ThruLink™ Gives Police Full Access to Multiple Surveillance Systems

ThruLink™ provides a secure and reliable data connection for 100+ remote locations via public internet

Background

In one Chinese mega-city, the local police had more than 100 facilities spread across 6000 square kilometers. Each facility had its own stand-alone video surveillance system. The head office wanted the ability to view all live and recorded video from all facilities, not only in their control center, but from any remote location city or country-wide, while knowing the video was fully encrypted and secure.

The Challenge

Among others, the following challenges were considered.

Secure transmission: The video is sensitive and classified. The only agencies authorized to access the video were the police, approved safety and security governmental departments, and the military. Secure transmission was a must.

Low budget: In the beginning, using dedicated leased lines was proposed, but in the city, every 2Mbps leased line would cost more than $300 USD per month. For 100 facilities, a costly expense of $30K USD per month would be required, exceeding the allocated operating budget.

Must be easy to install and manage: The existing police force had no senior information technology staff available; thus, the solution had to be user friendly to ensure safe data connectivity, easy installation and management.

Agnostic to the installed diverse video surveillance systems: The existing stand-alone video surveillance systems were installed at different times and included matrix-based analog video systems and full IP systems from different vendors that would require some integration. Both multicast and unicast transmission were used adding another layer of complexity.

The Solution

KBC Networks, together with the systems integrator responsible for the diverse stand-alone systems, proposed ThruLink to securely connect each remote site to a full management solution. ThruLink, an industrial network, hardware transmission device, with up to 256bit encryption using AES, Blowfish, Camellia, among others, was thoroughly tested to ensure secure and optimized video transmission in complicated network environments such as the internet.

A ThruLink device was simply added to the existing system of each site, and no licenses were required.

Facilities using an analog video system: one video server was added which converts analog from matrix output to IP video, and connects to a LAN port of ThruLink. The WAN port of ThruLink connects to an existing switch and the switch connected to the firewall to enable secure access to the internet.

Facilities with full IP video systems: simply connected the LAN port of ThruLink to the IP video network switch and the WAN port of ThruLink connected to the firewall. No ports are opened at the firewall.

For the mobile police who must see the live video at any time from anywhere: one ThruLink with 4G LTE was equipped so that the live video of all facilities could be viewed no matter where located.

In the control center: two rack-mount high capacity ThruLink units were installed. One unit used a fixed IP address or DNS.
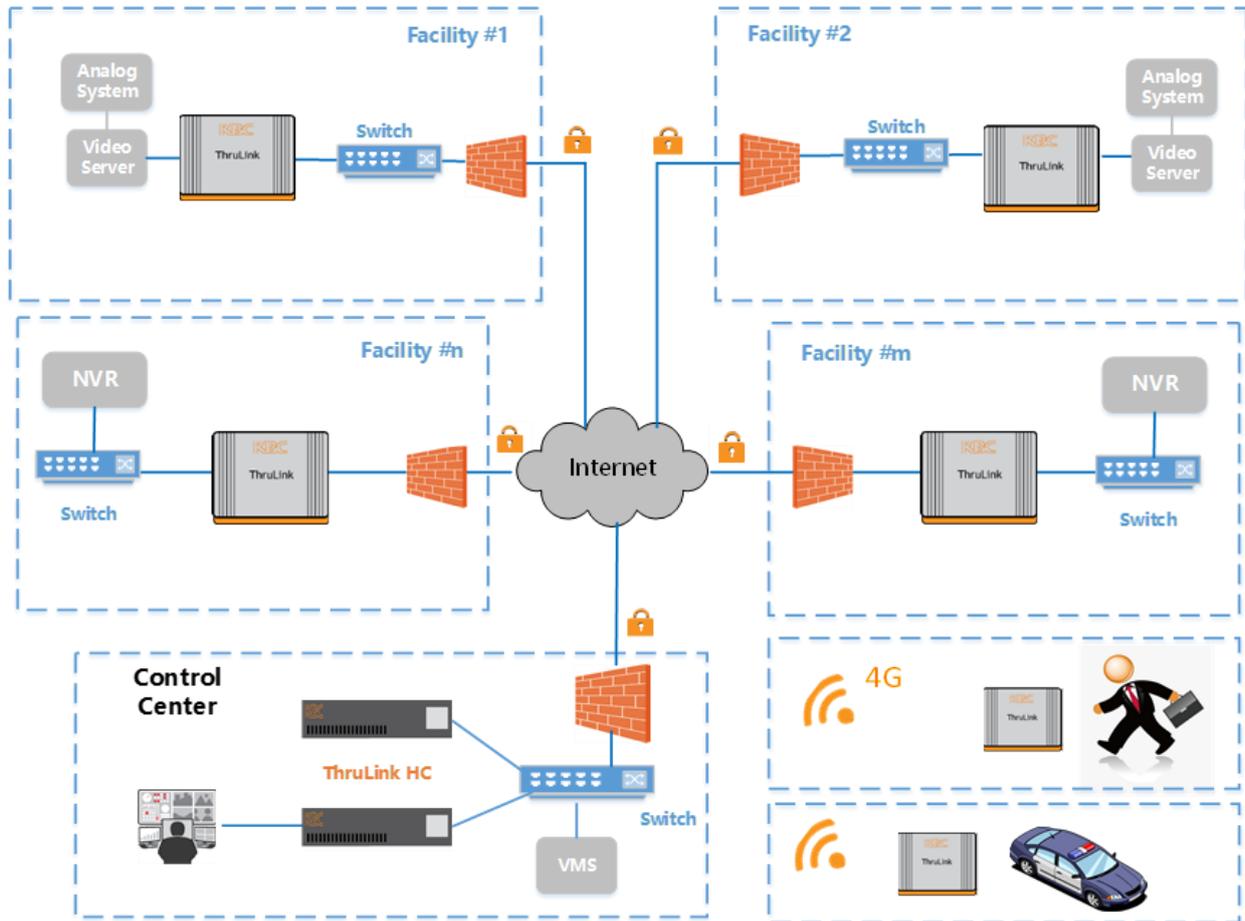
Outcome

Within two short weeks, over 100 facility installations were completed. The control center had full and unrestricted access to live video from all remote locations over a fully encrypted, closed network over the public internet. The traveling police officers carry a ThruLink to connect to the secure network (Note: traveling/mobile police only have access to the sites they are authorized to observe as clearance levels partition the system). If network issues occur with the ISP provider, the users maintain connectivity with the automatic connection to 4G. Once the main network is again operational, ThruLink automatically switches back.

Remote sites can easily be added or removed from the existing network as needed, without reconfiguration, licenses or contracts. The customer remains impressed by the quick installation, simple configuration, quality video and reliable data security obtained at a cost that met their budget.

ThruLink

KBC
data delivered

www.kbcnetworks.com

China Mega-City System Layout

Facility #1
Analog System
Video Server
ThruLink
Switch

Facility #2
Analog System
Video Server
ThruLink
Switch

Facility #n
NVR
Switch
ThruLink

Internet

Facility #m
NVR
Switch
ThruLink

Control Center
ThruLink HC
Switch
VMS

4G
ThruLink

ThruLink

ThruLink™ securely connects all remote locations over the public internet

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