

Celebrating 10 Years of Competition in Communications  
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## BREAKING BOUNDARIES

Voice Peering Fabric Tests  
Old Interconnection  
Models | By Khali Henderson

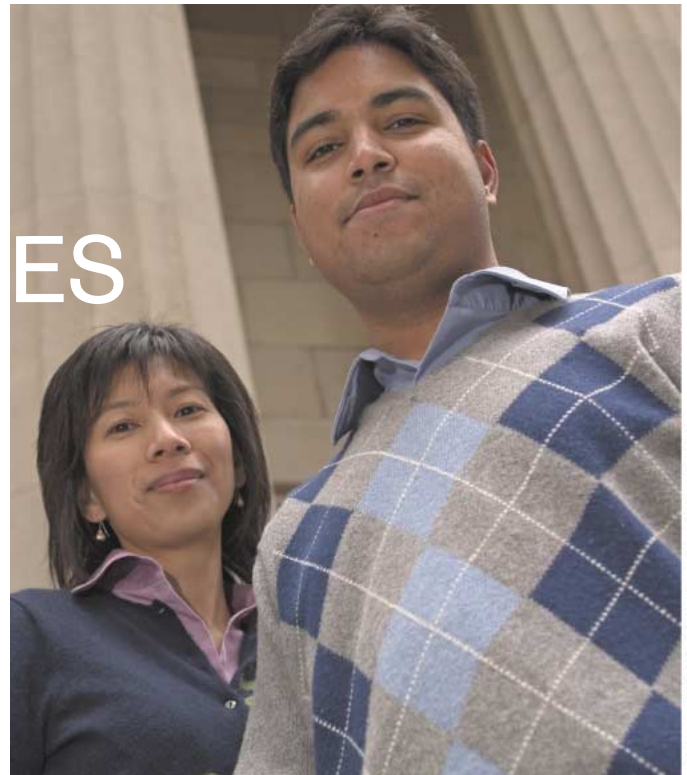


Photo credit: RodGoodmanPhotographer.com

Stealth Communications Managing Director Jinci Liu  
and President and CEO Shrihari Pandit near their offices in downtown New York.

Twenty-something Shrihari Pandit is flummoxed by questions about exactly why and how his company, Stealth Communications Inc., has found itself at the center — literally — of transformation in the carrier interconnection business as the operator of the Voice Peering Fabric. It's as if it never occurred to him that what he and his partner, Jinci Liu, are doing might be considered ambitious or out of bounds for a self-funded local ISP.

But then boundaries are not part of his world. The native New Yorker founded Stealth in 1995, straight out of high school. His previous work experience was not manning the drive-thru at McDonald's but operating a Bulletin Board System and doing "consulting work" for Sun Microsystems Inc., MCI Inc., Sprint Corp., NASA and the National Infrastructure Protection Agency.

While Stealth began life as a consumer retail ISP, it quickly evolved to serve businesses and set out to establish peering agreements with other ISPs and carriers. These relationships would prove pivotal to later initiatives (see *Stealthy Moves* below) like the VPF which are aimed at connecting carriers in more profitable and efficient ways.

"At the end of the day, telecommunications is about making connections," Pandit says.

Indeed, this was the driver for the VPF, which was formed in answer to early VoIP providers' needs for interconnection. "We were selling them

Internet access, but the problem was they didn't know who to buy services from and who to interconnect to and how to interconnect to these networks with the same quality and reliability," Pandit says.

The Voice Peering Fabric began in 2003 as just one Ethernet switch at the 60 Hudson St. carrier hotel in New York City where VoIP carriers could connect and trade traffic. "We had a directory that showed the members and what they wanted to buy and what they wanted to sell," he explains.

Today, the VPF includes switches in London and nine U.S. cities including Atlanta, Boston, Chicago, Dallas, Los Angeles, Miami, St. Louis, San Jose, Calif., and the original PoP in New York. These are connected by wavelengths sourced from long-haul providers, who also are members of the VPF Carrier Alliance, which includes companies such as Level 3 Communications Inc. The result is that no matter where a VoIP provider connects, it can trade traffic with all other members connected to the fabric. "As soon as they sign the contract, they can send traffic instantly," says

Pandit. “It allows them to reduce time-to-revenue, which is really important. They no longer have to worry about a T1 or T3 line to be provisioned; they don’t have to go through the public Internet and worry about the quality of service associated with that.”

Members hook into the VPF either via cross-connects if they are in one of the VPF PoPs already, or they buy Ethernet connections from a metro Ethernet provider like Looking Glass Networks Inc. Prices vary by city, but on average a 10mbps port costs \$1,500; a full gigE port runs up to \$10,000 per month.

Membership is not solely for service providers. Enterprises also are allowed in the club, which Pandit says enables service providers to extend their sales and marketing efforts to prospects they normally would not reach. Freedom Health Systems Inc., NASDAQ and Yale University are among those nonservice provider users.

About a year after it was formed, VPF added an ENUM registry to allow customers to send calls directly to each other without touching the PSTN. “This technology was already developed by the IETF; it was a set standard. Funny enough, no one was using it,” says Pandit, explaining that Stealth wrote its own software and offers the registry free to all VPF members. The addition of ENUM was key for many providers that are charging flat rates to the end users but have variable costs from their providers. “They need to be able to control their operating costs, so ENUM is a critical element. Any call they can move IP-to-IP without

touching the PSTN is going to impact their bottom line. That’s adding up now for a lot of these carriers.”

Another cost-saving addition was the ASP Market, which enabled VPF members to connect to SNET DG, Syniverse Technologies Inc. and VeriSign Inc. for access to telco databases and gateway services, including 411, 8XX, CNAM, LNP and SS7. “Each SS7 connection costs \$1,500 to \$3,000 per month,” says Pandit. “Large carriers may have dozens of these connections. ... So by moving that, then the VPF really simplifies their entire network while at the same time reducing that operating expense.”

The VPF concept has more than 130 converts — about a dozen enterprises included — and is growing every day. In addition to early adopters like Net2Phone Inc., traditional carriers belong to the VPF. XO Communications Inc., for example, joined last fall. “XO’s membership in the Voice Peering Fabric provides XO with the capability and connectivity to reduce operating costs associated with voice traffic exchange, as well as allowing us to increase speed-to-revenue from the wholesale VoIP services we provide to our voice customers that are members of the VPF,” says Don MacNeil, vice president of carrier operations at XO. “We think more enterprises and service providers will join the VPF as more organizations embrace the ENUM standard.”

Every addition to the VPF expands its potential exponentially, a design that, in theory, is limitless. Pandit wouldn’t have it any other way. X

# Stealthy Moves

