TMCnet On the Web

Channels Home

Service Provider

Enterprise

Developer

Reseller

Government

Consumer

About TMC

TMCnet Services

Advertise

Blogs

News Alerts

Free Newsletters

Conference Events

Publications

Whitepapers

Content Submission

ITEXPO West begins in: **161** Days, **15** Hours, **06** Minutes, **29** Seconds. Register Now! — CTIA Coverage

HD Voice	SIP	IPTV	TEM Solutions	VoIP Services	Billing	Visual Voicemail	Hosted Communications	Green Technology
Call Recording	IP Telephony	IP Communications	Rich Media	Open Source PBX		Contact Center	Business VoIP	Mobile VoIP

• What's New   • **Events**   • Publications   • Forums   • Web Events   • White Papers

Get Local »   **Latin America**   **Europe**   **Asia**   **Middle East**   **Australia**

VoIPeering

INTERNET TELEPHONY

Global Crossing Appears to Peer

By Hunter Newby

E-mail to a Friend   Order Reprints   Print   TrackBack   Bookmark   Free Magazines   eNewsletters   RSS/XML

VoIP Peering press releases come and go, but big carriers are now moving into this space and some of the announcements have real tangible elements behind them. The growing trend for global carrier network assets is towards an on-net, zero-mile package where the users pay for access to all other customer endpoints on the network and then certain features above that. From a revenue standpoint voice is being treated like e-mail — not distance or size sensitive. The psychology of this topology can lead to very useful and far-reaching service offerings requiring only minor engineering changes to the carrier's network.

In a similar way to everything else in life, this is a case of mind over matter. In other words, it is like looking at the same box, but from another angle. The requirements for success are an open mind and the ability to execute on a vision of what the future should be. That usually takes someone to step out from the darkness to lead the way. With that, a new definition of VoIP peering has just been introduced and it combines a bit of the old and new, showing the way for just about any carrier to follow.

Global Crossing recently announced its VoIP Community Peering service. It is basically an "in-network" for enterprises consisting of all of the Global Crossing VoIP local service endpoints. Perhaps it can be described as an "in-extranet." For those readers that are not familiar with an "in-network," it is a rate plan model where the users can call any other user of the same service without incurring a metered, per minute charge for the call. This has been around in the mobile phone industry for a while now. It has also been around in the IXC long distance business too, but now it seems to have taken on the "peering" moniker.

An "in-network" doesn't require anything fancy with the internal routing, but benefits the customers with a lower, more predicable bill if both the originating and terminating points are on-net to the carrier. The model presumably has a self-propelled viral marketing element to it. Once the users realize that more numbers that are "in" equates to a lower phone bill they should go out and urge their friends, family, and business partners to join, so that they can all benefit from the lower costs.

There are many dimensions to this new Global Crossing service that warrant deeper understanding, not the least of which is the fact that Global Crossing is offering this "on-net" service with the use of existing architecture, needing no outside help to accomplish this. The network and its voice/VoIP users were "peered" by simply looking at the business of voice in a totally different way. No more billed minutes between users and any-to-any, on-net, worldwide is a bold move in my book.

Yes, it does create a VoIP island, but this is a start and a big step in the right direction. In time, Global Crossing will probably move to peer its island with other VoIP islands, just as e-mail services like Sprint Mail and MCI Mail began as islands and eventually peered. The same can be said about SMS traffic. It is a matter of evolution. Things can only happen and survive when they are supposed to happen and no time sooner.

If you don't have a telecommuting program, how much revenue is your business losing? **Learn more, download free white paper.**

Now is the time for the rise of the private Voice Internets. Peering those private voice nets will happen after each has had ample time to try and become the 800-lb. gorilla. Once they reach maturity they concede to interconnect because it makes sense to at that point.

Beyond the monolithic aspect of this new service are the details of how they do it. In different instances there will invariably be different technical permutations at the access layer as geography typically dictates the limitations of abundant fiber from multiple sources. To solve that, Global Crossing employs multiple access methods and interfaces with IP and legacy TDM PBXs to various

points in its own network.

For enterprises with a TDM PBX, there are two methods. The first is a CPE solution using a Cisco router on the customer premises. From the router Global Crossing (GC) can accept a Layer 2 circuit, or a public IP VPN that connects in to the GC Acme Packet session border controller. From the SBC, GC connects back into its SONUS PSX core VoIP switch. The second method is a TDM loop out from the PBX to a GC SONUS GSX gateway. From the gateway, GC connects back in the PSX.

For enterprises with an IP PBX, the options include a Layer 2 Ethernet access circuit in from the customer to a GC Juniper router that then connects through the Acme SBC to the SONUS core. Also, there is the option of public IP into the SBC and then the core.

In both instances of TDM and IP PBXs, what is not obvious, but important to point out, is that the enterprise buyers have helped GC craft its offering and public Internet access back to the VoIP core was not a desired method. As Pat Reilly, Senior Manager of Voice Product Management, Global Crossing states, "By far, the most frequent request from the Enterprise customer is that they want VoIP bundled with private MPLS interconnections as the access method, not the public Internet. Security and QoS were the main concerns." GC will accept public IP connections if it is required, just to keep every possible option open. Usually, public IP transit is a necessary access method for remote locations that have little to no choice for cost-effective transport.

What all of this means is that GC has a service that can interface with old TDM and new IP switches over old TDM, or new Ethernet transport, or public IP transit networks covering all bases, methods, and potential obstacles. What it means for enterprises is that they need not have IP anything in their network and they can still use VoIP on the trunk side and take advantage of the favorable economics immediately. This gives them the luxury of time in their migration plans and a source of capital from their existing telecom spending budget to fund the migration.

There are few particulars about the service features in the higher layers that are worth mentioning. There is no ENUM database lookup functionality within the GC VoIP Community. If the call is bound for another GC local endpoint, GC logically keeps that on its VoIP network and it never touches the PSTN. Since there is no ENUM, the enterprise user does not have the ability to "query" the GC pool of numbers, but rather just chooses GC as the first route for all outbound. GC takes the call and routes it appropriately. If the number dialed is one of its own, GC routes it and the calling party does not get billed per minute for it. If the number is not in the pool, GC routes it to one of its many bi-lateral voice carrier partners at the best possible rate and quality.

What this means is that all of the users benefit from being able to send calls to all of the numbers GC possesses. The enterprise doesn't have to identify a list of customers, suppliers etc., that they wish to call and then become limited to that. So, if GC wins a major deal with a large organization that your business calls a lot and you are already a GC customer, they just did you a big favor. Now, you can call that company on-net and not receive a metered bill. As more customers sign up, the probability of an on-net call increases and the phone bill decreases. Once the VoIP Community evolves and matures, GC will eventually want to do two things: trunk SIP traffic to all of its outbound carrier partners for off-net termination and peer its endpoint number pool using ENUM with other carrier ENUM pools and or private ENUM registries. (That is, if they have not begun to do so already.)

Interestingly, in a seemingly IXC way, all of these components add up to VoIP Peering. The "call" itself is on-net as IP between the endpoints; it's not touching the PSTN and it is "free," or without an associated settlement charge. This still leaves open the debate about VoIP network peering verses VoIP call peering and whether or not the true sense of peering is strictly a Layer 2 event. In this case, it fits the definition and should act as a guide for others to do the same. IT

Hunter Newby is chief strategy officer at telx. For more information, please visit **www.telx.com** (**news** - **alerts**).

If you are interested in purchasing reprints of this article (in either print or PDF format), please visit Reprint Management Services online at **www.reprintbuyer.com**or contact a representative via e-mail at **reprints@tmcnet.com** or by phone at 800-290-5460.

[**Return To Table Of Contents**]