

Myriad Proteomics

Foundry's BRAVVO™ Enterprise VoIP Solution



April 2002

Myriad Proteomics, located in Salt Lake City, is an alliance of Myriad Genetics, Hitachi and Oracle, formed to map the human proteome in less than three years. The alliance will use their proprietary database and set of proteomic materials for therapeutic and diagnostic product development. Myriad Proteomics was faced with the design, vendor selection and installation of a converged voice over IP (VoIP) and data network in their brand-new facility.

Based on the very positive experience that Myriad Genetics was having with their Foundry-based data infrastructure, Myriad Proteomics decided to install a Foundry networking solution. At the same time, they wanted to install Cisco's IP telephone equipment (AVVID). Their solution: Install the Foundry network as the VoIP platform and carefully select a reseller who understood how to install both vendors' products together.

The experience that Myriad Genetics has had with handling heavy data traffic demonstrates the need for a high-performance infrastructure to ensure smooth and reliable migration to VoIP. At Myriad Genetics, data traffic of 10-100 gigabytes per hour is

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*— Rob Harrison,
Director of Information Systems*

generated by robotic machines and sent to a server farm consisting of 16 Unix servers, augmented by 19 other servers, which support scientists' workstations throughout the enterprise.

Foundry switches were installed at Myriad during a complete forklift upgrade, replacing a router-based network that had hit its performance plateau after being in place almost four years. Foundry was selected as providing the best performance and value after a test network was used to evaluate different vendors' switches and routers. According to Rob Harrison, Director of Information Systems at Myriad Genetics, "Our existing network had no real upgrade path to handle our growing data and voice convergence needs. Foundry



switches enabled us to build a network with the performance, open standards support, and features we need.”

The fundamental criteria in provisioning for VoIP is to pass IP packets without loss, delay or jitter. This performance must be strictly maintained as traffic increases, traffic patterns change, and switch ports get consumed with additional desktops and IP phones. Foundry ensures this with wire-speed switching at layer 2 and layer 3, a non-blocking switch architecture, and a full-featured hardware- and software-based quality of service (QoS) implementation.

This foundational approach lies at the heart of Foundry’s BRAVVO Architecture – Bandwidth & Reliability for Applications, Voice and Video. Because BRAVVO takes a standards-based approach to network convergence, the customer can then select enterprise VoIP solutions based on their own merit and be assured of seamless interoperability and unimpaired performance.

The same attributes of the Foundry architecture that ensure no packet loss – ASIC-based switching and a distributed switching fabric – ensure very-low latency (10-20 microseconds) and very-low jitter. “We knew that the Foundry infrastructure would provide superior packet handling under all conditions, so any VoIP solution would be assured of uncompromised voice quality”, said Harrison, who was Acting Director of IS for Myriad Proteomics at the time.

The network at Myriad Proteomics’ core is built with BigIron® 4000 Layer 2/3 switches, connected to FastIron II+ Layer2/3 switches at the network edge. Servers provide 14 terabytes

Customer Profile

Map the human proteome, then use the database and proteomic materials to develop therapeutic and diagnostic products. New facility with 14-terabyte server farm, 150 workstations, 75 Cisco IP Telephones.

Challenge

Install converged voice and data network using Cisco IP phones and call managers on top of Foundry Network infrastructure, planning for future heavy data traffic.

Solution

Foundry BigIron® 4000 L2/3 Switches at the core and FastIron® II+ L2/3 at the edge; Cisco Call Manager, voice mail and IP Telephones.

Benefits

Economic benefits of network convergence, unimpaired voice quality now, and into the future, high availability and reliability, flexibility to choose future VoIP equipment & applications from large open-standards market.

(growing to 50 TB) of storage and run 3-D modeling applications, with results served to 150 workstations across the enterprise. The Foundry switches have multiple Gigabit uplinks and are 10-Gigabit-Ethernet ready, providing a clear growth path while protecting the current investment.

In selecting a VoIP solution, Myriad found that Cisco’s AVVID product line met their requirements for IP telephones, call management, voice mail, and gateway connectivity to the PSTN cloud. Not satisfied with other vendors’ switching and routing performance, they selected Foundry to provide the platform for the overall VoIP solution. Myriad Proteomics’ VoIP solution includes two Cisco Call Manager systems, along with voice mail and 75 IP telephones.

Although policy-based QoS is available if needed, the Foundry network is currently running without any complicated software management configurations, all with no degradation to voice quality. Harrison says that particular attention is being paid to power users and their data traffic. "We know that QoS can always be turned on once traffic really starts peaking. But the packet-handling performance of the Foundry switches has been so good that we haven't had to turn it on", said Harrison. He adds, "I knew that if inferior technology was selected for the network, the IS staff would potentially spend a lot of time setting up and maintaining complex QoS settings, all to get around packet-handling problems. Foundry helps us to avoid this headache."

By investing in network equipment that provides superior packet-handling performance under all conditions, in a growing, data intensive environment, Myriad Proteomics has minimized their Total Cost of Ownership for a converged data, voice and video network. "The entire management team is very pleased with the Foundry-based network", says Bob Numeister, Myriad Proteomic's CFO, adding "we are confident that the investment in our Foundry-based network is well protected as the company grows."

About Foundry Networks

Foundry Networks, Inc. (NASDAQ: FDRY) is a leading provider of high-performance enterprise and service provider switching, routing and Web traffic management solutions including Layer 2/3 LAN switches, Layer 3 Backbone switches, Layer 4 - 7 Web switches and Metro Routers. Foundry's 4,000 customers include the world's premier ISPs, Metro service providers, and enterprises including e-commerce sites, universities,

Foundry's BRAVVO (Bandwidth & Reliability for Applications, Voice, and Video) provides best-in-class support for any VoIP implementation

Superior Voice Quality
Exceptional packet handling throughout entire network, consistent QoS implementation across all Foundry products.

High Reliability and Availability
Extremely fast network convergence after network outage/failure, MTBF not compromised by in-box, in-line power dissipation, redundant power supplies, automatic fail-over, redundant supervisor engines, and in-service maintenance.

Low Total Cost of Ownership
Standards-based solution ensures interoperability with best-of-breed VoIP solutions into the future. Voice quality unaffected by growth in network traffic or complexity, eliminating the need for downstream equipment upgrades.

entertainment, health and wellness, government, financial, and manufacturing companies.

Visit Foundry Networks on the World Wide Web at <http://www.foundrynet.com>

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