Pembina Trails School Division Transforms Learning and Collaboration with Polycom®, Microsoft® and ADTRAN® Solutions

Industry

- Education

Daily use

- E-learning
- Virtual field trips
- Professional development

Solution

- Collaboration environment built around the Polycom® RealPresence® Platform has helped transform learning and teaching
- Students and staff collaborate face-to-face using video chat and HD telepresence
- PTSD replaced traditional in-school PA systems with district-wide paging built around Polycom® SoundPoint® IP phones
- Polycom solutions drive a groundbreaking cloud-based learning application that streams pre-recorded lessons to students

Results and benefits

- Annual savings of $200,000—or $15 per student—from UC/telecom environment
- District saved money even as number of phones grew from 825 to 2,200
- Polycom SoundPoint IP-based PA system can save $155,000 over five years
- Students and staff have ubiquitous access to learning and collaboration
- Standards-based Polycom UC solutions allow PTSD to remain hardware-agnostic

Overview

Pembina Trails School Division (PTSD), a district of 35 schools in Manitoba, Canada, was created in 2002 with the merger of two school divisions. The resulting IT environment was costly and difficult to maintain, which prompted the district to adopt a powerful unified communications (UC) infrastructure augmented with a high-definition (HD) video collaboration environment and a cost-saving IP phone network.

In classrooms, Polycom® SoundPoint® IP phones have replaced traditional public address systems, saving the district $25,000 per building and creating a more flexible communication environment. Students also use Polycom® telepresence to interact face-to-face with experts and educators from around the world, and teachers and administrators collaborate with professionals throughout Canada and beyond. And in a sterling example of "location liberation," PTSD leverages the Polycom® RealPresence® Platform and Microsoft® Office Communications Server to give students throughout Manitoba on-demand access to recorded lessons, while allowing them to message and video chat with teachers—even from mobile devices.

Creating a new economic model for education

Schools and governments struggling to transform the costs of teaching kids and delivering services might learn something from Don Reece, IT director at PTSD. "When I started 10 years ago, the IT budget was $2.4 million," recalls Reece. "Now it's $1 million. Back then, IT employed 34 people; now we have 23, and that includes full-time graphic artists, print shop staff, and trainers. By handling everything in-house, automating processes, managing assets remotely, and charging back our services at a reasonable rate, we made $1 million for the district last year—and an average of $800,000 a year over the past three years."

Reece and his staff remade their IT environment in 2002 after two Winnipeg area divisions merged to create PTSD. The district deployed an environment built around NetVanta® UC Server from ADTRAN® and enhanced it with Polycom IP voice and video solutions. The UC and telecom environment requires just a third of the phone lines the district needed previously and eliminates the charges it once paid for services like call waiting and voicemail. As a result, PTSD saves $200,000—nearly $15 per student—a year.

> "The Polycom and Microsoft solutions we use for MET all leverage each other to facilitate collaboration. They interoperate seamlessly and easily."
>
> Don Reece, IT Director, Pembina Trails School Division

Saving money while doing more

Staff and students access this powerful telecom network via 2,200 Polycom® SoundPoint® IP desktop and SoundStation IP conference phones installed throughout the district. "With Polycom, we went from 825 to 2,200 phones and still saved money," says Reece. Principals can even use the phones to hail students or staff. "It replaces our old PA system," says Reece. "A traditional PA system costs $30,000 per building, and it serves only that building. Our SIP paging system costs only $5,000 per building, and we plan to scale it district-wide. Using SoundPoint phones as our PA system will potentially save us about $155,000 over five years."

High-definition (HD) Polycom® HDX® telepresence systems are also installed in half of PTSD's facilities. Students use them to interact live with divers at the bottom of the ocean and engage with genome researchers in Georgia. "People are very comfortable using video," he says. "They actually find it more convenient than a typical conference call."

PTSD maintains an extensive telepresence infrastructure that includes Polycom® RMX® conference platforms, Polycom® CMA® management application, and the Polycom® Video Border Proxy™ (VBP®) appliance. A 47-kilometer fiber network moves voice, video and data at up to 20Gb/second.

The Polycom® RealPresence® Platform also underpin Manitoba Edu-Tube (MET), an award-winning online portal that streams pre-recorded lessons and tips to students located throughout the province. "We have master teachers identify pinch points or problem areas for students," says Reece. "Then they post a four- or five-minute explanation on the topic. Several teachers might provide tutorials on the same topic. The beauty of MET is that if one explanation doesn't click with a student, another one might."

Taking it to the cloud

With interactive messaging powered by Microsoft Office Communications Server, students can video chat with teachers if they need more help. "MET is a customized, cloud-based approach to creating a culture of learning," says Reece, who points out that MET is designed to cover the entire province of Manitoba, and not just the territory served by PTSD. MET is ideal for districts like the Frontier School Division, which is the size of California yet serves only 5,000 students. "With Polycom, many of our rural students are getting more cloud-supported instruction than our urban students. And by logging into our Polycom RMX bridge, one teacher can tutor several students within a secure and controlled collaboration."

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Polycom HD Telepresence & Video Conferencing Solutions

- Polycom® HDX® 6000, 7000 and 9000 room telepresence systems installed in half of PTSD facilities

Polycom Voice Solutions

- 2,200 Polycom® SoundPoint® IP 330, 430, 550, 601 desktop phones in use throughout the district
- Polycom® SoundStation® IP 4000 conference phones

Polycom® RealPresence® Platform Solutions

- Polycom® RMX® 2000 multimedia conference platform to schedule and manage multi-point conferences and learning
- Polycom® CMA® management application
- Polycom® RSS™ 2000 recording and streaming server to record, archive and distribute lessons via Manitoba Edu-Tube
- Polycom® Video Media Center™ (VMC™) content management solution
- Polycom® Video Border Proxy™ (VBP®) converged network appliance to enable secure collaboration with parties outside the district

"Polycom RealPresence Platform solutions let us remain hardware-agnostic. No matter what you have, Polycom will talk to it—even though Cisco won't talk to anything else."

Don Reece, IT Director, Pembina Trails School Division

After all, says Reece, MET is about enabling a collaborative learning process. "The Polycom and Microsoft solutions we use for MET leverage each other to facilitate collaboration," he adds. "They interoperate seamlessly and easily."

Thanks to Polycom's renowned support for industry standards, PTSD can also enable access to MET lessons and features via smartphones, tablets, Macs, PCs and more: "The Polycom RealPresence Platform let us remain hardware-agnostic," says Reece. "No matter what you have, Polycom will talk to it—even though Cisco won't talk to anything else."

About Polycom

Polycom is the global leader in open standards-based unified communications (UC) solutions for voice and video collaboration, trusted by more than 415,000 customers around the world. Polycom solutions are powered by the Polycom® RealPresence® Platform, comprehensive software infrastructure and rich APIs that interoperate with the broadest set of communication, business, mobile and cloud applications and devices to deliver secure face-to-face video collaboration in any environment. Polycom and its ecosystem of over 7,000 partners provide truly unified communications solutions that deliver the best user experience, highest multi-vendor interoperability, and lowest TCO. Visit *www.polycom.com* or connect with us on Twitter, Facebook, and LinkedIn to learn how we're pushing the greatness of human collaboration forward.

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