Peering Into a CLEC

By Hunter Newby

Editor's Note: *The "VoIPeer Me" series follows in the footsteps of FAT PIPE's "Meet Me" series, which identified key carrier hotel interconnection points in North America and the Ethernet and VoIP network operators within them. This new series will demonstrate the marriage of Ethernet and VoIP through actual VoIP peering implementations of network operators within the carrier hotels. Our purpose is to show where VoIP peering currently exists, who provides it, who uses it and how.*

Competitive local exchange carriers looking to lower operating expenses and improve the provisioning process can take a lesson from MetTel (Metropolitan Telecommunications), a New York-based, enterprise-focused CLEC that has a nationwide customer base with a concentration on the East Coast. MetTel has begun using ENUM (electronic numbering), accessing legacy SS7 database information via IP and peering outbound VoIP traffic with wholesale termination carriers through the Voice Peering Fabric. The results have had a significant, positive impact on their bottom line.

The MetTel voice network is an IP core based on Broadsoft, Cisco SS7 and Cisco/General Bandwidth Gateways. MetTel locally interconnects with Verizon using SS7 and trunking gateways. It also uses gateways to serve PRI (primary rate interface) or CAS (channel associated signaling) T-1 customers. Netrake session border controllers are used in between all VoIP peering partners and for all SIP (session initiation protocol) client device registration.

From this architecture, MetTel accesses the customer premises using leased T-1s and delivers the VoIP as TDM (time division multiplex) to the enterprises with legacy PBXs (private branch exchanges). This design and method helps them manage the quality of service to the customer and affords them the ability to use existing standard access methods from the TDM transport facilities providers, but it also prepared them for the flexibility of interfacing with wholesale interexchange carriers and other providers using IP as the provisioning mechanism in the core.

Being in the business of generating revenue from voice traffic, MetTel was looking to lower its cost to terminate customer calls. The provider already had direct interconnections with in and outbound TDM and VoIP carriers, as well as legacy TDM A-Links to SS7 service providers, but all of these circuits were dedicated and provisioned separately. Outside of this, MetTel was not using any of the ENUM functionality available through its hardware vendors.

Just as it is with all well-managed businesses, MetTel was constantly on the lookout for a better way to operate and improve profitability. When introduced to the VPF, MetTel found a marketplace that through one Ethernet connection would give it access to a choice of providers and new services never previously available.

Accessing the VPF through a Looking Glass Networks Gigabit Ethernet circuit gives MetTel the ability to use private IP (non-public Internet) through a common Layer 2 switch fabric to connect with other providers for origination, termination and other services such as CNAM (caller name identification).

"Currently we use the VPF mainly for back-up routes, and we are looking to leverage the interconnection for more peering traffic," says Edward J. Fox, vice president, Network Services, MetTel. "We do plan to interconnect with several different carriers for origination and termination through the VPF, and we currently launch all of our CNAM retrievals through the VPF via SNET DG (AT&T DG)."

The Ethernet switch functionality eliminates the need

for disparate TDM circuits to multiple providers and allows each party to maximize the use of the connection to the VPF through virtual local area networks between the members. The reduction in port costs on the trunk side moving from TDM to Ethernet is complemented by the benefit of savings from reducing the turn-up time of new circuits and capacity. Along with the savings comes the quality and security of avoiding the public Internet.

Beyond these substantial benefits is the added dimension of ENUM. Currently MetTel has roughly 5,000 active numbers in the VPF ENUM database with plans to add more. The company is looking at a process by which it adds its ported numbers and removes those it loses so it is not paying for termination on customers that have left. This is an interesting strategy and a model by which many CLECs can follow. Over time, as these VoIP Peering methods are adopted and scaled, VoIP traffic will increase more efficiently and cost effectively than ever before. **FAT**

Hunter Newby is chief strategy officer of tel[x]. If you know of a VoIP peering implementation and would like to suggest it for a future article, please email him at hnewby@telx.com.

TTI VoIP Peering User Case Study

VoIP Peering User	
MetTel	
Contact: Edward J. Fox; EFox@MetTel.net	
Type of entity: CLEC	
VoIP Peering Service Provider	
The Voice Peering Fabric - Stealth Communications	
Shrihari Pandit; spandit@stealth.net	
Network Architecture and Model	
Does your company currently generate revenue from voice traffic?	Yes
Were you seeking to reduce monthly opex by reducing the cost of voice minutes?	Yes
Is your current VoIP network all IP end to end?	No
Is your current VoIP network actually TDM call switching with an IP interface?	No*
Bilateral VoIP Peering	
Are you using a bilateral VoIP peering service?	Yes
Does the service provider allow you to establish multiple direct bilateral relationships?	Yes
Is there a broker, counter-party or transaction fee associated with the minutes?	No
Do you send calls to only one VoIP service provider for termination?	No
Do you manage least cost routing of multiple VoIP service providers?	Yes
What is the percentage of savings achieved through this service? A=10-30%; B=30-60%; C=60%+	A
Multi-Lateral VoIP Peering	
Are you using a multi-lateral VoIP peering service (ENUM)?	Yes
Is the multi-lateral service easy to use?	Yes
Does the multi-lateral service eliminate the per-minute cost to terminate a call?	Yes
Was the motivation to use the service based on multi-lateral peering between your own sites?	No
Are there any fees for the use of the multi-lateral peering service?	No
Was the motivation to use the service based on multi-lateral peering between other VoIP networks?	Yes
If you are not currently using a multi-lateral (ENUM) service, do you plan to within the next 12-18 months?	n/a
Provisioning	
Do you interconnect to the VoIP peering service using Ethernet?	Yes
Do you interconnect to the VoIP peering service over the public Internet?	No**
Were there savings realized moving from TDM to Ethernet for provisioning ports?	Yes
What is the percentage savings achieved through this service? A=10-30%; B=30-60%; C=60%+	C
Is the VoIP peering service providing protocol conversion (TDM-SIP, H.323-SIP)?	No
What is the savings from managed conversion services? A=10-30%; B=30-60%; C=60%+	n/a
* IP core TDM interface	

**Back-up only