

VoIP Peering a Healthy Alternative for FHS

By Hunter Newby

Editor's Note: This new "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 that VoIP peering currently exist and is working, who provides it, who uses it and how.

There are various methods and benefits of VoIP peering for different types of networks. We will attempt to identify as many of them as possible.

Enterprise VoIP peering is here, and it works. This revolution is well underway, and the good word is being spread. One of the best parts about it is that the benefits are not exclusive to any one type of enterprise VoIP network; they apply universally. It's all a matter of knowing who is doing what and how they did it. Not that everyone has the same legacy PBXs (private branch exchanges) or key systems, but a beaten path is a good start to building a solid road.

Freedom Health Systems (FHS) is a technology company based in Deerfield Beach, Fla. Among other things, they build networks to carry electronic health records and other data, aiming to reduce operating expenses across the board in health care. This helps organizations better manage their own internal processes but also enables them to interface with other organizations for information exchange. FHS's products and services are geared toward the health care industry with specific focus on hospitals, community health centers, ambulatory care centers, pharmacies and physician practices.

FHS enters into agreements with these entities to connect systems in various metropolitan and rural areas. This process frequently includes upgrading or adding new network links. To add value to their service offering, FHS began to include a voice networking option. "We go in and replace their phones and PBXs. We become their voice service provider," states Will Glynn of FHS "It ends up saving them a lot of money."

Two of the factors that led to the inclusion of voice were the move to IP networking for the other data elements and the high

termination costs that their customers were paying. It was a natural fit.

The FHS telecom network offering is comprised of IP phones and a custom VoIP platform. Cisco phones are used in all of the customer locations, except for one that uses an Asterisk as a TDM (time division multiplex) bridge in conjunction with an Avaya PBX. The sites are typically networked together with point-to-point circuits, usually T-1, creating a private IP network.

In addition to the VoIP component of the FHS business model, FHS uses VoIP between its own sites. It sets up private VoIP peering links between sites using point-to-point circuits for the main locations, and only in one remote site does it have a public Internet connection.

The combination of its customer-private VoIP WANs (wide area networks), as well as its own VoIP network, created an opportunity to establish a direct relationship with a wholesale VoIP carrier for better terminating rates. The search for a provider and the best place to connect are what led FHS to The Voice Peering Fabric.

"VoIP peering was a natural add-on because we were building a private IP network already" explains Glynn. "The primary reason for our VPF interconnection was quality. Our experience with voice over the public Internet was not good. This is also why we use point-to-point circuits in the networks. All too often we would get a support ticket from our control center and learn that some ISP (Internet service provider) hand-off across the country went down and took a call center with it."

Beyond the high-quality, private IP network of the VPF is the marketplace itself and the benefits of provisioning VLANs (virtual local area networks) instead of local loops. The VPF Minutes Market gives FHS access to multiple providers of high-quality routes at wholesale rates. If and when it would need to change or add a new provider, all that is necessary is the contract, and then a VLAN is provisioned across the Fabric, saving time and money. Beyond the bilateral minutes relationships FHS establishes on the VPF, it also uses the VPF ENUM (electronic numbering) Registry, but as Glynn points out, "ENUM was a bonus for us. Our main concern was quality." Given that, the savings they realized were substantial.

Getting connected to the VPF was straightforward for FHS. Its VoIP platform is located in a data center facility at the New World Tower carrier hotel in Miami. From there, Progress Telecom (now part of Level 3 Communications) provides FHS with an Ethernet circuit into the VPF. Ethernet providers now have a newfound destination on their transport networks for enterprise customers: the VPF node at the local carrier hotel.

From this case study it is clear that there are different dimensions to enterprise VoIP peering. In some instances the peering may occur internally and also potentially between customers' networks. It is possible to envision a community of enterprises and their respective information technology and

management information system directors creating a VoIP Peering coordinators group. The purpose would be to build towards a common network interconnection point with the goal of making their calls (and other data) on-net. The reasons for that would probably be very similar to those stated by FHS, including quality, choice, flexibility and cost.

It certainly looks like we're all moving in that logical direction. **FAT**

Hunter Newby is chief strategy officer of telx. 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.

FHS VoIP Peering User Case Study

VoIP Peering User

Freedom Health Systems

Contact: Will Glynn; wglynn@freedomhealthcare.org

Type of entity: Enterprise

VoIP Peering Service Provider

The Voice Peering Fabric – Stealth Communications

Contact: Shrihari Pandit, spandit@stealth.net

Network Architecture and Model

Does your company currently generate revenue from voice traffic?	No
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?	Yes*
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%+	C

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%+	B
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

*One office still uses a legacy switch. However, the rest of the operation including clients is IP-to-IP.