

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

In the Matter of)	
)	
Review of Commission Consideration)	IB Docket No. 00-106
Of Applications under the Cable Landing)	
License Act)	

**DECLARATION OF ANDREW JOSKOW
ON BEHALF OF GLOBAL CROSSING LTD**

I, Andrew Joskow, hereby declare as follows:

I. QUALIFICATIONS

1. I am an economist and Vice President of National Economic Research Associates, Inc. (“NERA”). I have a Ph.D. in Economics from Yale University, with a specialization in the field of industrial organization. At NERA I have analyzed competition policy issues in numerous sectors of the economy, including telecommunications, electric power, financial markets, and manufacturing. Prior to joining NERA, I was employed by the U.S. Department of Justice (“DOJ”) for thirteen years. At the Department of Justice I served from 1996 to 1997 as the Deputy Assistant Attorney General for Economics of the Antitrust Division, where my primary responsibility was to oversee all economic analysis related to antitrust matters and competition policy. My experience at the DOJ included reviewing the analysis of antitrust and regulatory issues in the telecommunications industry. In 1997, I

participated in drafting revisions to the *1992 DOJ/FTC Horizontal Merger Guidelines*, which are used by the antitrust enforcement agencies.¹

2. From 1991 to 1993 I served as a senior economist on the President's Council of Economic Advisers. In that capacity I provided economic policy analysis on a wide range of competition policy issues, including regulatory reform. I have also acted as a consultant to the Organization for Economic Cooperation and Development on competition policy issues in the airline industry and the telecommunications industry. I have written and published articles on competition policy and merger analysis. My articles have appeared in journals including the *Journal of Industrial Economics*, the *International Journal of Industrial Organization*, and the *Review of Industrial Organization*.

II. OVERVIEW

3. I have been asked by Global Crossing to comment on various issues raised by AT&T and Concert in the Federal Communications Commission's ("Commission") June 22 Notice of Proposed Rulemaking, IB Docket No. 00-106, *In the Matter of Review of Commission Consideration of Applications under the Cable Landing License Act* ("NPRM"). I have also been asked to comment on issues raised by Professors Janusz Ordover and Robert Willig in a declaration submitted on behalf of AT&T and Concert in the same proceeding.²
4. This declaration summarizes the potential anticompetitive consequences of consortium cables. In particular, I discuss why vertical foreclosure, and not horizontal restraints among

¹ Department of Justice and Federal Trade Commission ("FTC"), *Horizontal Merger Guidelines*, 1992 (Revised April 8, 1997) ("*Horizontal Merger Guidelines*"). The DOJ and the FTC have also released new Antitrust Guidelines for Collaborations among Competitors (released April 2000) ("*Competitor Collaboration Guidelines*").

² See IB Docket No. 00-106, *In the Matter of Review of Commission Consideration of Applications under the Cable Landing License Act*, Declaration of Janusz A. Ordover and Robert D. Willig on Behalf of AT&T Corp. and its Affiliates Concert Global Networks USA L.L.C. and Concert Global Network Services LTD, August 18, 2000 ("Ordover & Willig decl.").

carriers, is the issue of primary concern in this proceeding. I also explain why Global Crossing's streamlining proposal addresses those competition problems effectively while not impeding the growth of capacity in the market.³

5. In 1998, I began assessing the competitive implications of the *Japan-U.S.* cable consortium, in particular, and the ownership structure of undersea cables in general. I submitted an affidavit on behalf of Global Crossing in the Federal Communications Commission's cable landing license proceeding for the Japan-U.S. cable.⁴ In that affidavit I summarized the reasons why certain undersea cable ownership structures that involve ventures among the largest international carriers that are direct competitors will likely have anticompetitive consequences. The consequences are a reduction in the attractiveness of entry on certain routes, the exercise of market power in input markets associated with international transport, including backhaul and cable landing stations, and ultimately a reduction in competition in international telecommunications services.
6. The Commission granted the *Japan-U.S.* application after the parties added certain competitive conditions to the construction & maintenance agreement ("C&MA"). The Commission found that these new conditions did not resolve all of the competition issues presented in the consortium cable license proceedings.⁵ In fact, the competitive issues that arose in that proceeding continue to be operative today and are the primary focus of the NPRM.
7. Based on my continuing analysis of the undersea cable market, I conclude that:

³ In general, this declaration does not address the other proposals raised by the Commission in its NPRM.

⁴ See File No. SCL-LIC-19981117-00025, *In the Matter of AT&T Corp. et al. Joint Application for License to Land and Operate a Submarine Cable Network Between the United States and Japan* ("JUS Proceeding"), Response of Global Crossing to Supplemental Comments, Affidavit of Andrew Joskow (March 15, 1999) ("Joskow aff."). The Joskow aff. is also attached as Appendix B to Global Crossing's Reply Comments in IB Docket No. 00-106.

⁵ See Cable Landing License, File No. SCL-LIC-19981117-00025, *In the Matter of AT&T Corp. et al. Joint Application for License to Land and Operate a Submarine Cable Network Between the United States and Japan*, July 8, 1999, ¶36

- Undersea cables that combine major international carriers as landing parties have the incentive and ability to exercise market power.
- A competitive analysis that is limited to evaluating whether consortium cables lead to horizontal restraints among owners of wetlink capacity does not encompass all, or even the most important of the competitive issues in this proceeding. A primary issue of concern is the foreclosure of new entrants and the exercise of market power in key facilities, or inputs, for providing services over undersea cable facilities.
- As a consequence, the HHI market concentration indices of wetlink capacity provide an incomplete picture of the competitive consequences of consortia cables.
- Much of the uncertainty about technology and other risks that were associated with investment in undersea cable development that might have justified large consortia in the past no longer exist due to a decline in costs and increasing demand. Thus, it would be inappropriate to “offset” the purported efficiencies associated with consortium cables against the potential anticompetitive effects from consortium cables.
- It is appropriate to begin with point to point (i.e. country to country) markets as the starting point for analyzing competitive issues in the undersea cable market. Only under certain circumstances should this geographic market be widened to encompass a regional market.
- Global Crossing’s proposed landing party ownership test does not prevent any carrier from joining cable consortia or owning or purchasing any amount of capacity on any route. It merely limits the extent to which carriers can combine as landing parties on a cable at the U.S. end.

III. THE CONSORTIA OR “CLUB” OWNERSHIP STRUCTURE CAN BE EXPECTED TO FACILITATE THE EXERCISE OF MARKET POWER.

8. Undersea cable consortia that combine major international telecommunications carriers that also control key facilities on the undersea cable, such as landing stations, backhaul, operating agreements, and interconnection have the incentive and the ability to exercise market power. The question of who has control over these facilities is a critical issue because they are inputs to the provision of retail services. The incentive to exercise market power over these inputs will be affected by the extent to which carriers that control these facilities also have a large combined share of retail traffic on the route. Companies that control these inputs consider the effect on competition in the retail traffic market when pricing inputs. This relationship between carrier market share in the telecommunications services market and the control of inputs necessary to provide international telecommunications services creates the incentive to raise input prices to other carriers in order to reduce competition in the retail market.
9. Consortia that are structured to include a large number of competing carriers that also control key inputs complementary to the delivery of international traffic have an incentive to withhold or threaten to withhold correspondent relationships or interconnection agreements with carriers that purchase capacity from competing cables. For example, many telecommunications carriers seek to obtain operating agreements when engaging in correspondent relationships with foreign carriers and to obtain interconnection agreements when using full circuits. Carriers have the incentive to cluster on the cables on which they can procure these key facilities. The clustering effect means that entry by competing cables will be less attractive, because they might not attract the necessary customer base.
10. Absent a sufficient number of independently controlled undersea cable facilities that can provide competitive facilities in various input markets, the carriers that control key inputs on consortia cables will have the ability and incentive to exercise market power (or otherwise degrade access) over critical inputs, such as backhaul and landing stations. In its

NPRM, the Commission acknowledges the importance of having competing infrastructure on distinct cables: “If there is a group of independent carriers representing a share of retail traffic on the route that is sufficiently large to form the base for the introduction of new, independent capacity on the route if prices rise above competitive levels, competitive concerns are unlikely to be present.”⁶

11. Clustering occurs as result of the need to establish operating agreements with foreign carriers or the need to have access to interconnection agreements in foreign markets. With different business models being used by entrants, losing the ability to have access to one or both of these inputs would raise the costs to carriers of entering and expanding in these markets.
12. Operating agreements provide a low cost entry vehicle into a foreign market by giving a carrier a ready-made partner who can provide access to a bundle of physical inputs necessary to terminate international traffic. Moreover, when carriers receive profitable return traffic, this offsets their effective termination costs in foreign markets, and thus lowers the cost of entry. If the very carriers that provide a large share of the total potential return traffic are also the landing parties on a cable, other carriers will want to assure themselves that they are on that cable.
13. The fact that there may be a competing cable on the same route that is not controlled by providers of return traffic (and there a limited number of such cases) does not always provide the necessary competitive alternative that would undermine the competitive effects of clustering. There is no assurance that international carriers providing services on the foreign end will purchase capacity on competing cables and offer to enter into operating agreements with carriers using that cable. Absent the vehicle of operating agreements a carrier could establish an end-to-end circuit or private line service on the competing cable by negotiating separately for each of the inputs necessary to establish service. However,

⁶ NPRM ¶33.

establishing such means of delivering traffic may not always be the most efficient means of delivering traffic. A carrier would first have to acquire a license as a facilities-based carrier in the foreign country. Also, the carrier would incur potentially large transactions costs in negotiating agreements in the foreign country, and time delays in the provisioning of those inputs. Even if the use of the full circuit model (i.e. without the use of a correspondent relationship) were a cost-effective strategy, it will reduce some carriers' risk to employ that model on a cable with landing parties that provide both correspondent relationships and the inputs necessary for organizing a whole circuit service. Otherwise a carrier might be forced to completely abandon the possibility of using correspondent relationships. This would force some carriers into a higher cost alternative than they would otherwise make. Thus, the ability to carry traffic on full circuits (whether voice, data, or Internet) on a non-consortium cable does not necessarily overcome the incentive for carriers to cluster on certain consortia cables.

14. Despite assertions that return traffic is no longer important because of a reduction in accounting rates, data on accounting rates indicates otherwise. In 1996 the FCC estimated that the incremental cost of terminating international traffic is no more than 6 to 9 cents per minute.⁷ Even as a rough approximation, these cost figures are below the lowest benchmark accounting rate of 15 cents.⁸ While some industrialized countries have reduced accounting rates below 15 cents, many developing countries still have accounting rates above 15 cents. Thus, it remains the case that return traffic can reduce the incremental cost of terminating traffic.

15. Although there has been growth in the use of end-to-end circuits, the data do not support the demise of traditional IMTS traffic. The Commission's own statistics show that despite the large increase in the number of active international submarine circuits from 1995-1998, the total number of active IMTS circuits increased by more than 100%. Looking at all

⁷ See, *In the Matter of International Settlement Rates*, Notice of Proposed Rulemaking, FCC 96-484, IB 96-621

⁸ *Telegeography 2000, FCC Settlement Benchmarks*, pp. 67-68.

markets together, 37% of current active cable circuits are IMTS circuits and 61% are private line circuits.⁹ As a comparison, in 1997, 49% of total active cable circuits were IMTS, while 50% of circuits were private line.¹⁰ Despite a downward trend, these data do not indicate the demise of IMTS as way of delivering traffic.

16. Even if the use of end-to-end circuits were the sole requirement for some carriers, clustering could occur if the ubiquitous provider of interconnection services is a landing party on a cable. The provider of ubiquitous termination services, often regulated to some extent, has the incentive and ability to discriminate against carriers that do not carry their traffic on the cable where it is a landing party and has an ownership stake. That threat may give a carrier the incentive to purchase capacity on a cable where the provider of interconnection services has control over inputs complementary to the provision of international services. Again, that loss of a potential customer base could discourage or slow the entry of competing cables. The benefit to the provider of ubiquitous interconnection services of limiting undersea cable competition does not only arise from the possibility that it may benefit somewhat through its stake in profits from the sale of transport capacity. They may also benefit from the higher profits that would accrue to them as a result of a reduced competition in input markets, such as backhaul, and ultimately in the overall telecommunications services market.

17. Although entry by a sufficient number of independent owners of cable infrastructure on a route could overcome the anticompetitive concerns described above, such entry takes time and is not rapid. As stated by Profs. Ordoover & Willig (citing the Commission's MCI-Worldcom Merger Order), "the gestation period of new cable projects is in the range of only 2 or 3 years."¹¹ But this length of time is just equal to or beyond the typical time period that is considered timely under the *Horizontal Merger Guidelines* and the

⁹ 1998 Section 43.82, *Circuit Status Data*, FCC, December 17, 1999, Table 2 ("FCC Circuit Status Data").

¹⁰ 1997 Section 43.82, *Circuit Status Data*, FCC, February 2, 1999, Table 2.

¹¹ Ordoover & Willig decl. at ¶47.

Competitor Collaboration Guidelines.¹² As a result, under these Guidelines, the entry would not be considered to eliminate or reduce the threat of competitive harm. Real world examples show the lags with which competition can develop. Despite various *announced* cable ventures and the “exploding” demand for cable capacity, new operational cables have come online slowly. In the Pacific region only certain segments of two cables have actually begun operation since 1996, Global Crossing’s PC-1 and the China-U.S. cable. As I understand it, even now, all planned links on these cables have not been fully constructed. In the North Atlantic, no new cables have become operational since Gemini in 1997 and AC-1 in 1998.¹³ Of the announced capacity on the North Atlantic, neither FLAG Atlantic-1, nor TAT-14, nor Level 3/AC-2 is currently operating. Although announced, the cable project called Oxygen has ceased development due to a lack of financing.¹⁴

18. The fact that existing cables may be able to expand capacity also does not alleviate the competitive concerns expressed above. Only the development of competitive markets for the key facilities inputs listed by the Commission in the NPRM,¹⁵ including not only wetlink, but also including cable landing stations, and associated backhaul, will overcome the anticompetitive effects of certain cable consortia. I discussed the competitive conditions in these input markets on one particular route, U.S.-Japan, in my affidavit submitted in the *JUS Proceeding*.¹⁶ For example, accounting for all cables that have been built or announced on the US-Japan route since 1996, only one landing station on the U.S. side has been constructed independently of a consortium cable. Thus I would not agree with Profs. Ordovery & Willig, that the supply of landing stations is effectively competitive in the United States.¹⁷

¹² See, e.g. *Horizontal Merger Guidelines*, §3.2.

¹³ *FCC Circuit Status Data*, Table 7.

¹⁴ “Oxygen Collapse Prompts New Pacific Network Plan,” *Communications Week International* 1 (July 17, 2000).

¹⁵ NPRM, ¶21.

¹⁶ Joskow aff. at ¶¶52-64.

¹⁷ Ordovery & Willig decl. at ¶20.

19. As in any other joint venture, it is incumbent upon the regulatory agency to determine whether such a venture, even if it is proposing to provide a “new product” or new capacity, is anticompetitive. Rather than “entry regulation” the Commission’s concerns represent the normal concern of an antitrust agency or other regulatory agency about the effects of joint ventures among companies that compete in vertically related markets. Moreover, the streamlining approach proposed by the Commission is analogous to the safe-harbor approach adopted in the *Horizontal Merger Guidelines* and in the *Competitor Collaboration Guidelines*. The *Horizontal Merger Guidelines* use the HHI as the basis for a safe-harbor while the *Competitor Collaboration Guidelines* establishes a 20% market share level as a “safety zone.” The Commission’s proposed streamlining approach provides a similar type of “safe harbor” structure.

20. Concern about different forms of integration in the telecommunications industry is not unusual. The proposed merger between WorldCom and Sprint received extensive review by the Commission and other antitrust agencies in the U.S. and abroad. The AT&T/BT joint venture also received scrutiny. Certainly a joint venture in which large international telecommunications carriers such as AT&T and others have interests (including through governance terms in the C&MA) should at least have to pass through some form of transparent screen prior to approval.

IV. A COMPETITIVE ANALYSIS THAT FOCUSES SOLELY ON HORIZONTAL RESTRAINTS AMONG CAPACITY OWNERS AND HHI MEASURES OF MARKET CONCENTRATION IS INCOMPLETE.

21. The foregoing description of potential vertical foreclosure, and the associated anticompetitive effects that can arise from consortium cables, shows that the prospects for horizontal restraints on pricing and cable capacity among all owners of wetlink capacity on a particular route are not the primary concern, and any competitive analysis that focused on these issues would be incomplete. Moreover, Global Crossing does not benefit from the anticompetitive consequences of the foreclosure that may arise from cable consortia. The

anticompetitive effects both harm Global Crossing due to a loss in a base of customers, and harm competition by reducing the number of independent infrastructure providers in undersea cable markets.

22. The fact that the levels of concentration of cable capacity ownership on particular routes, as measured by the HHI market concentration index, are below thresholds of concern recognized in the *Competitor Collaboration Guidelines* and the *Horizontal Merger Guidelines* provides an incomplete picture in this instance. The relevant economic issue for this proceeding is the extent to which carriers with high market shares in telecommunications services, for example voice services, also control a significant share of inputs necessary for the provision of such services. It is the creation of that form of collaboration that makes entry less attractive, provides the incentive and ability to exercise market power and ultimately reduces competition in telecommunications markets. The *Competitor Collaboration Guidelines* explicitly indicate that such vertical effects may be of concern, but are not the subject of those guidelines.¹⁸

23. When collaboration occurs among carriers that are also owners of key facilities, such as backhaul and landing stations, they do not operate as true competitors when they are *on the same cable*. To assume that they operate as competitors implies that somehow the existence of the joint venture is merely a veil for independently operating competitors with no common interests. This is not the case. Through the governance structure established in the C&MA and related planning and data gathering meetings, carriers that control backhaul and landing stations can coordinate pricing and other access policies. The fact that there are multiple landing parties on a cable does not create the necessary competition to negate this concern. By that logic it would be better for as many carriers as possible to operate as landing parties on a cable. On the contrary, the control over the cable can be used to

¹⁸ See *Competitor Collaboration Guidelines*, §1.1, n. 5 (“These Guidelines take into account neither the possible effects of competitor collaborations in foreclosing or limiting competition by rivals not participating in a collaboration nor the possible anticompetitive effects of standard setting in the context of competitor collaborations. Nevertheless, these effects may be of concern to the Agencies and may prompt enforcement actions.”).

collectively impede the development of future competition by other cables and to raise the costs of other telecommunications rivals.

24. This issue is particularly relevant for the “competitive route” test described in the NPRM.¹⁹ The Commission appears to believe that the ability to route traffic through independent pairs of landing station owners on the same cable is indicative of independent competitive alternatives on that cable. As stated above, landing parties on cables are unlikely to operate like normal competitors. If the FCC institutes this rule it could create perverse outcomes by encouraging even more carriers to joint venture among themselves to ensure that there will a large number of independent paths on a cable. This would result in the streamlining of even those cables that present anticompetitive concerns.

V. THE ECONOMICS OF CABLE CONSTRUCTION DOES NOT REQUIRE A CONSORTIUM OWNERSHIP STRUCTURE.

25. The current economics of cable construction do not require the type of risk sharing structure used in the past. Thus, it would not be appropriate to “offset” any anticompetitive outcome with the purported efficiencies from risk sharing.
26. At one time, cable consortia may have been an efficient means for sharing risk when there was more uncertainty about the development of international telecommunications. Economic conditions are different today. As stated by Profs. Ordover & Willig, the demand for cable capacity is “exploding.”²⁰ Also, the Commission confirms that the cost per unit of capacity has been dropping.²¹ Thus, the risks associated with undersea cable construction in the past, when international traffic was often thin on certain routes and generally grew slowly, have been reduced substantially. In fact, as stated in the affidavit of S. Wallace Dawson submitted in the *JUS Proceeding*, a cable station to cable station fiber

¹⁹ NPRM ¶30.

²⁰ Ordover & Willig decl. at ¶45.

optic network can be a less complex and less costly enterprise than domestic fiber network.²² Yet, undersea cables are often proposed as joint efforts of many carriers, while domestic terrestrial networks continue to be built by individual companies. The combination of reduced costs per unit of capacity and the ability to achieve economies of scale is, in fact, confirmed by Thomas McInerney in his declaration submitted on behalf of AT&T.²³

27. There is clearly a market test for this argument. In the U.S-U.K. market, where regulatory conditions and large growth in traffic appear to have facilitated the entry of competing cable infrastructure, a number of private cables have developed. The Gemini cable was planned by a pair of carriers, one from each side of the Atlantic, and is now controlled by WorldCom and Cable & Wireless. The Gemini cable currently has 60 Gbps of capacity. Global Crossing's AC-1 cable now has 80 Gbps of capacity, and was developed as a private venture.²⁴ In both cases these cables were developed under a private ownership model with capacity being made available for sale to other carriers. Each of these two cables is significantly larger than the next largest trans-Atlantic cable – TAT 12/13 with 15 Gbps.²⁵

28. Given these market realities, it appears that many of the efficiencies of a consortia cable can be accomplished in a less restrictive manner. That is, they can be accomplished in a practical manner by a firm acting alone or with a limited number of partners. As recognized in the *Horizontal Merger Guidelines* and the *Competitor Collaboration Guidelines*, when the output of a venture or merger can be accomplished in a less restrictive

²¹ See Memorandum Opinion and Order, *In the Matter of Worldcom Inc. and MCI Communications Corporation for Transfer of Control of MCI to WorldCom*, FCC 91-211 (September 14, 1998), ¶105.

²² See File No. SCL-LIC-19981117-00025, *In the Matter of AT&T Corp. et al. Joint Application for License to Land and Operate a Submarine Cable Network Between the United States and Japan*, Affidavit of S. Wallace Dawson (March 12, 1999), ¶¶39-48. Mr. Dawson's affidavit is also attached as Appendix C to Global Crossing's Reply Comments in IB Docket No. 00-106.

²³ See IB Docket No. 00-106, *In the Matter of Review of Commission Consideration of Applications under the Cable Landing License Act*, Declaration of Thomas K. McInerney (submitted on behalf of AT&T and Concert) ("McInerney decl."), August 21, 2000, ¶8.

²⁴ Figures on Gemini and AC-1 capacity based on figures from Global Crossing LTD.

²⁵ McInerney decl. at ¶31 and Global Crossing LTD.

manner, the “efficiencies” from the structure are not used as a counterweight to any potential anticompetitive outcome.²⁶ Absent anticompetitive conduct, the economies of scale cited by Thomas McInerney could be achieved by a single private entity, a single carrier, or possibly a pair of carriers acting as suppliers of capacity to other parties.

29. I agree, however, that in cases where traffic is thin and growing slowly, the economically viable ownership structure may be through a joint venture of carriers. As I understand it, Global Crossing has proposed an exemption from its proposed landing party ownership test for thin routes.

VI. UNDER CERTAIN CIRCUMSTANCES IT IS APPROPRIATE TO CONSIDER GEOGRAPHIC MARKETS OTHER THAN POINT TO POINT MARKETS

30. I agree with Profs. Ordovery & Willig that the relevant geographic market definition for assessing competition may not always be point-to-point routes. In particular, the possibility of hubbing traffic through a third country may constrain pricing on point-to-point routes. When it can be shown that such hubbing provides a sufficient constraint on pricing then it may be appropriate to consider regional markets. When this is not the case, however, the relevant geographic market is the point-to-point route. As I understand it, Global Crossing has suggested that such an analysis be performed in conjunction with its proposed landing party ownership test.

²⁶ See, e.g., *Competitor Collaboration Guidelines*, §3.36(b) (“...if the participants could have achieved or could achieve similar efficiencies by practical, significantly less restrictive means, then the Agencies conclude that the relevant agreement is not reasonably necessary to their achievement.”).

VII. GLOBAL CROSSING'S PROPOSED STREAMLINING TEST DOES NOT LIMIT THE ABILITY OF CARRIERS TO OWN CAPACITY AND IS NOT ANTICOMPETITIVE.

31. The characterization of Global Crossing's proposed landing party ownership test by Profs. Ordovery & Willig is not in accord with the intent of the proposal. The test does not limit a carrier's ability to join a cable consortium or limit in any way the amount of capacity that any carrier can own on any route. Thus, Global Crossing's proposal is not anticompetitive. It only limits the circumstances under which carriers can combine as landing parties on a particular cable.

32. Assuming that a cable landing license is not being sought for a "thin" route, the streamlining test would be determined by the answers to the following question:

Do the cable landing parties on the U.S. end of the proposed cable have a combined share of more than 35% of the active half circuits including half circuits of full circuits, on the U.S. side of the route served by the cable?

If the answer were **NO**, then the FCC would grant the cable landing license on a streamlined basis, absent traditional policy concerns such as national security. If the answer were **YES**, the application would not receive streamlined treatment under this test.

33. The goal of this rule is to assure that groups of carriers that have a significant presence in the telecommunications services market do not also have a significant control over both the key inputs of the undersea cable and the governance of the cable. It is this ownership linkage that can create the incentive and ability to exercise market power and inhibit entry by competing cables.

34. Under the Global Crossing proposal, the Commission would first determine which carriers are designated as landing parties on the U.S. side of the proposed cable. It is these parties

that typically control landing stations and backhaul, and that have considerable sway in governance issues on the cable.

35. If the landing parties on the U.S. side of the proposed cable have a significant presence in the telecommunications services market then that would create the ownership linkage that should be a cause for concern. Carriers that currently have high market shares *today* in the service market are the ones that would have the incentive to use the new cable to limit competition. Thus, the proposed test is necessarily backward looking. The Commission would examine whether the landing parties of the *proposed* cable have a combined share of the *currently active* half circuits that exceeds 35%. Half circuits (or half circuits of whole circuits) appear to be a reasonable proxy for market shares in various forms of telecommunications services (voice, data, Internet, etc.).

36. Note that if the proposed cable fails the streamlining test that merely indicates that a somewhat different ownership structure involving landing parties would have to be proposed in order to pass the test. Alternatively, the applicant could seek to qualify under another streamlining test, or have its application reviewed on a non-streamlined basis. In any event, Global Crossing's proposed streamlining test would give carriers that are not landing parties on one cable the incentive to create their own independent cable venture. Participation by major carriers in competing cables would provide competition in input markets that would limit the exercise of market power. It would also give carriers an alternative source of return traffic, reducing the need to cluster onto a single cable.

I, Andrew Joskow, declare under penalty of perjury that the foregoing is true and correct.
Executed on September __, 2000.

Andrew Joskow