Frontier meets communications needs of healthcare providers

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Healthcare is a hot topic these days, fostering spirited discussions among providers, politicians and patients. We can all agree about the value of using technology to expand the reach of services and improve their quality and efficiency. Frontier Communications is helping healthcare organizations meet their growing communications needs and their patients’ thirst for information and connectivity.

In this issue of Business Connections, we turn our attention to the healthcare industry and focus on Frontier services that are applicable to this segment. The first is Frontier Managed Internet Protocol (IP) Virtual Private Network (VPN) service. With IP VPN, your organization gets the security required for patient privacy and the scalability that a growing number of bandwidth-rich applications demand. You’ll also find a discussion of how Frontier Backup & Recovery enables healthcare organizations to meet HIPAA requirements, and an overview of the speed and reliability offered by Frontier Metro Ethernet. The benefits of this technology are not confined to healthcare; let us share its advantages for your business.

Utah Telehealth Network (UTN) is an organization putting our technology to work to help solve today’s healthcare challenges, and is featured in our Business Spotlight. Frontier built a Metro E Network for UTN that provided broadband speeds up to 20 times the previous infrastructure.

Inside you’ll see how to contact Frontier for a free assessment of your current communications services and recommendations for upgrades. When you need reliable and affordable solutions, we’re just what the doctor ordered.

Sincerely,

Cory Jones
VP, Commercial Marketing
Frontier Communications

About Frontier
Frontier Communications Corporation (NASDAQ:FTR) offers broadband, voice, satellite video, wireless Internet data access, data security solutions, bundled offerings, specialized bundles for residential customers, small businesses, home offices and advanced business communications for medium and large businesses. Frontier’s approximately 17,000 employees are based entirely in the United States. More information is available at www.frontier.com.
Executive Summary

Frontier managed IP VPN service

SOLUTION OFFERS VALUABLE BENEFITS TO HEALTHCARE PROVIDERS

Healthcare providers are looking for more secure methods of communication and data transport between facilities. To meet this need, Frontier offers Managed IP Virtual Private Network (IP VPN) service in 24 markets across 10 states. According to Kevin Bates, Director, Commercial Products, “It combines the security capabilities of a private network with the cost savings of a shared network infrastructure.”

Traditionally, a single circuit was required to support each application. For example, voice, data and Internet all had their own networks, duplicated at each location, and bandwidth was not shared from one application to the next. IP VPN replaces that infrastructure, allowing for a single circuit to share bandwidth and support multiple applications.

Notes Bates, “Security is of particular importance to healthcare providers due to their need to protect the privacy of patient information and meet HIPAA (Health Insurance Portability and Accountability Act) regulations. Frontier Managed IP VPN service ensures that business-critical traffic always remains confidential.”

In addition, Frontier Managed IP VPN service provides the infrastructure needed to successfully support healthcare applications such as medical imaging, telemedicine, video conferencing and electronic medical records. And as the need for these bandwidth-rich applications grows, Frontier can respond quickly due to the scalability of IP VPN.

Disaster recovery is another critical area for healthcare providers because of their critical role during emergency events; loss of patient records is simply not an option. Frontier Managed IP VPN service enables disaster recovery efficiencies in a variety of ways. First, data centers and other key sites can be connected to other sites on the network. Second, remote sites can quickly and easily reconnect to backup locations if needed.

To discuss a transition to IP VPN at your organization, visit www.frontier.com/enterprise.

IP VPN at a glance

FULLY MANAGED NETWORK SERVICE

Time is money. Which is why the Frontier Business Center is so valuable to business travelers. When you arrive at Greater Rochester International Airport early or have a long layover, you have the perfect place to finish that important business report before departing. The Frontier Business Center is conveniently located in Concourse A and is open 24 hours a day. It provides a quiet, well-equipped place to make the most of every pre-flight minute. You’ll find the following business essentials:

• Enterprises can focus on core competencies rather than network operations.
• Eliminates cost and problems associated with designing, deploying and maintaining private WANs.
• Reduces networking training requirements and operational costs.
• Frontier manages the network and provides a 24-hour help desk for comprehensive support.

Scalability

• IP VPN service scales easily to as many sites and users as needed in response to business growth/changes.
• Enterprises can expand capacity without incurring capital expenditures.
• Fast provisioning is available to connect new sites, users and applications.

Affordability

• Reduces capital equipment expenditures.
• Installation and monthly recurring costs are predictable.
• Reduces expenditures on network implementation, maintenance, monitoring and connectivity charges.
Utah Telehealth Network sees need for speed

In emergency situations, there's no time to lose. The results of patient tests and exams must be reviewed by the proper specialists, and treatment must begin quickly. But what if the patient is in a rural hospital and the specialist is many miles away?

The Utah Telehealth Network of the University of Utah seeks to bridge this gap by linking hospitals, clinics and health departments. Its mission is to expand access to healthcare services and resources through innovative application of technology, serving healthcare providers, patients and the citizens of the State of Utah. The United Telehealth Network and its partners:

- Facilitate collaboration
- Provide advanced clinical services
- Support education and research
- Encourage the development of telehealth resources and services

Patients Benefit from Shared Resources

Deb LaMarche, Program Manager of the Utah Telehealth Network, gives this example, “In the case of emergency stroke care, patients need treatment within three hours; there’s often no opportunity to transport rural patients to a bigger facility in time. That’s why the United Telehealth Network offers a telestroke program. If a patient in a rural hospital appears to have had a stroke, it automatically triggers a CAT scan, which is sent to the University of Utah. A radiologist at U of U then dials into a video conference with the ER staff at the rural hospital, and they discuss the patient exam and whether the patient should receive clot-busting medication. Not all stroke patients are good candidates for this medication, but when it’s used correctly, it greatly improves survival rates and shortens recovery times.”

The ability to rapidly transmit CAT scans and other imaging is critical in Utah, as many of the smaller rural hospitals don’t have a full-time radiologist on staff. By using the Internet, the Utah Telehealth Network helps ensure that patients can get the care they need, when they need it.

These programs put a burgeoning demand on the network in terms of speed, reliability and redundancy. Explains LaMarche, “We realized years ago that T-1 lines would not be sufficient to meet our growing bandwidth requirements in the future. Several years ago, the Utah Telehealth Network submitted a grant proposal to the Federal Communications Commission to seek funds through the Rural Health Care Pilot Program (RHCPP). This program dedicated over $417 million for the construction of 69 statewide or regional broadband telehealth networks in 42 states and three U.S. territories. The investment stems from the belief that a broadband network that connects multiple healthcare providers, including a significant number in rural areas, would bring those benefits to those areas of the country where the need for those benefits is most acute.”
Metro E Will Bring High Speed Broadband

The Utah Telehealth Network was eventually awarded a RHCPP grant of $9.8 million to pay for one-time infrastructure costs for a Metro Ethernet Network in southeast Utah. LaMarche recalls, “To gather information needed for the grant application, Utah Telehealth Network initiated an exhaustive RFP process involving vendors including Frontier. We greatly appreciated how Frontier helped educate us about the benefits and availability of high speed broadband as well as what infrastructure possibilities were available.”

Utah Telehealth Network made awards to the vendors selected for the Metro E Network and Frontier was one of them.

The Metro E network provides Utah Telehealth Network broadband speeds 10 to 20 times faster. “We’ll be able to transmit radiology images in a minute or two, instead of the 20 or 30 minutes it used to take,” notes LaMarche. Another important issue is the increased use of high definition in telemedicine to provide better quality images. “High definition images take eight times the bandwidth, and Metro E can accommodate this, leading to better patient diagnosis and treatment. It enables the Utah Telehealth Network enough bandwidth for high-speed access to resources such as pharmacy databases, electronic patient records and medical journal articles. This is especially important for rural healthcare providers,” she adds.

Regarding the relationship between the Utah Telehealth Network and Frontier, LaMarche says, “Frontier is great to work with. They’ve been quick to share their network diagrams and future plans with us, and have always been very responsive when we’ve had questions. We anticipate working with Frontier for a long time. Metro E gives us scalability, so as our bandwidth needs continue to increase, Frontier can accommodate this growth.”

Frontier Metro E keeps pace with applications

Today’s productivity-boosting applications are demanding more bandwidth. That’s why the Utah Telehealth Network, and many other organizations, are choosing Frontier Metro Ethernet. It combines performance, reliability and low cost in one solution:

**Flexible and Scalable** – Run a variety of digital applications on a single Metro Ethernet circuit, with bandwidths available all the way to 10 Gbps.

**Affordable** - Have bandwidth available to cover heavy demand, but pay only for the bandwidth used.

**Reliable and Secure** - Network-based solution delivers peace of mind with 24x7 monitoring and support through the Frontier Network Operations Center.

**Managed** - No need to buy equipment or add staff within your organization; when a business needs service, Frontier provides it. Frontier customers benefit from single-vendor convenience with one point of contact for sales and support.

For more information, visit www.frontier.com/enterprise.
Network convergence streamlines communication

VOICE, DATA AND VIDEO INTEGRATE ON ONE IP-BASED NETWORK

Citizens count on 9-1-1 operators to be there to Network convergence, also called media convergence, is the coexistence of voice, data and video communication within a single Internet Protocol or IP-based network. Historically, these communication services were developed in isolation, and businesses treated them as separate entities that were not expected or designed to integrate with each other. For example, a building would typically have dedicated equipment and wiring for each function. Now, with network convergence, it is both feasible and practical for a business to implement multiple solutions on a single, high-bandwidth network, resulting in many advantages.

Cost Reduction

By eliminating redundancies, network convergence reduces the infrastructure costs associated with maintaining separate communications networks. For example, the California Academy of Sciences (CAS) saved more than $2.3 million in material costs and more than $875,000 per year in recurring costs by consolidating all of its IP-based systems on a single data network. (For CAS, network convergence was part of an overall green mindset that also included architectural design and use of clean energy.)

In addition, businesses can reduce management expenses by creating operational efficiencies that streamline business processes. The ability to consolidate two or more distinct network operations within an organization naturally leads to cost reductions through the more efficient use of employees, technology and property, as well as having fewer vendors. A single converged network can also resolve many time-consuming IT management issues, such as providing users with security access across all systems with a single password.

Increased Productivity

A converged voice and data solution boosts productivity by allowing employees to use a broader range of network accessibility options and information media. By providing all employees with the same access to tools such as conferencing, unified messaging and Web-based personal assistants, the employee’s business objectives can be accomplished more effectively.

Organizational Agility

Network convergence can increase opportunities for a business by allowing faster expansion and adaptation. It supports new technologies and applications as they become available, and makes it easier to change functions as the needs of a company change. Responding to new market opportunities is made simpler and less expensive.

As network convergence continues to evolve, major challenges will confront network developers. Sheer demand for increased bandwidth is perhaps the most significant. More sophisticated applications and the exchange of increasingly rich content could cause network resources to become overwhelmed. One key to effective network convergence, therefore, lies in the design, installation and maintenance of adequate hardware.
Why choose Frontier backup & recovery?

As a healthcare provider, you’re dedicated to addressing the medical needs of your patients. By choosing Frontier Backup & Recovery, you also demonstrate concern for the security of sensitive information.

Frontier Backup & Recovery offers comprehensive solutions to keep data safe from threats and immediately available in real time, including disaster recovery and business continuity services. In addition, it provides compliance for the industry-specific needs of healthcare organizations as well as businesses in other sectors.

Meeting the requirements of the HIPAA (Health Insurance Portability and Accountability Act) Security Rule can be complex and challenging. Electronic Protected Health Information (ePHI) includes a vast amount of data contained in email, documents and spreadsheets, applications and systems and multiple devices. Fortunately, Frontier Backup & Recovery meets the fundamental data protection requirements of the HIPAA Security Rule:

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<th>Frontier Backup &amp; Recovery</th>
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<td><strong>Offsite Storage</strong></td>
<td>All ePHI must be backed up and stored at an offsite location to ensure recoverability in a business continuation event.</td>
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<td>All data is backed up in secure remote data vaulting facilities, and is easily accessible.</td>
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<td><strong>Access Controls</strong></td>
<td>Access authorization to ePHI stored on computer systems must be restricted and based on clearly defined responsibilities.</td>
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<td>Access to backed up data is done using uniquely identifiable credentials based on defined roles and responsibilities.</td>
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<td><strong>Encryption</strong></td>
<td>Transmission of ePHI over computer networks, including Internet, requires data to be encrypted.</td>
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<td>Uses Federal Information Processing Standards (FIPS) certified encryption to ensure security and privacy of data.</td>
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<td><strong>Data Integrity</strong></td>
<td>Data must be afforded controls that ensure its integrity and identity.</td>
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<td>Uses file non-repudiation technology that ensures that files stored in our facility have not been altered or harmed in transit.</td>
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<td><strong>Document Retention</strong></td>
<td>All ePHI documents must be retained for six years from the time of creation.</td>
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<td>Frontier Backup &amp; Recovery archival solutions allow a Covered Entity to be compliant without the high price of keeping information online.</td>
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For more information about Frontier Data Backup, visit www.frontier.com/enterprise.

Examining Key Benefits

Frontier Data Backup is centralized at one point within your network and is agent-less to reduce the time and resources you now spend on backup. Other key benefits include:

- Enterprises can focus on core.
  - Enables you to quickly restore data from the offsite or local vault.

- Eliminates the dependency on manual and vulnerable storage media.

- Leverages Frontier’s secure “cloud” service so no investment in software and hardware is needed to maintain a compliant service.

- Is compatible with virtually all computer operating systems and database applications.

- Continuous Data Protection (CDP) option provides restore time down to the minute.

- Full data encryption in transit and rest means patient information is always secure.

- Provides FIPS- and HIPAA-compliant security.

- Automated systems checks verify receipt, origin and integrity of all files after receipt.

- Automated file compression reduces file transfer time by up to 50 percent.

- Web Interface provides monitoring ability from any secure Internet connection.

- SAS 70 Type II audit means an independent third party has validated our security and privacy controls.
Frontier Ethernet provides high bandwidth in flexible bandwidth increments that better supports converged VoIP, video and data services. Your business gets access to Internet speeds up to 40 Mbps for an economical cost since you pay only for the bandwidth you use.

- Easy to integrate with existing network infrastructure
- Enables increased productivity from higher-speed, network-wide Internet access
- Meets your changing needs with scalable bandwidth
- Private, dedicated connection that addresses security requirements
- Can connect branch offices to your Intranet

Want to know more? Start a conversation about Wi-Fi with one of our U.S.-based representatives today. Visit frontier.com/businessedge.