

Wastewater Treatment Plant Increases Employees' Efficiency

LOTT Alliance uses Video Surveillance Manager to monitor video captured throughout the plant.

EXECUTIVE SUMMARY	
LOTT ALLIANCE	<ul style="list-style-type: none"> • Wastewater Utility • Olympia, Washington • 65 employees
CHALLENGE	<ul style="list-style-type: none"> • Enhance employee safety • Increase operational efficiency
SOLUTION	<ul style="list-style-type: none"> • Connected video surveillance cameras to the Cisco network • Deployed Cisco Video Surveillance Manager for monitoring and camera control
RESULTS	<ul style="list-style-type: none"> • Increased awareness for employees on the night shift • Saved time for employees, who can view people and actions without walking to the site



Challenge

LOTT Alliance is a regional wastewater treatment utility serving the Washington cities of Lacey, Olympia, and Tumwater. The Budd Inlet Treatment plant, a 14-acre facility, processes wastewater from more than 80,000 residences and businesses.

Physical security is an important concern for all public utilities, and LOTT Alliance wanted to increase the safety of employees and security of facility and assets. "New operational efficiencies allowed us to reduce the number of employees working the night shift from three to one," says Dennis O'Connell, project manager, LOTT Alliance. "We wanted that employee to feel safe."

LOTT Alliance also wanted day-shift employees to be able to see activities throughout the facility without repeatedly walking back and forth. For example, on a typical day, 12 to 36 trucks dump septic waste, and LOTT uses a proximity reader to collect the hauler's identification and the number of gallons dumped. "Haulers sometimes contest the billing, mistakenly believing they did not dump on a given day," says O'Connell. "We wanted to be able to present video proof, to protect our revenue." Revenue from the septic dump stations funds the wastewater pretreatment program.

Solution

Aronson Security Group, a Cisco partner, recommended and implemented the Cisco® Video Surveillance Manager solution. "The Cisco solution is very cost-effective for a single site," says Tim Winston, vice president of converged security services, Aronson Security Group. "We offer other video surveillance systems, as well, but LOTT would have had to pay extra for enterprise capabilities that Cisco provides as standard." In addition, LOTT already had a Cisco network, so implementing a Cisco Video Surveillance solution would simplify vendor management.

LOTT Alliance now uses nine IP video surveillance cameras, some with pan, tilt, and zoom (PTZ) controls, to monitor the fence line, entrance gate, and facility interior. The Cisco Video Surveillance Operation Manager system resides in the control room. Two 24-inch monitors display footage. “We usually display multiple views at once, but if we want to see something more closely, we can select that feed to enlarge the image area,” says O’Connell. To redirect the PTZ cameras to a different predefined view, operators just click a link.

Employees can also monitor real-time and archived video on any of the 30 PCs in the facility. They can watch from home, as well, which is an important capability for emergency response.

Surveillance Manager gives me more oversight while still allowing me to be in my office if other employees need to reach me.”

— Dennis O’Connell, Project Manager, LOTT Alliance

Results

Staff quickly learned to view live and archived video from different cameras and to control PTZ cameras. “The interface is very intuitive,” O’Connell says. Personnel from every division (operations, maintenance, administration, and communications) regularly use Cisco Video Surveillance Manager. “Employees continually come up with creative ideas on how to use the video surveillance system to save time,” says O’Connell. Examples include:

- **Avoiding trips to the entrance gate to verify visitors’ identities:** The plant receives an average of 20 visitors a day, including contractors, construction personnel, vendors, and deliveries. Previously, an operator who heard the buzzer had to walk to the gate to confirm the visitor’s identity before allowing entrance. Now operators can see the visitor’s video image on their desktop, saving the time that they used to spend walking to the gate.
- **Monitoring vendor progress:** O’Connell uses Cisco Video Surveillance Manager to monitor vendors’ progress on projects such as equipment repair. “I recently used one of our PTZ cameras to monitor a small construction project without leaving my office,” he says. “Cisco Video Surveillance Manager gives me more oversight while still allowing me to be in my office if other employees need to reach me.”
- **Resolving disputes:** During a construction project, vendors gave differing accounts of who made an error that needed to be rectified. “We were able to identify the responsible party by reviewing archived video,” says O’Connell. “This led to faster resolution.”
- **Loading trucks properly:** Each day, employees load 35 tons of biosolids into trucks, a process that can take ten hours. In the past, an employee had to periodically walk over to the truck to make sure that the load was evenly distributed over the axles. Improper loading took a long time to correct. Now, employees can just direct the PTZ video surveillance camera over the truck. They can check more frequently even while spending less time on this activity.
- **Supporting public relations:** The LOTT Wastewater communications staff captures images from archived video for its website and public relations materials.

Increased Safety and Security

“Employees on the night shift can more quickly become aware of intruders and call for assistance if necessary,” says O’Connell. “We’ve had very positive feedback from employees, who now feel safer.”

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Revenue Protection

If a hauler disputes a dumping charge, LOTT can now produce video evidence. The video surveillance cameras in the dumping area are conspicuous, which helps to deter false disputes.

Simplified Contractor Management

O’Connell regularly visits construction sites to monitor progress. Now he can make sure that he visits when particular vendors are present. “I can see when a soil and water analysis expert or excavator has arrived and then go out to the project site, rather than walking out several times to see if they have arrived,” O’Connell says.

PRODUCT LIST

Routing and Switching

- Cisco Catalyst 3750 Series Switches

Physical Safety and Security

- Cisco Video Surveillance Operations Manager
- Cisco Video Surveillance Media Server

Next Steps

LOTT Alliance plans to implement the same solution for four off-site facilities that are not manned 24 hours a day. The Cisco Video Surveillance solution will help to deter vandalism and overnight camping. It will also enhance safety for employees and security for the facilities. “When employees at the main site receive an alert from our alarm system at an off-site facility, they will be able to view the video, to initiate the appropriate response,” says O’Connell.



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