

## Geo Intelligent Routing Improves Quality of Service and Network Efficiency

ATLANTA, GA, USA, October 3, 2013 /EINPresswire.com/ -- A new white paper from TransNexus is a primer on how to improve quality of service and network efficiency for those looking to expand their VoIP service by acquiring new networks.

A new white paper from TransNexus is a primer on how to improve quality of service and network efficiency for those looking to expand their VoIP service by acquiring new networks. The paper, entitled, "Getting Started with <u>Geo Intelligent</u> Routing," offers strategies for optimizing a VoIP network based on media ingress and egress points. The full white paper is available on the TransNexus website at <u>www.transnexus.com</u>.

Ryan Delgrosso, CTO at Phone Power, provided real world expertise and examples for the paper. Delgrosso is responsible for the design and construction of Phone Power's nation-wide telecommunications network. "Our company was growing rapidly through acquisition, and that was leading to major inefficiencies on our network," said Delgrosso. "Using these strategies, we were able to integrate three different vendor based networks while drastically reducing our needs for expensive bandwidth."

Phone Power used two main tactics in their network: Geo DNS routing and Geo Intelligent LCR. The first was essentially an improvement on a geo routing feature present in most soft switches. Ryan knew that Phone Power's soft switches were capable of defining a location for each customer that would assign a certain ingress Point of Presence (POP) based on where the customer registered for service. However, the soft switches could only define a static location.

"Static locations work well for a purely TDM environment," said Delgrosso. "But, in an IP based environment, our customers are nomadic. They can go out of town or move across the country and bring their softphone with them. Meanwhile, their calls would still be routed based on their original location."

To solve this problem, Delgrosso used OSPrey routing servers from TransNexus to implement Geo DNS routing. Phone Power deployed Geo Intelligent DNS servers with a backend geographic database that identifies the location of a customer's SIP phone based on the source IP address. The Geo DNS server dynamically directs the customer's SIP phone to the ingress POP closest to the source IP address. The second strategy Delgrosso implemented for Phone Power was slightly more complicated. With POPs on both the east and west coasts, Phone Power had defaulted to a load balanced approach to <u>Least Cost Routing</u> (LCR). Their routing server routed calls to the lowest cost carrier in each instance, but did not differentiate between the <u>Oracle Acme Packet</u> SBC clusters on the east or west coasts. Instead, the routing server routed calls using a "round robin" approach.

Routing calls to Oracle Acme Packet SBC clusters on opposite sides of the country took a toll on the Phone Power network. Call quality decreased, and core bandwidth across the network jumped. Delgrosso saw that there was an opportunity to use the TransNexus OSPrey routing servers to optimize Phone Power's LCR plans. Phone Power implemented Geo Intelligent LCR by configuring their TransNexus OSPrey routing server to choose routes based on both the least cost carrier and the peering interconnect location closest to the point of media ingress. To do this, the OSPrey routing server is configured to route the call based on the connect IP address in the Session Description Protocol (SDP) message rather than the source IP address in the SIP INVITE.

By switching to Geo Intelligent Least Cost Routing, Phone Power was able to reduce its core bandwidth usage significantly. "Prior to implementing our Geo Intelligent strategies, only about 30% of our calls were being routed locally. Now, that number is over 80%," said Delgrosso. As a result of the new routing strategies, Phone Power experienced a 63% decrease in peak bandwidth usage.

"OSPrey routing server allows companies to tap into a second layer of geographic flexibility," said Jim Dalton, president of TransNexus. "At TransNexus, we are committed to helping out customers use Least Cost Routing efficiently and effectively to cut costs across the board. Our new white paper delves deeper into real life examples and strategies for Geo Intelligent Routing."

The white paper is available free of charge at the TransNexus website at <u>www.transnexus.com</u>.

## About TransNexus

TransNexus is a software development company specializing in applications for managing wholesale VoIP networks. TransNexus provides its Operations and Billing Support System (OSS/BSS) software platform to major VoIP carriers worldwide. Important carrier features offered by TransNexus are least cost routing, number portability, fraud detection, profitability analysis and QoS controls. For more information, online demonstrations, and free downloads, please visit <u>www.transnexus.com</u>.

## About Phone Power

Phone Power is a next-generation telecommunications company, headquartered in Los Angeles, California. A privately-owned company founded in 2005, they provide telecommunications service to the continental US, and Canada. All customer service is based in the USA. Phone Power customers range from single-line residential service all the way to corporate call centers. For more information about Phone Power, visit <u>www.PhonePower.com</u>.

Press release courtesy of Online PR Media: <u>http://bit.ly/172FqPA</u>

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