OVERVIEW:

The Client:
Southern California Offshore Range (SCORE)

Customer Profile:
SCORE is a state-of-the-art, multi-warfare, integrated training facility serving a wide variety of customers. Under the command of the Fleet Area Control and Surveillance Facility, San Diego (FACSFACSD).

- RANGE MAP (PDF)

- DIAGRAM

The Situation:
operation of these cameras was manual and limited in scope. They needed the surveillance system to be more flexible, easier to use, and to have the ability to cost-effectively track objects.

The Solution:
Convert the CCTV COHU high speed cameras' video from analog video streams to digital video streams. Use NETVM enterprise to track , via satellite feed, the moving objects.

The Hardware
- AXIS MPEG2 servers
- Cisco Router/Switches
- IBM Computers
- COHU Cameras

The Benefits:
- Leverage their legacy infrastructure.
- No need to incur the expense of building a new, proprietary network.
- Could use the CCTV cameras already positioned in multiple locations.
- View multiple recorded cameras as a single stream from one monitor.
- IP-based system also provided a secure 128 bit, multi user environment.

Partners:
- Computer Science Corp
- AXIS Communications
- COHU

Audiences:
- Military
- Homeland Security

Homeland Defense and Fleet Readiness
Get a Network Video Makeover

The Client:
The Southern California Offshore Range (SCORE) was established to provide military groups such as the U.S. Pacific Fleet Forces with the highest quality training facility, essential for today's increased need for fleet readiness. SCORE, located in and around San Clemente Island, is a state-of-the-art facility where myriad operations are conducted, including the testing and development of weapons, systems and tactics, such as multi-warfare and battle group evolutions.

The Situation:
SCORE employs network video cameras to monitor images from real and simulated military events in its training exercises. Previously, operation of these cameras was manual and limited in scope. SCORE wanted to upgrade its surveillance system to be more flexible, easier to use, and to have the ability to cost-effectively record and archive video for future use.

The Solution:
SCORE chose to implement an IP surveillance system utilizing D3Data browser based software and Axis Communications to convert the existing analog cameras into an IP-based system. Axis Communications' AXIS 250S MPEG-2 Video Server converts the CCTV cameras' video from analog video streams to digital video streams. The video is converted into Windows media9 by D3Data's NETVM server for easy viewing and management from any PC monitor, as well as to increase its storage capabilities. The NETVM server configures and manages the whole system, and also enables the recording and archiving of video. Users at any workstation connected to the Internet can be authorized to access video and audio through Axis' video server.

"D3Data is the only company we work with that can do network tracking from anywhere around the world."

- Richard Smith
Senior Engineer
Cohu Cameras, Inc.

The Benefits:
With the new system, SCORE was able to leverage their legacy infrastructure for a more advanced and flexible system without needing to incur the expense of building a new, proprietary network or purchasing network cameras. Using the IP-based configuration, SCORE could utilize the CCTV cameras already positioned in multiple locations to follow moving objects and knit images together. Those images could then be viewed in a single stream from one monitor. SCORE's new IP-based system also provided a secure way to give multiple authorized users in airports, marine sites, military bases and other locations access to real-time and archived video.

Arming SCORE with Advanced Surveillance Capabilities
In furtherance of enhancing fleet readiness and weapons testing, SCORE employs multiple video cameras in disparate locations to monitor images from real and simulated military events. These cameras monitor multiple moving targets from several remote locations. Previously, SCORE used CCTV cameras with pan/tilt/zoom (PTZ) capabilities to observe images manually. To monitor the video from multiple sites simultaneously, SCORE officials would have to physically move a "joystick" for each of the multiple cameras to follow moving targets. The system relied on the abilities of the individual to switch between cameras and to try to record the travel of distant flying or moving objects. To train fleets to be alert and ready to meet any military crisis today, SCORE upgraded its surveillance systems so that the monitoring of moving objects, targets and events was seamlessly integrated and no longer required manual direction. Now, the system is completely hands-free.

SCORE's new system is capable of tracking objects in motion from one camera to another and tying the video together in one stream. Officials simply "point and click" on an object, and then just watch the screen as the camera automatically follows and records video of that object. Satellite tracking feeds are integrated with the system, enabling the objects to be located and tracked through triangulation.

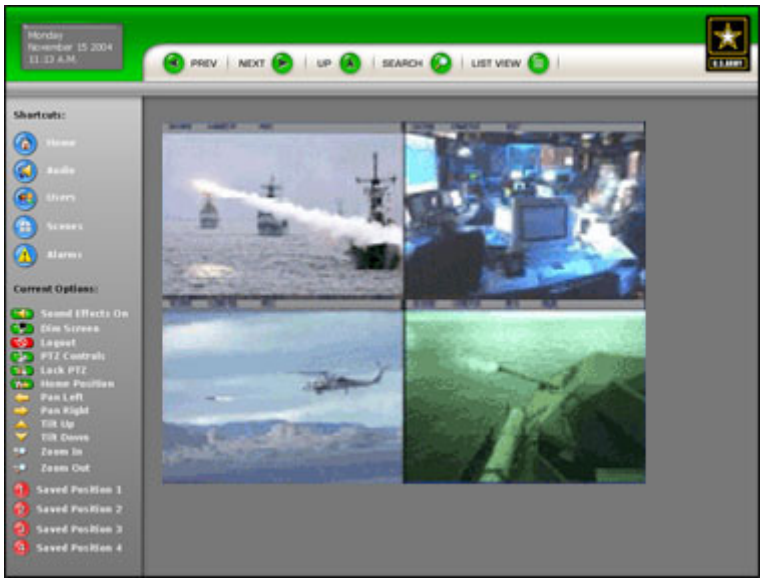
SCORE also chose the IP-based solution so that it could cost-effectively record and archive video captured from the multiple cameras for future reference. The new system was configured so that various facilities could access and view the video remotely for training purposes.

Network Operations
When organizing the new system, D3Data employed its NETVM server to allow for the system's configuration and management, as well as the recording and archiving of video. The video stream from SCORE's cameras was fed directly into the NETVM server and coded into the drivers that controlled the PTZ cameras.

The AXIS 250S MPEG-2 Video Server was utilized to convert the CCTV cameras' analog video streams into digital video streams, which enabled the automated image tracking. The video server is a one-port server designed to stream full resolution video at DVD quality over the network in MPEG-2 format. In order to be viewed on a PC monitor and easily managed by the user, the video was then converted into Windows media by the NETVM server. Converting the video format also increases its storage capabilities. Axis' video server offers authorized users access to video and audio from any workstation on connected to the Internet.

Access around the World
The new system also provides SCORE greater flexibility and portability. Previously, because the video was analog, it was viewable from just one monitor. An IP-based system enables authorized users around the world to simply type in the video server's IP address into a PC's Web browser to view video. The system is configured to allow a set of users from each training group access to their specific camera. The central SCORE IT staff is given access to all cameras in all areas.

Screenshot:



More Information:
Founded in 2001, D3Data is the first true digital video surveillance management system to offer secure, browser-based access to real-time and recorded camera video. Unlimited cameras and users in multiple local and international locations all interact with recording tools and functionality through a common web browser. On-demand encoding provides the ability to scale the recording of more than 100 cameras on a single machine.

For pricing information, please visit:
http://www.d3data.com/Pricing.pdf

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