

# Case Study

Video helps fire department answer the call for training while maintaining full area coverage



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Customer Profile: Tucked neatly between snow-covered peaks and high desert plateaus, the City of Bend, Oregon is home to roughly 82,000 people. Incorporated in 1904, it is the largest city east of the Cascade Mountains and a destination for outdoor enthusiasts as well as vacationers seeking active, healthy pursuits.

## Situation

The City of Bend, Oregon's residents and surrounding businesses are protected around the clock from fires and medical emergencies by the Bend Fire Department. Its 65 firefighters, many of whom are also Emergency Medical Technicians (EMTs), typically work in shifts of 18 people spread between five fire stations to ensure they can respond to calls from anywhere within their jurisdiction in minutes.

### **EXECUTIVE SUMMARY**

#### CITY OF BEND

- Municipal Government Fire Department
- Bend, Oregon USA
- 82,00 citizens, 65 firefighters in five stations

#### **BUSINESS CHALLENGE**

- Provide required training without leaving fire stations unmanned
- Provide for monthly recertification of EMS personnel

#### NETWORK SOLUTION

- Move to Cisco Telepresence solution
- Install Cisco Quickset C40 in training center
- Install Cisco Quickset C20 in outlying stations

#### **BUSINESS RESULTS**

- · Able to conduct training while ensuring full coverage in all fire stations
- Response times reduced
- · Able to maintain certification more easily
- · Quality of life preserved for critical patients by EMS personnel responding from their home stations

As with any emergency services unit, training is an important component of the Bend Fire Department's routine. In addition to general training on new tools, ideas and techniques, the EMTs must also participate in monthly physician-led reviews of selected cases in order to maintain their certifications. While all this training delivers high value, both to the firefighters and local citizens, it also introduced some concerns.

"Our fire stations are strategically located around the perimeter of the city to ensure the help our citizens need is always close," says Mark Taylor, Deputy Chief of Training and Safety for the Bend Fire Department. "We go by the mantra "time is brain. "The longer it takes an emergency response team to reach a person having a heart attack or other life-threatening issue, the more chance there is for permanent damage. The same for the amount of damage a fire can do, especially with modern synthetic materials. Having the entire three-person crew leave our southern and eastern stations to participate in sessions at the north station training center added precious minutes to our response time. It was unacceptable."

To address the issue the Fire Department put together a video-based training system that would allow firefighters in the southern and eastern stations to participate remotely via the City's wide area network. While the concept was good, the use of what was essentially a consumer-grade camera made it difficult to see the X-rays, CT scans, overhead slides and other images being projected on the screen. The sound quality was also poor; it was difficult to hear anyone but the

main speaker in group sessions, and there were synch problems that Taylor describes as looking like a movie that had been badly dubbed. What the Fire Department needed was a business-quality video system that would make the remote training experience nearly the same as being in the room.

# Solution

When it was time for the Fire Department to make the call, Taylor immediately turned to Technology Integration Group (TIG, formerly Obsidian Technologies), a Cisco Gold Partner with extensive experience in Cisco TelePresence video conferencing and the city's longtime provider. continued..

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# Case Study continues



After piloting a program to demonstrate the quality, TIG recommended installing a Cisco Quickset 40 TelePresence video conferencing unit in the training center, and Quickset 20 units in three of the other fire stations. Quickset was chosen because it delivers high-quality, high definition video and audio while remaining affordable and easy to use with minimal training.

# **Business Results**

The difference in quality between the old video training and the Cisco Quickset Telepresence system was immediately noticeable. Taylor says it has made the training much more effective.

"With the old system you had to strain to see any of the support materials and hear what was going on," he states. "With the new system, sometimes the X-rays and other materials look better on the projected images in the remote offices than they do on the PC they're stored on because the feed is coming directly rather than through a camera being pointed at a screen. The sound is amazing as well. The microphones pick up the physicians and the firefighters in the room clearly, but reject the background noise. And the sound is perfectly synched to the video, which makes it much easier for all our personnel to learn."

Because the quality is so high, the firefighters can receive the full benefits of the training without having to leave their home stations. While he doesn't have statistics, he says he knows of several instances where firefighters had to leave in the middle of training for a call, and the time saved most likely preserved a higher quality of life for the patient by preventing brain damage.

The learning environment itself has also made a difference in what firefighters get out of the training.

"The people who are attracted to the fire service are highly motivated, intelligent and educated, but they're also easily bored," he says. "If the training doesn't look good or sound good they will start checking their emails or doing other things. I spoke with a friend who does audio/video installations for homes and he couldn't believe the quality. He said it almost looks 3D. This system really keeps them engaged, which maximizes the investment of time and resources we re putting into the training."

Taylor says the new video training system is being used for anything that doesn't require hands-on learning (such as CPR). In addition to the physician reviews for the EMTs, the Bend Fire Department has held classes on blood-borne pathogens, sprinkler systems and procedural information. It is also being used by other members of the Bend city government to conduct meetings, and as part of biweekly touch-base sessions with legislators in the State government. In the future, he hopes to incorporate HD video, and would like to see the Bend Fire Department become part of an information and training-sharing system state-wide.

Taylor knows that obtaining the right technology was only part of the equation. He is very appreciative of the work Technology Integration Group did, and continues to do, to make it a success.

"Technology Integration Group is an outstanding partner for us. Their technical expertise is first-rate, and their responsiveness is invaluable. They set it up in a way that's easy to use, and made sure we were fully trained so we could use it effectively from day one. It's a pleasure to work with a company that exhibits this level of professionalism."

- Mark Taylor, Deputy Chief of Training and Safety at Bend Fire Department

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