May 30, 2014

*Via Electronic Submission*

*Ex parte*

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

**Re:** *Technology Transitions, GN Docket No. 13-5; AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition, GN Docket No. 12-353; Cbeyond, Inc. Petition for Expedited Rulemaking to Require Unbundling of Hybrid, FTTH, and FTTC Loops Pursuant to 47 U.S.C. § 251(c)(3) of the Act, WC Docket No. 09-223; Policies and Rules Governing Retirement Of Copper Loops by Incumbent Local Exchange Carriers, RM-11358*

Dear Ms. Dortch:

On May 28, 2014, Frank Simone, Dave Talbott and the undersigned of AT&T met with Matt DelNero, Eric Ralph, Kalpak Gude, Randy Clarke, Tim Stelzig, Jamie Susskind, Heather Hendrickson (by telephone) and Michele Berlove (by telephone) of the Wireline Competition Bureau and Madeleine Findley of the Office of General Counsel concerning issues pertinent to the above-captioned matters.

The discussion covered the matters identified in the attached presentation. In particular, AT&T addressed the status of an incumbent local exchange carrier’s obligations to provide unbundled access to loops and transport in the context of the TDM-to-IP transition, and described how the Commission’s well-founded determination not to impose such obligations on certain broadband elements has promoted both massive investment in next-generation networks and vigorous competition for broadband services. AT&T also discussed the existing rules concerning network modifications, including the retirement of copper loops and other TDM facilities, and distinguished this process from requirements under Section 214 for seeking to discontinue services. Finally, AT&T described the concept it has developed for offering copper loops that are retired under the network modification rules for sale on commercial terms to competitive carriers that wish to use those facilities to provide service to their customers.
Pursuant to Section 1.1206(b) of the Commission’s rules, a copy of this notice is being filed in the above-referenced docket. Please do not hesitate to contact me with any questions regarding this matter.

Very truly yours,

/s/ Robert C. Barber

Robert C. Barber

Enclosure

cc: (w/encl)
Matt DelNero
Eric Ralph
Kalpak Gude
Randy Clarke
Tim Stelzig
Jamie Susskind
Heather Hendrickson
Michelle Berlove
Madeleine Findley
Unbundled Network Elements
Loops

May 2014
Architectures Offered Today – Illustrative

- **Central Office**
- **Fiber-to-the-Node “FTTN”**
- **Fiber-to-the-Curb “FTTC”**
- **Fiber-to-the-Premise “FTTP”**

**Key Terms**:
- **SAI** = Serving Area Interface
- **X** = Serving Terminal
- **RT** = Remote Terminal
- **VRAD** = Video Ready Access Device
- **HDT** = Host Digital Terminal
- **ONU** = Optical Network Unit
- **PFP** = Primary Flex Point
- **FST** = Fiber Serving Terminal
- **Drop* = FTTC copper drop < 500’**

**Legend**:
- **Copper**
- **Fiber**

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Architectures Offered Today – Illustrative
Architectures Offered Today – Illustrative
## CLEC Collocation and Access Rights

### General Points of Collocation

<table>
<thead>
<tr>
<th>Facility</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Office</td>
<td>CO</td>
</tr>
<tr>
<td>Remote Terminal</td>
<td>RT</td>
</tr>
<tr>
<td>Controlled Environment Vault</td>
<td>CEV</td>
</tr>
<tr>
<td>Hut</td>
<td></td>
</tr>
<tr>
<td>Serving Area Interface</td>
<td>SAI</td>
</tr>
<tr>
<td>Multi-Dwelling Unit</td>
<td>MDU</td>
</tr>
<tr>
<td>Multi-Tenant Environment</td>
<td>MTE</td>
</tr>
</tbody>
</table>

### Nondiscriminatory Access to:

- Poles
- Ducts
- Conduits
- Rights-of-way
## CURRENT LOOP AND TRANSPORT UNBUNDLING OBLIGATIONS

| Copper Loops | National Impairment. ILEC required to make active and spare facilities (including TDM loop electronics) available as UNEs. |
| Hybrid Loops | Access to TDM-based features in two contexts:  
   **CLEC provides narrowband (i.e., voice/DS0) services**: ILEC provides either:  
   - hybrid loop (TDM only) capable of voice grade service; or  
   - Spare-home run copper loop.  
   **CLEC provides broadband services**: ILEC provides access to TDM features of hybrid loop, including DS1 or DS3 capacity (where impairment exists). |
| Fiber Loops (FTTC/FTTP) | **Overbuilds (“Brownfield”)**: Must provide access to the overbuilt copper loop. If copper loop retired, must provide 64kpbs path over fiber loop. |
## CURRENT LOOP AND TRANSPORT UNBUNDLING OBLIGATIONS (con’t)

<table>
<thead>
<tr>
<th>Loop Type</th>
<th>Requirement Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Capacity (DS1/DS3) Loops</td>
<td>Unbundling required, subject to certain per-building caps, except in wire centers where specific triggers met.</td>
</tr>
<tr>
<td>Sub-loops (Distribution)</td>
<td>Must provide copper sub-loop as a UNE. Also must provide unbundled access to multiunit premises wiring regardless of capacity level or type of loop.</td>
</tr>
<tr>
<td>Sub-loop (Feeder)</td>
<td>Access required only as part of complete transmission path for stand-alone copper loop (i.e., where the feeder is copper) or a hybrid loop (where feeder is fiber) but only to the TDM functionality of such hybrid loops.</td>
</tr>
<tr>
<td>Dedicated Transport</td>
<td>Required to provide DS1, DS3 and Dark Fiber dedicated transport as UNEs except where certain triggers met.</td>
</tr>
</tbody>
</table>
WHAT DOESN’T HAVE TO BE UNBUNDLED NOW?

Hybrid Loops

No unbundled access to packet-switched features. Also no obligation to build TDM functionality into a new hybrid loop or into an existing hybrid loop that never had TDM functionality.

Fiber Loops (FTTC/FTTH)

New loops (“Greenfield”): Not required to provide fiber loops as a UNE to customer premise previously not served by any loop
Overbuilds (“Brownfield”): Generally no requirement to provide UNE access to fiber loop (except for 64 kbps channel when copper loop retired).

Subloop (Feeder)

No obligation to offer as a stand alone subloop.

Dark Fiber Loops
Local Circuit Switching
Packet Switching
Ethernet

No Unbundling requirement.
Fiber Loops and Hybrid Copper-Fiber Loops

Rationale for Non-Impairment Finding

“[O]ur decision not to unbundle stand-alone packet switching is also guided by the goals of, and our obligations under, Section 706 of the Act. In order to ensure that both incumbent LECs and competitive LECs retain sufficient incentives to invest in and deploy broadband infrastructure, such as packet switches, we find that requiring no unbundling best serves our statutorily-required goal. Thus, we decline to require unbundling on a national basis for stand-alone packet switching because it is the type of equipment used in the delivery of broadband.”  Triennial Review Order, ¶541.

“We therefore hold that the Commission reasonably interpreted § 251(c)(3) to allow it to withhold unbundling orders [for hybrid loops], even in the face of some impairment, where such unbundling would pose excessive impediments to infrastructure investment.” United States Telecom Ass’n v. FCC, 359 F.3d 554, 580 (D.C. Cir. 20014), cert. denied, 543 U.S. 925 (2004).

“An unbundling requirement under these circumstances seems likely to delay infrastructure investment, with CLECs tempted to wait for ILECs to deploy FTTH and ILECs fearful that CLEC access would undermine the investments' potential return. Absence of unbundling, by contrast, will give all parties an incentive to take a shot at this potentially lucrative market.” USTA at 584.
Result

Massive investment in broadband

ILECs, Cable MSOs, CLECs, wireless providers and others are providing speeds up to 1Gbps

Increased competition for IP and Packet Switched services

CLECs are among the top providers of Ethernet services*
  - tw telecom (#3)
  - XO (#7)
  - Level 3 (#9)

Cable companies are also among the top providers of Ethernet services*
  - Time Warner Cable (#5)
  - Cox (#6)
  - Comcast (#8)

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broadband elements</td>
<td>Broadband elements with no existing unbundling obligation (e.g. packet switching, fiber loops) have no change.</td>
</tr>
<tr>
<td>Copper loops</td>
<td>Obligation to provide bare copper loops/subloops will continue unless and until copper loop (or feeder portion) is retired. No obligation to make available packet switched loop electronics.</td>
</tr>
<tr>
<td>Hybrid Loops</td>
<td>No UNE requirements for new packet-switched only hybrid loops. Must provide home run copper loop or a copper subloop (distribution) if the copper has not been retired.</td>
</tr>
<tr>
<td>High Capacity (DS1/DS3) Loops</td>
<td>As “TDM-based services” (per TRO ¶294), no high capacity loop UNE requirement in all-IP environment. Must provide home run copper loop/subloop (to extent copper has not been retired and is available) to which CLEC can attach own electronics.</td>
</tr>
<tr>
<td>Sub-loops</td>
<td>No change in existing requirements</td>
</tr>
</tbody>
</table>
“No Degradation” Rule

Loop unbundling rules prohibit ILECs from engineering the transmission capabilities of the network in a manner, or engaging in any policy, practice or procedure, “that disrupts or degrades access to a local loop or subloop,” including the TDM capabilities of the hybrid loop, for which a CLEC may obtain or has obtained access under those rules. 47 C.F.R. ¶51.319(a)(8).

Rule adopted in the TRO as a means of enforcing the ILECs’ nondiscrimination obligations under Section 251(c)(3). TRO, ¶294.

Rule not intended to preclude an ILEC from retiring the entire TDM network.

- The FCC noted in the TRO that the prohibition against disrupting or degrading the TDM capabilities of hybrid loops was not intended to prevent ILECs from removing copper loops from their plant, so long as they complied with the applicable network notification requirements. TRO, ¶294 and n. 847.

- Requiring an ILEC to continue to maintain and make available to TDM-based transmission facilities as UNEs if the ILEC would not otherwise do so for itself or its retail customers would conflict with the Commission’s stated goal of facilitating the transition to all-IP broadband networks and services.
ILECs required to provide public notice, such as through industry fora or publications, of “any network change” that:

- “will affect a competing service provider’s performance or ability to provide service”;
- “will affect the ILEC’s interoperability with other service providers;”
- “will affect the manner in which customer premises equipment is attached to the interstate network;”, or
- “will result in the retirement of copper loops or copper subloops, and the replacement of such loops with “fiber-to-the-home loops” or “fiber-to-the-curb loops.”


Affected carriers may object to the timing of the proposed modification. The fact of the proposed modification is not subject to objection or Commission review/approval.

Rules are consistent with Section 251(c)(5), which provides only that an ILEC must provide reasonable public notice of network changes.

CLECs cannot demand access to “a yet unbuilt superior” network, and thus must take an ILEC’s network as they find it. Iowa Utils. Bd. v. FCC, 120 F.3d 753, 813 (8th Cir. 1997), rev’d in part on other grounds, 525 U.S. 366 (1997).

“[R]equiring an incumbent to maintain two networks ... reduce[s] the incentive for incumbents to deploy” next-generation facilities and “siphon[s] investments away from new networks and services.” National Broadband Plan at 49.
AT&T proposes to sell its Retired Copper to CLECs

Process & Timing

Provide Notice 30 days  Manage Bid Process 30 days  Negotiate Details 90 days  Complete Sale 150

Commercial Agreement

Bill of Sale

<table>
<thead>
<tr>
<th>General T&amp;Cs</th>
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<tbody>
<tr>
<td>• Commercial Offering</td>
</tr>
<tr>
<td>• Price, terms and conditions for the retired copper cable</td>
</tr>
<tr>
<td>• Cost of re-terminating cable at frame and SAI are borne by purchaser</td>
</tr>
<tr>
<td>• Facilities are accepted “as-is” with no warranties</td>
</tr>
<tr>
<td>• All maintenance and liabilities are assumed by purchaser</td>
</tr>
<tr>
<td>• 90 days to negotiate and sign agreement, otherwise offer is rescinded</td>
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<table>
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<tr>
<th>Transitional Services Agreement</th>
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<tr>
<td>• Provides a 90 day transition period</td>
</tr>
<tr>
<td>• Sets forth responsibilities of both parties during the transition period</td>
</tr>
<tr>
<td>• Includes operational issues such as maintenance, air pressure, etc.</td>
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Standalone  Structured Access

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<thead>
<tr>
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<tbody>
<tr>
<td>• Access to poles and/or conduit</td>
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<tr>
<td>• Sale and/or lease terms for poles</td>
</tr>
<tr>
<td>• Lease terms for conduit</td>
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