

Rockford Housing Authority

Improving Public Safety with Versatile Wireless Security Monitoring



ORGANIZATION

Rockford Housing Authority

LOCATION

Rockford, Illinois, United States

INDUSTRY

Government

CHALLENGE

Increase safety and improve community ambiance for residents of four public housing developments

SOLUTION

Firetide Wireless Mesh Network and IP Cameras

MORE INFORMATION

- Rockford Housing Authority web site: www.rockfordha.org
- Montel Technologies web site: www.monteltech.com

The Rockford Housing Authority (RHA) is the third-largest public housing authority in Illinois, providing safe, sanitary, affordable housing assistance for citizens of Rockford. With 15 properties that include 2100 housing units, RHA is also the largest renter of housing in the City of Rockford. Public housing developments face unique challenges to creating a secure, attractive environment, and RHA was no exception.

Adding a New Dimension to Security

In the past, residents of RHA developments often witnessed strangers loitering, drug sales, public drinking, and other offensive behavior. The vast majority of individuals who engaged in these activities were not residents, and in fact, 75 percent of arrests made in Rockford's public housing developments were of people from outside of the community. To disrupt and discourage illegal and undesirable activities, RHA had employed a multi-pronged approach to improving neighborhood safety.

RHA property managers worked closely with the Rockford Police Department, who dedicated officers to the different RHA properties. Neighborhood Watch committees were formed, and neighborhood councils met regularly to discuss safety issues.

"These tactics were effective, but we wanted to add another layer of security to our properties that would enable us to gain more visibility throughout our communities," said Lewis Jordan, Director of the Rockford Housing Authority (RHA). "With some research, it became apparent that security cameras could add a powerful new dimension to our security efforts by providing cost-effective coverage of more areas."

To gather more information about security monitoring implementations, Jordan met with members of the Chicago Police Department, other law enforcement personnel, and technology solution providers. After evaluating several different approaches, RHA chose a solution from Montel Technologies, a provider of wired and wireless networking solutions for voice, video, data, and security applications. The new security monitoring system is based on IP video cameras and a wireless mesh network from Firetide, Inc.

A Bulletproof Solution

Comprised of Firetide wireless mesh nodes and Vicon IP video security cameras, the new monitoring system was deployed in four RHA family developments. The RHA Firetide mesh network wirelessly connects outdoor video surveillance cameras to a central location for live monitoring and recording of video feeds. A digital video recorder in the central location captures video from all of the cameras and enables staff to view any camera from any location over the Internet.

Each camera is installed with a Firetide wireless mesh node housed in a custom-built, bulletproof enclosure and mounted on a light pole. Each enclosure also contains battery backup and enough space for adding a wireless access point in the future, which would permit



Live video feed

Rockford Housing Authority



Rockford video camera enclosure

RHA to deploy wireless Internet access capabilities. External antennas provide superb coverage, while a relay switch enables the cameras to be controlled remotely.

“We added the Rockford Police Department logo and a flashing police light to each installation as an extra deterrent,” said Ray Montelongo, President of Montel Technologies.

“The units are extremely rugged and at 30 frames per second, the quality of the video feeds is excellent.”

Four police cars are also equipped with mobile Firetide mesh nodes, enabling police officers to view live video from any of the 16 cameras from their cars while on patrol. The officer simply drives into the proximity of a mesh node and connects to the mesh network using a laptop.

Effective Use of Taxpayer Dollars

“The Firetide-based solution is extremely cost-effective for us,” said Jordan. “The mesh network was easy to install and connects itself automatically, eliminating the high cost associated with lengthy installations. We were able to afford more cameras and therefore greater coverage. We deployed the entire network in four developments in a matter of days, for a fraction of the cost of a conventional monitoring system. And with almost no ongoing maintenance required, the solution also delivers a low total cost of ownership.”

The mesh nodes only require a power source and provide an Ethernet port for connecting the video cameras, which eliminates the cost and difficulty of installing cables across four developments. The nodes also can be easily moved, enabling RHA to relocate nodes to new areas if centers of suspicious activity move.

Tool for Improved Response

The Firetide nodes installed in police cruisers are valuable crime-fighting tools for law enforcement officers, allowing them to view video on their laptops from their cars. With the ability to see any area at any time, officers are better positioned to respond quickly if necessary and use the element of surprise to their advantage. The monitoring solution supplements police foot and bike patrols, providing them with accurate information and the ability to monitor more places simultaneously.

“Immediately after the cameras were installed, crime and loitering diminished immensely,” said Jordan. “Even having the police light flashing on the camera enclosure has noticeably deterred suspicious activity. Our residents and employees feel safer.”

Greater Resident Confidence

With the monitoring system installed, residents have gained confidence in reporting crimes or suspicious activity because they know that the activity is likely also to be captured on camera. Sophisticated zoom capabilities, the ability to control the cameras remotely, and the high-quality images delivered aid in capturing license plate numbers and other details and improve police success in apprehending suspects.

Equally as important, the monitoring system has helped to improve the perception of public housing, especially to prospective residents. Knowing that cameras are monitored, those who live in or near public housing appreciate the positive impact of a safe environment.

“I do not hear about incidents of offensive behaviors or suspicious activities very often now,” said Jordan. “Before deploying the monitoring system, these incidents were always the focus of our quarterly meetings with residents. Now they remark about the new level of calm in the community and a woman who lives adjacent to one of our properties told me that she can finally sit on her front porch and enjoy summer evenings without having to endure offensive language and behaviors.”

Jordan notes that the monitoring system has also helped enhance the neighborhood’s “curb appeal” because people who dump garbage, scrawl graffiti, or otherwise detract from the neighborhood’s appeal can be easily identified and held accountable.

Extending Visibility Throughout the Community

RHA hopes to combine its monitoring resources with the Police Department’s efforts to create a centralized monitoring station with trained staff members who can monitor properties and dispatch police to specific locations when needed. Encouraged by RHA’s initial success, the city is also considering ways for using the same mesh network to deliver future services to RHA residents.

“Because the wireless infrastructure is already in place, it will be easy and affordable to narrow the “digital divide” for our citizens and to use technology for helping public housing residents move closer to self-sufficiency,” Jordan said.



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