KELLEY DRYE & WARREN LLP

A LIMITED LIABILITY PARTNERSHIP

WASHINGTON HARBOUR, SUITE 400

3050 K STREET, NW

WASHINGTON, DC 20007

(202) 342-8400

NEW YORK, NY
LOS ANGELES, CA
CHICAGO, IL
STAMFORD, CT
PARSIPPANY, NJ

BRUSSELS, BELGIUM

AFFILIATE OFFICE
MUMBAI, INDIA

FACSIMILE
(202) 342-8451
www.kelleydrye.com

THOMAS COHEN
DIRECT LINE: (202) 342-8518
EMAIL: tcohen@kelleydrye.com

June 9, 2015

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW, Room TW-A325
Washington, D.C. 20554

Re: Notice of *ex parte* presentation -- *Technology Transitions,* GN Docket No. 13-5, *Policies and Rules Governing Retirement of Copper Loops by Incumbent Local Exchange Carriers,* RM-11358

Dear Ms. Dortch:

On June 3, 2015, Lisa Youngers and Samuel Koetter (via telephone) of XO Communications LLC ("XO") and the undersigned, Thomas Cohen, of Kelley Drye & Warren LLP, counsel for XO, had a telephone conversation with Bakari Middleton of the Wireline Competition Bureau in regard to the above-referenced dockets.[1] During the call, XO representatives discussed the attached presentation, which reviews how XO uses copper loops acquired at wholesale from incumbent local exchange carriers ("ILEC") to provide Ethernet-over-Copper technology ("EoC") and how it resells a finished Ethernet service purchased at wholesale from an ILEC.

XO representatives also clarified that when XO refers to "dark" copper loops, it is referring to copper loops that do not have electronics attached. XO is not referring to copper facilities for which there is no demand or are not usable. In response to concerns raised in the *NPRM* about providing transparency about whether ILECs have retired copper facilities,[2] XO has proposed in its comments and *ex parte* filings[3] that the Commission require incumbents to

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1 *Technology Transitions et al.*, Notice of Proposed Rulemaking and Declaratory Ruling, FCC 14-185, GN Docket No. 13-15 (rel. Nov. 25, 2014) ("*NPRM*").

2 XO submits there is no such thing as a "*de facto* retirement of copper," and the Commission should not find there is. *See* Letter from Thomas Cohen to Marlene H. Dortch, GN Docket No. 13-5 *et al.*, n. 8 (June 5, 2015).

3 *See e.g. id.*

build on their current process of supplying information about available copper facilities by maintaining a searchable database of retired copper or copper noticed for retirement for access by their wholesale customers. The database should contain current (updated each month) information (address list) of where copper has been retired or noticed for retirement. While the database does not have to be centralized for each incumbent, the format should be consistent and have search capabilities for easy public access.

Please contact the undersigned if there are any questions or if you require further information.

Respectfully submitted,

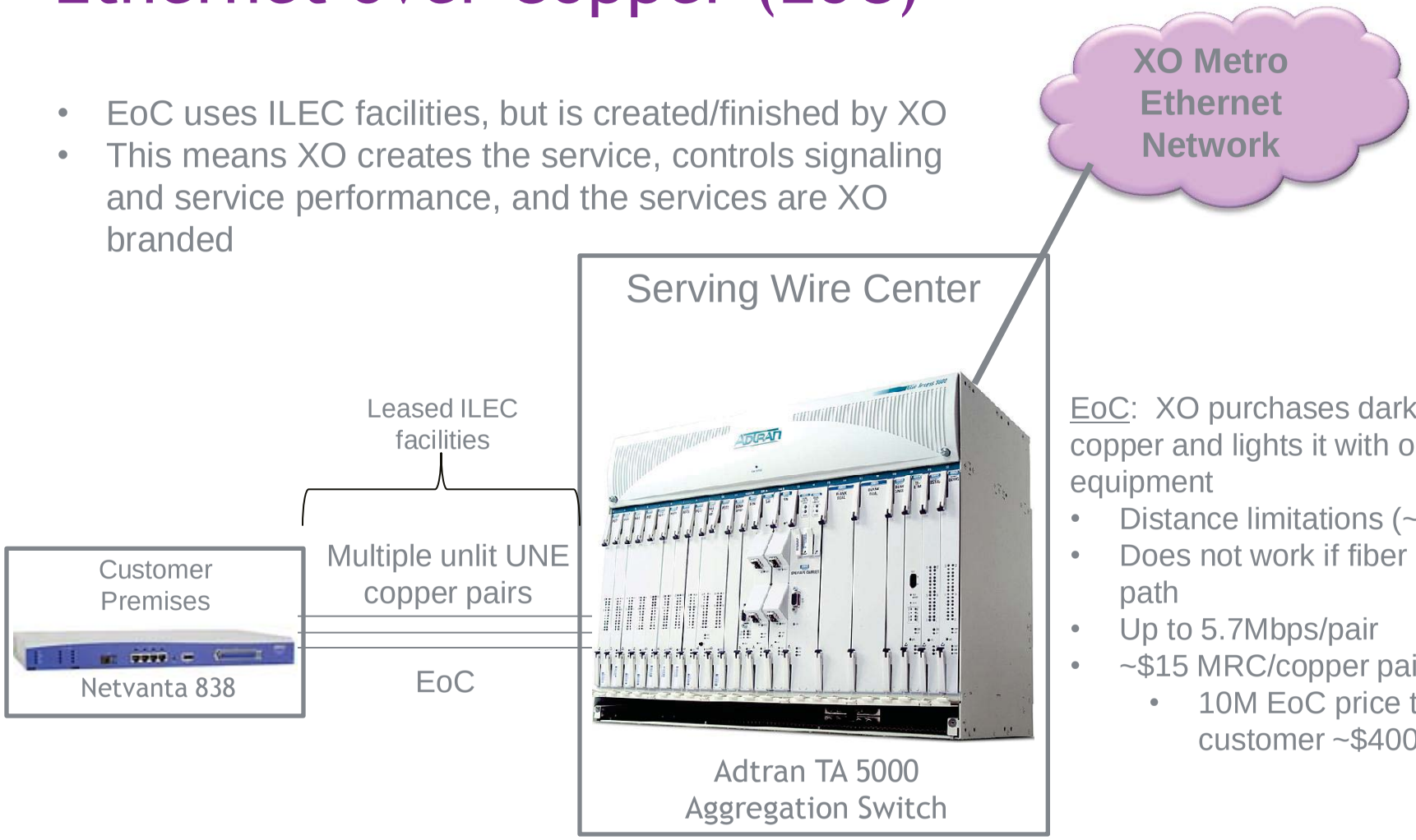
Thomas Cohen
Kelley Drye & Warren LLP
3050 K Street, NW Suite 400
Washington, DC 20007
Tel. (202) 342-8400
Fax (202) 342-8451
tcohen@kelleydrye.com
Counsel to XO Communications LLC

Attachment: XO Presentation on Copper Facilities

cc: Bakari Middleton

Ethernet over Copper (EoC)

- EoC uses ILEC facilities, but is created/finished by XO
- This means XO creates the service, controls signaling and service performance, and the services are XO branded



EoC: XO purchases dark/unlit copper and lights it with our equipment

- Distance limitations (~10,000ft)
- Does not work if fiber is in the path
- Up to 5.7Mbps/pair
- ~$15 MRC/copper pair
  - 10M EoC price to customer ~$400

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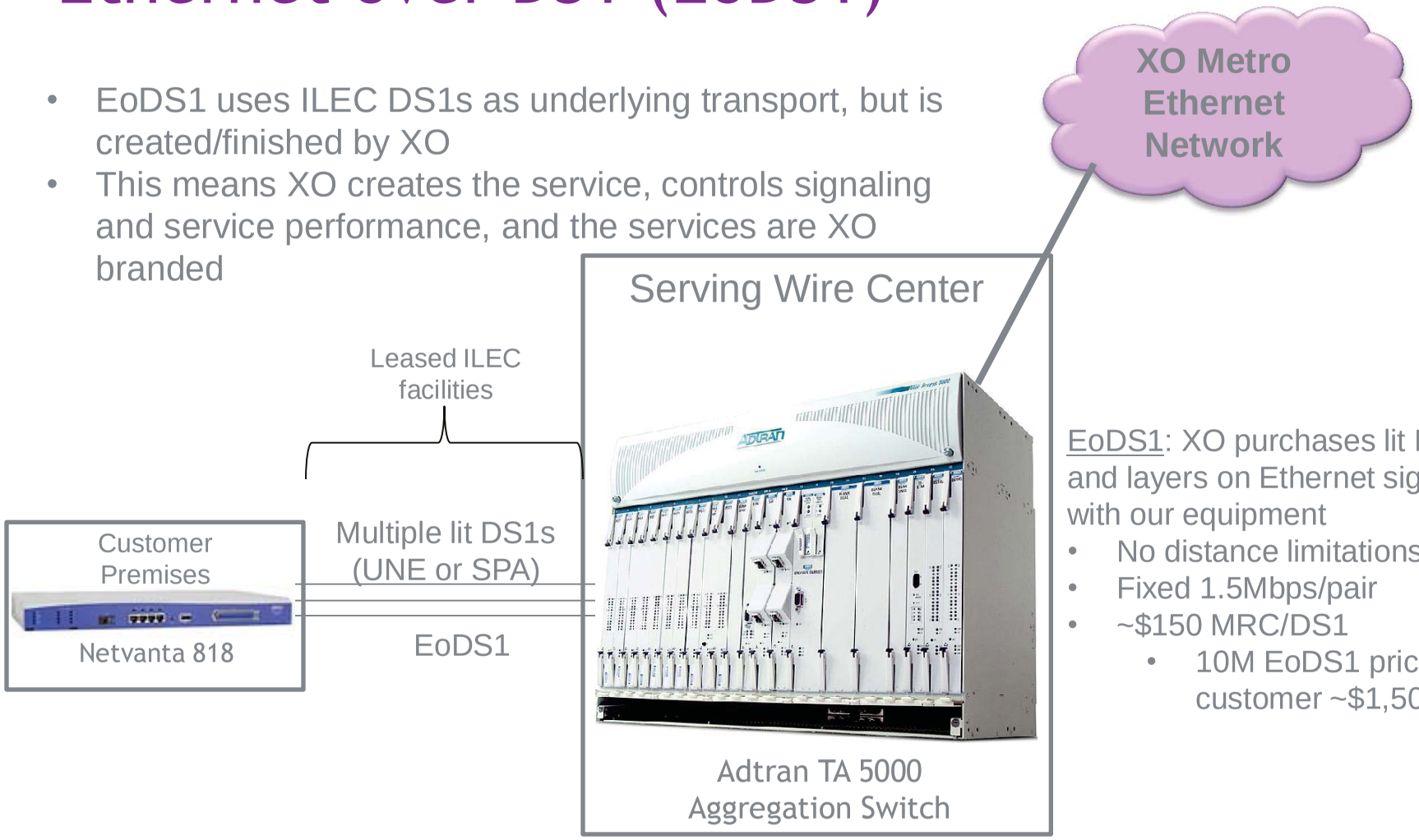
Ethernet over DS1 (EoDS1)

- EoDS1 uses ILEC DS1s as underlying transport, but is created/finished by XO
- This means XO creates the service, controls signaling and service performance, and the services are XO branded



EoDS1: XO purchases lit DS1s and layers on Ethernet signaling with our equipment

- No distance limitations
- Fixed 1.5Mbps/pair
- ~$150 MRC/DS1
  - 10M EoDS1 price to customer ~$1,500

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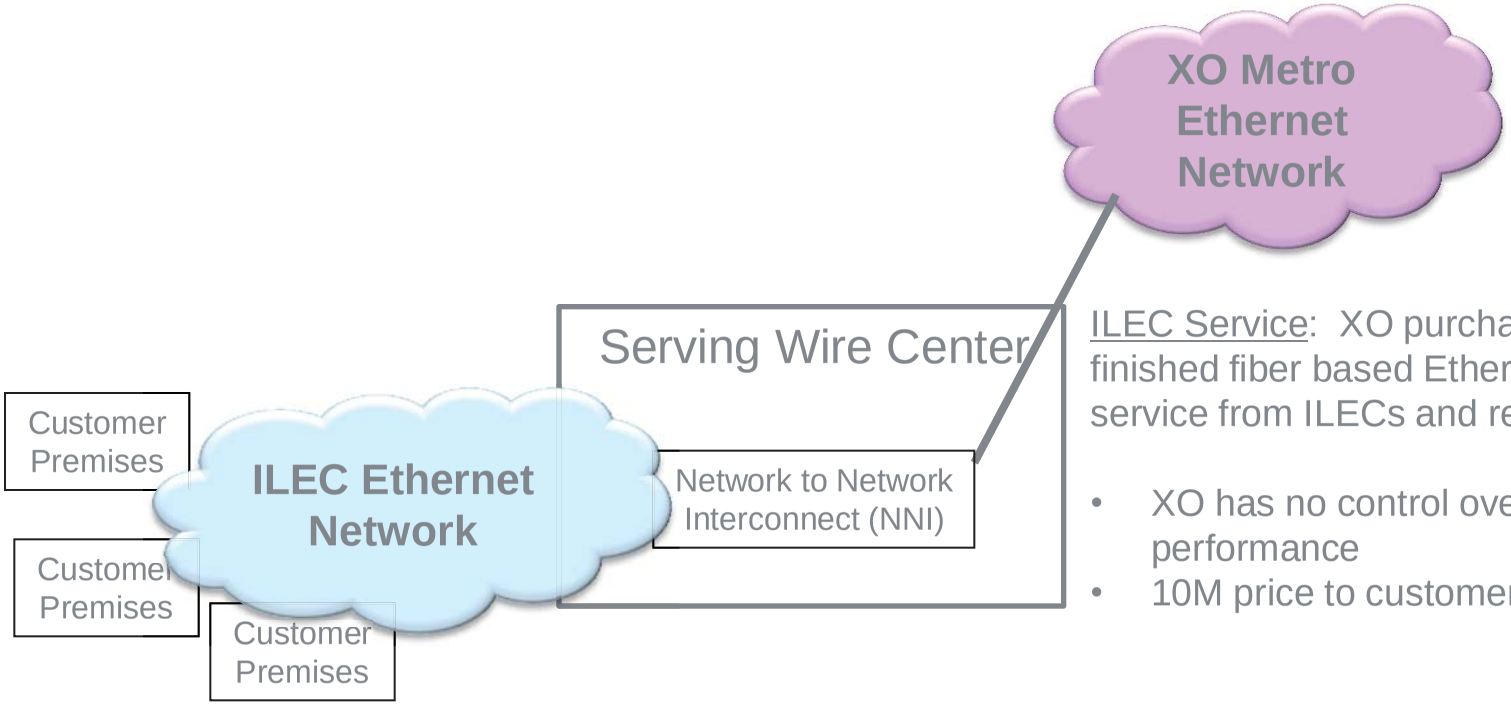
Finished Fiber Product Purchased from ILEC

- ILEC Ethernet Services are finished services from the ILEC
- This means they are ILEC branded (ASE, VZON, TLS, QMOE, etc.) and XO has no control over service performance



ILEC Service: XO purchases finished fiber based Ethernet service from ILECs and resells it

- XO has no control over service performance
- 10M price to customer ~$750

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Service Comparison

	EoC	EoDS1	ILEC Service
Facility	Unlit copper*	DS1 signaled copper	Fiber
Bandwidth capabilities	up to 5.7Mbps / pair	1.5Mbps/pair	Up to 100Gbps
Distance limits	~10,000ft	None	None
Cost of 10Mbps	Low (~$400)	High ($1,500)	Medium (~$750)
Demand Profile	-Lower bandwidth (≤20Mbps) -OR fiber n/a	-Lower bandwidth (≤10Mbps) -AND EoC n/a -AND fiber n/a	-High bandwidth -OR affinity to fiber based services
Service Control	XO - Ethernet service is created by XO by bookending ILEC copper with Ethernet equipment		ILEC - Ethernet service created by ILEC with their own equipment and network

*EoC technology does not work if there is fiber in the path from the LSO/SWC to end user. DS1 (and EoDS1) technology can traverse fiber along the path. This means that copper retirement eliminates EoC, but not EoDS1.