



Peering into Prepaid

By Hunter Newby

The "VolPeer Me" series demonstrates the marriage of Ethernet and VoIP through actual VoIP peering implementations of network operators within the carrier hotels. Its purpose is to show where VoIP peering currently exists, who provides it, who uses it and how.

Voz Telecom, based in Madrid, Spain, has a different spin on SIP (session initiation protocol): prepaid call program hosting beyond just VoIP switch hosting. Focused on Europe and Latin America, Orbitel (Columbia) and JazzTel (Spain) are customers of the Voz Hosted VoIP platform. Prepaid SIP proxy services are provided to these carriers and others by Voz as a way for the carriers to outsource the complexity but fulfill the customer need for prepaid calling service.

"We host VoIP applications as a service in the same way that Web pages are hosted," states Xavier Casajoana, founder and CEO of Voz. From the looks of its client list, it seems like Voz is onto something.

Hosted prepaid platforms have been around since the early days of prepaid TDM (time division multiplex) switching, but with the global move to VoIP, multiple protocols and interoperability issues abound. Navigating these waters requires an experienced backend system and operator. The Voz prepaid hosted VoIP platform is geared toward the retail customer bases of these carriers and not for their carrier wholesale business. This helps Voz more effectively manage the user experience including origination, termination and provisioning for each element, as well as the account management and billing, all while being branded under the carrier name. In addition to this white-label service, Voz also offers softphones and IP PBXs (private branch exchanges) registered directly to their SIP proxy.

The Voz hosted services reduce time to market, produce capital expenditure savings and are fully integrated into the carrier backend. Significant savings and speed to revenue are the keys to success for the carriers. As Casajoana points out, "VoIP transport is rather simple, whereas VoIP application development is rather complex. This is what we focus on and excel at."

Value creation for the end user is the goal. Carriers need this added value without the expense of reinventing the wheel. Deltathree is a competitor as is Net2Phone, but Casajoana believes the Voz advantage is that it already has created many of the robust VoIP applications as a platform to leverage for

each new customer, and that makes its service seamless and scalable.

VoIP Peering service provider XConnect plays a role in assisting Voz with their service offering. The XConnect services help Voz in two major ways: extending the Voz community and doing it in a secure environment. Voz has several brands throughout the world through their carrier customers, and it is, in fact, a large community of customers linked through a common platform. This creates a huge peering opportunity.

All of the white-label Voz customers can call each other for free. The community Voz has created builds value as more networks connect and contribute their end users. Ideally this community will be able to interface with any other VoIP service provider customers in the world. "XConnect provides us with the path to this goal," states Casajoana. The XConnect platform gives Voz and all other carriers the ability to connect to one place and exchange VoIP traffic in a managed environment.

The goal here is on-net calling. Casajoana elaborates, "Skype between users is free worldwide. SkypeOut is not. Vonage is a monthly fee, but not worldwide. On-net calling within the Voz federation network is worldwide, on-net calling between customers." XConnect extends that on-net calling capability to the rest of its users.

The motivation for Voz to use the VoIP peering service was to enhance the user experience by reducing the cost of the end-user service. It will be free to the end user through their service package, but the XConnect service is not free. In addition to selected service fees Voz pays an annual fee per number that is registered in the XConnect federation.

In the past, Voz paid for voice termination on a per-minute basis. Then carriers began offering flat-rate (T-1/E-1 circuits) with unlimited termination. Now, certain VoIP peering service providers have created another model, flat rate per number. In this model it is as if a number is an increment of a full circuit of call termination. Bringing VoIP islands together needs a sound economic basis for all parties to agree on in order for it to work universally.

On the technical side the Voz network is based on an all-SIP Cisco IP core with TDM interfaces as needed. They use XConnect for both bi- and multi-lateral peering, and they manage their own least cost routing with multiple terminating parties, including MCI (Verizon Business) directly. The percentage of savings through the bi-lateral service is hard to quantify since

“everyone today buys minutes as VoIP,” but if it were delivered as TDM it “would certainly cost more” says Casajoana.

Voz interconnects to the XConnect service using the public Internet for both the signaling and media for the call path. “As a result,” states Casajoana “deep control over the public Internet is required to run the service most effectively. We manage our own BGP interconnections by checking the latency of each IP transit carrier network to insure quality connections.”

As opposed to the savings difference between circuit-switched versus packet-switched minutes, which was significant but difficult for Casajoana to determine, the trunk-side savings of moving from TDM to IP was greater than 60 percent. In addition, Voz uses the SIP-H.323 conversion service from XConnect, which produces another 10 to 30 percent savings.

Interestingly, in the ecosystem of VoIP, just as in nature, there

is interdependency. Just as the carriers outsource the pre-paid platform to Voz to avoid the costs and complexity of managing difficult and ever-changing requirements for a necessary service component, Voz keeps their network core all SIP, and they outsource protocol conversion for the same reason.

Everything has its place in the world. The key to success is knowing what your place is and sticking to it while outsourcing the pieces you don't do to the people who make those pieces their sole focus. With that, the machine is built and runs smoothly. Clearly, VoIP is here to stay and, as nature dictates, so is VoIP peering. **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.

Voz Telecom VoIP Peering User Case Study

VoIP Peering User	
Voz Telecom	
Contact: Xavier Casajoana; xavi.casajoana@voztele.com	
Type of entity: Service Provider/ VoBB services	
VoIP Peering Service Provider	
XConnect Global Networks, Ltd.	
Contact: Hugh Goldstein; hgoldstein@xconnect.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?	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%+	n/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?	Yes
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?	No
Do you interconnect to the VoIP peering service over the public Internet?	Yes
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)?	Yes
What is the savings from managed conversion services? A=10-30%; B=30-60%; C=60%+	A