When New Mexico State University (NMSU) decided to migrate its existing voice infrastructure to an IP environment, it called on NVT Phybridge.

Executive Summary

New Mexico State University
Industry: Education
Location: Las Cruces, New Mexico
Number of Students: 25,000

CHALLENGE
- Migrate from an aging phone system to an IP solution.
- Keep infrastructure costs down.
- Minimize disruptions during installation.
- Avoid having to keep old analog phones.

SOLUTION
- Modern IP Voice solution powered by NVT Phybridge Power over Long Reach Ethernet switches.

RESULTS
- Central backup power for all endpoints delivered from main Telco "hubs" as opposed to 100+ remote data closets.
- Estimated cost savings of more than $1 Million.
- Significant savings in both time and resources.

PRODUCT LIST
- NVT Phybridge Power over Long Reach Ethernet (PoLRE) Switch Series
- Cisco Call Manager
- Cisco IP Phones

New Mexico State University is a comprehensive research, land-grant university excelling in teaching, research and public service that fuels the economy and prepares students to be productive citizens. Since opening its doors in 1888 as Las Cruces College, New Mexico State has become a comprehensive doctoral-level university offering a wide variety of programs through the graduate school and the colleges: Agricultural, Consumer and Environmental Sciences; Arts and Sciences; Business; Education; Engineering; and Health and Social Services.

Challenge

With five campuses, a satellite-learning center, extension offices, and 12 research and science centers across New Mexico, NMSU provides learning opportunities to more than 25,000 students. After using a circuit switch PBX on its main campus for many years, the university knew it was time to upgrade its telephony. "The system they had was end-of-life," says Richard Kasslack, Vice President of Strategic Accounts at NVT Phybridge. "They wanted to refresh and update, and they knew that manufacturers aren't investing R&D in analog equipment." Because some of the features NMSU were looking for – mobility and call recording, for example – weren't even available for analog or digital phones, the university sought an IP solution. After trial testing several other VoIP solutions, NMSU chose Cisco IP because it was a Cisco customer.

After meeting with several vendors, NMSU narrowed its search to Cisco Solution Partner NVT Phybridge and its PoLRE switch. One key reason was that the PoLRE switch would enable NMSU to use its current cable plant infrastructure rather than eliminating all its copper and abandoning the existing design – a risky and expensive proposition.

Another reason NMSU liked NVT Phybridge was the PoLRE range. "We were used to the PBX being located in the central office with robust back-up systems," says Ray Cadena, NMSU's Manager of Telecommunications Systems. "NVT Phybridge allowed us to leverage the centralized location and backup capabilities and create a robust IP backbone for our Cisco IP phones."

Solution

To eliminate the risk associated with technology investments and to ensure that the PoLRE switch was the right solution, NMSU requested a proof of concept from NVT Phybridge. "The university decided to deploy the IP Phones using traditional data switches in the IT department and our product in the library," recalls NVT Phybridge's Kasslack. The results of this apples-to-apples comparison were compelling: While it took NMSU technicians three weeks to deploy approximately 100 end points in the IT department, it took them just three days to roll out over 200 end points on a PoLRE backbone in the library.

Beyond ease of installation, another benefit of the PoLRE data switch is its range: PoLRE extends Ethernet and PoE four times the distance of traditional data switches, seamlessly integrating into an existing environment and moving the

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"NVT Phybridge is an unbelievable way of migrating over from a traditional PBX environment. We will be saving well over $1 Million, fast-tracking and simplifying our IP Telephony migration and creating a robust platform that delivers a great user experience."

Ray Cadena
Manager of Telecommunications Systems
New Mexico State University

convergence point from every desktop to a single point in the central closet. PoLRE delivers Ethernet and PoE over 1,200 feet instead of only 300, and it uses just a single pair of telephony grade wire. The long reach capabilities allowed NMSU to centralize the PoLRE switches in a few main Telco "hubs" leveraging the existing backup power, as opposed to having to equip 100+ remote data closets with power, cooling and backup power to support PoE requirements. This reduces costs and complexity while fast tracking the migration for the customer.

Best of all, the university has future proofed its network and will not need to replace the IP phone or power source because the separate PoLRE backbone supports NMSU's IP phones. Future data switch refreshes to support higher bandwidth is simplified and more cost effective with no impact on voice services.

Results

The NVT Phybridge PoLRE deployment saved NMSU approximately $1 million. But cost-effectiveness was not the only benefit. "We're not a business, we are a state university, so our ROI comes primarily from time savings," says Cadena. Installing IP phones in the NMSU IT department not only took considerably longer than the NVT Phybridge solution in the library, but also required the purchase of Ethernet cords and the addition of several jacks so the phones could be converted. In the library, however, all they had to do was flip the switch over to IP. No new design configurations were needed. This saved time as well as potential costs. "It saved us a bunch of headaches," says Cadena. "We didn't have to redesign a Cisco switch and split it – using some for the network and some for the voice-over-IP phone. We didn't have to design anything new."

Another result of the NVT Phybridge solution is that, unlike networks, on a day-to-day basis, phones require little or no maintenance. This saves NMSU valuable time and further investments in network equipment and management.