University Expands Reach of Emergency Response Network

Bryant University extends network beyond campus borders to create safer community.

EXECUTIVE SUMMARY

BRYANT UNIVERSITY

- Higher Education
- Smithfield, Rhode Island
- 3600 students

BUSINESS CHALLENGE

- Heightened integration between public safety agencies and the campus community
- Enable interoperable communications across public safety agency boundaries I

NETWORK SOLUTION

- Connect local agencies and organizations to improve responsible time within the community
- Use existing Cisco IPICS network to create a virtual public safety net for Bryant.

BUSINESS RESULTS

- Enabled improved incident management, quicker response time and faster "time to information" within the community
- Created interoperable communications between public safety agencies with little or no additional investment

Business Challenge

Located on 420 acres in Smithfield, Rhode Island, Bryant University is a private undergraduate and graduate school with more than 3600 full- and part-time students. Three years ago, Bryant upgraded its Cisco network to enable campus wide IP telephony and other voice, video, and data applications that would enrich the learning experience and extend networking resources beyond the classroom and into the local community.

Bryant deployed a Cisco® IP Interoperability and Collaboration System (IPICS) in 2006 to improve campus operations, and enable direct radio communications between Bryant's public safety, campus management, and residence-life departments. With the success of its IPICS network firmly established with 22 IPICS units, Bryant recognized an opportunity to extend its interoperable communications network to public safety agencies within the region.

The Bryant University campus community extends beyond the borders of the campus into the local community. In order to build a safe environment on campus, Bryant viewed the need to create a safer off-campus community environment as well.

"We wanted to use IPICS as the fabric of a safety quilt to cover our campus and enhance public safety," says Richard Siedzik, network manager, Bryant University. "Bryant wants to be a good neighbor and good partner, and we use any opportunity to extend our resources to the community."

Network Solution

Bryant began to work with regional agencies in the Rhode Island towns of Smithfield, North Smithfield, Cumberland, Woonsocket, and Glocester, as well as with Connecticut's Quinebaug Valley Regional Dispatch Center. Bryant demonstrated how a virtual public safety network could connect regional dispatch centers through OSHEAN, an organization that provides high-speed networking throughout the state for higher education, K–12, libraries, and federal and state agencies throughout Rhode Island. "We created an incident channel and gave virtual talk groups to several dispatch centers," Siedzik says. "Once they understood that IPICS could supplement their

primary communications with little or no investment and then saw how easy it was to use, they immediately saw the value."

Using a Windows-based application that enables push-to-talk functionality for PC users, Bryant's IPICS system allows dispatchers to communicate over multiple communications channels and monitor broadcasts of those channels. The system bridges push-to-talk networks and IP and non-IP networks, enabling agencies to use existing radio handsets, laptop PCs, IP phones, landline phones, and cell phones.

"The capability to send firsthand information from the source directly to the right group of people in the shortest possible time, no matter where they are or what they happen to be using to communicate, can make all the difference in an emergency or crisis situation," Siedzik says. "The bottom line is that you're shrinking time and distance and reducing your time-to-citizen safety and that's what it's all about."

Business Results

Bryant's IPICS network has already proven its worth, including efficient coordination of a response effort for several recent events, such as an accident that occurred across state lines between

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Connecticut and Rhode Island. When a motorist witnessed the accident on the Rhode Island side of the border and called it in, the call went to the E911 center in Connecticut, which dispatched it to the Quinebaug Valley Regional Dispatch Center. Quinebaug, however, did not have enough location-specific information to determine in whose territory the accident happened.

"With a click of their IPICS soft-radio button, they were in contact with Northern Control," says Siedzik, explaining that Northern Control is a mutual assistance partnership made up of Smithfield, North Smithfield, Cumberland, and Glocester. Siedzik says. "Almost immediately, the Rhode Island agency for that territory was identified, alerted, and responded."

Cisco's IPICS VoIP technology has proved very effective in resolving and eliminating many of the communications problems," says Deputy Chief C. Wayne Brown, Smithfield Fire Department. "To date, the region has linked fire dispatch centers that operate in two different states, on three different radios bands, and on five dissimilar radio frequencies." By piloting IPICS on their campus first, Bryant believes they can assist in extending IPICS services and Bryant's model to other organizations.

In the Bryant model, the educational institution becomes the IPICS host site for local public safety agencies and serves as the head-pin for that geographical area, connected via a statewide network provider. The model helps ensure uniformity, consistency, and best practices shared throughout the state, driving efficiencies in both cost and operation.

"What Bryant and the community of Rhode Island have done is significant as it entails facilitating cooperation and establishing trusting relationships with the community stakeholders around a single outcome, which is in this case safety," says Dr. Tracey Wilen-Daugenti, lead consultant,

Cisco Internet Business Solutions Group (IBSG), Higher Education Practice. “While it seems simple, it is a complex undertaking in terms of establishing trust and collaboration.”

IPICS enables a campus public safety officer on the scene of a situation to be put in direct communications with the fire and emergency service dispatch center to give a firsthand account of the situation, eliminating the need for the campus dispatch operator to relay that information. This firsthand account allows the public safety agency to determine the resources they should dispatch, reducing cost and increasing productivity.

Expanding Bryant’s IPICS to the public safety community has achieved:

- I**ncreased communication:** Bryant’s public safety dispatch can now communicate directly with the local fire/EMS dispatch center over the campus IPICS network.
- **Enhanced incident management:** Dispatchers and incident commanders can effectively dispatch operations and resources from multiple locations.
- **Improved collaboration among agencies:** Collaboration accelerates “time to information” to improve response and help ensure that first responders arrive on the scene fully informed and adequately prepared.
- **Reduced costs**: The use of IPICS capitalizes on existing communications investments and provides multichannel push-to-talk services on a PC or laptop by eliminating the need for costly “hard radios” for desk-bound individuals who can be served better with a soft-radio on their PC. Public Safety agencies were able to purchase 25 low-cost ultra-high-frequency Citizens’ Band Family Radio Service radios for emergency use. The walkie talkies, or radios, can be distributed to volunteers and merged onto the public safety frequency, enabling a cost avoidance of US$21,750.
- **Increased operational efficiency:** Bryant’s resident assistants and directors can also use the additional radios to enhance communication in the event of on-campus emergency situations. This strategy enables Bryant’s facilities staff to communicate efficiently between supervisors and the workers who perform day-to-day tasks. Bryant estimates that this strategy will result in significant savings in labor annually.
- **Accelerated return on investment:** The investment in IPICS was recovered within a 12-month period, considering the cost savings in handheld radios, and radio equipment that would have been required to extend and improve radio signal quality in the desired areas.
- **Simplified network management:** IPICS enables an organization to implement clean lines of delineation between the IT aspects of the system and the operation and control portion of the system, putting specific tasks in the hands of the right individuals.

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