Lancaster-Lebanon IU 13 improves productivity with Unified Communications solution from Dell Services

Customer profile

Lancaster-Lebanon
Intermediate Unit 13
iu13
An Education Service Agency

Company	Lancaster-Lebanon Intermediate Unit 13
Industry	Education
Country	United States
Employees	1,600
Web site	iu13.org

Challenge

Lancaster-Lebanon IU 13 wanted to improve integration between telephony and videoconferencing and offer secure, remote access to communications services.

Solution

Lancaster-Lebanon IU 13 engaged Dell™ Consulting Services to design and deploy a cost-effective Unified Communications (UC) solution based on Microsoft® Lync® Server, Microsoft Exchange, Dell PowerEdge™ servers, Dell EqualLogic™ storage and VMware®.

Benefits

- Increased employee productivity with integrated, IP-based audio, video and Web conferencing
- Remote access extends services to external users
- Secure instant messaging
- Presence and communications integration
- Text transcription and search capability for voicemail
- High availability for services

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"The ability for remote employees to access integrated, IP-based audio, video and Web conferencing from their laptops is huge. We'll be able to offer users more flexibility in how they communicate and collaborate."

Roy Hoover, Wide Area Network Services Coordinator, Lancaster-Lebanon IU 13

Pennsylvania's 29 Intermediate Units (IUs) play an essential role in supporting the Commonwealth's public education system. Since the early 1970s, Pennsylvania Intermediate Units have acted as regional service agencies, improving student learning through both direct educational services and support services.

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> *Lancaster-Lebanon IU 13*

These days, one of the most essential support services is Internet and network connectivity. Lancaster-Lebanon Intermediate Unit 13 (IU 13) is responsible for providing wide-area network (WAN) connectivity to participating schools in Lancaster and Lebanon counties' 22 school districts.

"Part of what we provide is telephony and videoconferencing services," says Roy Hoover, wide area network services coordinator. "That includes the private branch exchange (PBX), the lines into the classrooms and cell phones as well. For a number of years, we've wanted better integration between videoconferencing and telephony. We've been moving toward IP-based Polycom videoconferencing units, and that has solved a lot of flexibility problems. But the problem it didn't solve was that everybody still needed to be in front of one of those videoconferencing endpoints to participate in a call. We wanted to extend that ability to traveling employees and teachers, as well as allow more people to participate in videoconference calls without needing to have expensive equipment in front of them."

Cost-effective, unified communications
Hoover was already investigating Microsoft Lync Server as a potential

Technology at work

Services

Dell™ Consulting Services -Unified Communications Design and Implementation

Hardware

AudioCodes Mediant™ 1000 Modular Media Gateway

Dell EqualLogic™ PS6010XV iSCSI SANs

Dell PowerEdge™ R710 servers with Intel® Xeon® processors

Polycom® videoconferencing solution

Software

Microsoft® Exchange Server 2010

Microsoft Forefront® Threat Management Gateway (TMG)

Microsoft Lync® Server 2010

Microsoft Office 2010

Microsoft SharePoint® Server 2007

VMware® vSphere™ 4.1

solution, but then Microsoft and Polycom announced a partnership to give businesses a tightly integrated unified communications (UC) solution that brings together voice, data, video and application integration in a seamless package. Lancaster-Lebanon IU 13 decided to introduce a Microsoft Unified Communications solution to expand the capabilities of its messaging, voice and collaboration systems.

"I saw that we could leverage the session initiation protocol (SIP) capabilities of our existing IP-PBX to provide PC calling, audio and video conferencing, voice messaging and inbound fax to the desktop while integrating with our existing Polycom bridges and video endpoints," says Hoover. "It was also a cost-effective way to offer unified audio-video conferencing and real-time communications, because we had already paid for Lync as part of our licensing agreement with Microsoft."

Engaging expert services
Hoover opted to bring in an outside services organization to manage the deployment. "We really didn't have the resources to do this in-house, and I've been in IT long enough to know that if you make certain configuration errors at the beginning, you can pay for it big time later," he says. "We thought it would be truly beneficial to have somebody come in that was experienced in setting up these kinds of environments. Microsoft recommended that we work with Dell. We also have a long-standing relationship with Dell, so it seemed like a logical choice to engage Dell Consulting Services to design and deploy the Microsoft Unified Communications solution."

Dell deployed the solution in a pilot program with 35 users. Microsoft Lync Server 2010 and Exchange 2010 Unified Messaging run on VMware virtual machines hosted on Dell PowerEdge R710 servers, while three

Dell EqualLogic PS6010XV iSCSI SANs provide centralized storage. The VMware cluster simplifies management and maintenance while ensuring high availability by providing redundancy for critical services. "By virtualizing servers, we also avoided approximately $35,000 in hardware costs," says Hoover.

The Dell Consulting Services team integrated the solution with IU 13's existing IP-PBX using a SIP trunk through an AudioCodes Mediant 1000 Modular Media Gateway. The Mediant 1000 provides voice technology for connecting legacy telephone and PBX systems to IP networks.

"Dell got us a demo gateway from AudioCodes and did a lot of other things that were beyond our expectations," says Hoover. "Their detailed project management and willingness to go the extra mile really helped keep things on track. Being able to use Dell as a source for most of the solution components also made procurement a lot easier."

Dell oversaw the initial pilot migration to ensure knowledge transfer and operational readiness. "I was impressed by how organized the Dell team was," says Hoover. "At first, to be honest, I thought such attention to detail was overkill, but I quickly saw why it was needed. They were able to tell immediately if something was slipping in week two that might affect a deadline at week four, and prioritize work accordingly. That turned out to be a major benefit, and validated our decision to use an outside services organization."

Saving time, improving productivity
Pilot users immediately embraced the instant messaging and presence features that integrate securely with Microsoft Office, SharePoint and other UC-enabled applications. "Users are able to instantly see the status of someone they are trying to

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communicate with, which is helpful for workflow purposes and saves time," says Hoover. "I really like the way Lync pulls events from your calendar and indicates whether you're on the call or not—it provides very useful information."

Text transcription and search capability for voicemail is enabled by Exchange 2010 Unified Messaging. "Voicemail is now searchable from my email inbox," says Hoover. "The accuracy on numbers is really good, and here's why that matters: I can click on a phone number in the contact portion and have Lync dial the number, but if they happened to leave an alternate number in the voicemail message, those digits will be recognized as a phone number that I can click on and dial the number. There are lots of really nice shortcuts that will save time and improve productivity."

Secure, remote access to communications services
Part of Dell's project was to deploy Lync Edge servers to provide remote client access, extending UC services to external users and meeting attendees. A Microsoft

Forefront Threat Management Gateway (TMG) reverse proxy ensures that external services are published securely.

Users will no longer need to be in front of expensive, specialized endpoints to participate in videoconference calls. "The ability for remote employees to access integrated, IP-based audio, video and Web conferencing from their laptops is huge," says Hoover. "We'll be able to offer users more flexibility in how they communicate and collaborate. Three of our pilot users travel all over Pennsylvania and beyond. The minute they had access to Lync, they were using it full speed because it just fit so well into their existing work environment. They've always had this issue of trying to collaborate long-distance and not being able to share their screen, so they just grabbed onto Lync and they've been using every feature in it."

Potential six-figure savings
Deploying a Unified Communications solution will pay off substantially down the road when IU 13's legacy PBX reaches end-of-life. "We expect

that our PBX vendor will make the announcement soon, and then we'll probably have five years of support left, which will of course degrade over time," says Hoover. "So we're actually looking at Lync as a PBX replacement. Our current handsets are proprietary and can't be easily reused with another system. Lync would allow us to move away from traditional handsets on most desktops. That's a potential six-figure cost avoidance that we could reallocate to other services."

Ready to go
With the pilot complete, Lancaster-Lebanon IU 13 now has a robust unified communications infrastructure capable of scaling to serve 1,600 users. "Initially, our intent was to do just a pilot of Microsoft Lync," says Hoover. "But by following Microsoft's recommendations and working with Dell, we were able to set up the whole environment the way we wanted it in production. Call it a pilot if you want, but it's fully ready to deploy."

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