Financial Services Organization Saves $1.5M with Groundbreaking IP Platform

CASE STUDY

TransUnion Credit fast-tracks their project by over 6 months and a single-weekend cutover with the NVT Phybridge switch innovation.

Executive Summary

TransUnion Credit
Industry: Financial Services
Location: Chicago, Illinois

CHALLENGE

- Migrate 1400+ users in a single site to Voice over IP without disruption to the operation.
- Multiple data closets in a 10 story building requiring upgraded power, cooling and backup power.
- Requirement to stay within budget.

SOLUTION

- Avaya solution powered by NVT Phybridge Long Reach Ethernet switches.

RESULTS

- Leveraging existing infrastructure eliminated all disruptions and risks.
- Secure network with a separate physical path for voice.
- Substantial cost savings freed up budget to be used for better phones and applications for the end users.

PRODUCT LIST

NVT Phybridge Switch Series

TransUnion is a global leader in credit information and information management services. For more than 40 years, TransUnion has helped businesses become more efficient in managing risk, reducing costs and increasing revenue, and has advised consumers on ways to improve personal credit health in order to achieve their financial goals. Today, TransUnion provides solutions for over 45,000 businesses and an estimated 500 million consumers in 25 countries around the world.

Challenge

Communications in any company is a challenge in today's fast-paced, digital world. By the time we read a newspaper article or write a letter, the printed story or crafted message is already 'old news.' Combine this 'need for speed' and 'desire for instant information' with the need to communicate in varying time zones and different languages, and that challenge increases tenfold.

The 1,400 employees located at TransUnion's headquarters in Chicago, Illinois, rise to that challenge each and every day as they strive to provide information and services to their colleagues and customers around the globe. And with every additional phone call made or e-mail received, TransUnion's management team recognized the need to improve its communications infrastructure in order to keep up with digital age demands.

Tony Christopher, Network Engineer Voice/Data of TransUnion Credit, wanted to modernize their communications platform and was looking to move the 1,400 employees to Unified Communications and IP Telephony. The challenge was mitigating financial and operational risk as they migrate to a converged platform.

Like many organizations, TransUnion initially planned to achieve their communications enhancements by building on their Local Area Network (LAN) infrastructure to support an IP Telephony solution (the deployment of their IP phones layered on their data network with the IP phone acting as a switch for the data device connected to it). Layering voice and data is quite common in today's communication world. It can also be costly and time consuming to implement. TransUnion estimated that local area network readiness would cost the company over $1.8 million and take more than 12 months to complete.

TransUnion advocates continuous process improvement and creative problem-solving to its customers. They also practice these same recommendations in their own day-to-day operations, so when Tony was prospected by a NVT Phybridge partner he was intrigued. "I would like to introduce you to a proven innovation that delivers Ethernet and Power over your existing voice infrastructure with four times the reach of traditional switches. It was designed to optimize and future proof your LAN for convergence and beyond and we believe we can save you money while eliminating risk," said the partner. Tony agreed to a meeting to better understand the NVT Phybridge value proposition.

Solution

The NVT Phybridge solution offers the ideal solution for customers who are looking to optimize and future proof the LAN for convergence and beyond.

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"We saved over $1.5 Million, fast-tracked the deployment by over 6 months, and completed the 1,400 user migration in a weekend."

Tony Christopher - Network Engineer, Voice/Data
TransUnion Credit

NVT Phybridge provides the only data network switch in the world to deliver Ethernet and Power over Ethernet over a single pair of telephony grade wire with 4 times the reach of traditional data switches. Customers are leveraging their existing, proven reliable voice infrastructure to create a separate network path for voice communications, complementing an existing data network, while optimizing an organization's IT infrastructure for voice and data convergence.

Tony learned that installing the NVT Phybridge switch solution would allow TransUnion to optimize their local area network and create a separate physical path for voice communications. NVT Phybridge claimed that the ongoing management of the network would be simpler, and the risk of issues compared to a layered network solution would significantly be diminished. Additionally, a plug and play deployment solution would not require major infrastructure changes, resulting in a lower-cost solution.

Tony found the NVT Phybridge value proposition very interesting. It fit with TransUnion's mandate to seek alternative information resources to make sound financial decisions. He admits however that he was skeptical. The old adage "if it sounds too good to be true, it probably is" was running through his mind. He agreed however, to meet with a local NVT Phybridge partner to get more information.

At that meeting, Tony was provided an estimate of $300,000 to install the NVT Phybridge switch supporting all of the IP telephones in TransUnion's Chicago corporate office. If true, this would result in a $1.5 million dollar savings. To mitigate risk, Tony agreed to a pilot deployment to test the NVT Phybridge solution and confirm that it would meet all of TransUnion's requirements.

Management Considerations

TransUnion's senior management team recognized the technical and economic benefits of the NVT Phybridge solution. The IP Telephony system was purchased and installed at a cost drastically reduced from initial budget forecasts. Project costs and operational impacts are two concerns that are commonly expressed by management teams in all industries, regardless of size or scope. However, each organization usually has additional considerations when choosing a solution for their IP Telephony needs:

TransUnion welcomed NVT Phybridge's ability to improve upon their emergency preparedness planning by creating a more robust 911 system.

- The point-to-point topology leveraged by the NVT Phybridge swtich allowed Tony to map all ports on the NVT Phybridge switches to a specific physical location in the 10 story building creating a robust E911 location database.
- Once in place, the wiring will not have to be touched whatsoever. IP phones can move from one location to another and the E911 location database will be automatically updated with the new location of the IP phone; achieved through SNMP integration.

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"The ability to complete real-world testing without investment or disruption was tremendous value to me. I was 100% confident in my LAN strategy before making a single investment."

Tony Christopher - Network Engineer, Voice/Data
TransUnion Credit

Ongoing management of the converged LAN was greatly simplified with the physical separation of voice further reducing the total cost of ownership.

- The NVT Phybridge backbone was easily integrated into the overall management of the network through SNMP.
- The entire network is managed from a single central location.
- QoS on a NVT Phybridge backbone complementing the existing data LAN is achieved by physically separating voice with each IP phone to have a dedicated point-to-point infrastructure to support requirements. This combined with the Configuration strategy implemented by Tony assures a robust, easy to manage LAN topology ensuring a great user experience.

Future data requirements are greatly simplified. The physical separation of voice on its own NVT Phybridge switch fabric greatly reduces future financial considerations and potential risks when needing to increase bandwidth speeds for data users.

Data switches do not need to be PoE and the IP phone does not need to be changed to support higher bandwidth speeds needed to support the data device connected.

The Pilot

With NVT Phybridge's plug and play deployment solution, TransUnion was able to easily test the usability of the UniPhyer solution without making any financial investment. This same level of "real world" testing is not possible if voice communications are layered on the data LAN network. TransUnion would have had to make significant LAN investments before being able to test even a single phone.

Tony identified end points throughout the building to test. He tested some of the furthest end points from the central closet and chose the most difficult office locations to ensure an accurate test was conducted in a real-world work environment. Several IP phones, including key executive desktops, were connected to the NVT Phybridge switch on various floors of TransUnion's headquarters. This allowed users from all levels of the company to test the solution and experience firsthand the ease of using an IP phone in their day-to-day activities.

The transition during the pilot was seamless for TransUnion's employees and had no adverse effect on their productivity. Tony was satisfied with the results of all testing and was confident that the NVT Phybridge solution would support TransUnion's migration to IP Telephony. With the pilot complete, Tony recommended the UniPhyer to TransUnion's executive team and outlined how the NVT Phybridge solution could be implemented faster and cheaper, but with the same technical results as the layered solution they had initially considered.

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"The cutover to the NVT Phybridge solution was executed brilliantly, and I strongly believe that having a dedicated physical path for both voice and data eliminates the quality of service issues I was expecting with the migration to IP Telephony. The NVT Phybridge solution has been a huge success, both operationally and financially for TransUnion."

Tony Christopher - Network Engineer, Voice/Data
TransUnion Credit

TransUnion's senior management team was impressed with the pilot's results. They found tremendous value in the ability to test the solution in a real operating environment, thereby eliminating project risk and proving the solution's viability without having to make a financial investment up front.

Deployment & Results

Given all the telephony pairs supporting the IP end points can be clearly identified in the main closet, TransUnion decided to consolidate the pairs by department for easy management once fully deployed. They calculated the power and back-up power requirements for the project. Given all the NVT Phybridge switches were in a single location TransUnion realized significant savings in back up power costs while reducing power management complexity.

Prior to cutover, TransUnion was able to configure and test all the switches to ensure a successful migration. The following is a summary of the strategy applied by TransUnion:

- Configured WAN routers for QoS and kept the PSTN connectivity for DID/DOD traffic.
- Configured the NVT Phybridge switch fabric for redundancy, enhanced security and optimum performance using VLAN and Redundancy strategies.
  - Clustered the 48 port UniPhyers into 6 groups of 5 on three racks.
  - Created specific VLANs for each of the clusters. This minimized the amount of unnecessary traffic on each cluster.
  - For redundancy, Tony daisy chained the cluster of NVT Phybridge switches together connecting the top switch to a gigabit data switch and the bottom switch to a different gigabit data switch. By doing so, if either one of the data switches failed or a switch in a cluster failed there was a redundant path available to minimize down time.
- Racked all the NVT Phybridge switches, connected to the PBX and tested switches based on configuration strategy and locally tested some end points without any business impact prior to cutover day further reducing risk on cutover day.

The installation of the NVT Phybridge solution began on a Friday evening. Over the course of the next two days, a team of 8 to 12 people worked to complete the transition. Part of the team unpacked and delivered 1,400 IP phones to employees' desks. At each desk, they disconnected the RJ11 cable from the old phone, connected it to the PhyAdapter, and plugged the PhyAdapter into the new IP phone. Other members of the team then began working on the wiring consolidation and mapping. The more accurate the wiring records, the less time this part of the project would take. With consolidation complete and the RJ21 cabling connected to the NVT Phybridge switches, the IP phones were powered up, registered and tested to ensure complete functionality.

On Monday morning, just 48 hours from the start of deployment, TransUnion employees arrived at work to find the new IP phones on their desks. Like every other day at the TransUnion head office, numerous calls, faxes, video conferences and voice messages were transmitted worldwide, all without a single quality of service issue.