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March 30, 2015

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BY ELECTRONIC FILING

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Joint Application for Transfer of Control of Cable Landing Licenses
from Columbus Networks, Limited to Cable & Wireless Communications
Plc, File Nos. SCL-T/C-20141121-00013 and SCL-T/C-20141121-00014;
Applications for Transfer of Control of Section 214 Authorizations from
Columbus Networks, Limited to Cable & Wireless Communications Plc,
File Nos. ITC-T/C-20141121-00304 and ITC-T/C-20141121-00307

Dear Ms. Dortch:

On Thursday, March 26, 2015, the undersigned counsel and
representatives of Cable & Wireless Communications Plc ("C&W") and Columbus
Networks, Limited ("CNL") met with members of the Commission's staff to discuss the
above-cited pending applications, and in particular Digicel's pleadings and *ex parte* filing
in the proceeding.

Marlene H. Dortch, Secretary

2

Attending this meeting on behalf of Cable & Wireless Communications Plc were Belinda Bradbury, General Counsel, and Simeon Irvine, Chief Executive, Wholesale. C&W outside counsel Patrick Campbell and Diane Gaylor of Paul, Weiss, Rifkind, Wharton & Garrison LLP also attended.

Attending on behalf of Columbus Networks, Limited were Paul Scott, President and Chief Operating Officer, Columbus Networks USA, Inc., and Victor A. Lago, Vice President of Legal Affairs, Columbus Networks USA, Inc. CNL outside counsel Ulises Pin of Morgan, Lewis & Bockius LLP also attended.

Commission staff in attendance were, from the International Bureau, Nese Guendelsberger, Deputy Bureau Chief (by phone); Kathleen Collins, Assistant Bureau Chief; Walt Strack, Assistant Bureau Chief and Chief Economist; Howard Griboff, Acting Division Chief, Policy Division; David Krech, Associate Division Chief, Policy Division; Mark Uretsky, Senior Economist, Policy Division; Jodi Cooper, Senior Attorney, Policy Division; and, from the Office of General Counsel, James Bird.

During the meeting, representatives of C&W and CNL discussed the topics in the attached agenda, and covered the points summarized in the attached document entitled "Response to Digicel's Reply and Ex Parte." The representatives also noted that Telegeography and Julian Rawle had conducted for C&W and CNL a market survey that would be provided with this *ex parte* notification, and this Report is also attached hereto.

Please direct any questions regarding this matter to the undersigned.

Respectfully submitted,

/s/ Patrick S. Campbell

Counsel to Cable & Wireless Communications Plc

/s/ Ulises R. Pin

Counsel to Columbus Networks, Limited

cc: Nese Guendelsberger, Deputy Bureau Chief, IB
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3

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Attachments:

Agenda for Cable & Wireless Communications / Columbus Networks Meeting with FCC International Bureau, March 26, 2015.

Response to Digicel's Reply and Ex Parte, dated March 30, 2015.

Report of TeleGeography and Julian Rawle Consulting, "The International Submarine Capacity Market in the Americas", dated March 28, 2015.

CABLE & WIRELESS COMMUNICATIONS / COLUMBUS NETWORKS
Meeting with FCC International Bureau, March 26, 2015

Agenda

- I. Introduction of Participants
- II. Overview of Transaction and Previous Filings by Applicants
- III. Description of Digicel and its Filings on the Record
- IV. Overview of TeleGeography/Julian Rawle Independent Report
- V. Competition Analysis in Response to Claims by Digicel
 - A. Applicable market is the Americas region international subsea capacity market
 1. Applicants are Not Dominant. Market Share of the Combined Entity is 11% for U.S.A. to “Americas,” and 14% overall, based on Rawle Report
 2. No Significant Barriers to Entry
 - B. Competition on Routes to/in Specific Countries Discussed by Digicel
 1. Jamaica – design capacity; ALBA cable; IRUs; Digicel transactions; domestic issues
 2. Cayman Islands – MAYA-1; Columbus has no retail operations or operating company and no landing stations
 3. Dominican Republic – Third parties and AMX-1, land routes, Antillas-1
 4. Haiti – Land routes; Digicel has rights in FibraLink and controls landing station
 5. British Virgin Islands – Columbus not in wholesale market, and has no retail operations, no operating company, and no landing stations
 6. Anguilla, Turks and Caicos – Packet Clearing House: “minor” impacts
- VI. Responses to Digicel’s Remaining Allegations
 - A. C&W/Columbus Strategic Alliance – No change of control, not clandestine
 - B. C&W Certification – Parent company; carrier affiliates disclosed
 - C. Columbus Ownership of Cables – No inaccuracies; strategic alliance
- VII. Opposition to Digicel’s Proposals
 - A. Common Carrier Status / Rate Regulation – Unprecedented and unnecessary
 - B. Designation for Hearing – No questions of material fact; no petitions to deny
- VIII. Questions?

March 30, 2015

Response to Digicel's Reply and Ex Parte

I. Digicel's Reply¹ and Ex Parte² fail to add any support to Digicel's request that the Commission place conditions on its grant of the instant Applications³ or designate the Applications for a hearing.

A. Digicel has failed to support its allegations of competitive harm, and instead has continued its meritless attack on the Applications, relying on a barrage of misleading, false and/or irrelevant assertions.

1. Digicel seeks to have the Commission rule on local competition issues in some Caribbean markets, rather than focus on the U.S. international submarine capacity market, which is the subject matter of the Applications.

2. Digicel continues to treat consortium cables having many owners as under the control of C&W and/or Columbus, and to ignore significant, long-term IRU rights on private and consortium cables that have been sold by Applicants to third parties, including Digicel. The reality is that the Applicants combined control a small portion of the relevant subsea cable market, and compete against much larger rivals such as Level 3, Telefonica and America Movil.

3. Digicel continues to complain about jurisdictions where one of the two Applicants has little to no market share, and therefore where the transaction will result in no significant increase in market concentration.

4. Digicel's baseless attacks are a classic case of a disgruntled competitor seeking to thwart the increased competition it expects to receive as a result of the transaction, and seeking to hijack the regulatory process for its own commercial advantage.

B. Digicel has provided no evidence refuting Applicants' estimates that (i) less than 20% of the international submarine capacity market to the Americas region is affected by the transaction; (ii) the combined activated capacity between the Caribbean and the rest of the world ("RoW") held collectively by Columbus and C&W is less than 10%; or (iii) within the Caribbean, the Applicants hold less than a majority of activated and design capacity.

¹ Reply of Digicel, File Nos. SCL-T/C-20141121-00013, ITC-T/C-20141121-00304, ITC-T/C-201400307, January 21, 2015 ("Reply").

² *Ex parte* filing of Digicel, File Nos. SCL-T/C-20141121-00013, ITC-T/C-20141121-00304, ITC-T/C-201400307, February 18, 2015 ("Ex Parte").

³ File Nos. SCL-T/C-20141121-00013, SCL-T/C-20141121-00014, ITC-T/C-20141121-00304, ITC-T/C-20141121-00307 ("Applications").

1. Instead, Digicel argues that the more appropriate analysis is not the whole of the Americas region, but capacity between the U.S. and the Caribbean sub-region, and particular islands within that region. (Reply at 2-3).

2. In the precedent cited by Digicel, and cases cited therein, the Commission indicated that, although it has at times looked at specific routes, the Commission employs a regional approach in analyzing the international transport market, typically evaluating the Atlantic, Pacific, and Americas regions.⁴ The Commission moved to a predominantly regional approach in response to the dramatic increase in international transport capacity.⁵ The Commission employs a route-by-route analysis rarely and only in circumstances where there are legitimate competitive concerns about a route. None are present in the instant case.

3. As the Commission has explained: (i) Although U.S. international submarine cables terminate in a select number of countries, they tend to serve entire regions;⁶ (ii) If one cable route to a particular destination is foreclosed, carriers generally can route their traffic to that destination using other cables serving the same region;⁷ and (iii) Carriers increasingly have been willing to deliver traffic indirectly, via a third country, if that permits them to reduce their transport or termination costs.⁸ The Caribbean markets provide excellent examples, some noted below, that indirect connections, especially through hub markets, provide competitive routes to the U.S. and other countries that should be taken into account. In addition, some island markets in the Caribbean are served by alternative means (*e.g.*, land routes to other countries in the same island or high capacity microwave links to other islands). These facilities act as a real substitute to direct undersea fiber routes to the particular island.

4. In any event, as demonstrated in Applicants' previous filings and below, even a route-by-route analysis reveals that customers have a range of competitive choices for purchasing capacity on all individual routes in the Americas region.

C. Digicel misinterprets Applicants' analysis supporting their Response,⁹ which examined the market from a variety of angles, including within the Caribbean as noted above.

⁴ *In the Matter of Applications filed by Global Crossing Limited and Level 3 Communications, Inc. for Consent to Transfer Control*, Memorandum Opinion and Order and Declaratory Ruling, DA 11-1643, September 29, 2011 ("Global Crossing-Level 3 Order"), para. 31.

⁵ *In the Matter of Verizon Communications Inc. and MCI, Inc. Applications for Approval of Transfer of Control*, Memorandum Opinion and Order, FCC 05-184, November 17, 2005 ("Verizon-MCI Order"), para. 158.

⁶ *In the Matter of Application of WorldCom, Inc. and MCI Communications Corporation for Transfer of Control of MCI Communications Corporation to WorldCom, Inc.*, Memorandum Opinion and Order, FCC 98-225, September 14, 1998 ("MCI-WorldCom Order"), para. 84.

⁷ *Id.*

⁸ Verizon-MCI Order, para. 158.

⁹ Response to Petition to Impose Protective Conditions, File Nos. SCL-T/C-20141121-00013, SCL-T/C-20141121-00014, ITC-T/C-20141121-00304, ITC-T/C-20141121-00307, January 14, 2015 ("Response").

1. Digicel argues that the analysis should exclude the SAM, SAC and PAC cables, which do not have landing points between the U.S. and the Caribbean. (Reply at 3).

a) SAM and SAC were appropriately included in the Applicants' analysis as they are both cables providing connectivity to the RoW from the Caribbean. SAM has a direct connection between Puerto Rico and Florida. SAC has connections from the U.S. Virgin Islands to inter-connection points such as Panama, Venezuela and Brazil where connection can be made to multiple cables serving the U.S., including to the PAC system.

b) These indirect routes are important as all service providers require diverse routes to ensure continuity of service if systems are taken out of service. In addition, customers in the Caribbean require connectivity not only to the U.S., but also to Central and South America.

c) PAC in fact was not included in Applicants' analysis, because it is limited to the Pacific.

2. Digicel alleges that Applicants omitted from their analysis the following cables, for which Circuit Status Data is not reported to the Commission: ARCOS-1, Fibralink, EC Link, Gemini Bermuda, CBUS, CJFS and JSCFS, E-W, and ECFS. (Reply at 4).

a) ARCOS-1 and Gemini Bermuda in fact are included in FCC Circuit Status Data reports.

b) Applicants did include ARCOS-1, EC Link and CBUS in their assessment of capacity between the Caribbean and RoW, as these connect points in the Caribbean to points outside the Caribbean.

c) Applicants did include Fibralink, CJFS, EWS, and ECFS in their assessment of capacity within the Caribbean.

d) JSCFS was appropriately excluded because it is a wholly domestic system serving only Jamaica. Gemini Bermuda was appropriately excluded because it connects the U.S. to Bermuda and does not have a landing point in the Caribbean.

3. Digicel also alleges that Applicants omitted from their analysis the following cables, in which one or both of them hold an ownership interest: Taino-Carib, Antillas-1, Americas-II, Pan Am. (Reply at 3, n. 4).

a) Applicants did include Americas-II and Pan Am in their assessment of capacity between the Caribbean and RoW, as these connect points in the Caribbean to points outside the Caribbean.

- b) Applicants did include Taino-Carib and Antillas-1 in their assessment of capacity within the Caribbean.
- c) CWC has an ownership interest in each of these consortium systems. However, Columbus has no interest in any of these cables.

4. Digicel moreover challenges the truth of Applicants' statements in their Response that Columbus does not own or operate, or have any participating interest in, the Taino-Carib, Antillas-1, Americas-II, or Pan Am cables. (Reply at 3, n. 4). Applicants restate that Columbus has no ownership or participation in these systems. The systems are on Columbus' website because they are sold by the strategic alliance, CNL-CWC Networks, Inc. ("CNL-CWC Co") as marketing agent for C&W and Columbus. However, C&W retains ownership in these systems and controls and operates the capacity on the systems in accordance with Commission Rules. *See also* Section V.D.2 below.

D. Digicel's back-of-the-envelope analysis of the Applicants' market share is incomplete and misleading.

1. In its Reply, Digicel argues that nearly half of the capacity in submarine cable systems serving the Caribbean region, based on circuits reported to the Commission, is from submarine cables in which "Columbus and/or C&W hold ownership interests." (Reply at 3). Digicel further argues that "if one takes into account submarine cable systems of the merging entities which are not required to be reported to the Commission (*e.g.*, ARCOS-1, Fibralink), Digicel believes that the percentage would be substantially higher." (Ex Parte at 2).

2. The method and assumptions of Digicel's analysis are unclear, but from its description in both the Reply and Ex Parte, Digicel appears to be attributing all of the capacity on a cable to Columbus and/or C&W even if they do not own or control all of the capacity, because either the cable is a consortium cable, or long term IRUs have been granted.

3. Digicel's analysis, apparently based on Table 7-A of the FCC Circuit Status Data report, leaves out key cables, including MAC and LANautilus, and includes cables that do not serve the Caribbean. Adjusting for these,¹⁰ Applicants compute that less than 40% of the circuits are on cables in which Columbus and/or C&W have *some* ownership interest. More importantly, however, this metric is entirely misleading. The real ownership share will be much lower as on many of these cable systems Applicants have a minority ownership. Moreover, even with respect to the capacity that can be attributed as "owned" by Applicants, they have granted long term IRU rights to some of this capacity and are no longer in control of such capacity.

¹⁰ The adjustments (i) estimate MAC at 100% of SAC (MAC inter-connects with SAC and provides the sole source of onward connectivity for it to the U.S.); (ii) estimate LAN at 33% of SAC (1 fiber pair vs 3); and (iii) exclude PAC, AmeriCan-1, GlobeNet, CB-1 and Gemini-Bermuda as they do not serve the Caribbean.

E. Applicants' assessment in their Applications that their combined market share is less than 20% of total capacity to the Americas region is supported by the independent report of TeleGeography and Julian Rawle (the "Report"), which is being filed by Applicants with the Commission under the *ex parte* rules.

1. The Report concludes that, considering cables connecting the U.S. and its territories to the Americas region, C&W and Columbus currently have a combined market share of "lit" or "activated" capacity of 10%. (Report, Section 3.2.2).

2. The Report further concludes that, considering all markets served by C&W and Columbus, C&W and Columbus currently have a combined market share of lit capacity of 14%. (Report, Section 3.2.1).

F. Importantly, the HSR review of the transaction was concluded in December without the issuance of a second request.

1. Many of the Applicants' customers are large, sophisticated U.S. and international carriers with tremendous resources and a strong interest in maintaining a competitive market for international subsea capacity in the Americas.

2. None of these carriers have filed comments before the Commission or interrupted the DOJ review process. Were the competitive harms that Digicel alleges in fact real, many other companies would have reason to file, and likely would have submitted, comments or petitions to deny.

II. Digicel's claims regarding the Applicants' market shares on specific routes are inaccurate, misleading and/or irrelevant.

A. Digicel continues to overestimate the impact of the proposed transaction in Jamaica.

1. Digicel has failed to refute Applicants' key point that, in Jamaica, third parties hold significant capacity and have available many more times design capacity than the total international wholesale activated capacity on the Applicants' cable systems landing in Jamaica.

a) Digicel's only response is that the third-party ALBA cable (connecting Jamaica, Venezuela and Cuba) has been dormant for 2 years and is not immediately accessible. (Reply at 4).

b) This is incorrect. ALBA is carrying traffic today. C&W cross-connects to it in Jamaica and Columbus provides onward connectivity to the U.S. from Jamaica and Venezuela right now.

c) Many cables not controlled by the Applicants connect Venezuela, and thus the ALBA cable, to the U.S. (*i.e.*, Americas-II, GlobeNet, LAN,

Pan Am, SAC), providing an important independent route between Jamaica and the U.S. The easing of relations with Cuba will increase even further the value of this cable. As noted above, indirect routes to the U.S. are competitive with direct routes. (And in any event, if only direct routes are examined, the transaction has no impact as the only direct route from Jamaica to the U.S. is the CFX-1 cable, already 100% owned by Columbus.)

d) The ALBA cable design capacity is more than 15 times the activated capacity on all cables landing in Jamaica and more than 400 times Digicel's estimated usage today. Spare design capacity can be quickly and easily brought on line by third parties in response to customer demand.

2. Digicel also continues to ignore the fact that, even for capacity purportedly owned by the Applicants, third parties effectively control large volumes of the capacity on a long-term basis in the form of IRUs or other arrangements. (Reply at 4-5). That is, even where either C&W or Columbus is the sole owner of a cable, much of the capacity may be in the hands of third parties, who also may resell it. A portion of the capacity owned by Applicants landing in Jamaica is subject to IRUs and other arrangements with customers, including IRUs held by Digicel as described below. The Commission has acknowledged that failing to account for IRU leaseholders' control of capacity may overstate a cable owners' market presence.¹¹

3. In particular, Digicel mischaracterizes its own ability to obtain capacity on the Jamaica route (and other routes), including from Applicants. (Reply at 7).

a) Digicel has already secured significant amounts of long term capacity from CNL-CWC Co in Jamaica at advantageous volume discounts. Digicel's most recent capacity purchase with the strategic alliance for capacity to Jamaica was formalized on December 31, 2014, concurrent with Digicel's filing of its Petition.¹² Additionally, Digicel purchased long term IRUs for capacity from the U.S. to Turks and Caicos in February and March of this year. Digicel thus controls capacity it is attributing to C&W or Columbus in its analysis.

b) Digicel's agreement with CNL-CWC Co provides it access to international wholesale capacity from both C&W and Columbus at prices materially lower than those at which C&W or Columbus sold to Digicel prior to the formation of the strategic alliance.

¹¹ MCI-WorldCom Order, para. 86. IRUs typically lock in capacity and pricing over the long term, 15 years for example, meaning that the original owner of the capacity no longer has control over such capacity for the term.

¹² Petition to Impose Protective Conditions, File Nos. SCL-T/C-20141121-00013, ITC-T/C-20141121-00304, ITC-T/C-201400307, December 31, 2014 ("Petition").

c) Digicel nonetheless argues that its ability to negotiate such arrangements in the future with “a monopoly carrier” will be substantially compromised, and that Applicants’ assurance that Digicel’s significant market power will protect Digicel from discrimination is false. (Reply at 5, n.8). Digicel’s argument falls flat. As demonstrated in their Applications, their Response and herein, Applicants will not form “a monopoly carrier.”

d) Moreover, Digicel’s argument regarding its compromised ability to negotiate in the future with the combined entity contradicts its later argument that the strategic alliance, with which it negotiated the agreements noted above, is already controlled by C&W; *see* Section V below.

4. Digicel has failed to explain why it does not have the capability to build its own system to Jamaica if it so desired, asserting only that Applicants do not show it would be economical or timely to lay new submarine cable. (Reply at 4-5).

a) However, the Commission has repeatedly found barriers to market entry to be low for submarine cable capacity.¹³

b) Moreover, Digicel is a well-funded market participant that, in addition to competing with Applicants on a retail basis in certain jurisdictions, has entered the submarine cable business itself, as noted in the Report. (Report, Sections 2.1.5, 2.1.10). Despite its complaints about Jamaica, Digicel appears to be focusing its cable investments elsewhere in the region.

5. In its Reply, Digicel states that Applicants control over 98% of the Jamaican market for residential and telephone services. (Reply at 5). This assertion is irrelevant to analysis of international transport capacity, but is also misleading as to the impact of the transaction and ignores one of its key benefits to consumers in Jamaica. The reality reveals Digicel’s true motivations.

a) Digicel itself is by far the largest supplier of communications services in Jamaica, with an estimated 2.2 million subscribers. Digicel’s broad product offering in Jamaica includes voice telephony, data services and TV.¹⁴

¹³ *In the Matter of AT&T, Inc. and BellSouth Corporation Application for Transfer of Control*, Memorandum Opinion and Order, FCC 06-189, March 26, 2007 (“AT&T-Bellsouth Order”), para. 160; Verizon-MCI Order, para. 159; MCI-WorldCom Order, para. 100.

¹⁴ Digicel is quietly amassing market share in the cable TV space in the Caribbean having acquired Telstar Cable Limited in Jamaica and cable television operators in Dominica, Anguilla and other Eastern Caribbean markets over the last two years.

b) In contrast to Digicel's broad offerings, the offerings of the Applicants are complementary, with LIME (C&W) having a strength in voice telephony and mobile services but limited offering in TV, and Flow (Columbus) having a strength in TV but with limited voice telephony and no mobile services. The transaction will enable the combined entity to be a stronger competitor to Digicel in Jamaica and similar markets.

c) The prospect of this increased competition provides a strong motive for Digicel to raise the spurious and false accusations that it has levied in this proceeding.

6. As Digicel acknowledges, the relevant Jamaican regulatory agencies have already reviewed the transaction, and approved the transaction subject to certain assurances made by the Applicants (submitted to the Commission by Digicel in its Ex Parte), including certain consumer protections (*e.g.*, ability to keep existing packages and number portability) and commitments to provide bandwidth on a non-discriminatory basis and to offer capacity to resale operators. These commitments in Jamaica provide additional protection against any potential anticompetitive conduct of the Applicants in that market.

B. Digicel provides no evidence that Applicants' interests in the Cayman Islands' two cable networks will have an adverse impact on competition. (Reply at 5).

1. Digicel continues to gloss over the fact that Applicants each have only minority interests in the high-capacity MAYA-1 cable (a consortium cable landing in the Cayman Islands, the U.S. and many other Latin American markets).

2. Moreover, Columbus has no other cable interests or business presence in the Cayman Islands. Thus, the impact of the transaction is negligible if anything.

C. With respect to the Dominican Republic, Digicel merely argues that Applicants provided no evidence in their Response that third parties retain a substantial majority of the activated and design capacity. (Reply at 5-6).

1. Unaffiliated third parties control (i) all of the new, state-of-the-art AMX-1 system (with direct links to the U.S.); (ii) all land routes to Haiti; and (iii) more than 90% of the capacity of the Antillas-1 cable.

2. Moreover, C&W's share of activated and design capacity is under 10%, meaning the incremental market increase for the combined entity is small.

D. With respect to Haiti, Digicel continues to ignore the land routes to the Dominican Republic (Reply at 6), where all of the capacity is held by third parties, including Digicel. In fact, Digicel has secured a dark fiber IRU with BW Telecom S.R.L. to connect its Haiti backhaul with BW Telecom's land route to Puerto Plata, Dominican Republic, giving Digicel additional subsea options. Digicel also continues to ignore the fact that it has long term rights to use the Fibralink spur to Haiti, owning 72 STM-1s of capacity to Haiti, with favorable commercial terms to procure another 72

STM-1s of additional capacity, and that a Digicel affiliate owns and operates Fibralink's landing station in Haiti.

E. With respect to the British Virgin Islands, Digicel merely asserts that C&W holds ownership interest in all cables serving BVI. (Reply at 6).

1. Digicel continues to ignore the fact that Columbus has no cable or consortium interest in any cable in the BVI whatsoever, meaning that the transaction will have no effect on this market.

2. Digicel also inexplicably asserts that Applicants "categorically deny" C&W will own and operate the cable landing station for PCCS in BVI. (Reply at 6-7). Applicants did *not* deny this; *see* Section III below.

F. Digicel made no effort in its Reply or Ex Parte to refute Applicants' showing that the transaction will not increase concentration in Anguilla or Turks and Caicos. Indeed, the Packet Clearing House study submitted by Digicel supports Applicants, finding "minor" impacts in these markets. As in several cases above, the transaction has little or no impact on concentration in these markets.

G. As noted in the Report, with current and potential capacity, and new cables entering the market, none of these island markets will be short of capacity not controlled by the Applicants in the foreseeable future. (Report, Sections 2, 3.2.3).

III. Digicel's allegation regarding C&W's foreign affiliation certification is patently false.

A. In its Reply, Digicel repeatedly cites as incorrect C&W's certification that Cable and Wireless is "not a foreign carrier, and does not directly own a cable landing station in any foreign country." (Reply at 7; 7, n. 12; 8).

1. In the transfer Application, this certification is made by "C&W", defined therein as the Transferee (*i.e.*, Cable & Wireless Communications Plc, the parent company of the C&W operating companies). Cable and Wireless Communications Plc is a holding company; it is *not* a foreign carrier, and does *not* directly own a cable landing station in any foreign country.

2. As Applicants clearly stated in the Application, C&W "is and will continue to be affiliated with . . . foreign carriers, including entities that own or control a cable landing station." C&W then listed eighteen such subsidiaries. (Application, pages 14-15).

IV. Digicel has failed to support the conditions it seeks to impose.

A. In its Reply, Digicel argues that there are precedents for reclassifying cables as common carrier systems, and imposing rate regulation in analogous situations, yet cites no precedents. (Reply at 8). As Applicants demonstrated in their Response, Digicel's conditions are inconsistent with longstanding Commission policies and precedent, and

should not be imposed in this case, especially given the dominant carrier safeguards that will apply.

B. Digicel argues that exceptional circumstances support conditions beyond the dominant carrier safeguards because “Applicants will have absolute monopoly control over landing facilities in Jamaica, the Cayman Islands, the Dominican Republic, Haiti, the British Virgin Islands, Anguilla and Turks and Caicos.” (Reply at 8).

1. This statement is incorrect or misleading as to the jurisdictions named.

a) In the case of each of the Cayman Islands, the British Virgin Islands, Anguilla and the Turks & Caicos, Columbus owns no landing stations, so the transaction has no impact.

b) In the Dominican Republic, neither Columbus nor C&W owns any landing stations, so the transaction has no impact.

c) In Haiti, Natcom owns and operates the BDSNi landing station, and Digicel itself owns and operates the Fibralink landing station.

d) In Jamaica, C&W or Columbus do own the landing station facilities; however, neither is the licensed operator of the ALBA cable landing station, which in any case is governed by a Construction and Maintenance Agreement that give rights and protections to the third party owners of that cable.

2. More importantly, the Commission has found the dominant carrier safeguards, which Applicants have already agreed to in these markets (other than Haiti, where Applicants are not affiliated with a dominant carrier), entirely appropriate for addressing ownership of foreign cable landing stations.¹⁵ As Applicants noted in their Response, the Commission has additional tools it can employ in the event of market distortions or anticompetitive behavior. (Response at 16). In the absence of any such anticompetitive behavior, there is no need for any additional *ex ante* regulation.

C. Digicel has provided no basis for divestiture of any assets of either Columbus or C&W in connection with this transaction. (*See Ex Parte* at 3).

V. Digicel has failed to support its allegation that the Applicants’ strategic alliance constituted a transfer of control, or to provide any justification for a hearing.

A. In reply to Applicants’ Response demonstrating lack of transfer of control, Digicel now argues merely that Applicants “did not disclose their alliance with the

¹⁵ Verizon-MCI Order, para. 162 (“[A]lthough we identify [applicant affiliates] as among the significant participants in the cable landing station input market for the . . . routes . . . , our standard foreign affiliation safeguards will serve to protect against any anti-competitive conduct by these affiliated carriers possessing market power at the foreign end of a U.S.-licensed cable.”), para. 180.

Commission, much less seek its prior approval or ruling that no prior approval was required.” (Reply at 8). The simple answer is that, for the reasons already stated in the Response, no approval was required, and the alliance was widely publicized. By its own admission, Digicel has purchased capacity multiple times from CN-CWC Co and never until its Petition considered that the strategic alliance was illegal or, let alone, clandestine.

B. Digicel raises a new argument for a hearing, alleging that a C&W certification in the Application is inaccurate. (Reply at 8). This is false; *see* Section III above. Digicel also raises Applicants’ statement that Columbus does not have ownership interests in certain cables. (Reply at 8-9). Again, Applicants’ statement is accurate; *see* Section I.C.4 above.

C. Designation for a hearing is unnecessary. Under Section 309(e) of the Communications Act, the Commission may designate an application for hearing if “a substantial and material question of fact is presented or if the Commission for any reason is unable to make [a finding that the public interest, convenience or necessity will be served by granting such application.]”

1. In this case, there are no questions of material fact. No party has filed a petition to deny the Application, and even Digicel does not oppose the grant of the Proposed Transaction. (Petition at 9).

2. Digicel has failed to provide any meaningful factual or legal support for imposing any conditions (other than the existing dominant carrier safeguards) on the approval of the Proposed Transaction.

3. Applicants have met their burden of proving, by a preponderance of the evidence, that the Proposed Transaction, on balance, serves the public interest.

D. Finally, in its Ex Parte, Digicel disclosed confidential e-mails between Digicel and Columbus, arguing that they suggest that Columbus relinquished responsibility for its cables to C&W.

1. This disclosure is an unconscionable breach of Columbus’ proprietary business information, including comprehensive and specific details of an offering of capacity made to Digicel. It is sadly reflective of Digicel’s approach in this proceeding more generally, including its deceptive accusations regarding C&W’s certification.

2. The disclosure provides no support whatsoever for Digicel’s allegations that a transfer of control has occurred. Digicel argues that references to necessary approval by C&W indicates a transfer of control. However, these references refer to Digicel’s desire to amend a contract between C&W and Digicel for capacity on ECFS, a system in which C&W has an interest, and Columbus has no interest.

The International Submarine Capacity Market in the Americas

For Columbus Networks

March 28, 2015

Table of Contents

1. Introduction	1
1.1. About TeleGeography	1
1.2. About Julian Rawle Consulting.....	2
2. Description of Main Cable Systems.....	3
2.1. Existing Systems Landing in U.S. Territory	4
2.1.1. Americas-I	4
2.1.2. Americas-II	5
2.1.3. Americas Region Caribbean Ring System (ARCOS)	6
2.1.4. Antillas-1	8
2.1.5. Antilles Crossing	9
2.1.6. Bahamas-2	10
2.1.7. Bahamas Internet Cable System (BICS)	11
2.1.8. Colombia-Florida Express (CFX-1)	13
2.1.9. Columbus-IIb	14
2.1.10. Global Caribbean Network (aka Guadeloupe Numérique, GCN)	15
2.1.11. GlobeNet.....	17
2.1.12. Latin American Nautilus (LAN).....	18
2.1.13. Maya-1	19
2.1.14. Mid-Atlantic Crossing (MAC)	20
2.1.15. Pan-American Crossing (PAC)	21
2.1.16. Panamericano (PAN-AM).....	22
2.1.17. Sint Maarten Puerto Rico Network One (SMPR-1).....	24
2.1.18. South America-1 (SAm-1)	25
2.1.19. South American Crossing (SAC)	26
2.1.20. Taino-Carib.....	27
2.2. Other Existing Systems Serving Relevant Markets	29
2.2.1. ALBA-1.....	29
2.2.2. Bahamas Domestic Submarine Network (BDSNi).....	30
2.2.3. Cayman-Jamaica Fiber System (CJFS)	32
2.2.4. Eastern Caribbean Fiber System (ECFS).....	33
2.2.5. East-West	35
2.2.6. ECLink.....	36

2.2.7. Fibralink.....	37
2.2.8. Suriname-Guyana Submarine Cable System (SG-SCS).....	38
2.3. Planned Systems	39
2.3.1. América Móvil Express (AMX-1)	39
2.3.2. Cable of the Americas (aka "Monet")	40
2.3.3. Pacific Caribbean Cable System (PCCS).....	41
2.3.4. Seabras-1.....	43
3. Assessment of Available Capacity & Market Shares	44
3.1.Methodology, Assumptions, & Definitions.....	44
3.1.1. Methodology.....	44
3.1.2. Assumptions.....	45
3.1.3. Definitions.....	47
3.2.Results of Analysis.....	48

List of Figures

Figure 1 - Americas-I Cable Map	4
Figure 2 - Americas-II Cable Map	5
Figure 3 - ARCOS Cable Map	6
Figure 4 - Antillas-1 Cable Map	8
Figure 5 - Antilles Crossing Cable Map	9
Figure 6 - Bahamas-2 Cable Map	10
Figure 7 - BICS Cable Map	11
Figure 8 - CFX-1 Cable Map	13
Figure 9 - Columbus-IIb Cable Map	14
Figure 10 - GCN, MCN, & SCF Cable Maps	15
Figure 11 - GlobeNet Cable Map	17
Figure 12 - LAN Cable Map	18
Figure 13 - Maya-I Cable Map	19
Figure 14 - Mid-Atlantic Crossing Cable Map	20
Figure 15 - Pan-American Crossing Cable Map	21
Figure 16 - Panamericano Cable Map	22
Figure 17 - SMPR-1 Cable Map	24
Figure 18 - SAm-1 Cable Map	25
Figure 19 - SAC Cable Map	26
Figure 20 - Taino-Carib Cable Map	27
Figure 21 - ALBA-1 Cable Map	29
Figure 22 - BDSNi Cable Map	30
Figure 23 - CJFS Cable Map	32
Figure 24 - ECFS Cable Map	33
Figure 25 - East-West Cable Map	35
Figure 26 - ECLink Cable Map	36
Figure 27 - Fibralink Cable Map	37

Figure 28 - SG-SCS Cable Map.....	38
Figure 29 - AMX-1 Cable Map	39
Figure 30 - Cable of the Americas (Monet) Cable Map.....	40
Figure 31 - PCCS Cable Map	41
Figure 32 - Seabras Cable Map	43
Figure 33 - Total Addressable Market & CNL / CWC Lit & Design Capacities Actuals 2014 & Forecast 2017	48
Figure 34 - CNL / CWC Lit & Design Capacities Actuals 2014 & Forecast 2017 vs. Total Market for Connectivity to U.S. Territories	50
Figure 35 - Estimate of Current Lit Capacity and Forecast Future Potential Capacity on Specific Routes	51

1. Introduction

In order to meet FCC submission requirements, Columbus Networks has requested TeleGeography and Julian Rawle Consulting to provide an estimate of the current international submarine capacity market in “the Americas” which is defined as all existing submarine cable capacity connecting the U.S. and its territories (PR and USVIs) to the Americas region, including the Caribbean, and a forecast of demand over the next two years to the end of 2017.

This analysis includes cables that are planned to be commissioned in the next two years and derives the overall combined market share of Columbus Networks Ltd and its affiliates (“CN”) and Cable & Wireless (“CWC”) in terms of total capacity when compared to the total submarine capacity available in the Americas region today and through 2017.

To the extent possible, this analysis of available capacity has been broken down by active capacity and design capacity.

1.1. About TeleGeography

TeleGeography is a division of PriMetrica, Inc. Based in Carlsbad, CA, PriMetrica, Inc. specializes in delivering market intelligence to the telecom and IT industries.

TeleGeography is a telecommunications market research and consulting firm. We conduct in-depth research, compile large data sets, and present this information clearly in online reports and databases. Since 1989, our data have provided guidance to thousands of clients, including service providers, equipment makers, investors, and governments.

Our goal is not to cover all segments of the telecom industry. Instead, we conduct in-depth, primary research on a limited number of key subjects. Our focus allows us to generate uniquely detailed metrics that are not available from any other source—in fact, dozens of prominent research and consulting firms subscribe to TeleGeography services. We provide users with

access to these detailed data sets through online databases; drawing from the data, we also offer cogent analysis and clear graphics that shed light on the trends shaping the industry.

Our primary research areas include:

- International networks, undersea cables, service providers, and wholesale circuit pricing
- International Internet networks, service providers, capacity, traffic, and IP transit pricing
- Enterprise MPLS VPN, Ethernet, dedicated Internet access, and international private line service providers and pricing
- International long distance traffic, service providers, cost, and pricing
- Retail mobile, broadband, and fixed-line service providers and markets

TeleGeography is also the founder of the WAN Summit, a biannual conference in New York and London bringing together buyers and providers of enterprise WAN services to identify and discuss trends in international network planning, procurement, and design.

1.2. About Julian Rawle Consulting

Based in Boston, Massachusetts, USA, Julian Rawle Consulting is a globally recognized name in providing analysis of the submarine fiber optic market.

Julian Rawle Consulting offers independent, objective expertise to prospective cable operators, equipment suppliers, and financial institutions. References include cable development projects on all six inhabited continents, market analysis projects with accurate forecasts for all major markets, and countless due diligence exercises.

Principal of the company, Julian Rawle, has been involved in the submarine fiber optic industry for over fifteen years and has considerable first-hand experience in every aspect of the industry. He is a frequent contributor to industry and mainstream Press and is regularly invited to speak at conferences. Julian was previously International Marketing Director at NTT World Engineering Marine and then Managing Partner at Pioneer Consulting.

2. Description of Main Cable Systems

The following profiles from TeleGeography cover existing and planned commercial U.S. territory-Latin America & Caribbean submarine cable systems that are operational today. This data is supplemented by Julian Rawle Consulting estimates of the current and future potential capacities of these systems.

"RFS Year" indicates the year in which the system was put into service.

"Cost to Build" shows the original capital cost to build and install the initial active capacity. This figure, shown in US\$ millions, does not include subsequent investment by the owner in installing additional active capacity or in installing the latest generation of wavelength technology.

"Ownership" indicates the owner or owners of a cable. A single owner indicates a "private cable" while multiple owners indicates a "consortium cable".

"Length" indicates the length in kilometers of the submarine cable from cable landing station to cable landing station.

"Lit Capacity" indicates how much capacity had been activated on the system at the end of 2014 and, based on Julian Rawle Consulting's recent research and database of planned upgrades, a forecast of what the lit capacity will be at the end of 2017.

"Potential Capacity" indicates Julian Rawle Consulting's estimate of the maximum lit capacity that could be achieved on the system according to its current design in 2014 and an estimate of what the maximum lit capacity would be if the system's wavelength technology were upgraded to the latest generation of 100 Gbit/s wavelengths.

2.1. Existing Systems Landing in U.S. Territory

2.1.1.Americas-I

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
1994	310	Consortium	2,012	168	461	640	2,800

Figure 1 - Americas-I Cable Map



Landing Points:

USA
Vero Beach, FL
Magens Bay, USVI

Consortium Members:

- AT&T
- CANTV
- Corporacion Nacional de Telecomunicaciones
- Embratel
- Sprint
- Tata Communications
- Telefónica
- Verizon

Americas-I is a consortium cable that connects mainland U.S. with the U.S. Virgin Islands. It is the last remaining segment in service from a system that originally connected mainland U.S. to Trinidad, Venezuela, and Brazil. The system contains two fiber pairs and was upgraded by Xtera at the end of 2009 using 20 Gbit/s technology. At this time, the design capacity was increased to 640 Gbit/s and the lit capacity increased to 120 Gbit/s.

2.1.2. Americas-II

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2000	365	Consortium	8,373	1,140	3,128	4,000	4,000

Figure 2 - Americas-II Cable Map



Landing Points:

USA	Martinique	Venezuela	Curaçao	Trinidad & Tobago	French Guiana	Brazil
Hollywood, FL Miramar, PR St. Croix, USVI	Le Lamentin	Camuri	Willemstad	Port of Spain	Cayenne	Fortaleza

Consortium Members:

- AT&T
- **Cable & Wireless Communications**
- CANTV
- Centennial of Puerto Rico
- Corporacion Nacional de Telecomunicaciones
- Embratel
- Level 3
- Orange
- Portugal Telecom Tata Communications
- Telecom Argentina
- Telecom Italia Sparkle Verizon
- Sprint

Americas-II is a consortium cable that connects the U.S., with northeastern South America via three interlocking segments. The highest-capacity segment links Florida to St. Croix and currently operates at a lit capacity of 1.14 Tbit/s.

2.1.3. Americas Region Caribbean Ring System (ARCOS)

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2001	450	Consortium	8,700	1,624	4,456	33,600	55,200

Figure 3 - ARCOS Cable Map



Landing Points:

USA	Bahamas	Turks & Caicos	Dominican Republic
North Miami Beach, FL Isla Verde, PR	Cat Island Crooked Island Nassau	Providenciales	Puerto Plata Punta Cana
Curaçao	Venezuela	Colombia	Panama
Willemstad	Punto Fijo	Cartagena Riohacha Colombia	Maria Chiquita
Costa Rica	Nicaragua	Honduras	Guatemala
Puerto Limon	Bluefields Puerto Cabezas	Puerto Cortes Puerto Lempira Honduras Trujillo	Puerto Barrios
Belize	Mexico		
Belize City	Cancun Tulum		

Consortium Members:

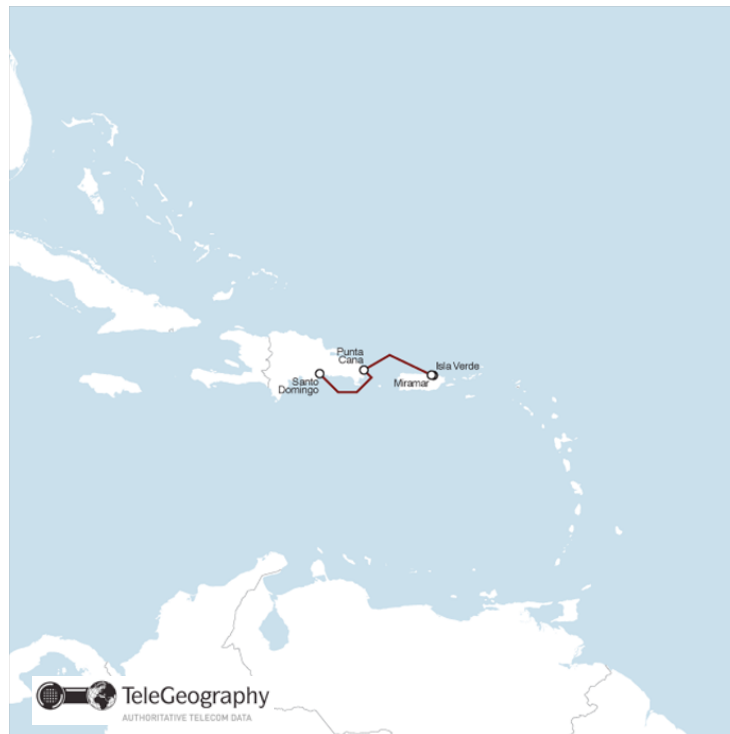
- Alestra
- AT&T
- Axtel
- Bahamas Telecommunications Company
- Belize Telemidia
- CANTV
- Codetel
- **Columbus Networks**
- Enitel
- Hondutel
- Internexa
- Orbinet Overseas
- RACSA
- Telecarrier
- Telecomunicaciones Ultramarinas de Puerto Rico
- Telepuerto San Isidro
- Tricom USA
- United Telecommunications Services (UTS)
- Verizon

The Americas Region Caribbean Optical-Ring System (ARCOS) relies on 22 unrepeated and two repeated segments to form a festoon system around the Caribbean basin. With 12 fiber pairs each, capacity on the unrepeated segments is much higher than on the two repeated segments (Florida to Cancun and Puerto Rico to Curaçao).

2.1.4. Antillas-1

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
1997	10	Consortium	650	3.732	10	3.732	300

Figure 4 - Antillas-1 Cable Map



Landing Points:

USA	Dominican Republic
Isla Verde, PR	Punta Cana
Miramar, PR	Santo Domingo

Consortium Members:

- AT&T
- Orange
- Sprint
- Tata Communications
- Telecom Italia Sparkle
- Verizon

The Antillas-1 system consists of six active fibre pairs, each operating at 622 Mbit/s, for a total system capacity of 3.732 Gbit/s. Antillas-1 contains 4,860 fibre kilometres. The terms of the Antillas-1 supply contract were never announced. It is assumed that since AT&T was the largest investor in the system, the supply contract was awarded to AT&T-SSI (now known as TE SubCom). The estimated value of the contract was \$20 million. The system was originally scheduled to enter service in mid-1996, but the entire system was not activated until mid-1997.

2.1.5. Antilles Crossing

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2006	25	Digicel	940	224	615	400	640

Figure 5 - Antilles Crossing Cable Map



Landing Points:

USA	St. Lucia	Barbados
St. Croix, USVI	Rodney Beach	Needham's Point

In December 2013, Digicel Group purchased from Group Loret a number of Global Caribbean Fiber (GCF) submarine assets, including the Antilles Crossing, Middle Caribbean Network (MCN) and Southern Caribbean Fiber (SCF). The deal provided Digicel a wholly-owned subsea network of approximately 2,100 km that spans from Trinidad to St. Croix, USVI. As part of the agreement, Digicel purchased significant capacity on the Global Caribbean Network (GCN) from Group Loret for onward connectivity via San Juan, Puerto Rico.

The Antilles Crossing cable interconnects Needham's Point, Barbados with St. Croix, passing through St. Lucia. In Saint Croix, the network has access to international gateways to Miami and New York. The system was upgraded with 40 Gbit/s wavelength technology in 2013.

2.1.6. Bahamas-2

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
1997	20	Consortium	470	7	19	15	250

Figure 6 - Bahamas-2 Cable Map



Landing Points:

USA	Bahamas
Vero Beach, FL	Eight-Mile Rock, Nassau

Consortium Members:

- AT&T
- Telefonica
- Verizon

Bahamas-2 consists of six fibre pairs operating at 2.5 Gbit/s. The total capacity of the system is 15 Gbit/s. The system contains 5,640 fibre kilometres. The \$20 million supply contract for Bahamas-2 was awarded to AT&T-SSI (now known as TE SubCom).

2.1.7. Bahamas Internet Cable System (BICS)

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2001	31	Caribbean Crossing	1,100	46	127	2,400	40,800

Figure 7 - BICS Cable Map



Landing Points:

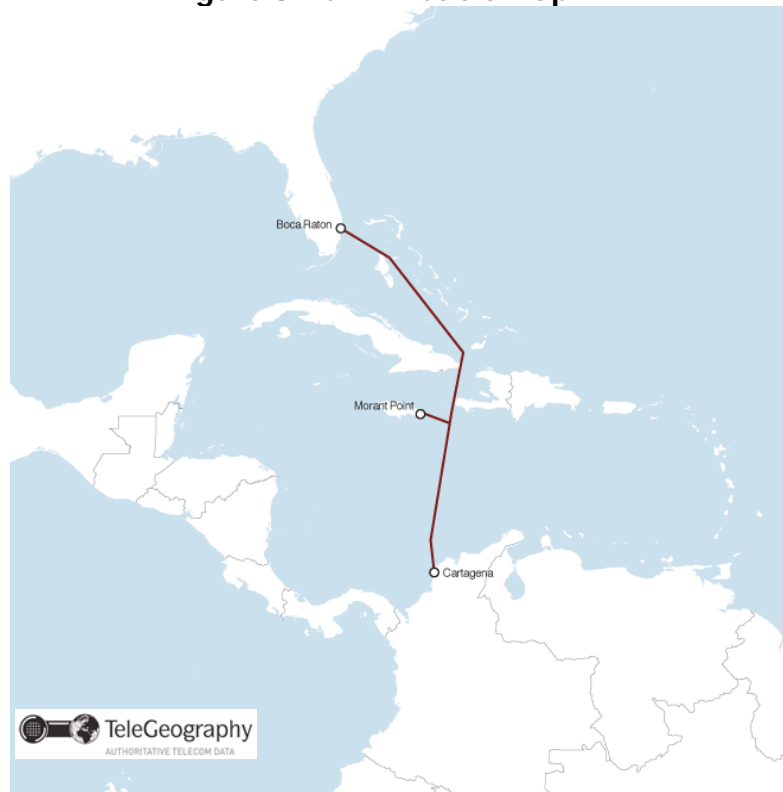
USA	Bahamas
Boca Raton, FL Spanish River Park, FL	Caves Point Crown Haven Current Hawksbill Riding Point Sandy Point

The Bahamas Internet Cable System (BICS) is an undersea cable that links four major islands of the Bahamas – Grand Bahama, New Providence, Abaco, and Eleuthera – with the U.S. The 1,100-kilometer, unrepeated system entered service in July 2001. The international segment between Grand Bahama and Florida has a lit capacity of 46 Gbit/s. BICS is owned by Caribbean Crossings, a wholly owned subsidiary of Cable Bahamas Ltd.

2.1.8. Colombia-Florida Express (CFX-1)

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2008	100	Columbus Networks	2,400	1,260	3,457	10,240	16,400

Figure 8 - CFX-1 Cable Map



Landing Points:

USA	Jamaica	Colombia
Boca Raton, FL	Morant Point	Cartagena

The Colombia-Florida Express (CFX-1) cable is a 2,400-kilometer cable connecting Florida and Colombia directly, with a spur to Jamaica. The Columbus Networks-owned system commenced operations in August 2008. The cable interconnects with ARCOS providing alternate route protection between Colombia and Florida.

2.1.9. Columbus-IIb

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
1994	237	Consortium	2,068	168	461	960	960

Figure 9 - Columbus-IIb Cable Map



Landing Points:

USA
West Palm Beach, FL
Magens Bay, USVI

Consortium Members:

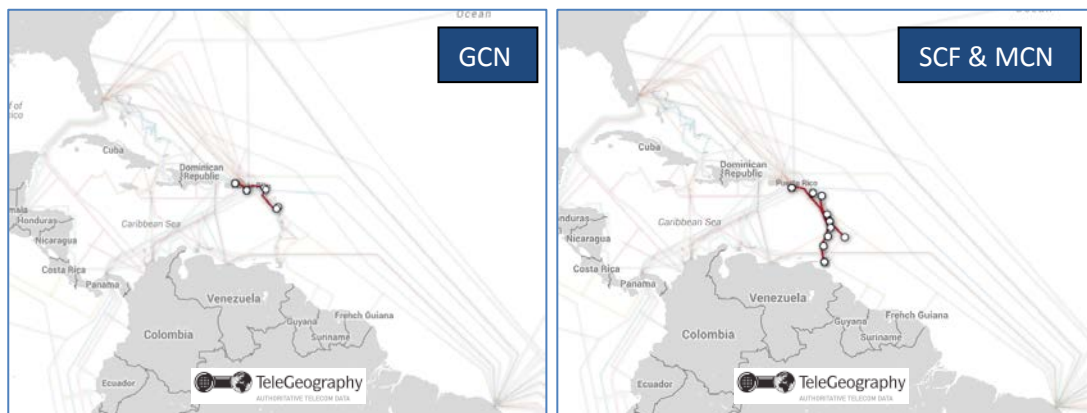
- AT&T
- **Cable & Wireless Communications**
- CANTV
- Portugal Telecom
- Tata Communications
- Telecom Italia Sparkle
- Sprint
- Telmex
- Telefónica Larga Distancia de Puerto Rico

Columbus-II was originally a transatlantic system but all segments have been decommissioned except for Segment B connecting Florida to the U.S. Virgin Islands. This segment consists of three fibre pairs which were upgraded at the same time as Americas-I in 2009 by Xtera. This upgrade increased design capacity on the segment to 960 Gbit/s with lit capacity standing at 168 Gbit/s.

2.1.10. Global Caribbean Network (aka Guadeloupe Numérique, GCN)

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2006	28	Leucadia National Corp. & Loret Group	890	1,344	5,120	3,688	8,800

Figure 10 - GCN, MCN, & SCF Cable Maps



Note: MCN (Guadeloupe-Martinique) is shown as part of SCF

Landing Points:

USA	Antigua & Barbuda	Barbados
Miramar, San Juan, PR Hamm's Bay, St. Croix, USVI	St. John's	Needham's Point
Dominica	France	Grenada
Canefield	Basse Terre, Guadeloupe Pointe-à-Pitre, Guadeloupe Le Lamentin, Martinique St. Barthelemy Galisbay, Saint Martin	St. George's
St. Kitts & Nevis	St. Lucia	St. Vincent & Grenadines
Limekiln Bay	Rodney Bay	Kingstown
Trinidad & Tobago		
Chaguaramas		

The GCN cable was developed by Global Caribbean Fiber (GCF), jointly owned by Group Loret (60%) and Leucadia (40%). GCF was also the parent company of the Middle Caribbean Network (MCN), Southern Caribbean Fiber (SCF), and Antilles Crossing projects. Although they are separated, interconnected entities, all of the aforementioned GCF systems were grouped under the "GCN" brand.

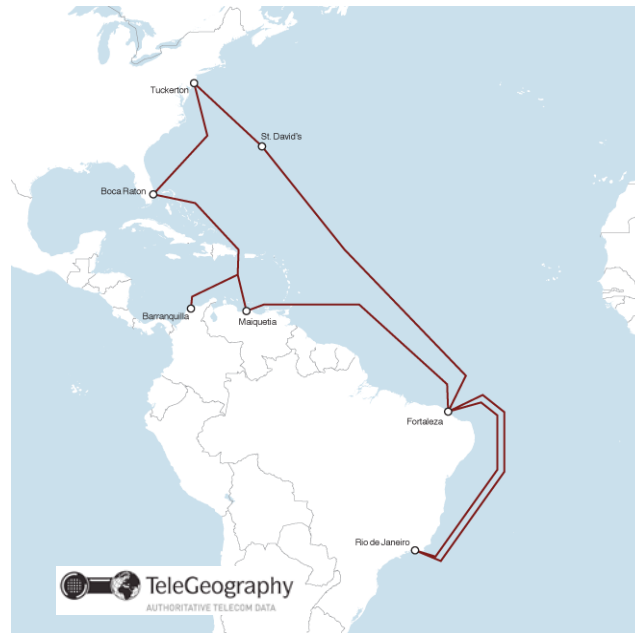
In December 2013, Leucadia and Group Loret sold all of their GCN submarine assets to Digicel with the exception of the original GCN (Guadeloupe Numérique) system. As part of the agreement, Digicel purchased significant capacity on GCN from Group Loret for onward connectivity via San Juan, Puerto Rico.

The GCN links the Internet backbone in Puerto Rico with St. Martin, Saint Barthelemy and Guadeloupe. The link between Saint Martin and Puerto Rico also contains a branching unit to Saint Croix.

2.1.11. GlobeNet

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2000	975	BTG Pactual	22,770	3,360	9,220	7,680	12,800

Figure 11 - GlobeNet Cable Map



Landing Points:

USA	Bermuda	Brazil	Venezuela	Colombia
Boca Raton, FL Tuckerton, NJ	St. David's	Fortaleza Rio de Janeiro	Maiquetia	Barranquilla

GlobeNet is a fully redundant dual ring-protected cable system that spans more than 22,700 kilometers and connects North and South America. In July 2013, Brazilian operator Oi sold GlobeNet to the investment bank BTG Pactual for \$772 million. In 2013, GlobeNet completed the replacement for Segment 5 of the system between the U.S. and Bermuda, and a new spur that connects to Colombia.

2.1.12. Latin American Nautilus (LAN)

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2000	200	TI Sparkle	20,000	700	1,921	1,280	2,100

Figure 12 - LAN Cable Map



Landing Points:

USA	Colombia	Argentina	Panama
St. Croix, USVI	Buenaventura	Colon Las Toninas	Fort Amador
Brazil	Peru	Venezuela	Chile
Fortaleza Rio de Janeiro Santos	Lurin	Puerto Viejo	Valparaiso

Latin American Nautilus (LAN), whose majority owner is Telecom Italia, operates one fiber pair on the South American Crossing (SAC) cable system. This fiber pair was upgraded to 500 Gbit/s in 2013 and is estimated to be currently running at 700 Gbit/s. LAN forms a self-healing ring around South America. The cable includes terrestrial segments across Panama and from Chile to Argentina.

2.1.13. Maya-1

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2000	207	Consortium	4,400	512	1,200	640	1,200

Figure 13 - Maya-I Cable Map



Landing Points:

USA	Mexico	Honduras	Cayman Islands	Costa Rica	Panama	Colombia
Hollywood, FL	Cancun	Puerto Cortes	Half Moon Bay	Puerto Limon	Maria Chiquita	Tolu

Consortium Members:

- AT&T
- BT
- **Cable & Wireless Communications**
- CANTV
- **Columbus Networks**
- Hondutel
- Orbitel
- Sprint
- Tata Communications
- Telecom Italia Sparkle
- Telefonica
- Verizon

When it commenced operations in October 2000, Maya-1 was the first multi-gigabit system in the Caribbean Sea to connect North and Central America.

Maya-1 is configured as a collapsed ring with two fibers. In 2014 the consortium upgraded the network with 40 Gbit/s wavelengths to increase lit capacity from 145 Gbit/s to 512 Gbit/s.

2.1.14. Mid-Atlantic Crossing (MAC)

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2000	415	Level 3	7,500	4,450	12,281	14,800	14,800

Figure 14 - Mid-Atlantic Crossing Cable Map



Landing Points:

USA
Brookhaven, NY
Hollywood, FL
St. Croix, USVI

Mid-Atlantic Crossing, originally built by Global Crossing and now owned by Level 3, is a self-healing ring system that interconnects with Level 3's Atlantic Crossing-1 cable in New York and with the South America Crossing cable in the U.S. Virgin Islands.

MAC features two fiber pairs capable of carrying 34 to 40 separate 100-Gbit/s wavelengths on the three segments. The Florida-St. Croix segment has 2.5 Tbit/s of lit capacity, while the New York-St. Croix span has 1.9 Tbit/s of lit capacity, and the New York-Florida span has 760 Gbit/s of lit capacity.

2.1.15. Pan-American Crossing (PAC)

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2000	280	Level 3	10,000	1,060	1,400	1,400	1,400

Figure 15 - Pan-American Crossing Cable Map



Landing Points:

USA	Mexico	Costa Rica	Panama
Grover Beach, CA	Mazatlan Tijuana	Unqui	Fort Amador

Originally built by Global Crossing and now owned by Level 3, Pan-American Crossing (PAC) network extends from southern California down the west coast of Mexico and Central America. The cable interconnects with Pacific Crossing-1 (PC-1) and North American Crossing in California, South American Crossing in Panama, and Mexican Crossing in Mazatlán. PAC’s lit capacity was upgraded from 460 Gbit/s to 790 Gbit/s in 2013 and is estimated to be currently running at 1 Tbit/s.

2.1.16. Panamericano (PAN-AM)

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
1999	214	Consortium	7,050	140	384	590	600

Figure 16 - Panamericano Cable Map



Landing Points:

USA	Netherlands	Venezuela	Colombia
St. Thomas, USVI St. Croix, USVI	Baby Beach, Aruba	Punto Fijo	Barranquilla
Panama	Ecuador	Peru	Chile
Colon Panama City	Punta Carnero	Lurin	Arica

Consortium Members:

- AT&T
- **Cable & Wireless Communications**
- CANTV
- Centennial of Puerto Rico
- Corporacion Nacional de Telecomunicaciones
- Embratel
- Softbank Telecom
- Sprint
- Tata Communications
- Telconet
- Telecom Argentina
- Telecom Italia Sparkle
- Telefonica de Argentina
- Telefonica del Peru
- Telstra
- Verizon

The Pan American cable system links the Caribbean to the west coast of South America. From the north, it stretches from St. Thomas, USVI, crosses via a terrestrial link through Panama, and terminates in Arica, Chile.

The network consists of a series of four collapsed rings:

Ring 1: St. Thomas – St. Croix, U.S. Virgin Islands

Ring 2: St. Croix – Baby Beach, Aruba – Punto Fijo, Venezuela – Barranquilla, Colombia – Colon, Panama

Ring 3: Colon – Panama City (terrestrial link)

Ring 4: Panama City – Punta Carnero, Ecuador – Lurin, Peru – Arica, Chile

In 2009, the PAN-AM system underwent a dramatic increase in capacity for the first time since its inception. The number of waves on the cable was expanded from one on each ring to four, seven, five, and four in Rings 1-4, respectively. The bit rate per wave was boosted from 2.5 Gbit/s to 10 Gbit/s on all four rings.

2.1.17. Sint Maarten Puerto Rico Network One (SMPR-1)

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2004	14	Smitcoms, PREPANet	374	14	38	240	1,200

Figure 17 - SMPR-1 Cable Map



Landing Points:

USA	Sint Maarten
Isla Verde, PR	Great Bay Beach

The SMPR-1 cable interconnects with the ARCOS cable in Puerto Rico. The system contains six fibre pairs and is currently configured for 10 Gbit/s wavelengths. Included in the design is a branching unit for future expansion.

2.1.18. South America-1 (SAm-1)

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2001	1,600	Telefonica	25,000	9,000	19,200	19,200	19,200

Figure 18 - SAm-1 Cable Map



Landing Points:

USA	Colombia	Brazil	Argentina
Boca Raton, FL San Juan, PR	Barranquilla	Fortaleza Rio de Janeiro Salvador Santos	Las Toninas
Chile	Peru	Ecuador	Guatemala
Arica Valparaiso	Lurin Mancora	Punta Carnero	Puerto Barrios Puerto San Jose

South America-1 (SAm-1) is a self-healing ring connecting North, Central, and South America. In 2013, SAm-1 was upgraded to a lit capacity of 2.7 Tbit/s on each segment. Two

years later, the combined lit capacity on both segments is estimated at 9 Tbit/s. SAM-1 is managed and operated by Telefonica International Wholesale Services. Telefonica, through its Latin American subsidiaries, also owns terrestrial infrastructure throughout South America.

2.1.19. South American Crossing (SAC)

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2000	600	Level 3	20,000	4,890	13,418	12,480	14,400

Figure 19 - SAC Cable Map



Landing Points:

USA	Colombia	Argentina	Panama
St. Croix, USVI	Buena Ventura (planned)	Colon Las Toninas	Fort Amador
Brazil	Peru	Venezuela	Chile
Fortaleza Rio de Janeiro Santos	Lurin	Puerto Viejo	Valparaiso

South American Crossing (SAC) forms a self-healing ring around South America. The cable includes terrestrial segments across Panama and from Chile to Argentina. SAC connects with Level 3's Pan-American Crossing cable in Panama and its Mid-Atlantic Crossing cable in St. Croix.

In March 2014, Level 3 announced plans to extend the cable to Colombia.

2.1.20. Taino-Carib

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
1992	17	Consortium	186	3.39	3.39	3.39	3.39

Figure 20 - Taino-Carib Cable Map



Landing Points:

USA
Condado Beach, PR
Isla Verde, PR
Magen's Bay, USVI

Consortium Members:

- AT&T
- **Cable & Wireless Communications**
- CANTV
- Orange
- Telecom Argentina
- Telecom Italia Sparkle

Taino-Carib contains six fibre pairs, each operating at 565 Mbit/s, for a total capacity of 3.39 Gbit/s. The system contains 2,232 fibre kilometres. AT&T-SSI (now TE SubCom) supplied the \$17 million Taino-Carib system. AT&T owns 42 per cent of Taino-Carib.

2.2. Other Existing Systems Serving Relevant Markets

2.2.1. ALBA-1

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2012	70	Transbit, Telecom Venezuela	1,860	112	307	640	2,800

Figure 21 - ALBA-1 Cable Map



Landing Points:

Venezuela	Jamaica	Cuba
La Guaira	Ocho Rios	Siboney

ALBA-1 was conceived as a political initiative between the Castro regime in Cuba and its ally, the government of late President Hugo Chavez of Venezuela. The system is currently operational with traffic transiting on the cable from foreign points through Venezuela and Jamaica landing facilities.

2.2.2. Bahamas Domestic Submarine Network (BDSNi)

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2006	60	Bahamas Telecommunications Company, Teleco	2,817	896*	2,459	1,920*	3,300

* Bahamas-Haiti segment

Figure 22 - BDSNi Cable Map



Landing Points:

Bahamas	Haiti
Cat Island	Port-au-Prince
Clarence Town	
Cockburn Town	
Duncan Town	
Fresh Creek	
George Town	
Governors Harbor	
Hawksbill	
Matthew Town	
Mayaguana	
Nassau	
Port Nelson	
Rock Sound	
Sandy Point	

Service on BDSNi was initially launched in 2000. BTC then lit a spur to Port-au-Prince, Haiti in December 2006. Haitian operator, Teleco, jointly controls the link with BTC, a CWC affiliate. In 2013, Huawei Marine upgraded the three fiber pairs on BDSNi to 40 Gbit/s wavelengths between Matthew Town, Bahamas and Port-au-Prince, Haiti for a total design capacity on that segment of 1,920 Gbit/s.

2.2.3. Cayman-Jamaica Fiber System (CJFS)

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
1997	28	Cable & Wireless Communications	870	14	38	40	166

Figure 23 - CJFS Cable Map



Landing Points:

Cayman Islands	Jamaica
Cayman Brac Half Moon Bay	Kingston

CJFS is a four-fiber pair two-segment system which was upgraded by Xtera in 2012 from 2.5 Gbit/s wavelengths to 10 Gbit/s wavelengths, resulting in a new design capacity of 40 Gbit/s. Currently, 14 Gbit/s of this capacity is estimated to be lit.

2.2.4. Eastern Caribbean Fiber System (ECFS)

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
1995	49	Consortium	1,730	182	260	260	260

Figure 24 - ECFS Cable Map



Landing Points:

Anguilla	Antigua & Barbuda	Barbados	Dominica
The Valley	St. John's	Bridgetown	Roseau
Grenada	Guadeloupe	Martinique	Montserrat
St. George's	Pointe-a-Pitre	Le Lamentin	Plymouth
Saint Kitts & Nevis	Saint Lucia	Saint Martin	Saint Vincent & the Grenadines
Basseterre	Castries	Galisbay	Kingstown
Trinidad & Tobago			
Chaguaramas			

Consortium Members:

- AT&T
- BT
- **Cable & Wireless Communications**
- CANTV
- Codetel
- Guyana Telephone and Telegraph
- Orange
- Sprint
- Verizon

ECFS is a 10-segment repeaterless system. Prior to the installation of the ECFS, communications to the Lesser Antilles had been achieved through a combination of microwave towers and satellite earth stations, both of which are prone to damage by hurricanes. Consequently, the ECFS was installed to provide a more reliable system of communications. In 2013, Xtera upgraded ECFS to handle 100G wavelengths as well as 10G wavelengths which increased design capacity to 260 Gbit/s, 182 Gbit/s of which is estimated to be lit today.

2.2.5. East-West

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2011	35	Cable & Wireless Communications	1,750	168	461	720	1,200

Figure 25 - East-West Cable Map



Landing Points:

Dominican Republic	Jamaica	UK
Haina	Harbour View	Nanny Cay, BVI

East-West was constructed in 2011 by re-using parts of the de-commissioned transatlantic system, "Gemini". The system is repeatered and consists of two fiber pairs operating at 40 Gbit/s and 10 Gbit/s. East-West interconnects with the Caribbean-Bermuda U.S. (CBUS) system in the British Virgin Islands for onward connectivity to Bermuda.

2.2.6. ECLink

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2007	32	Columbus Networks	987	252	691	2,880	12,000

Figure 26 - ECLink Cable Map



Landing Points:

Curaçao	Trinidad & Tobago
Willemstad	Chaguaramas

ECLink interconnects with the Columbus Networks' ARCOS system in Curacao. This three-fiber pair repeated system is currently operating on 10 Gbit/s wavelengths.

2.2.7. Fibralink

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2006	40	Columbus Networks	1,000	210	576	2,560	4,110

Figure 27 - Fibralink Cable Map



Landing Points:

Jamaica	Haiti	Dominican Republic
Bull Bay	Kaliko	Puerto Plata

The Fibralink system began operations in March 2006, linking Jamaica to the Dominican Republic. Fibralink interconnects with Columbus Networks' ARCOS cable in the Dominican Republic. In 2012, the company built a 200-kilometer extension between Haiti and Jamaica.

2.2.8. Suriname-Guyana Submarine Cable System (SG-SCS)

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014	2017	2014	2017
2010	60	Guyana Telephone and Telegraph, Telesur	1,249	112	307	1,280	5,400

Figure 28 - SG-SCS Cable Map



Landing Points:

Guyana	Suriname	Trinidad & Tobago
Georgetown	Totness	Chaguaramas

SG-SCS is a two-fiber pair, three segment repeatered system which is currently operating with 10 Gbit/s technology.

2.3. Planned Systems

2.3.1. América Móvil Express (AMX-1)

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014*	2017	2014*	2017
Q4 2014	502	América Móvil	17,800	1,000	1,960	100,000	100,000

*Capacity due to be commissioned in 2015 included in end 2014 numbers

Figure 29 - AMX-1 Cable Map



Landing Points:

USA	Mexico	Guatemala
Jacksonville, FL Miami, FL San Juan, PR	Cancun	Puerto Barrios
Dominican Republic	Brazil	Colombia
Puerto Plata	Fortaleza Rio de Janeiro Salvador	Barranquilla Cartagena

América Móvil is constructing the América Móvil Express (AMX-1) cable, which will link Brazil, Colombia and several other Latin American countries to the United States. The cable is expected to enter service in 2015.

2.3.2. Cable of the Americas (aka "Monet")

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014*	2017	2014*	2017
Q4 2016	400	Consortium	10,566	1,000	1,400	60,000	60,000

*Capacity due to be commissioned in 2015 included in end 2014 numbers

Figure 30 - Cable of the Americas (Monet) Cable Map



Landing Points:

USA	Brazil
Boca Raton, FL	Fortaleza Santos

Consortium Members:

- Angola Cables
- Google
- Algar Telecom
- Antel

The Monet consortium cable will link the United States and Brazil. The consortium, formed by Google, Brazilian ISP Algar Telecom, Uruguayan incumbent telco Antel, and Angola Cables, plans to have the cable ready for service by the end of 2016.

2.3.3. Pacific Caribbean Cable System (PCCS)

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014*	2017	2014*	2017
2015	165	Consortium	6,000	1,000	1,960	80,000	80,000

*Capacity due to be commissioned in 2015 included in end 2014 numbers

Figure 31 - PCCS Cable Map



Landing Points:

USA	UK	Aruba
Jacksonville, FL San Juan, PR	Tortola, BVI	Hudishibana
Panama	Ecuador	Colombia
Balboa Maria Chiquita	Manta	Cartagena

Consortium Members:

- **Cable and Wireless Communications**
- Telconet
- Telefonica
- Setar
- United Telecommunications Services (UTS)

The Pacific Caribbean Cable System (PCCS) will extend from the United States to Ecuador with landings in Colombia, Panama, Puerto Rico, Aruba and the British Virgin Islands. The consortium plans to have the cable ready for service in 2015.

2.3.4. Seabras-1

RFS Year	Cost to Build (US\$M)	Ownership	Length (km)	Lit Capacity (Gbit/s)		Potential Capacity (Gbit/s)	
				2014*	2017	2014*	2017
Q1 2016	500	Seaborn Networks	10,500	1,000	1,400	60,000	60,000

*Capacity due to be commissioned in 2015 included in end 2014 numbers

Figure 32 - Seabras Cable Map



Landing Points:

USA	Brazil
New York, NY	Fortaleza Santos

Seaborn Networks is constructing Seabras-1, a 10,500-kilometer cable, to provide a direct route between New York and São Paulo with a branching unit in Fortaleza, Brazil. Seabras-1 is scheduled to go live in Q1 2016.

3. Assessment of Available Capacity & Market Shares

This section assesses the amount of lit and available capacity on cables connecting the United States to Central America, South America, and the Caribbean and estimates the combined market share of Columbus Networks (CNL) and Cable & Wireless Communications (CWC).

3.1. Methodology, Assumptions, & Definitions

3.1.1. Methodology

TeleGeography provided the following data points for all specified cables:

- Cable Name
- Ready For Service (RFS) Date
- Status
- Ownership
- Lit Capacity, Year-end 2014 (Gbit/s)
- Landing Points

Julian Rawle Consulting supplemented the above data by providing:

- A sortable matrix of country markets served by each cable
- A sortable matrix of owners in each cable
- A breakdown of the system configuration (fiber pairs x wavelengths x Gbit/s per wavelength) for each cable

- A calculation of capacity available to CNL / CWC on each cable according to ownership percentage
- An estimate of potential capacity at the end of 2014
- A forecast of lit capacity on each cable at the end of 2017
- A forecast of the design capacity potential of each cable at the end of 2017

CWC/CNL provided the actual CNL / CWC ownership percentage in each cable.

From this analysis, total market and CNL / CWC capacities can be totaled for year-end 2014 and year-end 2017 and CNL / CWC market shares thereby derived.

Further analysis of competition on particular routes from the U.S. to specific countries and of competition on U.S.-Latin America routes was also provided using the same methodology as described above.

3.1.2. Assumptions

The following key assumptions were made in compiling this analysis:

- The actual level of participation in a consortium cable is usually kept confidential and may vary from time to time, depending on the take-up of capacity upgrades. For this analysis, therefore, we chose to assume an even distribution of member rights based on the number of members in each consortium. However, CNL and CWC percentages are actuals.
- The system configuration can vary from one segment of a cable system to another. For this analysis, we have focused on the likely capacity available in the main trunk of the system but we have aggregated the capacities of every segment in a system that lands in mainland U.S.
- Based on recent market research by Julian Rawle Consulting for other clients, we have assumed that the market for international wholesale capacity between the United States and the Americas including the Caribbean will grow at a compound average rate of 40% per year between 2014 and 2017.
- To determine the potential design capacity of each system in 2017, we have assumed that:

- The next generation of DWDM technology operating at 400 Gbit/s wavelengths will not be commercially available by the end of 2017;
- All specified cables are capable of being upgraded to 100 Gbit/s wavelength technology
- The capacity yield from a technology upgrade is as follows:
 - 622 Mbit/s to 2.5 Gbit/s = capacity at 622 Mbit/s x 4
 - 2.5 Gbit/s to 10 Gbit/s = capacity at 2.5 Gbit/s x 4
 - 10 Gbit/s to 40 Gbit/s = capacity at 10 Gbit/s x 2.6
 - 40 Gbit/s to 100 Gbit/s = capacity at 40 Gbit/s x 1.6
- Calculated forecast capacities are rounded up
- New systems commissioned in 2015 and beyond are assumed to have an initial lit capacity of 1 Tbit/s growing at a compound average rate of 40% per year to 2017.
- Systems which are known to come into service later in 2015 have been included in the figures for end 2014.
- Any planned upgrades that are known to be completed later in 2015 have been included in the figures for end 2014.

3.1.3. Definitions

To assist with understanding this analysis, the following definitions are provided:

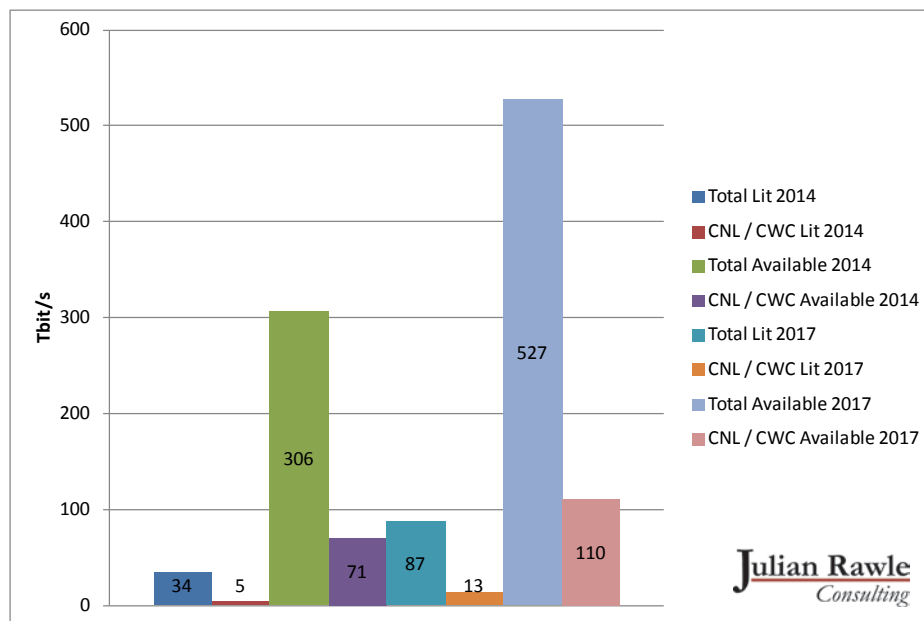
Term	Definition
RFS	"Ready For Service" i.e. the year in which the cable system became operational
Status	Current status of the cable system i.e. either "In Service", "Under Construction", or "Planned", meaning a strong expectation that the project will be realized.
Countries Served	Countries where the cable system has one or more landings
Ownership	Owners of a private cable or members of a consortium cable
CNL / CWC %	Percentage interest in the cable of Columbus Networks (CNL) & Cable & Wireless Communications (CWC)
No. λ 's	Number of wavelengths per fiber pair
λ (Gbit/s)	Capacity of wavelength
Lit Capacity (Gbit/s)	Amount of unprotected capacity that has been activated but not necessarily sold or used on the cable system
Design Capacity (Gbit/s)	No. cable segments in the system that land in mainland U.S. x No. fiber pairs x No. wavelengths per fiber pair x capacity per wavelength

3.2. Results of Analysis

3.2.1. Overall Connectivity in the Addressable Market

Based on the data provided by TeleGeography and CWC/CNL, and the supplemental analysis carried out by Julian Rawle Consulting, Figure 33 below shows that CNL and CWC combined control 23% of the unprotected capacity that is available today on submarine fiber optic cable systems that serve the market that is addressable by CNL / CWC given their current submarine assets (71 Tbit/s vs. 306 Tbit/s). However, in terms of "Lit Capacity" which has a much closer correlation with sales, CNL / CWC currently has a market share of 14% (4.9 Tbit/s vs. 34 Tbit/s).

Figure 33 - Total Addressable Market & CNL / CWC Lit & Design Capacities Actuals 2014 & Forecast 2017



It should also be noted that 1.5 Tbit/s of CNL / CWC's Lit Capacity and 31.9 Tbit/s of their currently available capacity is on the ARCOS ring system which sells almost exclusively 1:1 protected capacity in order to meet the requirements of service level agreements with their customers. Half of the above-mentioned capacity on ARCOS is therefore redundant and cannot be used to generate additional sales. As such, it could be argued that CNL / CWC's share of available capacity and market share is lower than as stated above. However, other competitors

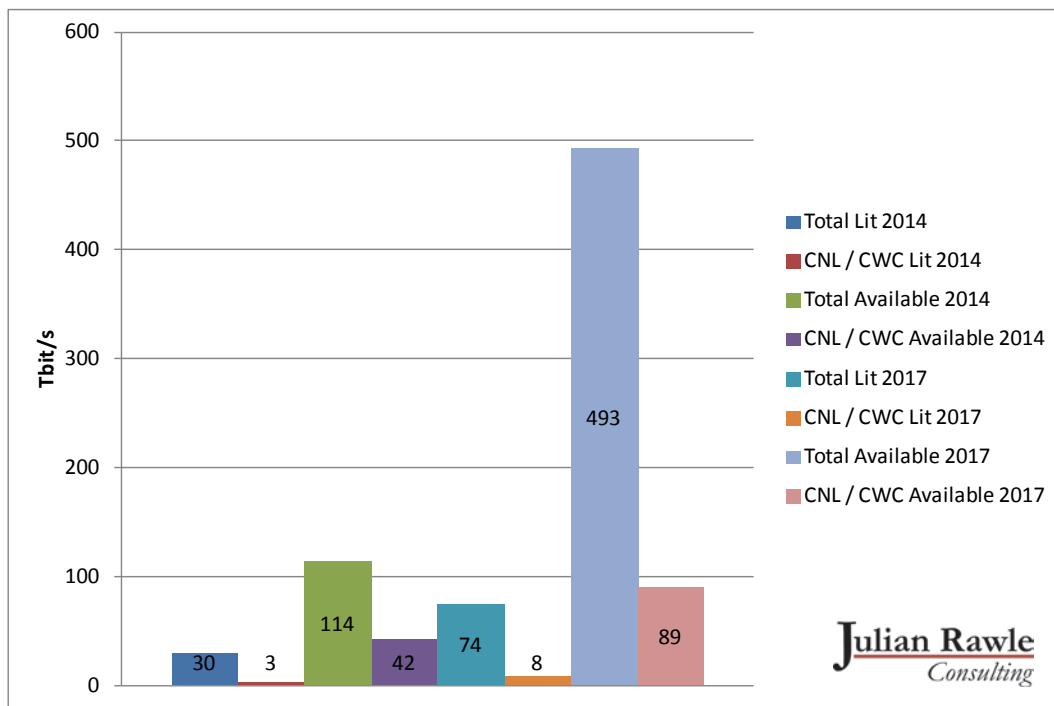
will also offer protected and unprotected services so, for comparison purposes, it is advisable to regard all capacity as unprotected.

Looking forward to the end of 2017, CNL / CWC is only involved in one of the four large next generation cables systems that are either under construction or planned to come into operation in that time frame. Consequently, CNL / CWC are forecast to control only 21% of the available capacity (110 Tbit/s vs. 527 Tbit/s) by that time and their market share (based on Lit Capacity) will be 15% (13 Tbit/s vs. 87 Tbit/s).

3.2.2. Connectivity to U.S. Territories

Based on the data provided by TeleGeography and CWC/CNL, and the supplemental analysis carried out by Julian Rawle Consulting, Figure 34 below shows that CNL and CWC combined control 37% of the unprotected capacity that is available today on submarine fiber optic cable systems that connect the USA to Central America, South America, and the Caribbean (42 Tbit/s vs. 114 Tbit/s). However, in terms of "Lit Capacity" which has a much closer correlation with sales, CNL / CWC currently has a market share of 10% (3 Tbit/s vs. 30 Tbit/s).

Figure 34 - CNL / CWC Lit & Design Capacities Actuals 2014 & Forecast 2017 vs. Total Market for Connectivity to U.S. Territories



Looking forward to the end of 2017, CNL / CWC is only involved in one of the four large next generation cables systems that are either under construction or planned to come into operation in that time frame. Consequently, CNL / CWC are forecast to control only 18% of the available capacity (89 Tbit/s vs. 493 Tbit/s) by that time and their market share (based on Lit Capacity) will be 11% (8 Tbit/s vs. 74 Tbit/s).

3.2.3. Route-Specific Connectivity to U.S. Territories

Based on data provided by TeleGeography and the supplemental analysis carried out by Julian Rawle Consulting, Figure 35 below shows lit and potential capacity estimates, with caveats listed below, on routes between US territories, i.e. US mainland, USVI, and Puerto Rico, and specific Caribbean island markets:

Figure 35 - Estimate of Current Lit Capacity and Forecast Future Potential Capacity on Specific Routes

US Territory to:	TeleGeography 2014 Estimate of Current Used/Deployed Capacity by Route Gbit/s	JRC Forecast of Available Capacity by Route in 2017 (Gbit/s)
Jamaica	79	1,100
Cayman Islands	3	100
Dominican Republic	98	3,400
British Virgin Islands	0.3	10
Anguilla	0.5	20
Haiti	9	300
Turks & Caicos	1.5	100

TeleGeography's data in Figure 35 above is based on capacity deployments by Internet backbone operators, private networks, and switched voice networks. The data is not equivalent to lit submarine cable capacity. Furthermore the data does not necessarily reflect the origin and destination of traffic. In other words, this analysis does not show what capacity may hop from one of those seven islands via Puerto Rico or the U.S. Virgin Islands.

The main conclusion from this analysis is that none of these island markets will be short of capacity in the foreseeable future.