Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Petition for Declaratory Ruling That	)	
tw telecom inc. Has The Right To Direct	)	
IP-to-IP Interconnection Pursuant To	)	WC Docket No. 11-119
Section 251(c)(2) Of The Communications	)	
Act, As Amended, For The Transmission	)	
And Routing Of tw telecom's Facilities-	)	
Based VoIP Services And IP-In-The-Middle	)	
Voice Services	)	

COMMENTS OF YMAX CORPORATION

YMax Corporation ("YMax") submits these comments in response to the Petition for Declaratory Ruling of TW Telecom Inc., filed with the Commission on June 30, 2011. TW is seeking a declaratory ruling, among other things, that it is a provider of telecommunications services and, as such, is entitled to request direct IP-to-IP interconnection with incumbent LECs under Section 251(c)(2) of the Communications Act.

As an IP-based telecommunications carrier, YMax strongly supports the relief sought by TW, which is consistent with policy goals previously announced by the FCC. As the National Broadband Plan recognized, "The challenge for the country is to ensure that as IP-based services replace circuit-switched services, there is a smooth transition for Americans who use traditional phone service and for the businesses that provide it."[1] Part of this challenge is to eliminate regulatory "disincentives to migrate

[1] *National Broadband Plan*, p. 59

to all-IP networks."[2] Likewise, in the NPRM in the *Universal Service/Intercarrier Compensation Transformation* proceeding, the Commission identified the migration to all-IP networks and IP interconnection as an explicit regulatory goal.[3]

TW has identified a glaring disincentive in that the current Section 251 regime imposes detailed obligations for TDM interconnection, but is silent concerning IP interconnection. It may be in the interest of incumbent carriers to lock their competitors into TDM interconnection for years, to prevent those competitors and their customers from realizing the full economic and operational benefits of IP networks; but it is not in the public interest, and the Commission should act to prevent them from exploiting their bottlenecks in this way. Section 251(c)(2) by its terms is not limited to any particular form of interconnection, but requires interconnection in any "technically feasible" manner. Consistent with the goals stated in the National Broadband Plan and the *Transformation NPRM*, the FCC should rule that this means what it says, that IP interconnection is technically feasible today, and that all incumbent LECs (especially the RBOCs) are required to negotiate in good faith with any requesting carrier that seeks IP interconnection for exchange of voice traffic.

YMax notes, however, that TW has requested interconnection only for its "facilities-based VoIP" and "IP-in-the-middle" services. There is no reason that the

---

[2] *National Broadband Plan*, p. 142.

[3] The FCC's goal is to "encourage incumbent LECs to move to IP-to-IP interconnection." (para. 493) It wants to develop an approach to intercarrier compensation reform that will "be consistent with the exchange of traffic on an IP-to-IP basis." (para. 527) *Connect America Fund*, etc., Notice of Proposed Rulemaking, WC Docket No. 10-90 *et al.* (released Feb. 9, 2011) ("*Transformation NPRM*").

FCC's ruling in this case needs to be limited to those services, since Section 251(c)(2) is not so limited. Rather, interconnection rights apply to *any* telecommunications carrier that seeks interconnection for the "transmission and routing of telephone exchange service and exchange access." Further, the definitions of "telecommunications," "telecommunications service," and "telecommunications carrier" in Section 3 of the Act are all based on the service functionalities provided to customers, not on the technology or facilities used to provide the service.[4] Internet Protocol has become the preferred substitute for traditional analog voice services, and as the deployment of this technology rapidly becomes ubiquitous, it necessarily follows that IP interconnection duties must extend to *all* telecommunications services, not just some arbitrary subset.

Many carriers, both incumbents and non-incumbents, have already installed IP technology in their networks voluntarily, because of the significant economic and operational benefits of this technology.[5] The cost of IP-based softswitches and IP

---

[4] The definition of "telecommunications service" is quite explicit on this point, stating that the term includes the offering of telecommunications to the public "regardless of the facilities used." 47 USC § 153(46). Similarly, the definitions of "telephone exchange service" and "exchange access" are each technology-neutral.

[5] Many incumbent LECs already use IP technologies within their networks for switching and/or transmission of voice traffic, even if they do not offer to interconnect with other carriers using these methods. Verizon's FIOS service and AT&T's U-Verse service are both based on IP technology. Further, soft-switch vendors have reported that their products are used by rural LECs, among other carriers. *See, e.g.,* Verizon's description of its Carrier IP Termination (SIP), Carrier IP Termination Transport, and SIP Gateway Services available at http://www22.verizon.com/wholesale/solutions/ ("customers can choose to interface with the Verizon IP Network via the Public Internet, Dedicated Internet Access (DIA), or SIP Internet Access (SIA). An IP SEC Tunnel and the ability to support a P-Asserted ID is required for this application regardless of the interface type chosen."); CenturyLink's description of its IP Voice 1+Termination product available at http://www.centurylink.com/wholesale/pcat/natipvoiceterm.html. ("No longer will you need to purchase or manage the gateways necessary to make these conversions.

transmission is minimal compared to a legacy TDM architecture. Even AT&T has said, TDM is an "obsolete" form of interconnection that is a "relic of an earlier era."[6]

Still, numerous local exchange carriers, including AT&T, impose burdensome costs on other providers and on their customers to convert traffic from IP to TDM. Because a few large carriers control a large share of the market, they can force smaller companies to maintain obsolete TDM interfaces — even though these

---

CenturyLink does it all! First, your IP voice traffic traverses the CenturyLink IP transport to the Session Border Controller (SBC). The SBC provides the necessary firewall protection to give your traffic an additional level of protection on CenturyLink's IP voice infrastructure. CenturyLink's media gateways terminate your IP voice calls to the TDM circuit-switched network. Calls are terminated either domestically or internationally to the PSTN via TDM."… "Connect to CenturyLink's network using a DS-1 to OC-48 dedicated data circuit. Providers collocated in a CenturyLink point of presence (PoP) location may connect via an Ethernet cross-connect. Service providers may also connect via the public Internet."); AT&T, Inc. 2010 Annual Report at 5-6 ("Our third major growth platform is AT&T U-verse, an integrated set of services – high quality TV with unique features and functionality, high speed Internet, and voice – all delivered over an advanced Internet Protocol network.") available at: http://www.att.com/gen/investor-relations?pid=19234. *See also* REDCOM Laboratories, Inc., "Redcom HDX," *at* http://www.redcom.com/documents/HDX_Brochure_V4_CO.pdf ("REDCOM's HDX Carrier-Class 4/5 softswitch with TRANSip® offers fully integrated VoIP and TDM in an all-inclusive central office platform. In the transition to VoIP, the idea of wholesale replacement of network assets is not only expensive, it is often completely unrealistic. The HDX brings VoIP connectivity to rural central offices, providing an integrated VoIP and TDM migration platform so that you don't require additional external boxes."); "GENBAND Scores Rural Telco Win With Eastex," telecompeitor.com (Sept. 9, 2010) *at* http://www.telecompetitor.com/genband-scores-rural-telco-win-with-eastex/ ("GENBAND, a leading developer of IP solutions and services, and Eastex Telephone Coop., Inc. (Eastex), one of the largest rural carriers in Texas, today announced the deployment of GENBAND's industry-leading C15™ Compact Softswitch to deliver communication services to Eastex' residential and business subscribers across rural East Texas."); http://www.metaswitch.com/company/carrier-customer-list.aspx, listing AT&T, other incumbent carriers including rural carriers, and CLECs that are using softswitch technology provided by Metaswitch, an industry leading vendor of switching and applications solutions for packet switched networks.

[6] Comments of AT&T, Inc. on the Transition from the Legacy Circuit-Switched Network to Broadband, in GN Docket Nos. 09-476, 09-51 and 09-137 (filed Dec. 21, 2009)

incumbents use IP within their own networks — which allows them to gouge new entrants with high charges for trunking, switch ports, and other interconnection elements to make an unfair profit.

The FCC should stop this unfair denial of IP interconnection, which creates unnecessary costs that ultimately are passed through to customers. IP-enabled voice service providers have to invest in dedicated circuit-switched trunking facilities that are much less efficient than packet-switched IP interconnection. They have to maintain separate dedicated circuits to dozens or hundreds of ILEC switches just so that capacity will be ready if and when a call is placed to an ILEC customer served by any one of those switches. None of this would be necessary using current IP technology; carriers would exchange packets over an IP interface at minimal expense and with superb voice quality. There would be no need for excess dedicated capacity on any individual route as long as the overall capacity of the IP facilities is sufficient for the aggregate traffic volume.

Furthermore, incumbent LECs' refusal to allow IP interconnection impairs network reliability and survivability, which is a homeland security concern. In the PSTN, if a single transmission facility is interrupted (a "backhoe outage"), calls cannot go through to or from the affected switch, and hundreds or thousands of customers can be without service for hours. IP technology, however, enables as many redundant connections and alternative routes as desired, so traffic can be routed around an outage.

IP interconnection would also facilitate deployment of the next generation of 9-1-1 Public Service Answering Points, which will rely on IP technology as well. The

FCC should seek to speed the adoption of this technology, which will allow PSAPs to operate at lower cost; eliminate unnecessary, duplicative, and underutilized TDM trunk connections; improve emergency responsiveness; and potentially result in savings to consumers who fund these 911 programs through monthly fees on their telephone and mobile bills.

Finally, mandating IP interconnection ultimately benefits consumers, who view and are using IP telecommunications services as a cost effective replacement for traditional circuit switched telephone services. Requiring ILECs to provide IP interconnection will allow even more consumers to take advantage of low cost IP-based telephone services, particularly as broadband services are rolled out to all Americans, an explicit goal of the FCC in the National Broadband Plan.

Conclusion

For the foregoing reasons, the Commission should grant a declaratory ruling in response to TW's Petition that affirms that all telecommunications carriers using Internet Protocol technology are entitled to request incumbent LECs to provide IP-based interconnection under Section 251(c)(2) of the Act, that IP-based interconnection is technically feasible, that incumbent LECs are obligated to negotiate in good faith in response to such requests, and that carriers may seek State commission arbitration in the event of an impasse in negotiations.

Respectfully submitted,

YMAX COMMUNICATIONS CORP.

By: /s/

Daniel Borislow
Chairman and CEO
5700 Georgia Avenue
West Palm Beach FL, 33405
561-832-3140