L.A.'s Big Picture

The "Meet Me" series returns to One Wilshire Blvd.

By Hunter Newby

Editors' note: Throughout 2004, we used this space to identify the key physical layer carrier interconnection points within the major North American markets. This year the series moves forward to identifying the key service providers with wholesale enterprise- focused offerings within those markets.

Clearly, the key services in the greatest demand by enterprise users today are Ethernet transport and voice or Internet protocol (VoIP). And since most enterprises deploying VoIP only want to do so over a private native layer 2 network, it's enterprise VoIP demand that's driving Ethernet transport demand. So, each month, the series will focus on the previously featured carrier hotels and their carrier customer bases. The primary objective is to identify which carriers are offering Ethernet transport for enterprise wide area networks and which VoIP carriers enterprise networks can directly connect to at each carrier hotel in order to maximize savings.

From coast to coast, the trend remains the same: VoIP is driving Ethernet.

The downtown Los Angeles area has many carrier facilities, but none are quite like One Wilshire Blvd. One Wilshire is certainly one of the major carrier hotels in the world, and the data complied for this article does not do it justice in terms of the total number of service providers present there (or in the other downtown facilities, for that matter), but what this sample data does show is that IP based local DID (direct inward dialing) phone service, hosted IP PBXs (private branch exchanges) and flat-rate domestic termination plans currently exist, and the number of providers is growing.

As time goes by and the industry evolves, many providers will come and go. The real value for charting long-term success is in tracking the evolutionary trend from the information about the services available today and how they will impact tomorrow.

There are several entities that are concerned about the existence, acceptance and growth of VoIP and its potentially disruptive economics. Those concerned groups would be fiscally satisfied if all of this VoIP development evolved at their pace, or perhaps even not at all.

The fact is that VoIP alone isn't much of a threat or an issue. It needs help from a supporting cast of other services and vendors to make it a reality. If you are a service provider or vendor with a product or service that complements this evolution, you will succeed. If not, you will most likely fail.

VoIP Service Providers

Analyzing the data one can see that, on the VoIP side, the newer service providers coming out of a wholesale voice or ISP (Internet service provider) background are already out with DID services using IP as the provisioning interface. Many are establishing the signaling with SIP (session initiation protocol), and all of them accept Ethernet cross connects, keeping the voice traffic off of the public Internet. This is key and gives the small and nimble service providers an advantage in the near term.

The larger, more established, traditional voice service providers are in the process of a retro-fit. Many of them have VoIP in their core but not as a true service and certainly not at the interface level. Many of them are moving toward a public Internet-based SIP connection as well as a layer 2 interface, but it is tricky as it involves multiple departments and philosophies about how to deliver service.

QoS (quality of service) is a major issue for the large carriers, since they cater to the enterprise customer, and this is a reason for their slower adoption rate of TDM (time division multiplex)-less signaling and transport. Since QoS wasn't traditionally a major issue for the new VoIP service providers, they are more comfortable putting a service offering together and getting it right out to market.

This is a result of two things. In the world of wholesale minutes, there is something called least cost routing (LCR), which is tied to available capacity and call completion percentages. In the ISP world, there is border gateway protocol, which enables routing over multiple paths. Both of these things teach buyers and sellers that they need and can have options for sending traffic. The new VoIP providers know how to manage dynamic QoS. Within 2005 most of the larger carriers will have built IP front ends to their legacy switches to keep up with the ubiquitous IP provisioning capabilities of their more agile competitors, and then they will deal with migrating those TDM switches out for packet-based models. Hopefully the migration is seamless (on the front-end, at least).

Ethernet Service Providers

Ethernet providers provide another interesting perspective on the development of purpose-built Internets. Aside from the fact that some providers are still trying to figure out their own services, most say they are layer 2. And the ones that are layer 3 run MPLS (multi-protocol label switching) over their own private IP backbone. The key here is that the capacity is not shared and not public.

The two reasons for that are the size of the applications that are riding the networks and security. In the voice world, the cost savings of moving from the PSTN (public switched telephone network) to a private VoIP network are so large that the buyers don't mind a negligible difference in the price per megabit between public IP transit and Ethernet transport. In addition, the sensitivity

One Wilshire - VoIP Service Providers

	1	2	3	4	5	Contact	Email
AT&T	Yes^	Yes	Yes	Yes	No	Dina Lemmond	lemmond@att.com
Beyond The Network/PCCW	No	No	Yes	No	Yes	Scott Butterworth	sbutterworth@btnaccess.com
Frontline	Yes	Yes	Yes	No	Yes	Eric Ramos	er@frontlineusa.com
Konfer Technologies	Yes	Yes	Yes	No	Yes	Chris Hall	chall@konfertech.com
Nobel	No	Yes	Yes	No	Yes	James Siminoff	James.Siminoff@nobelusa.com
Primus	Yes	Yes	Yes	No	Yes	Ramona Boudreau	rboudreau@primustel.com
Qwest	No	No	Yes	No	No	Shawna Lubner	shawna.lubner@qwest.com
Race Technologies, Inc.	Yes	Yes	Yes	Yes	Yes	Raul Alcaraz	raul@race.com
The Voice Peering Fabric	Yes*	Yes*	Yes*	Yes*	Yes*	Shrihari Pandit	spandit@stealth.net
Xyrous	No	No	Yes	No	Yes	David Kovach	d.kovach@xyrous.com

* Available through partners/members ^ In trial and available this year

VoIP Service Provider Question Key

1 = Does the provider have an IP based local direct inward dialing service offering accessible via the carrier hotel?
2 = Does the provider have a flat rate pricing plan for domestic call termination?
3 = Does the provider have an international call termination offering?
4 = Does the provider offer a hosted IP PBX service?
5 = Does the provider accept layer 2 category 5 cross connects at the carrier hotel?

of putting voice on the public cloud with the threat of hackers, denial of service attacks, viruses, etc., means it is totally worth the premium price. This gives the buyers a big pipe to run an application that doesn't take up a whole lot of capacity, leaving them with plenty of room to grow into other applications.

An interesting dimension of Los Angeles, which is similar to New York, is the fact that it is the television and film capitals of the country. A big driver for Ethernet transport in Los Angeles is backhaul from the movie studios to One Wilshire for long haul to New York. This is where the applications, namely video, are driving private, high-capacity layer 2 networks. Yes, it's all IP based, but it's not the Internet. The public Internet is a bigger concern for the video community because of the real-time nature and sensitivity of the content. They cannot tolerate latency.

VoIP is doing video a big favor – it's cost justifying the Ethernet (and waves), enabling all of the glass that was laid in the bubble years with the money being saved from inflated PSTN charges. This VoIP "Trojan horse" is preparing everyone for the next phase in the evolution of communications, video over IP, so that when it arrives we don't have to wonder how it will all get provisioned. The transport will be there already.

There are many other service providers of VoIP and Ethernet transport in L.A., but they did not provide data for various reasons, including secrecy as well as being at the CompTel conference in New Orleans at the time when this installment was being compiled.

One Wilshire - Ethernet Service Providers

	1	2	3	4	5	Contact	Email
Beyond The Network/PCCW	Yes	Yes*	Yes**	Yes	Yes	Scott Butterworth	sbutterworth@btnaccess.com
Broadwing	Yes	Yes	Yes	No	Yes	Brian Schloss	bschloss@broadwing.com
Cogent	Yes	Yes	Yes	Yes	Yes	Jeff Henriksen	JHenriksen@Cogentco.com
Konfer Technologies	Yes	Yes	Yes^^	Yes	Yes	Chris Hall	chall@konfertech.com
Looking Glass	Yes	No	No	Yes	Yes^^*	Steve Daigle	steve.daigle@lglass.net
OnFiber Communications	Yes	Yes	No	Yes*^*	Yes**^	Michael Rees	michael.rees@onfiber.com
Qwest	Yes	Yes	No	No	No^^^	Shawna Lubner	shawna.lubner@qwest.com
Race Technologies	Yes	Yes	Yes	Yes	Yes	Raul Alcaraz	raul@race.com
SBC	Yes	Yes	No***	Yes^	Yes	Amy Byrne	ab1717@sbc.com
Sify Limited	Yes	Yes	No	Yes	Yes	Rohit Dhingra	rohit_dhingra@sifycorp.com
Sohonet Limited	Yes	Yes	No	Yes	Yes	Jon Ferguy	jon.ferguy@sohonet.co.uk
Verio	Yes	Yes	No	No	Yes	David Hansen	dhansen@verio.net
Wiltel	Yes	Yes	No	No	No^*^	Renee Lem	renee.lem@wiltel.com
WV Fiber	Yes	Yes	No***	Yes	No^*^	Mark Wilson	mwilson@wvfiber.com
XO Communications	Yes	Yes	No	Yes	No	Ruth Li	ruth.li@xo.com
Yipes	Yes	Yes	No	Yes	Yes	Mike Spieldenner	mspieldenner@yipes.com

* As a cross connect ^^ Both are available *^* Some variation if going to Orange County ^^^ Metro only ^ Some mileage sensitivity
** Layer 3 MPLS ^^* Long haul via partners **^ Metro primarily; LH on ICB basis *** Not for GigaMan service ^*^Long haul only

Ethernet Service Provider Question Key

1 = Is the Ethernet service in use in this metro area today?
2 = Is the Ethernet service native layer 2?
3 = Is the Ethernet service layer 2 over public layer 3 IP?
4 = Is the Ethernet service a flat rate price and zero-mile within the metro footprint?
5 = Is the Ethernet service metro as well as long haul?

Hunter Newby is chief strategy officer of telx. He can be reached at hnewby@telx.com.