



Con Edison

Consolidated Edison Company of New York (Con Edison) is one of the nation's largest investor owned energy companies, providing electric, gas and steam service to more than nine million people living in New York City and Westchester County, New York.

In a post 9/11 environment, Con Edison Corporate Security decided, with the approval of the New York State Public Service Commission Office of Utility Security, to develop and operate a comprehensive Security Operations Center to centrally monitor the Con Edison electronic security systems at various critical facilities. The Security Operations Center (SOC) went operational in January 2008.

The Challenge

Con Edison Corporate Security has responsibility for all electric, gas and steam facilities spread out over the six regions, plus the corporate headquarters. The new SOC required a display system capable of supporting a complex and continually growing information environment. It was also critical that information sharing be dynamic and simple between multiple stakeholders in many locations: sub-station operations (SSO), gas supply, steam generation and distribution; and functions such as Business Management,

Auditing and HR at headquarters. This is particularly important since the SOC and its back up facility supplement the security activities of operational groups, especially with the use of surveillance video. The display solution would have to keep a back up site continually 'online' so that it could become immediately and fully operational in an emergency situation.

The Solution

Activu was selected to design and build a distributed information display system, having demonstrated capabilities to meet the challenges specified. As an open architecture, network-based solution integrated into Con Edison's WAN network, it delivers complete and flexible connectivity between information sources and people located in over 100 offices, work locations, substations and control center facilities. With Activu, SOC operators can instantly access and display information from many different types of sources

on the control room wall and on their own desktop keypad / CARD Access; intrusion/perimeter alarm systems; Building Management Systems (BMS); CNN news and weather reports.

Since video camera surveillance is so critical to their operations, Activu's video capabilities are particularly important. Activu touring schedules (automated lists of video feeds in a timed rotation) are switched from one borough to the next every 4-5 minutes, and operators have the flexibility to stop a touring rotation to take a closer look, using Activu to pan/tilt/zoom and instantly change or add cameras to a rotation when necessary.

This value was recently demonstrated during the emergency landing of the US Airways plane in the Hudson River in January 2009. SOC operators, monitoring marine channels, used Activu to turn on and control specific cameras to monitor and record the crash via Activu's interface to the DVR. Footage was later given to the National Transportation Security Bureau and the media.

Activu's Decoder Server was viewed as a more cost effective solution for distributing and displaying a continually expanding web of surveillance cameras that had reached 1500 in 2009 and is planned to grow to 3000 in the near term. Each 1RU HP, Dell or IBM rack server running Activu Decoder Server software can decode up to 32 separate full motion IP video streams from most available IP cameras, encoders and/or via IP video server systems. Multiple Activu Decoder Servers can be used together to monitor large numbers of cameras, and video streams can be displayed simultaneously on different walls, panels or monitors from a single Activu Decoder Server.

Since its implementation at Con Edison, Activu has shown its ability to enhance collaboration, operating efficiency and safety. For example, when surveillance video identifies a transformer fire, SOC operators can alert sub-station operations (SSO) colleagues who have the ability, via Activu, to view the pertinent video stream. Not only is a 911 / Fire

Department call made earlier, an SSO operator can continue monitoring the situation video, with the information used later in training sessions.

The SOC is working in constant coordination with various user groups throughout Operations and headquarter functions. Using Activu on their desktop computers, personnel can be given electronic keys providing restricted access to specific pieces of information for a specific time period. These decisions are made by Con Edison Security and managed through Activu software. Dominic Grassi, Technical Manager for Corporate Security, described Activu as "being in tune with our needs". Activu's non-proprietary hardware model was particularly appealing, providing leading brand display technology from Mitsubishi.

In the primary SOC facility, the Activu Services team built a 2x6 matrix display wall of 50" Mitsubishi Mega View rear access SXGA+ (1400 x 1050 resolution) projection display cubes, supplementing this with an Activu-controlled audio system, TV tuners and a DVD/VCR unit. In a separate War Room and at the back up SOC site, 56" Mitsubishi QHD (3840 x 2160 resolution) LCD panels were used, providing access to all the same information sources as the primary SOC, and with sufficient resolution to display a complete replication of the SOC display wall. Guest computers can be easily and quickly included in the system.

Activu's ease of use was noted as a key strength by Scott Gross, Systems Specialist at the Security Operations Center. "Our SOC operators view this as a very positive experience and are very comfortable using Activu. In very little time they were on top of the system, with questions very seldom asked."

A year after the Activu's implementation and well into the maintenance phase, Mr. Grassi characterized the result: "The Activu team really stepped up to the plate, and we feel they exceeded our expectations throughout the entire process".