

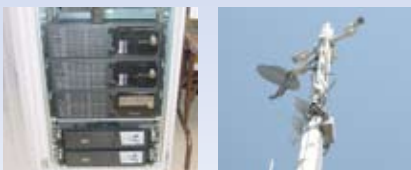
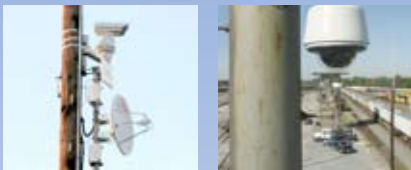
case study



SMART Yard Management / Dispatch / Operations / Intelligent Digital Video Surveillance System

In great rail yards throughout the United States, rail companies store and transfer rail cars, build train constructs, and load, unload, store and transfer shipping containers. Due to the size of such yards, operations are difficult to manage centrally.

Railroad Rail Yard,
Western United States



CHALLENGE

Rail yards are vast, crowded, and yard masters often have limited visibility of trains and switch points. Certain rail yard areas are deemed “critical infrastructure assets” - areas in which the preservation of security is considered critical to maintaining day-to-day operations. Other areas are considered “vulnerable areas” – areas in which disruptions could potentially affect local yard operations and as a consequence, train velocity.

SOLUTION

Installation of a turn-key, intelligent **rvspro™ SMART Yard Digital Management System** - robust, fully scalable live video with real-time, intelligent video capability enables yard personnel to improve day-to-day yard operations by monitoring critical switch points for fouled track, clearing and pushing trains by remote control, observing unprotected road crossings, and effectively protecting cargo.

Using an IP-based architecture as a foundation, **SMART Yard** employs a network of fixed and PTZ digital video cameras connected to Duos **rvspro™** digital video servers. Each **rvspro™** includes the rule-based **praesidium®** intelligent vision suite to automatically deploy audio and visual alarms, process live video feed and create a video digital archive. The cameras also function as intrusion detectors providing live streaming video of security vulnerabilities within the yard, viewed on a customized, intuitive Graphical User Interface (GUI). The GUI shows intrusion points and fouled track locations, and yard masters can simultaneously view and control cameras positioned throughout the yard to analyze incoming video and sensor feeds, and thus maintain a real time situational awareness of rail switch point physical positions, acknowledge alarms and clear fouled track.

Events are automatically digitally recorded, time stamped, and stored for later retrieval. A powerful video search engine (searchable by several criteria including, time, date, camera number, and location) allows easy retrieval of stored video files. Video is stored for up to thirty (30) days.

BENEFIT

The system greatly enhances yard operations and control and minimizes the capacity for criminal activity. Yard masters can centrally manage yard operations, and railroad police, local law enforcement and other first-responders are able to counter unlawful activity in a timely manner. This system is typical of Duos’ approach to critical high risk rail yard security, monitoring, and operations.

