CASE STUDY: Paragon Healthcare Group

Paragon Health’s Deployment of Mushroom Networks’ Truffle Enabled Reliable VPN and Lowered Telecom Cost

Paragon Healthcare Inc. is a specialty infusion provider that focuses on infusible and injectable pharmacy services for patients at home, in a physician’s office or in one of its local infusion centers. The company has 13 offices in multiple locations in the United States, with corporate headquarters in Dallas, Texas. Its distributed operations requires the use of electronic medical records (EMRs) and a secure, reliable and robust voice and data communications network.

Challenge: Improving Internet Connectivity Speed & Business Continuity While Reducing Cost

The scanning, uploading and transmission of data-intensive EMRs demands high bandwidth to ensure low latency, high throughput and high quality. It is critical to have enough broadband capabilities to support EMRs because high latency could disrupt applications, turn away new clients or even jeopardize the care of a patient. Redundancy and up-time is equally important in order to provide service continuity even during Internet link outages — something Paragon Health struggled with earlier. The company had difficulty keeping its existing VPN tunnels active, and whenever a link went down, the office connected via that link went down, too.

Paragon’s MPLS network was maxed out. But bolstering bandwidth by upgrading its MPLS network was expensive. To double the bandwidth of the MPLS capacity, it would have cost Paragon $5,200 extra per month—an untenable solution when so many, from healthcare providers to insurers to patients, are working to bring healthcare costs down.
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Solution:
Mushroom Networks Broadband Bonding™ technology provides Paragon Healthcare with a cost-effective, high-bandwidth and redundant networking solution to connect all of its branch offices. Broadband Bonding merges several Internet lines into a single, faster and more reliable IP pipe and intelligently orchestrates the WAN. Inherently more reliable and about 70 percent less costly per month compared to a single transport, Broadband Bonding provides a remarkably efficient way to boost overall performance. Because it uses existing infrastructure, it’s a practical way for firms with branch offices to beef up their networks quickly.

Paragon Healthcare is using Mushroom Networks’ Truffle and Truffle Lite WAN Orchestration appliances that leverage virtual leased lines (VLLs) and Broadband Bonding to interconnect its branch offices and corporate headquarters. The solution also supports Voice over IP (VoIP) so branch offices can run voice communications over the same cost-effective network.

Since it began using Truffle, Paragon Healthcare is saving about $5,200 each month on its wide area network (WAN), as they avoided the MPLS upgrade. The Mushroom Networks solution also provides Paragon Healthcare with a fully-redundant solution with automated failover that strengthens its business continuity and provides high 9s VPN uptime between their branches.

Now Paragon Healthcare leverages multiple Internet Service aggregation to ensure close to 100% uptime. They also utilize a wireless connection in standby mode in their Truffle units. With Mushroom Networks’ solution, Paragon Healthcare is confident that its WAN will be available whenever it’s needed and able to handle the data-intensive EMRs and voice communications that are critical components of providing excellent customer service to its clients and delivering exceptional patient care.

“We looked at Cisco, Barracuda, Sonicwall and a few others. Compared the technologies they offer and the associated cost and decided Mushroom Networks clearly made most sense. None of the others had the technology that we needed”.

Chad Wray, IT Manager, Paragon Healthcare Group
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Summary
Paragon Healthcare Group is the premier specialty infusable and injectable pharmacy solutions provider with 13 offices. Paragon Healthcare evaluated many options including upgrading their MPLS network in order add speed and reliability to their WAN network. Once their evaluation and seamless deployment of Mushroom Networks’ Broadband Bonding® appliances, they increased their WAN network speed, added high 9s availability for all of their 13 offices, while saving $5,200 per month on their telecom cost.

Comparative Analysis: Mushroom Networks Delivers Superior Performance
Mushroom Networks’ decade long leadership in Broadband Bonding® and other related patented technologies provided industry leading performance for the seamless aggregation of ISP connections.

- Built-in Application Armor™ technology shields any negative fluctuations of individual ISP links from the application layer, and therefore provides seamless and continuous end-user experience.
- Pass-through installation feature enabled easy and quick drop-in deployment without requiring any changes in the existing local area network.
- Added benefits included WAN Orchestration, 3G/4G wireless failover, advanced QoS, layer7 deep packet inspection, traffic monitoring, bandwidth reservations, traffic shaping, traffic filtering, dynamic DNS, firewall and encryption.

About Mushroom Networks, Inc
Mushroom Networks is a San Diego, California-based company with the mission to provide innovative networking solutions. Our products and services are focused on a range of networking solutions for enterprises and small/medium sized businesses in various industries. Our solutions bridge the technology gap to the future by enabling applications today, that are otherwise not possible. Mushroom Networks was founded in 2004 as a spin-off from the University of California at San Diego. Mushroom Networks’ products are based on the unique and patented Broadband Bonding® technology developed by our engineering team through extensive research & development.

Mushroom Networks Product & Technology Awards: