The Village of Bronxville Enhances Security with Cradlepoint-Powered Surveillance Cameras

Always-on Connectivity Enables 24x7 Surveillance, Improving the Safety of the Village

SUMMARY

The Village of Bronxville in New York needed a networking solution that would be cost-effective and reliable for a public safety surveillance camera system. Bronxville was looking for a secure and always-on Internet connection that would work simultaneously with camera portability.

SOLUTION:
COR SERIES ROUTERS, NETCLOUD MANAGER

APPLICATION:
FAILOVER, WIFI, IoT

MARKET:
PUBLIC SECTOR - IoT
To meet those needs, Bronxville utilized Cradlepoint’s 4G LTE and ethernet-enabled COR Series routers and NetCloud Manager. The solution provides maximum network uptime for its surveillance cameras located at the top of streetlight poles, keeps IT overhead costs to a minimum, and helps keep the village safe by aiding the local police department with the available footage, improving the overall public safety system.

With NetCloud Manager, Bronxville can deploy the devices with minimal need for additional IT specialists, and centrally monitor and respond to each connection’s data usage in real time. During Internet outages, the COR Series routers provide fault-tolerant WiFi access to these hard-to-reach locations.

CUSTOMER PROFILE

Located 15 miles north of Manhattan, Bronxville covers one square mile and houses 6,500 residents. The surveillance cameras watch over the village, which includes a hospital, train station, and two colleges. Bronxville municipal provides general support for government, judicial, transportation, sanitation, and public safety areas. Its network reaches 35 locations and 100 devices—36 of those devices being cameras.

BUSINESS NEEDS

Bronxville’s surveillance cameras are mounted on streetlight poles and strategically located throughout the village, becoming an invaluable tool for the Village of Bronxville Police Department. One way the surveillance cameras are utilized by the Police Department’s criminal investigation team is the ability to zoom in on vehicle license plates to gather criminal information. Additionally, just having the cameras in place is a way of letting criminals know they are being watched.

To be fully effective, and so the cameras don’t miss anything, it’s imperative they have a 24x7 Internet connection. The village needed a flexible solution that would provide connectivity even in areas where there were no wires.

Because an always-on connection is crucial, there had to be a backup connection in the network box as well. Bronxville needed the ability to have both a wired and/or 4G LTE connection inside each box, allowing for automatic failover and fallback between wired and wireless WANs.

Bronxville also needed remote visibility into its cellular data consumption usage, so it could prevent paying overages.
SOLUTION

Julie Cagliostro is the Manager of Information Systems for Bronxville and oversees the network infrastructure. By deploying a combination of 29 LTE and ethernet-enabled Cradlepoint COR Series devices for secure connectivity on Bronxville’s streetlight poles, she greatly improved its surveillance system and lowered the overall cost to implement the network.

With the Cradlepoint solution, the village has an affordable and reliable network connection for its surveillance cameras in a fault-tolerant environment, ensuring that footage is always readily available when needed. Bronxville also utilizes NetCloud Manager to remotely monitor and manage cellular data usage.

BENEFITS

ALWAYS-ON CONNECTIVITY

A wired WAN was not a cost-effective option for the surveillance system, therefore, Bronxville leveraged 4G LTE as the WAN to keep its surveillance cameras connected 24x7.

“When you’re implementing a public safety system and the local police department is going to become reliant upon the visuals of your surveillance cameras as part of its enforcement solution, you have to be sure the cameras are fault-tolerant,” said Cagliostro.

CLOUD-BASED DATA PLAN MANAGEMENT

NetCloud Manager gives Bronxville the remote visibility and control — along with dual-SIM functionality — to optimize its data usage and prevent throttling. The IT team easily set up a policy so that if usage reaches a certain amount of gigabits, the router automatically switches to a different carrier — preventing the village from having to pay overage fees. This flexibility led to maximum uptime with minimal costs.

ZERO- TOUCH DEPLOYMENT

The village leveraged zero-touch deployment, with the ability to simply activate the Cradlepoint solution’s built-in modem, then “plug and play.” NetCloud Manager saves Bronxville setup time and costs, and reduces the need to physically access the box to deploy or manage the system.

“[The time to implement the solution is the same as the time it takes to dream it. I receive the completely configured box with the SIM card, put it on the pole, and add power],” said Cagliostro.

ADDITIONAL COST SAVINGS

Cagliostro explained that the price for the Cradlepoint solution is trivial compared to the costs of patrolling every area at all times.

“We were able to install a large number of cameras in a short period of time with minimal startup costs. Thanks to the Cradlepoint’s secure 4G LTE wireless connection, we eliminated the need for costly and time-consuming construction to run a fiber wire through the ground to each proposed location.”

— Julie Cagliostro, Bronxville Manager of Information Systems
Additionally, the Cradlepoint solution is wireless, which removes the need to run costly fiber underground to each pole. Ultimately, there is no additional network infrastructure cost for Bronxville.

POTENTIAL TO SCALE UP NETWORK & APPLICATIONS

The Cradlepoint solution positions Bronxville to easily scale up its network when they choose to, making Bronxville adaptable to future networking requirements.

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