

IP Intercoms Help Bring Order

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Even in rural America, county courtrooms have become a dangerous place to be – and to work. Increasingly, judges and court workers find themselves being threatened by defendants, plaintiffs and others unhappy with the day's proceedings.

With caseloads increasing, anger mounting and security staff levels often frozen or shrinking due to budget concerns, it has become increasingly difficult to provide full security in every section of the courthouse. Instead, county court systems are increasingly relying on rapid response teams that can be deployed on a moment's notice.

The challenge is detecting threats early enough – before they can escalate into incidents – so judges, workers and spectators can remain safe.



Deputies at the Lapeer County Courts have the ability to see and listen to separate areas of the court campus, allowing for constant surveillance and quick response time, when needed.

SITE SPECIFICS

The Lapeer County Courts is home to the 40th circuit court, 71A district court, probate court and juvenile court. The campus consists of the county annex building, county administration building and the Lapeer County Historic Courthouse. While nearly all court business is conducted in the county administration building, a few select cases are still tried at the historic county courthouse, which dates back to 1846. It is the oldest continuously active courthouse in the state of Michigan.

The campus features seven courtrooms, holding cells, offices for judges and other county officials and amenities such as washrooms and showers. The Lapeer County government uses a wide area network (WAN) to provide networking and Internet connections.

Despite the rural setting, Lapeer strives to stay on top of the latest technologies. In 1995 the Intermediate School District, along with the local school districts, formed a consortium to build a fiber optic backbone. Over the years, the backbone has grown to over 90 miles of fiber optic cable, which is used by both the schools and the county government. The network connects school buildings, local police departments and township offices throughout the county.

TECHNOLOGY NOT SO TECHNICAL

Despite the many advanced technologies that have been installed, one area that was well out-of-date was the emergency communications system that connected

the courtrooms and other key areas (such as holding cells) to the control center. In reality, the system was really a nurse's paging system, which operated as a "panic button." If a judge anticipated a situation getting out of hand, he or she could press a button under the desk that would activate a light in the control center in the lockup area.

Chuck Madden, a technology consultant for the Lapeer County Intermediate School District for 14 years, was brought in to help upgrade the county courts from a safety/security standpoint. This "loaned employee" arrangement is not unusual in Lapeer County.

"We all work together here," Madden said. "If the project is beneficial to the county, then we partner together to make it work. We don't like doing things twice."

What Madden found was a system that was not working. All but one of the "panic button" lights were inoperative – either the lights were already non-functional or they were knocked out by various remodeling projects. Although Madden was brought in to install an video surveillance system, it was determined that upgrading the intercom system at the same time would not only contribute to greater safety within the building, but also be more cost-efficient.

While the "panic button" system may have been sufficient when it was first installed over three decades ago, Madden realized that it was insufficient for today's world, even with video.

"What you see on a video can be deceiving," he said. "An attorney or a person defending himself may be very physically 'active' while trying to make a point, but he may not be a threat. On the other hand, another person may appear to be calm but is getting ready to explode. It just seemed that adding on-demand sound to the video would provide a better indication of potential trouble. We decided we needed a true intercom system."

SYSTEM SOLUTIONS

As long as they were doing a major technology upgrade, Madden thought it would be wise to add a voice/sound system along with the video. Among the key requirements was activation on both ends. That way, if a judge suspected trouble, he or she could turn the system on so the deputy manning the control center could hear it and take the appropriate action. If those monitoring the audio in the control center heard something questionable in the courtrooms and holding cells, they could take quick action to intervene before the problem escalated.

Madden began the search for a new system by calling several traditional (hard wired) intercom companies, but received no response. Expanding his search to the Internet, he came across Digital Acoustics. As a technology consultant, its IP-based intercom system appealed to him immediately.

“With a hard-wired intercom system you’re looking at a fairly time-consuming and difficult installation,” Madden said. “We’d have to run miles of wires through walls, around objects and sometimes in trenches between buildings. And then we’d be stuck with whatever we decided, even if our needs changed. With Digital Acoustics’ system we are able to plug in to the existing WAN network cabling, saving us a ton of time on the front end. And if we decide to add to the system or move a box later, it’s easy to do.

“In fact, the toughest part of the entire installation was drilling the mounting screws into the judges’ bullet-proof benches,” he added with a laugh. “Each of those took about an hour. We would do it during lunch so we didn’t interrupt court proceedings. Other than that, it was pretty much plug-and-play. I was able to get the whole system running on my desktop in one morning.”

Madden said watching multiple video images is difficult to execute due to fatigue issues, and in cases such as a washroom facility there are privacy issues. Sounds coming through the intercom, however, will attract the attention of deputies immediately, alerting them to take action as needed.

HIGH PRAISE

Judges and deputies alike have praised the sound quality of the system. “You can hear all the way from the bench to the back of the courtroom,” Madden said. “They are blown away by the reliability and how well the intercoms work and sound. They are able to distinguish speech from background noise easily, even at low volume levels. The deputies feel it has greatly upgraded their ability to identify trouble and act on it, which has been a definite enhancement to video surveillance.”

Another feature both Madden and the county like is the ability to route the intercom to more than one console.

The most immediate result has been the ability to increase the level of security, particularly in the courtrooms where judges often are very vulnerable, without increasing the number of deputies. The combination of video and voice allows them to make “rounds” without having to leave the command center or their desks.

In fact, they are finding it is more efficient than physical rounds because they can monitor the entire complex at once rather than a segment at a time. The ability to connect to the 911 center adds a further layer of safety and security.

Madden said the system is far more cost-effective than the old nurse’s call station. The ability to use the existing WAN at multiple sites is a huge advantage over having everything hard-wired into one location.

“Judges are under more direct threat than they’ve ever been before,” Madden said. “Look at what’s happened in the last couple of years in Chicago, Reno,

Atlanta, etc. Many are in fear when they try certain cases. There's maybe one murder a year around here, but you never know where it's going to be. The intercom system is helping us calm those fears.

"Many of our long-serving judges are suspicious of new technologies in their courtrooms generally," he added. "But everybody loves this."

SIDEBAR: IP Video Monitors Courthouse

Lapeer County Courts installed 15 Digital Acoustics ii3 intercom boxes, along with TalkMaster software. Seven of the boxes are on the judge's benches in the courtrooms, and two in the Friend of the Court hearing rooms.

If a judge has a concern, he/she can press a button and the sound will immediately go on in the command center. The other units are located at the doorway access to the lockup areas and within the cell area itself.

Monitoring the holding cells is a particular challenge. It's important to keep tabs on activities there since problems can erupt at any moment. Sounds coming through the intercom will attract the attention of deputies immediately, alerting them to take action as needed.

In addition to the Courthouse, Lapeer County is adding a server in the 911-emergency response center in case further police backup is required. They are also planning to create an interface to the cell phones carried by deputies so they can respond to situations when they're on duty or elsewhere on the grounds.

Other applications under consideration include:

- Expanding the system to include buildings that offer health and medical care
- Extending the system into hallways and entryways of local schools
- Placing intercom units in special education classrooms to provide support on behavioral issues that get out of hand; also to allow outside consultants to monitor classroom activity or an individual's behavior without the disruption of being in the room
- Using the system as a backup communications system for phones; because it can be powered over Ethernet, the county can maintain emergency communications with the courtrooms and other areas on campus, even in the event of a power blackout

"We are thinking progressively, outside the box," Madden said. "The more we see what the technology can do, the more applications we're finding for it. That's the mark of a great system."
