.

In particular, despite the advent of private and secondary peering, IBPs continue to play an essential role in the Internet eco-system. They alone have national and global connectivity. Because of their direct connections, transmissions over IBP networks provide higher-performance and ensure greater quality. IBPs have and continue to deploy enormous amounts of bandwidth, which can be used by ISPs, content providers, and CDNs.⁴⁰

IBPs can be divided among the largest providers (Tier 1), which have the most extensive and capable networks, serving for instance all Internet exchange points in the United States. They also have the most routes directly connected to their networks, perhaps the most critical factor in determining leverage. The Tier 1 IBPs as a rule exchange traffic on a settlement-free basis. IBPs with smaller networks pay for peering.

⁴⁰ The analysis report (at 3) discusses new interconnection developments among entities in the Internet eco-system. One development is the growing importance of Internet Exchange Points (“IXPs”), common locations around the world where entities can exchange traffic. The report finds that IXPs benefit peers and transit customers by improving the quality of service and reducing traffic carry costs but can marginalize IBPs because they enable their customers to interconnect directly. A second development is that ISPs and content providers “route around” IBPs (secondary peering arrangements) and, as a result, IBPs have adapted by selling only “partial transit.” Peering relationships too have evolved. XO agrees these developments are occurring. They, however, do not alter the continued importance of IBPs and the Tier 1 Market and thus should be considered complementary. CDNs, for instance, may have some direct peering arrangements, but they are limited, and CDNs still rely on IBPs to transmit a large majority of their traffic. XO knows this first-hand since CDNs are among XO’s largest transit customers. (Nixon Declaration, ¶ 7) In sum, without the geographic footprint that IBPs have and their direct connections, ISPs and CDNs can re-route or otherwise interconnect but only with limited success.

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Peering and transiting arrangements are handled privately without government oversight, except, as discussed below, when mergers occur that have significant implications for competition. Peering agreements set forth conditions about infrastructure and routing requirements, including the need to have comparable traffic volumes and ratios and network coverage. Agreements are rigorously enforced, and an IBP will have to pay for peering (and possibly become de-peered) if it does not continue to fulfill the conditions.⁴¹

IBPs may post or otherwise notify other providers about the specific terms and conditions of their peering and transiting policies. However, practices vary, which in XO's experience has an impact on the market.⁴² For instance, the specific terms of AT&T's peering policy can be found on its website.⁴³ This enables an IBP or potential IBP to understand precisely what it needs to do to remain or become a settlement-free peer. GCL, while not posting a peering policy, does make a specific policy available upon request. In contrast, Level 3's posted peering policy is only a general statement without specific terms.⁴⁴ In essence, it is an invitation to negotiate but without any knowledge of the prerequisites to become a settlement-free peer. XO has asked Level 3 to provide a specific peering policy but has never received one.⁴⁵ As a result, it is "difficult to understand and meet the requirements to peer with Level 3" and it "leads to requirements changing without notice and being imposed arbitrarily."⁴⁶

⁴¹ Nixon Declaration, ¶ 9.

⁴² XO's peering policy is available at: <http://www.xo.com/peering>.

⁴³ See, <http://www.corp.att.com/peering/>.

⁴⁴ See, <http://www.level3.com/en/Products-and-Services/data-and-internet/internet-services/IP-Traffic-Exchange.aspx>.

⁴⁵ Nixon Declaration, ¶ 15.

⁴⁶ *Id.*

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Disputes about whether two IBPs should continue to exchange traffic on a settlement-free basis occur, largely when the conditions in peering policy are not met and especially as one IBP gains leverage over another because of network effects. That is, the key determinant in a peering battle is whose customers, the entities connected to the IBP, get harmed more because they cannot reach customers on the other network. Eventually, the Tier 1 Market can reach a “tipping point” whereby an IBP has obtained so much market power because it has captured a sufficient number of unique customers to enable it to dictate terms to all or virtually all other IBPs (and raise rates for transit customers as well). XO elaborates on this issue of market power below as it discusses the harms resulting from the proposed combination.

Level 3 and GCL are both Tier 1 peers. So too are Sprint, NTT, TiNet, AT&T, and Verizon. XO also is a Tier 1 peer, although on rare occasion it pays to exchange traffic.

Level 3 and GCL are the #1 and #2 Tier 1 IBPs by a number of benchmarks. These two peers “carry more traffic on the Internet backbone that is ‘on-net’ than any of the other Tier 1 IBPs,” and they “are the two largest global transit providers.”⁴⁷ Moreover, this disparity in traffic carried by Level 3 and GCL, while significant globally, is even more pronounced in the U.S.⁴⁸ Further, by another benchmark – routes served – according to the consulting firm

⁴⁷ Nicklas Declaration, ¶ 10.

⁴⁸ *Id.*

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Renesys,⁴⁹ which ranks IBPs according to the number of Internet routes (globally) to which a provider connects directly – either by itself or with other IBPs – Level 3 has been the leading IBP since it began publishing data in 2008. It has connections to over 40% of the routes on the Internet. GCL also has been in the top tier, and this past year passed Sprint to become the number two provider with connections to over 30% of the routes. NTT, which primarily services Asian routes, connects to approximately 20% of the routes, as does Sprint. Most other IBPs serve fewer than 10% of the routes, and most of these are located in their home countries.

Finally, entry into the Tier 1 Market is “difficult, if not impossible.”⁵⁰ To become a Tier 1 IBP requires the ownership or control of a global network with enormous capacity and interconnected at key traffic exchange locations and extensive customer relationships which generate and receive traffic. As indicated above, Renesys has found that the same entities have been leading Tier 1 IBPs for years.⁵¹ Firms are especially hindered in becoming Tier 1 IBPs because current Tier 1 providers have no incentive to admit them to the club by providing settlement-free interconnection.⁵²

Two firms are often mentioned as having the potential to become a Tier 1 IBP:

Google and Comcast. However, it does not appear that either will soon enter this select group.

⁴⁹ Renesys Blog. Renesys’ route (AS) methodology also involves a proprietary mechanism that weights routes. Its methodology is not related to traffic, which can vary tremendously, for instance, depending upon whether video or some other large file is being transmitted. It also is not related to revenues, which IBPs consider to be highly confidential.

⁵⁰ Nicklas Declaration, ¶ 9.

⁵¹ See, Nixon Declaration, ¶ 18 (“There has not been much change in the rankings by size of these top Tier 1 firms.”).

⁵² Nicklas Declaration, ¶ 9.

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Google, while building a global network, uses it “ for web acceleration – for caching content that will frequently be requested by a high number of Internet users at many locations.”⁵³

Comcast too is building an extensive network, but it is primarily a regional network. This means it lacks the necessary international traffic exchange nodes to become a Tier 1 peer.⁵⁴

B. Competitive Analysis

The proposed combination of Internet backbone assets of Level 3 and GCL is a horizontal combination of the two leading IBPs in the Tier 1 Market. In the past, the government has been highly concerned about such combinations, mandating divestitures and other remedies to preserve robust competition for the transmission of Internet traffic. XO submits that the Level 3-GCL transaction raises similar concerns and, as proposed by the Applicants, should not be found by the Commission to be in the public interest. In the following sections, XO analyzes the effects of this consolidation first by reviewing the many decisions of government agencies and the economic rationale employed in those decisions. XO then uses that economic rationale to demonstrate that the proposed combination is not in the public interest because it will produce a firm that will dominate the Tier 1 Market, significantly raising prices for transit customers and harming innovation.

1. Prior Decisions by the Commission and Department of Justice

While the government has refrained from imposing unnecessary regulation on the Tier 1 Market, the Commission and the Department of Justice (“DOJ”) have taken a firm stance in

⁵³ Nixon Declaration, ¶ 19.

⁵⁴ *Id.*

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a series of merger reviews against combinations that would harm competition in that market. The following sections review those mergers, focusing particularly on the economic rationale used by the government agencies in their review.

a) WorldCom-MCI Merger

WorldCom, Inc.'s ("WorldCom's) acquisition of MCI Communications ("MCI") in 1998 marked the first time competition authorities had the opportunity to publicly investigate the competitiveness of the Tier 1 Market and how a merger would affect the industry. The economic theory developed in that case was later used by the government agencies in evaluating MCI WorldCom's proposed merger with Sprint and WorldCom's acquisition of Intermedia.

Facts

At the time of their proposed combination, MCI and WorldCom were the nation's two largest providers of Internet backbone service.⁵⁵ In addition, MCI was an ISP.⁵⁶ WorldCom owned three IBPs and a majority share in a fourth, and it also owned a number of the primary network access points where IBPs interconnect.⁵⁷

Issues of Concern

The investigation involved reviews by the FCC, the DOJ, 10 states and the European Commission ("EC").⁵⁸ While the U.S. and the EC⁵⁹ conducted independent investigations,

⁵⁵ Press Release, Dep't of Justice, Justice Department Clears WorldCom/MCI Merger After MCI Agrees to Sell Its Internet Business at 1, (July 15, 1998) ("*DOJ Press Release*"), available at: <http://www.justice.gov/opa/pr/1998/July/329at.html>.

⁵⁶ *WorldCom-MCI Order*, 13 FCC Rcd 18025, 18105 (¶ 143) (1998).

⁵⁷ *Id.*

⁵⁸ See *WorldCom-MCI Order*, 13 FCC Rcd 18025; *DOJ Press Release*; WorldCom/MCI, 1999 O.J. (L 116) 1 (The Commission of the European Communities, Commission Decision of 8 July 1998) ("*EC Decision*") available at:

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they coordinated their review.⁶⁰ The agencies also shared information with each other.⁶¹ The concern of the competition authorities was that without a complete divestiture of MCI's entire Internet backbone and retail operation, the resulting combined entity would have such a large share of the Tier 1 Market that it would have an incentive to disadvantage rival IBPs and impair competition.

The DOJ focused its investigation on the effect the combination would have had upon interconnection and access to the various networks that make up the Internet.⁶² It also examined whether the merger would give rise to market power through the powerful network effects that characterize the Internet.⁶³

The FCC sought to ensure that Internet services, which rely on telecommunications transmission capacity, “remain competitive, accessible and devoid of any entry barriers.”⁶⁴

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1999:116:0001:0035:EN:PDF>.

⁵⁹ The EC completed its investigation first. According to the EC, the combination would have created such a large IBP that it “could behave to an appreciable extent independently of its IBP competitors.” *EC Decision* at ¶ 117. In particular, the EC argued that the combined entity could have raised the costs of its IBP rivals, primarily Sprint and GTE, and engaged in selective price reductions to attract customers from these competitors. Further, the EC contended the merger would raise barriers to entry by new backbone entrants since the merged entity would have even less incentive to peer with them than did WorldCom and MCI prior to the merger.

⁶⁰ *DOJ Press Release* at 2.

⁶¹ *Id.*

⁶² *Network Effects in Telecommunications Mergers – MCI WorldCom Merger: Protecting the Future of the Internet*, Address by Constance K. Robinson before the Practising Law Institute, California at 8 (August 23, 1999) (“*Protecting the Internet*”) available at: <http://www.justice.gov/atr/public/speeches/3889.pdf>.

⁶³ *Id.*

⁶⁴ *WorldCom-MCI Order*, 13 FCC Rcd at 18103-104 (¶ 142).

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Five alleged anti-competitive effects were identified and discussed in the FCC's order.⁶⁵ First, the combination of the Internet backbone networks would create a network of such size that the combined entity would have less incentive to interconnect on favorable terms with other IBPs or ISPs.⁶⁶ Second, the merged entity, taking advantage of its increased size, could unilaterally raise prices for interconnection, by either charging for peering or eliminating peering altogether and converting peers into transit customers, which would ultimately increase end users' prices.⁶⁷ The FCC agreed that the need to enter into peering arrangements may be a substantial barrier to entry.⁶⁸ Third, the combined entity could degrade the quality of service to rivals to induce their rivals' customers to migrate to the combined entity's network.⁶⁹ Fourth, the combined entity could exploit its ISP customers without fear of reprisal because of the difficulty of changing IBPs.⁷⁰ Fifth, any new entrant to this market would have significant costs in terms of network construction and could be refused peering because that new entrant would lack a customer base. Such difficulties would constitute a substantial barrier to entry.⁷¹ IBPs without settlement-free peering arrangements are unable to attract the large customer base they need to obtain peering. IBPs that are unable to secure settlement-free peering arrangements must use transiting arrangements, which increase the costs of providing services to end users and may result in poorer quality transport than that associated with peering. Thus, the likelihood of new entrants mitigating the anti-competitive effects of the

⁶⁵ *WorldCom-MCI Order*, 13 FCC Rcd at 18107-109 (¶ 149-150).

⁶⁶ *WorldCom-MCI Order*, 13 FCC Rcd at 18107 (¶ 149).

⁶⁷ *Id.*

⁶⁸ *WorldCom-MCI Order*, 13 FCC Rcd at 18109 (¶ 150).

⁶⁹ *WorldCom-MCI Order*, 13 FCC Rcd at 18107 (¶ 149).

⁷⁰ *Id.*

⁷¹ *WorldCom-MCI Order*, 13 FCC Rcd at 18108 (¶ 150).

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merger was negligible. The FCC concluded, after examining these effects, that the required divestiture of its Internet backbone service and retail operation by MCI would sufficiently address them.⁷²

It is notable that Level 3 along with several other commenters contended that any divestiture would be inadequate unless the applicants committed to peer with eligible companies on a nondiscriminatory and impliedly settlements-free basis.⁷³ Specifically, in an *ex parte* filing, Level 3 urged the Commission to adopt interconnection principles to ensure that all interconnection agreements between Tier 1 IBPs adhere to certain fundamental interconnection principles, including that interconnection “should be reciprocal and non-discriminatory” and costs should be borne by both parties “on an equitable and non-discriminatory basis.”⁷⁴ Level 3 contended that because divestiture alone would not eliminate MCI WorldCom’s incentive to discriminate, the proper remedy for the potentially discriminatory behavior by WorldCom-MCI is to “require non-discriminatory interconnection (“IP Equal Access”) with all competitors on terms that are comparable to those provided by MCI WorldCom to itself internally or to third parties on comparable interconnection links (“comparably efficient peering or “CEP”).”⁷⁵ Level 3 explained that “IP Equal Access” based on CEP directly addresses the core problem caused by the merger: “the incentive to refuse to interconnect with or to provide interconnection to rivals with fewer customers.”⁷⁶ Further, “IP

⁷² *WorldCom-MCI Order*, 13 FCC Rcd at 18109 (¶ 150), 18111 (¶ 152), 18115 (¶ 156).

⁷³ *WorldCom-MCI Order*, 13 FCC Rcd at 18115 (¶ 155).

⁷⁴ Level 3 *Ex Parte* Presentation in CC Docket No. 97-211 “Proposed Interconnection Principles” (filed June 1, 1998) (“Level 3 *Ex Parte*”).

⁷⁵ *Id.* at 18.

⁷⁶ *Id.*

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Equal Access based on CEP does not penalize MCI WorldCom now or in the future for market share gain obtained by innovation or other legitimate competitive advantages.”⁷⁷ Level 3 explained that its proposed “IP Equal Access based on CEP” is “conceptually similar to remedies that have proven effective in analogous situations for more than 80 years” and provided 14 examples when such analogous remedies that had been previously imposed.⁷⁸ Without such commitment, the merged entity could deny peering, which effectively would allow it to erect a barrier to the entry of IBPs such as Level 3.⁷⁹ The FCC acknowledged its concern about the peering difficulties that Level 3 had raised but found that because MCI had committed to a complete divestiture of its Internet business, the interconnection difficulties would not be exacerbated by the merger.⁸⁰ Nevertheless, the Commission noted that the difficulties new entrants have encountered in interconnecting with IBPs prior to the merger would likely continue after, and therefore, peering is likely to remain an issue that warrants monitoring.⁸¹

Remedy

The WorldCom-MCI merger investigation resulted in the largest divestiture of assets in merger history at that time.⁸² As a result of discussions with the DOJ and EC, MCI announced that it had agreed to sell all of its Internet business.⁸³ The FCC, the DOJ, and the EC allowed WorldCom to keep ownership of its Internet interests. The divestiture was

⁷⁷ *Id.*

⁷⁸ *Id.* at 20-24.

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ *Id.*

⁸² *DOJ Press Release* at 1.

⁸³ *WorldCom-MCI Order*, 13 FCC Rcd at 18109 (¶ 151).

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required to ensure that the merger did not result in the merged entity having any increase in market power. The FCC stated that the “divestiture alleviates any competitive effects that may have arisen from the merger in its original form.”⁸⁴ The DOJ took no formal action⁸⁵ but instead relied on the EC-mandated divestiture.

Economic Rationale for the Decision

The government agencies in basing their finding of competitive harm determined that a sufficiently large IBP may have the ability and incentive to exert market power by threatening to terminate or degrade a peering agreement with smaller backbone rivals, or to charge these rivals for peering, which would then permit the merged entity to raise its rivals’ costs and increase prices for transit services. This occurs because, in a market where the largest providers exchange traffic on a settlement-free basis, if a peering interface is terminated or degraded by the largest IBP, all traffic that flows over that interface cannot reach its destination over alternative paths. As a result, an ISP seeking superior service would be likely switch to the largest IBP, even though transaction costs may reduce the rate of switching. Growth in the relative size of the largest IBP as the result of the merger would further enhance its ability to gain customers, and the market could eventually tip completely to the largest IBP.

Because MCI agreed to completely divest its entire Internet business prior to closing the transaction, the FCC stated that it did not need to decide the relevant market for purposes of evaluating the competitive effects of the merger on any Internet services.⁸⁶ Nevertheless, the FCC stated that it agreed with other commenters that Internet backbone services constitute

⁸⁴ *WorldCom-MCI Order*, 13 FCC Rcd at 18109 (¶ 150).

⁸⁵ *DOJ Press Release*.

⁸⁶ *WorldCom-MCI Order*, 13 FCC Rcd at 18108 (¶ 150).

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a separate relevant product market.⁸⁷ The DOJ and the EC likewise determined that there was a national backbone market.⁸⁸ The FCC also assumed the geographic market is nationwide.⁸⁹

b) MCI Worldcom–Sprint Merger

In November 1999, MCI WorldCom and Sprint filed an application with the FCC for approval to transfer control of certain licenses and authorizations from Sprint to MCI WorldCom in connection with their proposed merger.⁹⁰

Facts

At the time, WorldCom and Sprint were the first and second, respectively, largest Tier1 IBPs in the United States and the world.⁹¹

Issues of Concern

The DOJ filed a complaint to enjoin the merger in June 2000.⁹² The complaint alleged, among other things, that the proposed acquisition would substantially lessen competition in the Internet backbone services market in violation of Section 7 of the Clayton Act.⁹³

⁸⁷ *Id.*

⁸⁸ *Protecting the Internet*, n. 51.

⁸⁹ *Id.*

⁹⁰ *Applications by Sprint Corporation, Transferor, and MCI WorldCom, Inc., Transferee, For Consent to Transfer Control of Corporations Holding Commission Licenses and Authorizations, Pursuant to Section 214 and 310(d) of the Communications Act and Parts 1, 21, 24, 63, 73, 78, 90, and 101*, CC Docket No. 99-333 (filed Nov. 17, 1999).

⁹¹ *See United States of America v. WorldCom, Inc. and Sprint Corporation* (No. COMP/M. 1741-MCI), Complaint, ¶ 4. (June 26, 2000) (*DOJ Complaint*) available at: <http://www.justice.gov/atr/cases/f5000/5051.pdf>.

⁹² *Id.*

⁹³ *Id.*, ¶ 5.

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The DOJ found certain characteristics of Tier 1 IBPs that distinguished them from lower tier IBPs:⁹⁴ (1) Tier 1 IBPs have large nationwide or international networks capable of transporting large volumes of data; (2) Tier 1 IBPs typically maintain private peering relationships with all other Tier 1 IBPs on a settlement-free basis, in contrast to purchasing Internet connectivity (*i.e.*, transit) from any other IBP; (3) lower-tier IBPs that must purchase a significant amount of connectivity from other IBPs operate at substantial cost disadvantages compared to Tier 1 IBPs, which rely exclusively on peering; (4) Tier 1 IBPs have significant competitive advantages compared to lower tier IBPs in their ability to provide higher-quality service through their direct and private interconnections, rather than relying on indirect transit service or on the inferior and congested public interconnection points; (5) many important ISPs and business customers will not purchase Internet connectivity from an IBP unless that IBP maintains direct, private peering connections with most, if not all, Tier 1 IBPs; and (6) Tier 1 IBPs charge higher prices for Internet access than do lower-tier IBPs because they offer distinct value to their customers and are not significantly constrained by the competition of lower-tier IBPs.

Because of these characteristics, the DOJ found that the Tier 1 Market is a separate relevant product market for purposes of Section 7 of the Clayton Act and that these IBPs can be distinguished from other lower tier IBPs.⁹⁵ The DOJ further found that “there are no close substitutes for this connectivity sufficiently close to defeat or discipline a small but significant

⁹⁴ *Id.*, ¶¶ 27-29.

⁹⁵ *Id.*, ¶ 30.

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nontransitory increase in price.⁹⁶ The DOJ also found that the United States is the relevant geographic market for Tier 1 Internet backbone services for purposes of Section 7 of the Clayton Act.⁹⁷

The DOJ described in its complaint how a consolidated MCI WorldCom-Sprint would produce anti-competitive harm. First, the DOJ alleged that the proposed merger threatened to destroy the competitive environment that had created a vibrant, innovative Internet by forming an entity that would have an overwhelmingly disproportionate size advantage over any other IBP.⁹⁸ Second, the DOJ alleged that the proposed transaction would substantially lessen competition by eliminating the second-largest IBP in an already concentrated market as a competitive constraint on the Internet backbone market.⁹⁹ Third, the DOJ claimed that the combined entity would have the incentive and ability to impair the ability of its rivals to compete by, among other things, raising its rivals' costs and/or degrading the quality of its interconnection to its rivals.¹⁰⁰ As a result, rivals would become increasingly dependent upon being connected to the combined entity, and the combined entity would exploit that advantage.¹⁰¹ The DOJ was concerned that such behavior would likely enhance the market power of the combined entity, and ultimately facilitate a “tipping” of the Internet backbone market.¹⁰² As the DOJ explained—

⁹⁶ *Id.*
⁹⁷ *Id.*, ¶ 31.
⁹⁸ *Id.*, ¶ 33.
⁹⁹ *Id.*, ¶ 34.
¹⁰⁰ *Id.*, ¶ 35.
¹⁰¹ *Id.*
¹⁰² *Id.*

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When a single network grows to a point at which it controls a substantial share of the total Internet end user base and its size greatly exceeds that of any other network, network externalities may cause a reversal of its previous incentives to achieve efficient interconnection arrangements with its rival networks. In this context, degrading the quality or increasing the price of interconnection with smaller networks can create advantages for the largest network in attracting customers to its network. . . . Once the market begins to “tip,” connecting to the dominant network becomes even more important to competitors. This, in turn, enables the dominant network to further raise its rivals’ costs, thereby accelerating the tipping effect. As a result of an increase in their costs, rivals may not be able to compete on a long-term basis and may exit the market. If rivals decide to pass on these costs, users of connectivity will respond by selecting the dominant network as their provider. Ultimately, once rivals have been eliminated or reduced to “customer status,” the dominant network can raise prices to users of its own network beyond competitive levels. Once this occurs, restoring the market to a competitive state often requires extraordinary means, including some form of government regulation.¹⁰³

In sum, the DOJ’s concern was that the proposed transaction would substantially enhance the risk that the consolidated entity would have the power to engage in anti-competitive behavior. Whereas in a competitive market Tier 1 IBPs have roughly equal incentives to peer with each other, the merged entity would be so large relative to any other IBP that its interest in providing others efficient and mutually beneficial access to its network would diminish. The DOJ argued that, as a result of the merger, the market power of the combined firm would have been enhanced, thus tipping the Internet backbone market towards monopoly.¹⁰⁴ The DOJ argued that the combined entity would also have had the incentive and the capacity to impair the ability of its rivals to compete by raising its rivals’ costs and/or degrading the quality of its interconnection to them.¹⁰⁵ Moreover, the DOJ contended that

¹⁰³ *Id.*, ¶ 41.

¹⁰⁴ *Id.*, ¶¶ 42-46

¹⁰⁵ *Id.*, ¶ 44.

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entry barriers were already high and the proposed transaction would make them even higher.¹⁰⁶

Remedy

With respect to the Tier 1 Market, the applicants were prepared to divest Sprint's Internet backbone business rather than fight over the competition issues. The critical question in the context of the proposed MCI WorldCom-Sprint merger was whether a voluntary divestiture of Sprint's Internet backbone business would be sufficient to satisfy concerns about competition in the Internet backbone market. In this case, the DOJ never rendered an opinion on the proposed divestiture.¹⁰⁷ The EC, however, rejected the proposal in very strong terms:

Given the high growth of the Internet and the importance attached by consumers to the quality of service, any proposed business for divestiture should be in a position to compete fully and effectively from the date of transfer of ownership. Any difficulty met by the divested entity could result in a limitation to its growth and lead quickly to a relative lowering of its market share. The combination of uncertainties . . . make it highly unlikely that the divested entity would exercise in the short to medium term any competitive constrain [sic] on the parties.¹⁰⁸

In reaching its decision prohibiting the merger, the EC explicitly recognized the existence of caching, mirroring, and multi-homing that had emerged since its review of the WorldCom-MCI merger. But it apparently did not believe that the structure of the Internet and the competitive impact of the proposed merger had been altered significantly by these new forms of interconnection. There was no FCC decision in this case, because as a result of the

¹⁰⁶ *Id.*, ¶ 47.

¹⁰⁷ The applicants never submitted a formal divestiture plan to the DOJ, hence the DOJ did not discuss the competitive consequences of a divestiture in its Complaint.

¹⁰⁸ Commission Regulation (EEC) 4064/89 of 28 June 2000 on WorldCom/Sprint, Case No. COMP/M.1741-MCI, ¶ 339, (*EC Decision*), available at: http://ec.europa.eu/competition/mergers/cases/decisions/ml1741_en.pdf.

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practical difficulties of litigating the proposed merger, the parties abandoned the planned merger in July 2000.¹⁰⁹

c) WorldCom–Intermedia Merger

On September 5, 2000, Intermedia Communications, Inc. (“Intermedia”) entered into a merger agreement with WorldCom.¹¹⁰

Facts

At the time, according to the DOJ, WorldCom was the largest Tier 1 IBP in the world (through its UUNet subsidiary), and Intermedia operated a significant nationwide Internet backbone network.¹¹¹

Issues of Concern

On November 17, 2000, the DOJ filed a civil antitrust complaint alleging that the proposed acquisition of Intermedia by WorldCom would substantially lessen competition in the Tier 1 Market in violation of Section 7 of the Clayton Act.¹¹² The DOJ alleged that based on the current position of UUNet in the market, the increase in UUNet’s size relative to other IBPs as a result of the merger would allow UUNet to charge higher prices for interconnection

¹⁰⁹ See Letter from Sue D. Blumenfeld, Wilkie Farr & Gallagher, and Richard Metzger, jr., Lawler, Metzger & Milkman (Counsel for WorldCom and Sprint) to Magalie Roman Salas, Secretary, FCC, CC Docket No. 99-333 (filed July 13, 2000). The FCC subsequently terminated the proceeding. See *Applications by Sprint Corporation, Transferor, and MCI WorldCom, Inc., Transferee, for Consent to Transfer Control of Corporations Holding Commission Licenses and Authorizations, Pursuant to Section 214 and 310(d) of the Communications Act and Parts 1, 21, 24, 63, 73, 78, 90, and 101*, Order, DA 00-1771 (Aug. 4, 2000).

¹¹⁰ See Dept. of Justice, Antitrust Division, *United States v. WorldCom, Inc. and Intermedia Communications, Inc., Hold Separate Stipulation and Order*, 66 Fed. Reg 2929, 2937 (Jan. 12, 2001) (*Proposed Final Judgment*).

¹¹¹ *Proposed Final Judgment*, 66 Fed. Reg at 2935 (Jan. 12, 2001).

¹¹² *Id.*

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to IBPs, convert non-paying IBPs to paying ones, avoid giving better prices to small Internet backbone providers and lower the quality of interconnection to them.¹¹³ In addition, the DOJ alleged that the proposed merger would enhance the ability of UUNet to control and inhibit successful entry by refusing to interconnect with new entrants or by limiting those connections in order to control the growth of its rivals.¹¹⁴ The DOJ also alleged that the merged company could degrade the quality of interconnection and raise its rivals' costs, thus further preventing entry and expansion by other Internet backbone providers.¹¹⁵ Moreover, the DOJ alleged that because the merged company would have control of public interconnection facilities, its refusal to upgrade these facilities would enable it to limit opportunities for existing rivals and new entrants to build their traffic volumes through "public peering."¹¹⁶

The DOJ found that the Tier 1 Market is a separate relevant product market that can be distinguished from other IBPs.¹¹⁷

Remedy

The DOJ allowed the merger to proceed under the condition that WorldCom divest Intermedia's Internet backbone network within six months of closing the transaction.¹¹⁸ The FCC reviewed the transaction and also raised the issue of raising rivals' costs.¹¹⁹ But, after a

113 *Id.* at 2937.

114 *Id.*

115 *Id.*

116 *Id.*

117 *Id.*

118 *Id.*

119 *Intermedia Communications, Inc. and WorldCom, Inc.*, Memorandum Opinion and Opinion, 16 FCC Rcd 1017, 1020-1021 (¶ 9) (2001).

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review under the public interest standard, the FCC cleared the merger subject to the same divestiture conditions imposed by the DOJ.¹²⁰

Economic Rationale for the Decision

The DOJ’s decision in the WorldCom-Intermedia was based on the same economic theory used in the WorldCom-MCI merger and the proposed MCI WorldCom-Sprint merger.

d) SBC–AT&T Merger and Verizon–MCI Merger

In early 2005, SBC Communications Inc. (“SBC”) and AT&T,¹²¹ and Verizon Communications, Inc. (“Verizon”) and MCI,¹²² each filed a series of applications with the Commission in connection with their respective mergers.

Facts

In evaluating each proposed merger, the Commission found that there likely were between six and eight Tier 1 IBPs based on the definition of Tier 1 backbones that has been used in the past:¹²³ AT&T, MCI, Sprint, Level 3, Qwest, GCL, and likely SAVVIS and Cogent.¹²⁴ Neither SBC or Verizon were considered Tier 1 IBPs at that time, although they were among the largest ISPs.¹²⁵

¹²⁰ *Id.* at 1017 (¶ 1).

¹²¹ *SBC Communications, Inc. and AT&T Corp. Applications for Approval of Transfer of Control*, WC Docket No. 05-65 (filed Feb. 22, 2005).

¹²² *Verizon Communications Inc. and MCI, Inc. Applications for Approval of Transfer of Control*, WC Docket No. 05-75 (filed Mar. 11, 2005).

¹²³ *See SBC-AT&T Order*, 20 FCC Rcd 18290, 18353 (¶ 155) (2005); *Verizon-MCI Order*, 20 FCC Rcd 18433, 18495 (¶ 116) (2005).

¹²⁴ *See SBC-AT&T Order*, 20 FCC Rcd 18290, 18353 (¶ 155) (2005); *Verizon-MCI Order*, 20 FCC Rcd 18433, 18495 (¶ 116) (2005).

¹²⁵ *SBC-AT&T Order*, 20 FCC Rcd at 18355 (¶ 121); *Verizon-MCI Order*, 20 FCC Rcd at 18499 (¶ 125).

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Issues of Concern

Various commenters contended that either of the proposed mergers would threaten the then-current competitive Tier 1 Market¹²⁶ because they would likely result in anti-competitive effects through either unilateral action by the merged entity or possible tipping of the Tier 1 Market to a monopoly or duopoly. However, because neither SBC nor Verizon were considered Tier 1 IBPs, most of the focus was not on the horizontal aspects of the transactions but rather, because both were major ISPs, on the vertical aspects.

For each proposed transaction, consistent with Commission precedent and the DOJ's previous findings, the Commission found that Tier 1 Internet backbone services constituted a separate relevant product market.¹²⁷ Likewise, for each proposed transaction, again consistent with Commission precedent and the DOJ's previous findings, the Commission analyzed the market for Tier 1 IBPs using a national geographic market.¹²⁸

Remedy

The Commission determined that neither merger would likely result in anti-competitive effects in the Tier 1 Market.¹²⁹ The Commission noted that for each transaction, the Applicants had put forward on the record several commitments, which were found to be in

¹²⁶ *SBC-AT&T Order*, 20 FCC Rcd at 18355 (¶ 120); *Verizon-MCI Order*, 20 FCC Rcd at 18497 (¶ 121).

¹²⁷ *SBC-AT&T Order*, 20 FCC Rcd at 18352 (¶ 112); *Verizon-MCI Order*, 20 FCC Rcd at 18494 (¶ 113).

¹²⁸ *SBC-AT&T Order*, 20 FCC Rcd at 18353 (¶ 114); *Verizon-MCI Order*, 20 FCC Rcd at 18495 (¶ 115).

¹²⁹ *SBC-AT&T Order*, 20 FCC Rcd at 18354 (¶ 116); *Verizon-MCI Order*, 20 FCC Rcd at 18496 (¶ 117).

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the public interest.¹³⁰ The commitments related to maintaining settlement-free peering arrangements after the merger, publicly posting peering policies, and complying with the 2005 Internet Policy Statement, which was designed to ensure that broadband networks are widely deployed, open, affordable, and accessible to all consumers.¹³¹ The Commission adopted the commitments as conditions of its approval of each merger.¹³²

Economic Rationale for Decision

Under its horizontal analysis, the Commission examined the relative market shares of the Tier 1 IBPs and concluded that the proposed merger would not create a backbone provider of sufficient size to cause tipping.¹³³ The Commission also found that in the period since the WorldCom-MCI merger, the Tier 1 Market had become less concentrated such that the proposed mergers would not create a dominant Internet backbone provider.¹³⁴

The Commission did not find that the Tier 1 Market was likely to tip to monopoly or duopoly, based either on market share or other factors, such as changes in relative traffic volumes or through targeted de-peering or degraded interconnection. Rather, the Commission stated that it expected a number of Tier 1 IBPs to remain as competitive alternatives to the

¹³⁰ *SBC-AT&T Order*, 20 FCC Rcd at 18351 (¶ 108); *Verizon-MCI Order*, 20 FCC Rcd at 18492 (¶ 109).

¹³¹ *SBC-AT&T Order*, 20 FCC Rcd at 18351 (¶ 108); *Verizon-MCI Order*, 20 FCC Rcd at 18492 (¶ 109).

¹³² *SBC-AT&T Order*, 20 FCC Rcd at 18351 (¶ 108); *Verizon-MCI Order*, 20 FCC Rcd at 18492 (¶ 109).

¹³³ *SBC-AT&T Order*, 20 FCC Rcd at 18355 (¶ 118); *Verizon-MCI Order*, 20 FCC Rcd at 18496 (¶ 119).

¹³⁴ *SBC-AT&T Order*, 20 FCC Rcd at 18355 (¶ 119); *Verizon-MCI Order*, 20 FCC Rcd at 18497 (¶ 120).

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merged entity.¹³⁵ The Commission also stated that it was not persuaded that either merger would increase the Applicants’ incentive and/or ability to raise rivals’ costs. Given the level of competition it expected to remain in the Tier 1 Market, the Commission stated that it was not persuaded that such actions would be viable.¹³⁶

In reviewing the market structure of the backbones in connection with the mergers, the FCC concluded that “[s]o long as there is ‘rough equality’ among IBPs, each has an incentive to peer with the others to provide universal connectivity to the Internet.”¹³⁷

2. Market Definition: Relevant Product and Geographic Market

In addressing the issue of market definition for Internet peering and transiting services most recently, the Commission has found that the provision of Tier 1 backbone constitutes a “separate relevant product market.”¹³⁸ This was based on the Commission’s analysis of the unique attributes of IBPs, including a “high level of ubiquitous service.”¹³⁹ As a result, the Commission concluded that “there are no substitutes for these Tier 1 connectivity services sufficiently close to defeat or discipline a small but significant nontransitory increase in price.”¹⁴⁰

¹³⁵ *SBC-AT&T Order*, 20 FCC Rcd at 18356 (¶ 123); *Verizon-MCI Order*, 20 FCC Rcd at 18498 (¶ 124).

¹³⁶ *SBC-AT&T Order*, 20 FCC Rcd at 18353 (¶ 114); *Verizon-MCI Order*, 20 FCC Rcd at 18495 (¶ 115).

¹³⁷ *See-AT&T Order*, 20 FCC Rcd at 18354 (¶ 117); *Verizon-MCI Order*, 20 FCC Rcd at 18496 (¶ 118).

¹³⁸ *See, e.g. Verizon-MCI Order*, 20 FCC Rcd at 18494, ¶ 113.

¹³⁹ *Id.*

¹⁴⁰ *Id.*

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XO submits that the Commission’s conclusion still holds despite the increased use of other arrangements to exchange Internet traffic, such as secondary or direct peering or use of CDNs. As stated in the attached declarations:

At the top of the Internet AS graph, providing global connectivity for all AS’s, are the Tier I Internet backbone providers (IBPs), which rely exclusively on peering for exchanging traffic and do not purchase transit. They alone, even today, ensure that all routes are covered efficiently. As such, there is no substitute for them.¹⁴¹

The Tier 1 Internet backbone market is a distinct market, where Internet global reach and connectivity are essential. A Tier 1 Internet backbone network is one that reaches every other network on the Internet without transiting through another network.¹⁴²

Thus, the Commission should continue to find that there are no close substitutes for Tier 1 connectivity services, and this constitutes the relevant product market.

As for the relevant geographic markets, the Commission found that “it is appropriate to aggregate customer locations and evaluate Tier 1 IBPs at the national level.”¹⁴³ XO agrees with the Commission’s reasoning and its conclusion. However, it notes that Tier 1 IBP’s have global networks and operations and urges the Commission to account for this reality in its analysis.

3. Economic Basis for Determining the Effects of Horizontal Mergers in the Tier 1 Market

Horizontal mergers of leading firms in a market are of significant concern because they “can enhance market power by eliminating actual or potential competition between the

¹⁴¹ Nicklas Declaration, ¶ 7.

¹⁴² Nixon Declaration, ¶ 9.

¹⁴³ *Verizon-MCI Order*, 20 FCC Rcd at 18494 (¶ 115).

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merging parties, by increasing the risk of coordination among rivals, or both.”¹⁴⁴ As recognized by the Commission and the DOJ (*see* discussion above), horizontal mergers of leading firms in the Tier 1 Market pose an extra risk to competition because of network effects “created by the fact that users of the Internet value being connected to all other users of the Internet.”¹⁴⁵ Professor Rogerson succinctly sums up the additional concern that arises from concentration in the Tier 1 Market:

IBPs must interconnect with one another in order to provide their customers (i.e., ISPs, content providers) with access to all other customers. If an individual IBP becomes too large relative to other providers, it may have the incentive to either degrade interconnection and/or charge other IBPs for interconnection, with the result that the market may tip to the dominant provider. Thus mergers that create a single IBP that is disproportionately large or dominant relative to other IBPs create a particular risk to competition.¹⁴⁶

Not only is there a “plain vanilla” network effect in the Tier 1 Market, where customers value reaching all other customers, but in this market, there is a desire for customers to connect as directly as possible to ensure high-performance, high-quality service. Professor Rogerson elaborates on this factor:

A recent development in the Internet marketplace is the growing importance of applications, such as streaming video, VOIP, and financial market applications that demand very low levels of latency. This is significant because, even if IBPs make good faith efforts to seamlessly interconnect with one another, the latency of Internet transmissions between two users will generally be lower if both users are customers of

¹⁴⁴ *Antitrust Division Policy Guide to Merger Remedies*, U.S. Department of Justice, Antitrust Division, June, 2011, at 4-5.

¹⁴⁵ Rogerson Paper, at 2.

¹⁴⁶ *Id.*, at 2-3. Also *see*, *Level 3 Ex Parte*, at 16: “Generally, any provider of network services has an incentive to refuse to interconnect with or to provide inferior interconnection to any rival who has a substantially smaller customer base relative to the larger entity.”

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the same IBP, than if they are customers of two different IBPs. Thus the greater importance attached to low latency has amplified the advantage that customers receive from being connected to the largest IBP and thus increased the tendency of the market to tip to the largest provider.¹⁴⁷

Thus, in reviewing the competitive effects of the proposed horizontal combination of Level 3 and GCL Tier 1 assets, the Commission will need to examine both traditional concerns of increased concentration and concerns raised by network effects – both the effects of valuing connection with other users and effects from requiring direct connection. In the following section, XO examines both concerns using the attached White Paper by Professor Rogerson.

4. Horizontal Effects of the Proposed Combination

At the outset, it is important to note that, as the Commission itself has found, it is difficult to find publicly available data about traffic flows and revenues of IBPs.¹⁴⁸ This information is generally considered proprietary by IBPs. XO urges the Commission to seek that information from the Applicants and others, including by committing to preserve confidentiality to the maximum extent.

Even without access to original sources of information about traffic or revenues, XO has found publicly available data relevant to economic analysis of the proposed combination, and it also has access to its own data. By using these data, Professor Rogerson undertakes “two different methods of estimating market shares of traffic and the effect of the transaction

¹⁴⁷ Rogerson Paper, at 10.

¹⁴⁸ *Id.*, at 4.

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on these shares using two different data sources.”¹⁴⁹ It is most telling that even though these two calculations are different, they yield very similar qualitative results: “the transaction will combine the two largest IBPs in the industry and result in a provider that is significantly and disproportionately larger than any other provider in the industry.”¹⁵⁰

Market Share Calculation Method #1 – Market Shares Derived Using Renesys Data (Share of Internet Addresses Served)¹⁵¹

Renesys collects and publishes data and information about the Internet addresses or routes served by all IBPs. If one assumes that traffic flows are approximately proportional to these routes, then share data about the routes served by different IBPs can be viewed as each firm’s market share of traffic.¹⁵² Professor Rogerson examines the share on Internet addresses of the top 10 IBPs and finds:

Level 3 and Global Crossing are the two largest IBPs with, respectively, 20% and 15% of the market. Therefore the merged firm would have a market share of 35% which is three times the share of the next largest firm. Today, prior to the transaction, the largest firm is only 1.33 times as large as the next largest firm. Therefore the effect of the transaction will be to create a new firm that is disproportionately larger than all other firms, which in turn creates a danger of tipping in this market.¹⁵³

Professor Rogerson also calculates that the change in the HHI index from the proposed transaction will be 404,¹⁵⁴ which would make the Tier 1 Market moderately concentrated and would, according to the DOJ/FTC Horizontal Merger Guidelines, “raise significant

149

Id.

150

Id., at 5.

151

Id., at 5-7.

152

Because Level 3 is the sole provider for Netflix and its video streaming traffic and other video content firms, it is likely that these calculations underestimate its share of traffic.

153

Id., at 6.

154

Id., at 7.

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competitive concerns.”¹⁵⁵ Because there are significant network effects in the Tier 1 Market, there is an increased “competitive risk posed by any increase in concentration.”¹⁵⁶

Market Share Calculation Method #2 – Market Shares Derived Using XO Data (Traffic Exchanged with IBPs)¹⁵⁷

Professor Rogerson makes a second calculation of market share of traffic in the Tier 1 Market using XO data on the amount of traffic it exchanges with other IBPs. Here, the shares calculated “will be reasonable approximations of each firm’s market share of traffic if each firm’s total traffic is relatively proportional to the amount of traffic it exchanges with XO.”¹⁵⁸ XO understands that each IBP is likely to have anomalies in its traffic flows, and it therefore urges the Commission to seek these data from other IBPs so it can perform its own calculations.

XO’s traffic data is propriety. Given that, in these comments (confidential version), it presents only the market share data derived from Professor Rogerson’s calculations required to demonstrate the results are similar to the market share calculated in Method #1 above:

Level 3 and Global Crossing are the two largest IBPs with, respectively, [START CONFIDENTIAL****END CONFIDENTIAL] of the market. Therefore the merged firm would have a market share of [START CONFIDENTIAL****END CONFIDENTIAL] which is [START CONFIDENTIAL****END CONFIDENTIAL] times the share of the next largest firm. Today, prior to the transaction, the largest firm is only [START CONFIDENTIAL****END CONFIDENTIAL] times as large as the next largest firm. Therefore the effect of the transaction will be to create a new firm that is disproportionately larger than all other firms, which in turn creates a danger of tipping in this market. Furthermore, the HHI increases from

¹⁵⁵ See U.S. Department of Justice and the Federal Trade Commission, *Horizontal Merger Guidelines*, August 19, 2010 at 19, available at www.ftc.gov/os/2010/08/100819hmg.pdf.

¹⁵⁶ Rogerson Paper, at 7.

¹⁵⁷ *Id.*, at 7-9.

¹⁵⁸ *Id.*, at 8.

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[START CONFIDENTIAL** **END CONFIDENTIAL] for an increase of [START CONFIDENTIAL****END CONFIDENTIAL] points. Therefore, as explained above, the transaction falls into the group of transactions that “raise competitive concerns and often warrant scrutiny” according to the DOJ/FTC Horizontal Merger Guidelines.¹⁵⁹

As noted above, despite using two dissimilar methods of calculating market shares of traffic, the results are similar, which gives Professor Rogerson “a high level of confidence in the veracity of these qualitative conclusions.”¹⁶⁰ The Applicants are the two largest firms in the market, the merged firm will have a share of approximately 35%, and it will be disproportionately larger (between [START CONFIDENTIAL****END CONFIDENTIAL] – 3 times) than the next largest IBP, where the largest firm today is only [START CONFIDENTIAL****END CONFIDENTIAL] – 1.33 larger.

Direct Connection Network Effects Calculation

As discussed above, many customers of IBPs need to ensure that their transmissions have low latency and thus value, if not require, direct connection to the maximum extent. This critical competitive factor can be measured to determine whether post-combination there will be competitive harm because the new firm will directly serve “a disproportionately large share of customers compared to all other firms relative to the situation that exists before the merger.”¹⁶¹ The data from Renesys can be used for this calculation, and Professor Rogerson finds based on his calculations:

After the transaction, the merged firm will serve 55% of all Internet addresses, while the next largest firm will served only 22% of all Internet addresses. Thus the largest firm will serve more than twice as many Internet addresses as the second largest firm. Today, prior to the merger, the largest firm serves only 1.33 times as many Internet

¹⁵⁹ *Id.*, at 9.
¹⁶⁰ *Id.*, at 10.
¹⁶¹ *Id.*, at 10.

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addresses as the next largest firm. Therefore, to the extent that there are positive network effects associated with the base of customers that an IBP directly serves (due to reduced latency), the effect of the transaction will be to create a disproportionately dominant firm relative to its rivals.¹⁶²

5. Conclusions About Competitive Harms

Professor Rogerson’s calculations demonstrate that the proposed combination would substantially increase concentration in the Tier 1 Market and would create a firm that would be disproportionately larger than other IBPs. As a result, the market would be more likely to tip in favor of the new “Level Crossing,” which would result in downstream ISPs, content providers, CDNs, and end-users having degraded quality, paying higher prices, or both. It also would affect innovation in the industry. After all, a dominant firm would have little incentive to cooperate with other IBPs to find more efficient ways to exchange traffic.¹⁶³

XO, of course, acknowledges that these significant harms could be offset if entry into the market were easy or if another IBP could grow rapidly to offset the new firm’s dominance. However, as discussed earlier, entry into the Tier 1 Market is very difficult and cannot occur readily. As for other IBPs merging to form a much larger entity, that is possible. But, according to calculations by Renesys, “the next five global providers would have to merge to rival Level Crossing’s score”¹⁶⁴ – a series of events highly unlikely to occur. Even if the two next largest IBPs (NTT and Sprint) merge their assets (which appears doubtful), the resulting

¹⁶² *Id.*, at 11.

¹⁶³ *See*, Level 3 *Ex Parte*, at 13: “Incumbents can inhibit innovation by providing interconnection that is technically or economically inferior to comparable interconnection links provided to others or to themselves internally.”

¹⁶⁴ Renesys Blog.

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IBP would be 30% smaller than “Level Crossing.”¹⁶⁵ Further, any new merger will take time for the firms to agree upon, have it approved by regulators, and then implement. In sum, while theoretically possible, an event that produces an entity to rival the post-combination Level 3 is far too speculative for the Commission to consider as an offset to the harms demonstrated herein.

IV. LEVEL 3’S ACQUISITION OF GCL GIVES LEVEL 3 A MUCH GREATER INCENTIVE TO DE-PEER XO AND OTHER TIER 1 IBPS, THEREBY DISCONNECTING GOVERNMENT AGENCIES, FINANCIAL SERVICE COMPANIES, COMMUNICATIONS SERVICE PROVIDERS, UTILITY COMPANIES, AND OTHER CUSTOMERS IN VITAL INDUSTRIES FROM A MAJOR PORTION OF THE INTERNET

As noted previously, the Commission considers any national security, law enforcement, foreign policy, or trade concerns in determining whether a proposed transaction serves the public interest, convenience, and necessity. These considerations also come into play when the Commission determines whether to grant a petition for declaratory ruling under Section 310(b)(4) of the Act. National security and law enforcement concerns have long been treated as important public interest factors by the FCC.¹⁶⁶

The Commission evaluates national security and law enforcement concerns in light of all issues raised in the context of a particular petition or transfer application in making an independent decision on such petitions or applications.¹⁶⁷ In so doing, the Commission recognizes that national security or law enforcement concerns are uniquely within the expertise of the Executive Branch, and works closely with the Executive Branch agencies to

¹⁶⁵ *Id.*

¹⁶⁶ *Foreign Participation Order*, 12 FCC Rcd at 23920.

¹⁶⁷ *Id.* at 23921.

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ensure that its actions and policies affecting telecommunications do not impede or thwart the policies of the Executive Branch.¹⁶⁸ In this context, XO notes the following.

Throughout their filings, the Applicants describe their proposed transaction as ST Telemedia losing control of GCL – the “return” of “GCL and its businesses to U.S. management control and predominantly U.S. ownership.”¹⁶⁹ The Applicants expect this will “simplify arrangements with the national security and Team Telecom agencies.”¹⁷⁰ XO does not dispute that ST Telemedia will lose control of GCL, as “control” is defined in FCC rules and policies, if the Commission grants Level 3 permission to acquire GCL as proposed. However, the Applicants’ emphasis on these particular facts minimizes other critical aspects of the proposed transaction.

If the FCC grants the pending applications, ST Telemedia will hold, at a minimum, a 24.47 percent ownership interest in the combined company and will control at least 1/3 of the board seats of Level 3. ST Telemedia is a foreign-government controlled entity that will be the largest investor in Level 3 post-close and arguably the dominant minority shareholder. The

¹⁶⁸ *Id.* at 23918-19.

¹⁶⁹ Consolidated Application at 2; Petition for Declaratory Ruling at 1.

¹⁷⁰ *Id.* XO notes that the Applicants did not request in their Consolidated Application that the FCC condition its grant of authority on compliance with the network security agreement that GCL and ST Telemedia entered into with certain Executive Branch agencies as a condition of the Commission’s grant of authority for ST Telemedia to acquire control of GCL in 2003. Section 7.2 of the security agreement requires GCL to include such a request in its FCC applications for licensing or other authority. See *Global Crossing Ltd. (Debtor-in-Possession), Transferor, and GC Acquisition Ltd., Transferee, Applications for Consent to Transfer Control of Submarine Cable Landing Licenses, International and Domestic Section 214 Authorizations, and Common Carrier and Non-Common Carrier Radio Licenses, and Petition for Declaratory Ruling Pursuant to Section 310(b)(4) of the Communications Act, Order and Authorization*, 18 FCC Rcd. 20301, 20388 (2003) (“*Global Crossing Order*”).

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Commission has previously recognized that ST Telemedia is “a Singapore telecommunications and information technologies company that, through its subsidiaries, provides fixed and mobile telecommunications, data, and Internet services as well as telephone distribution, managed hosting, teleport, broadband cable and video, and e-business software development services.”¹⁷¹ Although the parties describe ST Telemedia as “a Singapore investment holding company,”¹⁷² it does not appear from the Applicants’ filings or any of the publicly-available transaction documents that ST Telemedia will hold its interests in Level 3 solely for the purposes of investment.¹⁷³

At the same time, the proposed transaction would result in increased vulnerability to exploitation as a result of the combined entity’s dominant role in the Tier 1 Market. As XO has shown above, post-close Level 3 will have a market share substantially greater than that of other IBPs and thus will have substantial market power. Level 3’s control of traffic flow throughout the market will give it tremendous ability and incentive to disrupt the access of *other carriers’* customers to significant portions of the Internet – the portion served by the combined entity. In XO’s case, these customers include government customers and

¹⁷¹ *Id.* at 20307.

¹⁷² Consolidated Application at 2.

¹⁷³ For example, Section 3.5 of the Voting Agreement between Level 3 and STT Crossing Ltd. (“STT Crossing,” an indirect subsidiary of ST Telemedia) provides that STT Crossing has no obligation to enter into any network security agreement with Executive Branch Agencies as a condition of obtaining federal regulatory approvals for the transaction if the agreement imposes obligations, duties, limitations, or restrictions on STT Crossing, its director designees on the Level 3 board of directors, or STT Crossing’s rights under the parties’ Stockholder Rights Agreement other than qualification criteria for a limited number of STT Crossing’s board appointments or a waiver of sovereign immunity. *See* Level 3 Communications, Inc., Form S-4/A, June 15, 2011, at Appendix D, D-4.

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commercial customers in industries that are critical to the national security, such as financial services companies, healthcare institutions, utility companies, and major employers.

XO's concerns in this regard are not mere speculation. As discussed in the Nicklas Declaration,¹⁷⁴ Level 3 has shown XO that if it has a size or market share advantage over XO, it will not hesitate to hold XO's customers hostage to pressure XO into paying for peering, partial-transit, or full-transit. In September 2005, Level 3 approached XO and demanded payment for the direct exchange of customer traffic. Despite XO's repeated efforts to resolve the matter in an amiable fashion, Level 3 broke off the peering link and ceased peering with XO – without providing a final notice of peering termination to XO – on September 27, 2005 at midnight.¹⁷⁵ After several hours of de-peering, XO yielded to Level 3's unilateral demand for payment. Level 3 finally reestablished the peering links at 6:30 am that morning, restoring full Internet service between XO and Level 3.

In de-peering XO in 2005, Level 3 wreaked havoc on the business and operations of many of XO's customers. Level 3's unilateral actions disconnected XO's customers, totaling more than 30,000 in September 2005, from the portion of the Internet served by Level 3 for 6.5 hours. In 2005, XO's customer base included government agencies (*e.g.*, the EPA and various city school systems), financial services companies (such as Comstock), and tens of thousands of small-to-medium businesses employing more than one hundred thousand

¹⁷⁴ See Nicklas Declaration, ¶¶ 12-15.

¹⁷⁵ XO was not the only ISP that Level 3 de-peered in 2005. By Level 3's own admission, approximately a dozen ISPs were de-peered by Level 3 that year. See *Id.*, ¶13.

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Americans across a myriad of industries. For all of these customers, connection to the Internet was and still is critical to the success of their operations.¹⁷⁶

If combined with GCL, Level 3 will have a much greater incentive to once again de-peer XO to extract additional payments and to end XO's current settlement-free peering relationship with GCL, to the detriment of XO's current and potential customers. XO's current customer base includes many government customers¹⁷⁷ and commercial customers in critical industries.¹⁷⁸ As was the case in 2005, a Level 3/GCL de-peering of XO will impact tens of thousands of Internet-attached business and hundreds of thousands of Americans.¹⁷⁹

In its *Global Crossing Order* authorizing ST Telemedia to assume control of GCL, the FCC conditioned its grant of authority on the parties' compliance with the terms of their network security agreement with the Executive Branch agencies.¹⁸⁰ Considering that the

¹⁷⁶ *Id.*, ¶ 14.

¹⁷⁷ For instance, the U.S. Postal Service, the Port of Long Beach, the Port of Los Angeles, California Department of Transportation, the State of Utah, the State of Delaware, and the City of Marietta, GA.

¹⁷⁸ These include but are not limited to: major healthcare corporations (*e.g.*, Mt. Sinai School of Medicine, Kootenai Medical Center, Intermountain Health Care, Detroit Medical Center, Cedars-Sinai Health Systems, Grady Memorial Hospital, California Transplant Donor Network, Radiological Society of America, Methodist Hospital of Memphis); utility companies (*e.g.*, Wells Rural Electric Company, Southern California Edison, Bristol Virginia Utilities); telecommunications companies (*e.g.*, Cbeyond, T-Mobile, Verizon Wireless, Alaska Communications); media and entertainment corporations (*e.g.*, XM Satellite, Gannet Co., The Seattle Times, Disney Online, HBO, Turner Broadcasting); educational organizations (*e.g.*, the Philadelphia Public School System, St. Louis University, University of Memphis, Loyola University of Chicago, Fordham University); and, other major employers (*e.g.*, Caribou Coffee Company, Autozone, Abercrombie & Fitch, McDonalds).

¹⁷⁹ *Id.*, ¶ 15.

¹⁸⁰ See *Global Crossing Order* at 20347, ¶ 61. Among other things, the network security agreement requires that 50 percent of the members of the Global Crossing board that are nominated by ST Telemedia and elected to the board be independent directors that

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proposed transaction would result in increased vulnerability to exploitation as discussed above, XO would be surprised if any grant of the pending application and petition were not similarly conditioned.

V. CONCLUSION

In filing in opposition to the merger of MCI and WorldCom’s Internet backbone assets, Level 3 stated, “The continued development of the Internet depends on innovation and competition.”¹⁸¹ XO agrees wholeheartedly. Yet, today Level 3 and GCL propose a horizontal combination of critical Internet assets that will greatly increase concentration in the Tier 1 Market – an event that raises particular concerns because of the importance of network effects in this market. As a result of these substantial harms to competition in general and the development of the Internet specifically, XO urges the Commission to find the proposed transaction is not in the public interest.

Respectfully submitted,

XO COMMUNICATIONS, LLC

By: 

¹⁸¹ are U.S. citizens and have been approved by the Executive Branch agencies that are parties to the agreement. *Id.* at 20375-76. Level 3 *Ex Parte*, at 13.

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