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REDACTED – FOR PUBLIC INSPECTION

September 8, 2016

VIA ECFS

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

Re: *Business Data Services in an Internet Protocol Environment et al., WC Docket Nos. 16-143, 15-247, and 05-25* and *RM-10593*

Dear Ms. Dortch:

Pursuant to the procedures outlined in the *Modified Protective Order*, *Second Protective Order*, and *Data Collection Protective Order* in the above-referenced proceedings, Frontier and CenturyLink herein submit a redacted version of the attached *ex parte* in the above-referenced proceedings.

Frontier and CenturyLink have designated for confidential treatment the marked portions of the attached documents pursuant to the *Data Collection Protective Order*,[1] Second Protective Order,[2] and Data Collection Protective Order[3] in WC Docket No. 05-25 and RM-10593.

Pursuant to the protective orders and additional instructions from Commission staff, Frontier and CenturyLink are filing a redacted version of the document electronically via ECFS, one copy of the Confidential version with the Secretary, and sending two copies of the Confidential version to Christopher Koves, Pricing Policy Division, Wireline Competition Bureau.

Please contact me if you have any questions or require any additional information

Sincerely,

Mike Saperstein

Enclosure

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[1] *Special Access for Price Cap Local Exchange Carriers*, Modified Protective Order, DA 10-2075, 25 FCC Rcd 15168 (Wireline Comp. Bur. 2010).
[2] *Special Access for Price Cap Local Exchange Carriers*, Second Protective Order, DA 10-2419, 25 FCC Rcd 17725 (Wireline Comp. Bur. 2010).
[3] *Special Access for Price Cap Local Exchange Carriers*, Order and Data Collection Protective Order, DA 14-1424, 30 FCC Rcd 11657 (Wireline Comp. Bur. 2015).

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Dear Ms. Dortch:

On September 6, 2016, David Bartlett of CenturyLink, and Kathleen Abernathy and I of Frontier Communications, met with Commissioner Mignon Clyburn and Claude Aiken, Wireline Legal Advisor to Commissioner Clyburn, to discuss the proceeding referenced above.

CenturyLink and Frontier used the attached presentation (Attachment A) to discuss the ways in which proposals raised by the Commission and other parties, including Verizon and Incompas,[1] do not synch with market realities and would produce results that would be deeply harmful to investment in American broadband connectivity. CenturyLink and Frontier also referenced the attached analyst reports and news articles (Attachment B) to emphasize the competitive nature of the Business Data Service (BDS) market. These articles demonstrate the impact that the BDS proposals have had on their companies and ultimately may have on their customers and employees.

Sincerely,

Mike Saperstein

cc: Commissioner Clyburn
Claude Aiken

[1] Letter from Kathleen Grillo, Senior Vice President, Verizon, and Chip Pickering, Chief Executive Officer, INCOMPAS, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 16-143, 05-25, RM 10593 (filed Aug. 9, 2016).

Business Data Services: Proposals vs Market Realities

September 6, 2016

The Proposed Cuts to BDS Rates Will Not Achieve Broadband Objectives

- **The proposal is a disincentive for future facilities-based deployment.**
  - ILECs and other potential entrants lack incentive to invest in new areas given uncertain return on investment.
  - Google Fiber's decision to retreat from new infrastructure deployment and lease dark fiber demonstrates the economic disincentives to invest in network infrastructure even in dense areas.
    - Source: Sean Buckley, *Google Fiber's struggles highlight value in using existing dark, shared fiber assets*, Fierce Telecom, Aug. 22, 2016.
- **The FCC's proposal will not further 5G deployment.**
  - The backhaul market for DS1 and DS3s is shrinking dramatically and is not relevant to 5G.
  - There is already extensive competition for Ethernet backhaul services.
  - Verizon has confirmed that it has migrated off of DS1/DS3 technology for Ethernet products, and its focus for 5G is on dark fiber, not BDS.

"When we went from EVDO to 4G and this notion of you can light up a cell site with 4 or 5 T-1s and you get 1.5 Mbps circuit with each circuit costing a couple hundred dollar or you can light up with a 50 or 100 Mbps service and the equivalent cost is drastically lower. With 5G we do believe that dark fiber and lighting up ourselves is the better way to go from a cost point of view so we're pre-positioning ourselves to do so."
– David Small, EVP Wireless Operations, Verizon

- Source: Sean Buckley, *Verizon sees potential in dark fiber-based 5G backhaul*, Fierce Telecom, Aug. 11, 2016.

The Verizon-Incompas Proposal Is Harmful to U.S. Broadband Goals, Based on Faulty Assumptions, and Administratively Infeasible

- The proposal's initial 15% rate cut over two years plus additional 4.4% minus inflation annual reductions would cause real-world harms without any corresponding public benefit:
  - **Jobs:** Potentially thousands of CenturyLink and Frontier union jobs are at stake.
  - **[Begin Confidential Information]** [redacted]
    - [redacted]
    - [redacted]
    - [redacted]
    - [redacted] **[End Confidential Information]**
- There is no basis for a claim that TDM services are non-competitive in all areas.
  - Cable competition has grown since 2013.
  - Cable competitors readily admit to providing competition for T-1 Service:
    - "Some of the customers of the LEC or the CLECs as well are looking at delivery over T-1-based services in those locations, but now we can hit them with 1 Mbps all the way up to 10 Gbps in a variety of different fashions depending on how those networks are configured." *--Paul Savas, Vice President of Comcast Business in New Hampshire and Vermont*
      - Sean Buckley, Comcast Business challenges FairPoint by deepening New Hampshire, Vermont Ethernet reach, Fierce Telecom, Mar. 3, 2015.
  - USTelecom survey demonstrates that business data service users consider "best efforts" cable service as a TDM business data service substitute.
- A census block-based solution is irrelevant to how the market functions and cannot be administered.

Virginia: Cable Broadband Expansion Since 2012

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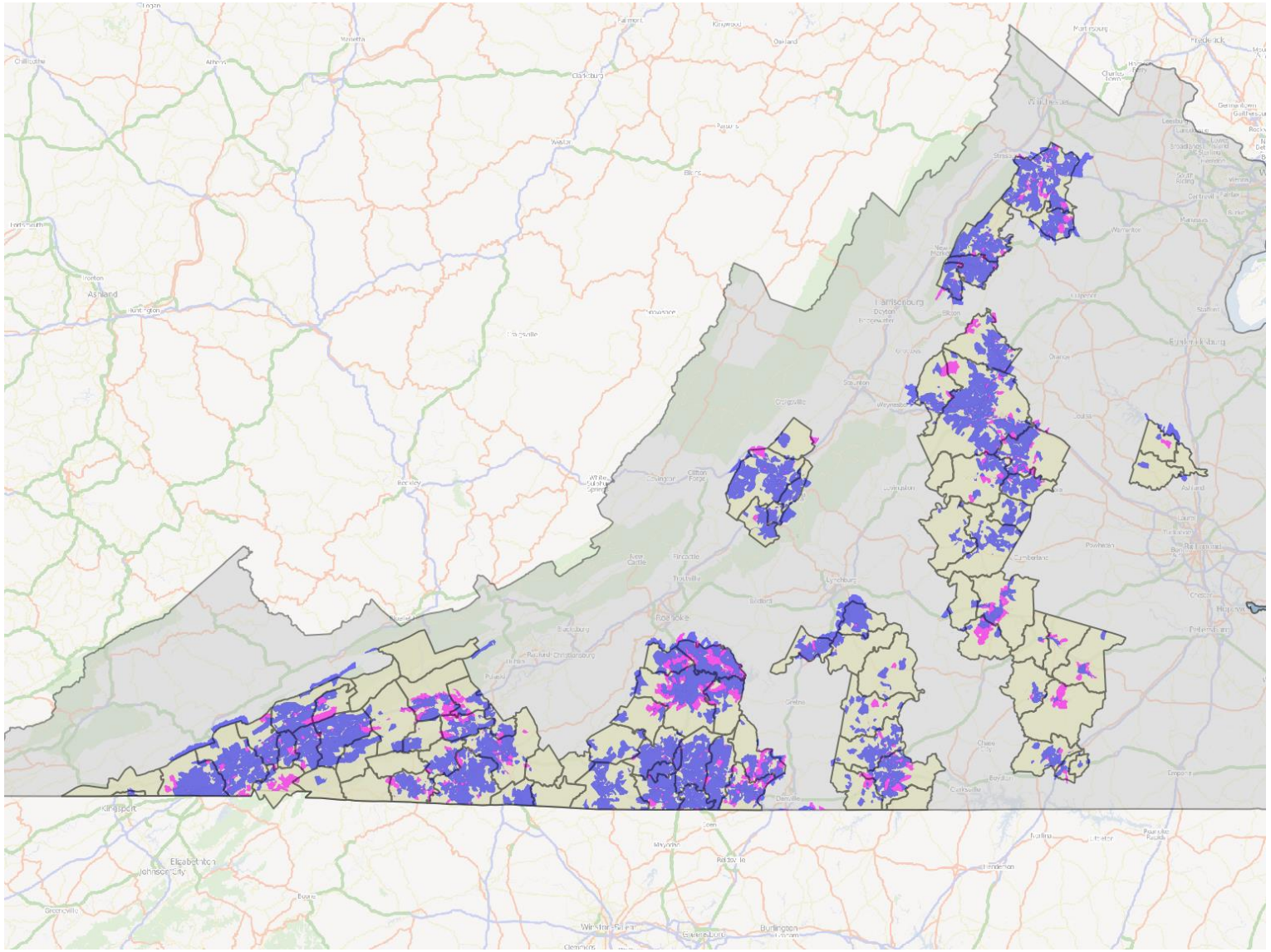

2012 Cable Area
3,223 Square Miles
258,760 Housing Units
10,131 Firms

Expanded Cable Area
552 Square Miles
18,335 Housing Units
1,191 Firms

- Cable as of 2012
- Cable Expansion After 2012
- CenturyLink Exchange

2012 Cable Broadband source: US Dept of Commerce, National Telecommunication and Information Administration, State Broadband Initiative June 30, 2012. Cable expansion derived from Fixed Broadband Deployment Block Data as of June 30, 2015. Version 2 from https://www.fcc.gov/encyclopedia/broadband-deployment-data-fcc-form-477. Portions of the map data are ©2006-2016 TomTom and portions of the map data are ©2016 CenturyLink.

Flat BDS Rate Cut Proposals Do Not Match How the TDM Market is Priced

- DS1/DS3 Pricing is frequently averaged to balance urban and rural economics.
- The areas most likely to be deemed non-competitive are likely to be the areas with the highest costs of service because there is limited economic incentive to deploy there.
- Many of these areas have DS1s and DS3s priced below cost, due to rate averaging, which would then be driven further below cost if the FCC adopts flat BDS rate cuts.

DS1 Circuit Estimated Costs as a Percentage of Statewide Average Costs

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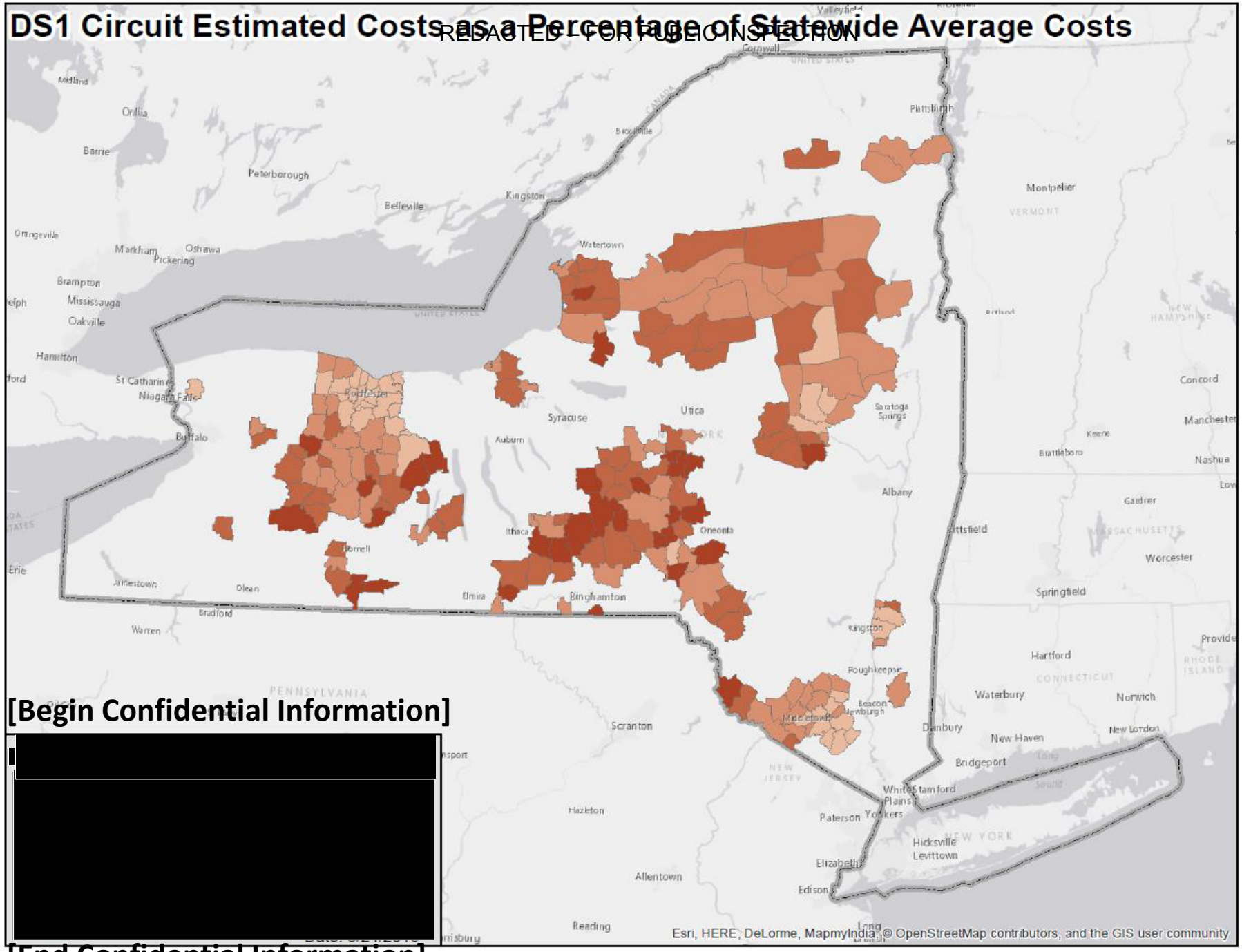

[Begin Confidential Information]

[redacted]

[End Confidential Information]

The Ethernet Market is Highly Competitive

- There are many different competitors in the Ethernet Market.
- Verizon-Incompas' proposal to benchmark Ethernet off of TDM rates is an economically flawed proposal, unnecessary, unduly complicated, and does not account for market realities of the TDM pricing or the historical framework underlying the TDM pricing structure.

VERTICAL SYSTEMS GROUP LEADERBOARD

MID-YEAR 2016 U.S. CARRIER ETHERNET SERVICES

RANK	ETHERNET PROVIDERS
1	AT&T
2	Level 3
3	Charter
4	Verizon
5	CenturyLink
6	Comcast
7	XO
8	Cox
9	Windstream

CHALLENGE TIER *(in alphabetical order)*
Cogent, Integra, Lightpath, Zayo

www.verticalsystems.com

Source: http://www.verticalsystems.com/vsglb/mid-year-2016-u-s-carrier-ethernet-leaderboard/

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Telecom

Charter bumps out Verizon as third largest U.S. Ethernet provider, gains lead from TWC, Bright House acquisitions

by *Sean Buckley* | Aug 18, 2016 9:08am

FierceTelecom

Charter Communications has taken over the third place in the U.S. Ethernet race, edging out Verizon in terms of port share. The jump reflects the gains it made from its acquisitions of Time Warner Cable and Bright House Communications.

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The cable MSO debuted on Vertical Systems Group's Mid-Year 2016 U.S. Carrier Ethernet Leaderboard, a report that ranks Ethernet service providers based on retail port share.

VERTICAL SYSTEMS GROUP LEADERBOARD

MID-YEAR 2016 U.S. CARRIER ETHERNET SERVICES

RANK	ETHERNET PROVIDERS
1	AT&T
2	Level 3
3	Charter
4	Verizon
5	CenturyLink
6	Comcast
7	XO
8	Cox
9	Windstream

CHALLENGE TIER *(in alphabetical order)*
Cogent, Integra, Lightpath, Zayo

www.verticalsystems.com

"Clearly, it's a big move up on the Leaderboard because Charter never retained a spot on the Leaderboard before," said Rosemary Cochran, principal of VSG, in an interview with *FierceTelecom*. "Time Warner Cable was previously ranked fifth on the Leaderboard and the combined entities pushed them up over Verizon to start at number three so it's a major move."

By making these acquisitions, Charter immediately gained a larger fiber and hybrid fiber coax footprint to target more small, medium and large businesses with Ethernet services.

With the Time Warner Cable acquisition, Charter gained 150,000 miles of fiber and 75,000 on-net buildings. In addition to its own network, TWC has established 130 E-NNI (external network-to-network interface) agreements with 25 other service providers. This allows Charter to potentially reach into larger business accounts in more U.S. markets.

Meanwhile, the Bright House acquisition gave Charter greater scale across number of key vertical industry segments such as healthcare, hospitality, government and education and a broader Ethernet footprint with an additional 18,000 miles of fiber.

Cochran said that now that Charter has completed these acquisitions, the MSO has to integrate all of the assets under the common Spectrum Business brand.

"These acquisitions give them a much broader network than they had with a coast to coast presence," Cochran said. "They are looking at putting all of those pieces together, which is everything from the organizational structure, services, and billing."

Evidence of Charter's ascension in the business market was also seen in the cable MSO's **second quarter results**. For the quarter, Charter reported that SMB and enterprise primary service units (PSUs) jumped. SMB PSU increased by 82,000. In the medium and large business market, enterprise PSUs rose 22 percent, ending the quarter with a total of 90 customers.

What also affected Verizon's ranking was the sale of its wireline properties in California, Florida and Texas to

numbers," Cochran said.

However, Verizon's **pending acquisition of XO's fiber network**, which took the seventh place ranking on the Leaderboard, could enable the telco to take back Ethernet share. Upon completing this acquisition following the FCC's review, Verizon will gain a set of metro networks in 40 major U.S. markets with over 4,000 on-net buildings and 1.2 million fiber miles. The service provider's intercity network also spans 20,000 route miles connecting 85 cities.

"The acquisition of the XO fiber assets is still pending," Cochran said. "It is possible that deal could be completed by the end of the year, but in terms of the impact we'd have to see what's left and how we count the ports that are attributed to that."

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This is not the first time an acquisition affected the Ethernet port share rankings. Level 3 Communications, for example, took **over the second spot on the Leaderboard** when it completed its acquisition of tw telecom in 2015.

The research group noted that from an overall Ethernet competitive market standpoint, 60 percent of new connections were delivered by CLECs and cable MSOs during the first half of 2016. For the full year, the U.S. Carrier Ethernet services grew at a 17 percent annualized growth rate.

“There’s definitely a competitive balance and it’s been changing,” Cochran said. “When you look at where the new business is coming from you have ILECs, CLECs and cable MSOs all represented on the Leaderboard, but in terms of the first half of the year we’re talking about a substantial amount of CLEC and cable MSOs.”

Regardless of the growth, Cochran said that all service provider groups are seeing Ethernet pricing pressures.

“Pricing is stabilizing, but it is a fact that there have been very aggressive Ethernet prices due to competition,” Cochran said. “We were seeing double digit pricing declines, but now it is single digit declines.”

Cochran added that pricing is related the services and speed offerings.

“Pricing depends on what services are offered and what higher speeds are available, particularly if you’re looking at very high speed applications that require low latency,” Cochran said. “There’s not as much competition for low latency services as there is for metro services so there’s a difference in terms of geography, application and speeds.”

For more:
- see the **release**

Related articles:
VSG: Charter's pending TWC deal could shake up Ethernet services market
Charter’s TWC, Bright House acquisitions increases medium-sized business customer visibility
Charter to focus overbuild strategy on telco competition
Charter's Rutledge says enterprise market penetration is low, but growth prospects are good
VSG: Level 3's tw telecom acquisition helps it surpass Verizon in Ethernet race

Read more on carrier ethernet, charter communications

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Google Fiber’s Salt Lake City launch highlights advantages of MDU installation | FierceTelecom

Verizon fiber cut in Oneida, New York catches state PSC's attention | FierceTelecom