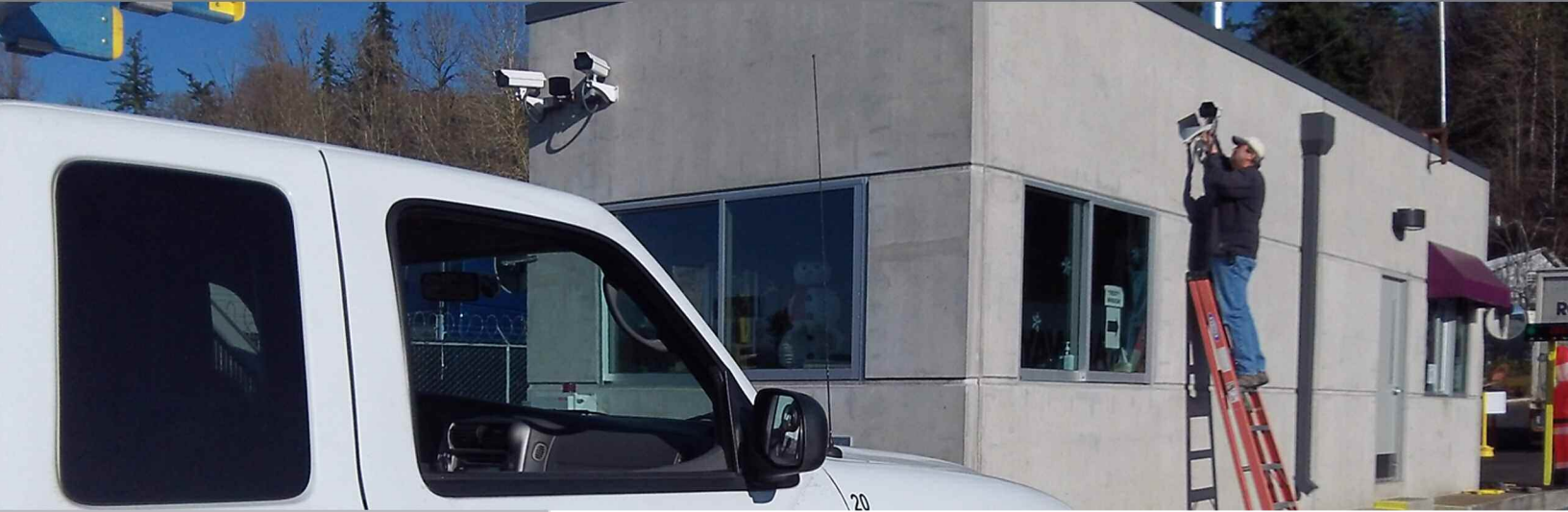


Oregon Recycling Facility Deploys Toshiba IP Video for Security and Business Operations



Organization:

R.S. Davis Recycling

Location

Clackamas, Oregon

Industry Segment:

Recycling facilities

Application:

IP video surveillance

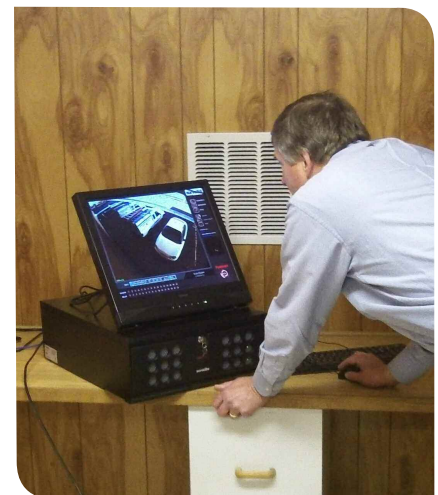
Toshiba IP Solutions:

- NVS 32ch recorders
- SCS software
- IK-WB21A PTZ IP cameras
- IK-WD12A 2MP IP mini domes
- IK-WB30A 2MP IP cameras

R.S. Davis Recycling, Inc. has been processing scrap metal in the Portland, OR area since the mid 1960's when its founder, Richard Davis began hauling recyclables throughout Oregon and Washington. Today, its busy headquarters in Clackamas, OR services the metal recycling needs of the Portland area, as well as those of western Oregon and Washington, while a second location in Hermiston services eastern Oregon and Washington, and a third location in Gresham, OR provides metal recycling services and sells auto parts. R.S. Davis recently constructed a new facility at its Clackamas headquarters where it installed a Toshiba IP video system to provide premise security and to monitor truck traffic.

Construction began on the 15,000-square-foot Clackamas location in March 2011. It contains two floors of administrative offices on one half of the building, whereas the other side is a single floor of warehouse-style space utilized by employees for sorting different types of recycled metals. On the outside of the new building and at a remote building are two scaling areas for weighing trucks hauling metals. The trucks drive onto the scales before and after unloading their haul to determine its weight, and therefore the dollar value of the metals. Also on the outside is an overhead magnetic crane to carry the heavy metal parts, a shear/baler to bale metal, and a hydraulic impact crusher to compact cars into small packages.

Prior to groundbreaking, R.S. Davis management consulted with its telecommunications provider and Toshiba Telephone Systems Division dealer Reliance Connects and its sister company Day Wireless of Portland to discuss options in video surveillance.



“R.S. Davis wanted the technology to remotely view video of the trucks and money transactions,” explained Chuck Meservy, Telecommunications Account Manager for Reliance Connects. “They also wanted the cameras to act as a deterrent to theft.”

An analog CCTV system represented the lowest cost solution for R.S. Davis, but couldn't give the company the remote video access capabilities it wanted. In fact, the original R.S. Davis building in Clackamas had an analog system installed that had been outgrown and had limitations. Yet another option for R.S. Davis was a very high-priced IP camera system from Bosch but it didn't offer the value when compared to the cost.

Both the low-end and high-end options were rejected. Instead, Reliance recommended the middle ground: an IP network video system from Toshiba that would make use of new CAT5e cabling from Reliance. All the network and voice cabling for the new facility was provided by Reliance along with a new Toshiba telephone system provided for the facility's administration and operations. A 32-channel Toshiba NVS recorder with 8TB of storage and a directly connected 19" LCD monitor were networked to a conference room PC running SCS software using a projection monitor. Management will also be taking advantage of Toshiba's remote monitoring capability making use of laptop PC's and smartphones.

A total of 32 Toshiba IP cameras were installed for the application. On the inside of the building seven Toshiba IK-WD12A two-megapixel mini-domes monitor the transaction area, hallways and entrance ways, while four Toshiba IK-WB21A PTZ cameras are used to monitor priority locations within the inside processing transaction area and for the exterior processing and sorting operations. The IK-WB21A features a 22x optical zoom lens, powerful enough to capture transaction details.



More challenging was the mounting of cameras at the remote scale building. R.S. Davis asked that five cameras be installed on

and around the scale office building 600-cabling feet away from the main facility. However, CAT5e cable has a maximum transmission distance of 280 feet, so this wasn't an option, even with a repeater, to connect back to the NVS.

Instead, Reliance ran multimode fiber optic cable terminated with a PoE equipped 24-port fiber switch on both ends to convert fiber to Ethernet. The 850nm multimode fiber that Reliance installed has a maximum transmission distance of up to two miles without relying upon a repeater. Problem solved.

“In addition to the fiber cabling, we mounted power bricks to provide separate electricity to the outdoor cameras' heater/blower enclosures,” said Meservy. “The cameras are powered using the built-in PoE which was a real time saver.”

Twenty-one Toshiba IK-WB30A 2MP cameras were strategically placed throughout the property with a heavy concentration focusing on the scale operations. Several cameras keep an eye on truck traffic at the remote scale building while others are positioned around the perimeter of the main building. Another camera is mounted on top of the hydraulic shear cab.

All the outdoor cameras are housed inside Toshiba JK-ACH13HBN environmental housings. The thermostatically controlled heater/blower protects the IK-WB30A from Portland's cold, rainy weather, which averages 40 inches of rainfall per year - great for gardeners but terrible for sensitive IP cameras.

“After coming in well under budget, the system is now up and running flawlessly,” reports Meservy.