



PHENOMENAL NETWORKS HELPS MINNESOTA SCHOOL DISTRICT GET CONNECTED TO THE FUTURE



ISD 287 School District

Independent School District 287 (ISD 287) was created by thirteen area districts in the western suburbs of Minneapolis, Minnesota to provide educational services and programs that complement and support their own programs. These cooperatively delivered, high-quality, cost-effective services include Administration, Special Education and Teacher and Learning.

Excellent communication is a key factor in achieving their mission. “We had a 10 year-old Rolm PBX system that was ready for replacement and we decided we needed a solution that would be extremely reliable with all the most current features and able to be simply expanded in the future, said Jana Breitner, technology specialist for ISD 287 and coordinator of the project. “So we went out to tender to local suppliers that could provide and install a system that could meet both our current and expansion needs in the foreseeable future’. After several weeks of sifting through proposals and interviewing candidate companies, the decision was given to Phenomenal Networks of Edina, MN. “We were looking for a system supplier that understood our needs and had the experience to design and implement this type of solution”, commented Breitner, “Phenomenal met the criteria well”.

The Challenges and Goals

The system requirements were quite far ranging and included redundancy for high availability, full IP telephony capability with a flexible range of IP phones, a centralized voice mail and auto attendant capability and unified messaging. All this plus the ability to easily add wireless and video over IP functionality in the future. A further stipulation was that the product solution should be from a single, end-to-end manufacturer.

All of these factors lead to the proposal to use products from Cisco’s AVVID range of IP telephony products. The combination of proven, integrated hardware and software products with Cisco’s solid reputation and support capabilities was an easy choice.

This is our first project in IP telephony and we are very pleased with the help and support we get from Phenomenal Networks. They have followed their proposed plan well and have been very flexible when necessary.” Jana Breitner, ISD 287.

THE IMPLEMENTATION

Performance was another key issue and this was addressed by the continuous Quality of Service (QOS) monitoring software that ensures that voice, data and any other line traffic are assigned appropriate priorities. These priorities are fully manageable.

Ease and cost-effective system management was also high on the list of requirements. The complete system can be easily managed via a web browser based interface that can be made as secure as it is usable. This allows for remote management as well as fault detection and repair. This same functionality can be used to administer the system - again either locally or remotely from a single point.

User training is a key piece of a successful implementation and so Phenomenal included a period of hands-on training to key staff members who then helped train the rest of the users. Phenomenal staff also provides ongoing technical support in addition to the Cisco Smartnet services that provide 24x7x365 support.

The system had to be installed, operational and staff trained by start of the school year to avoid any disruptions. “It was a tough target,” smiled Dave Shepherdson, “But with our strong team of engineers and many long days and nights we met the timeline and had the phones ready when the schools arrived back from the summer vacation.” Project time frame was six weeks from start to system cut over.

THE RESULT



THE SYSTEM

At the core of the solution are two VOIP PABX systems each based on a pair of redundant Cisco 7825 Media Convergence Servers and installed at the two main offices in Plymouth, MN. The server hardware is complemented with Cisco’s Call Manager software which provides and controls all the phone features.

The district wanted their users to have the latest capabilities of converged e-mail, voice mail and fax usually termed Unified Messaging. This functionality is provided by Cisco’s Unity software that works with Microsoft Exchange allowing users to get messages in any format both from local and remote locations. Further backup capability is provided by using the Survivable Remote Site Telephony (SRST) functionality available as part of the control software. This allows calls to continue if part of the system fails and also can fall back to calls over the standard PSTN phone system in the worst case.

PARTNER SUCCESS STORY

PHENOMENAL NETWORKS

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THE SYSTEM



THE PHONES

The system initially supports 320 IP telephones but is capable of expanding to 1,000 units. An extra 24 analog ports are available to support non-digital devices such as faxes and modems. Three types of phones have been supplied to cater for the different needs of users – administration, management and technical staff. All of the phones are powered via the Ethernet LAN and so wiring and installation requirements are simplified as no separate power outlets are required.

IP phones are very flexible and can be simply moved around as they are not tied to one physical jack point address. However this flexibility can lead to concerns over the need to locate personnel in 911 emergency situations. This issue is solved by use of Cisco's Emergency Responder option which automatically and constantly checks and updates the details of each phone so emergency services can identify the callers location. Even traveling callers are identified and in the event of a 911 call, their details are forwarded to the nearest Public Safety Answering Point (PSAP).

BOTTOM LINE

"Using this technology helps us to maintain our pledge to keep our district at the forefront of educational facilities," said Jana Breitner, technology specialist for ISD 287 and coordinator of the project. "This enables our teachers, administrators and student families keep in touch easily and at lower cost than the old system.

"Cost of the system was much lower than replacing the existing systems with traditional PBX solutions plus we get all the added functional and performance benefits with simple expansion capability for the future", commented Mark Case, Business Director for ISD 287, "Also one of the key requirements of the new system was to simplify moves and additions of phones while minimizing the cost of those changes. We believe that these cost savings will be many thousands of dollars a year plus we can ease the burden on our technical staff".





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