



victor and VideoEdge Security Management Solution



Powerful Features That Matter

Decrease Reaction Time. Increase Awareness. Improve Your Security.

The victor Video Management System (VMS) and VideoEdge Network Video Recorder (NVR) platforms allow users to see and prevent more events before they occur. Leveraging high-performance smart video streaming, audio, and video intelligence along with an extensive feature set, users gain greater efficiency and save administrator resources.

VideoEdge network video recorders are available with a full range of purpose-built appliances to manage surveillance in comprehensive environments both onsite and remotely. Maintain dozens of cameras per network video recorder with capabilities for both IP and hybrid installations. The flexibility of VideoEdge provides users with powerful analytics to gain employee and consumer information that aid in forensic investigation or business intelligence. Mix and match hundreds of VideoEdge IP or hybrid NVRs to accommodate thousands of cameras into one cohesive victor VMS ecosystem.

Designed with a scalable portfolio of clients, customizing a victor solution for any business is simple. From the easy-to-use victor Express to the command and control of victor Professional, the VMS allows your company to use smarter technologies that include tools to reduce bandwidth costs. Combine deployments into victor Enterprise to manage a robust infrastructure in support of thousands of VideoEdge network video recorders. Bring together access control, intrusion, and fire systems correlated with video into one powerful, intuitive interface that operates in seamless harmony. victor is your always on, always available, secure video surveillance solution.

Innovative Features at Work

When you combine the powerful capabilities of victor with the intelligence of VideoEdge NVRs, you reach new heights in video management with actionable insight to save time, money, and lives.

operation, victor's scalable models are designed to manage and optimize security operations and logistics while orchestrating responses to any situation.

Far beyond a traditional VMS, the victor and VideoEdge solution provides end-to-end command, control, and flexibility that empowers you to oversee your business more safely and intelligently than ever before. Regardless of the size of your

In this guide we provide a list of the best features available across live monitoring, integrations, alarm management, investigation, video intelligence, system management, recording and storage efficiency, and cybersecurity.



Centralized Command and Control Heightens Situational Awareness

victor provides end-to-end surveillance functionality that helps you manage your business more securely and intelligently than ever before. Using interactive maps that pinpoint locations and collaboration tools that allow you to immediately share critical video across the enterprise, victor helps you orchestrate organized responses to any situation.

Easily and cost-effectively add video walls, unmanned security monitors, or public view stations as needed anywhere your security ecosystem reaches.



Live Monitoring Features



Live Video Surveillance

Efficiently monitor a vast infrastructure by displaying hundreds of high-quality live video panes in a variety of layouts with a full camera support toolkit.



Video Wall

Share and communicate information between operators – even pushing live streams and events between video wall monitors – to ensure rapid response.



Manage Multiple Monitors with Built-In Virtual Matrix

Install up to four monitors per workstation to maximize visibility across an infrastructure without adding additional video management hardware.



Pan Tilt Zoom (PTZ) Keyboard

Eliminate the need to dispatch service to reposition fixed cameras with low latency PTZ control and mechanical zoom.



victor Client Surveillance Keyboard

Intuitive PTZ control and management via an easy USB setup.



Tours and Presets

Manually configure positioning and timing of fixed and PTZ cameras to automate live surveillance.



Text Overlay

Include the transcript of a video stream that provides context to a situation, such as receipts for Points of Sale (POS), numerical values for weigh stations, and gaming venue loyalty systems.



GIS Map Support

Improve awareness of site surroundings and reduce map setup time by accessing Open Street Map images.



Client to Client Video Push

Undergo efficient team review when sharing video and events between operators with a single function.



Interactive Maps Support

Improve awareness of the surrounding area with an intuitive system navigation that can locate geographic landmarks for reference.



Virtual PTZ Zoom/Rolling Mouse

Swiftly one-touch zoom in and out with the scroll wheel, or drag and drop for a simplified user experience.



PTZ Control Queueing and Locking

Provide priority users the ability to lock PTZ controls, or queue users for navigation to prevent competing commands from causing usability issues.



Surveillance Tracking

Quickly switch between cameras when following persons of interest with intuitive PTZ control and management.



Surveillance Pane Layout Editors

Create and use custom layouts best suited to operator needs.



Integrate Today, Protect Tomorrow

Known industry-wide as one of the best integration programs, victor and VideoEdge offer robust partnership capabilities with many other security, life safety, and building management systems. Using the victor client as your single point for all alarm and event management – including video, access control, intrusion, fire, and building management subsystems – one user interface minimizes operator training and learning curve, and offers the most complete protection.

Our Connected Partner Program brings complementary integrations quickly to market, including solutions that help reduce operating costs and increase revenue. This opportunity provides the structure to create customized integrations based on your specific system requirements that go beyond the traditional boundaries of yesterday’s security systems.



Integration Features



API-Based SDK

Capable of integrating directly with products from other manufacturers while adding video value, the Application Interface and Software Development Kit available for victor and VideoEdge simplify integrations.



Web Services Interface

Access the video management system from a web browser for lightweight computing and convenient surveillance.



Third-Party Camera Support

Install cameras ideal for your environment with brand agnostic support.



Access Control Integrations

Avoid disjointed subsystems by combining card readers and wearables with video management products for a truly integrated solution.



POS Integration

Decrease fraud investigation time by providing video correlated to POS transactions that assist in identifying improper cashier behavior and anomalies.



General Purpose Input/Output Data Integration

Reduce threats, false alarms, and investigation processes with instant event management from disparate systems such as loss prevention.



LDAP Support

The Lightweight Directory Access Protocol is a manufacturer agnostic directory that allows user accounts to be uploaded, downloaded, and stored for simplified setup.



ONVIF Profile S Support

Directly incorporate networked video products into the security infrastructure when adding multiple Profile S conformant devices to the system.



Intercom SIP Audio

Leverage existing IP audio security devices to send or receive calls from across a network to increase communication capabilities.

Streamline Critical Event Management with Enhanced Visibility

A timely response to incidents can improve the success of event management. Monitor thousands of cameras, doors, intrusion points, or any integrated alarm from your security command center all correlated to video. Door contact alarms, motion detection, analytics, POS/text data, or gun shot acoustic alerts

can notify security staff in real-time, or automate tasks such as launching live video layouts and displaying security instructions. Protect first responders and reduce unnecessary evacuations by verifying alarms with live high-quality video.



Alarm Management Features



Event Assessment

Save time and ensure compliance with automated layouts including maps, procedures, cameras, and tours based on different alarm and event triggers.



Event Viewer

Reduce operator stress while improving procedural compliance by prioritizing events and a large array of alerts displaying specific live video in the case of an incident.



Video Guard Tour

Operators are able to configure pre-programmed tours and prompts between cameras via a decision tree flowchart.



SMTP Alarm Notification

The Simple Mail Transfer Protocol sends alarms via email to designated users, allowing operators to receive important messages while away from the command center.



Send Email of Journal Reports

Automate the transmission of reports to save operator time and ensure information is being sent through the necessary channels.



Customizable Alarms

Configure alarms based on your security and business needs to ensure enhanced surveillance and return on investment.

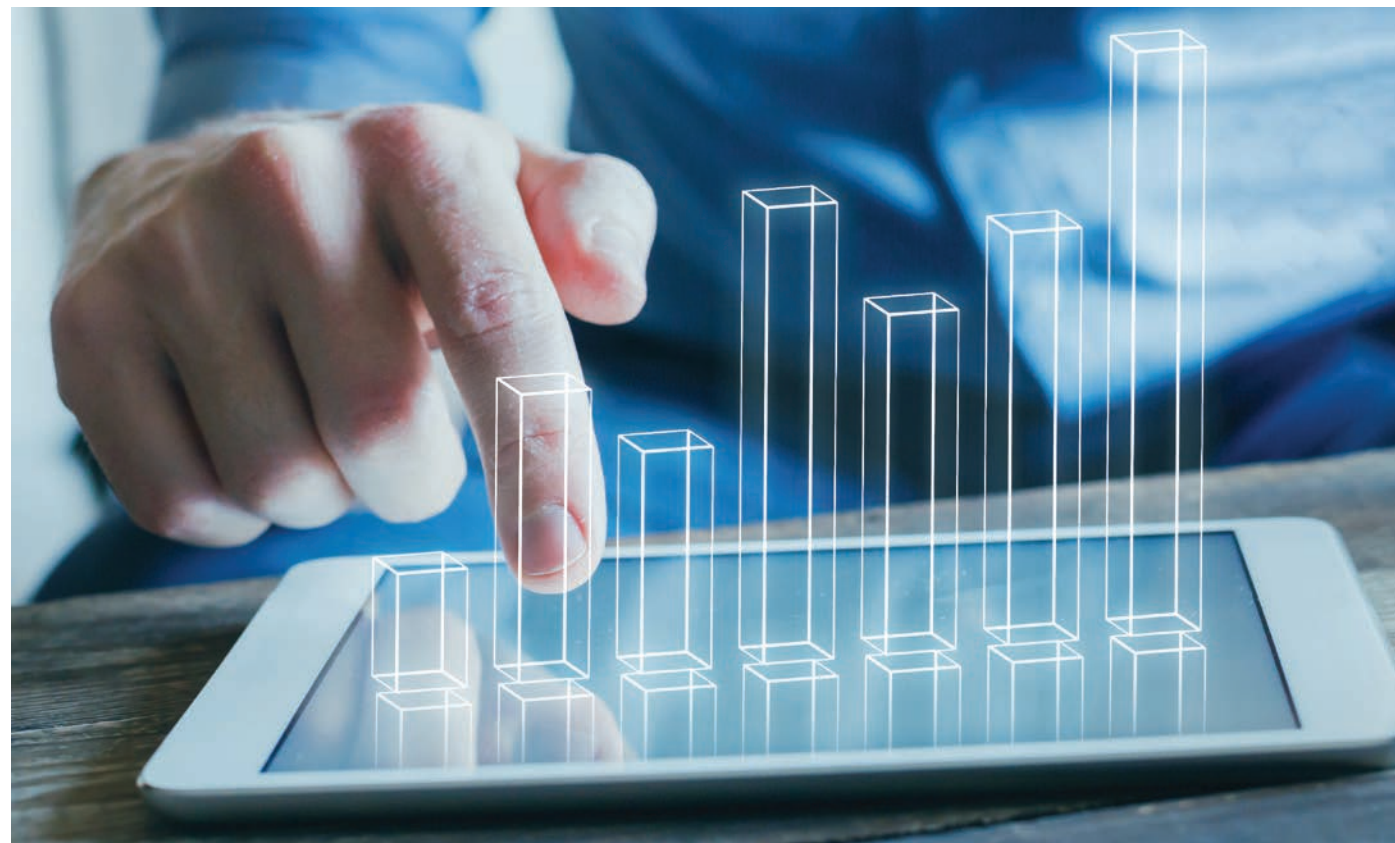
Drive Compliance and Mitigate Risks with Actionable Evidence

victor's unique investigation tools help you save time searching for, exporting, and managing video evidence that can be instrumental in driving consistent policy execution, process compliance, and incident mitigation.

Export and consolidate incident information in one package – complete with video, still images, narrative, and more – to deliver to local authorities or for internal risk management and insurance purposes. Investigator Mode lets you quickly transition from live

surveillance to recorded video. The innovative Smart Search feature provides forensic regions of interest search capabilities based on a defined area(s) in a camera's field of view that help you quickly locate relevant video.

Create reports to identify trends and easily analyze large amounts of data. Convert that data to charts or graphs to provide actionable business intelligence that allows you to proactively address concerning trends.



Investigation Features



Smart Search

Find specific video clips based on metadata from behaviors, analytics, and event details within a forensic region of interest.



Incident and Case Management

Manage video-related investigations effectively with clip builders including audio, external electronic content integrators, and additional third-party tools that collate data into a single location.



Investigator Mode

Operators can utilize a full forensic search and investigation module to queue video for export or mark to use in an incident report.



Evidence Presentation Building

Reduce the complexity of reviewing event-related evidence by packaging all incident materials into one simple presentation.



Search Across Multiple NVRs Simultaneously

Reduce investigation time by accessing several connected NVRs at once when looking for specific recorded video.



Thumbnail Search

Identify video of interest via thumbnail pictures rather than lists to dramatically reduce investigation time for events such as those that involve vandalism or property damage.



Incident Timeline Movie Builder

Pull together multiple camera views from several VideoEdge NVRs into a concise video clip.



Data Visualization and Trend Analysis

Efficiently create and analyze system data or analytic metadata by converting large amounts of information into easily digestible charts or graphs, providing new business intelligence.



Path Analysis via Camera Heat Maps

Enable better staffing, product placement, and promotional displays from video motion activity data based on start and end time.



Better Intelligence Improves Incident Response

Powerful video analytics are bundled into VideoEdge NVRs and integrated with victor VMS software to greatly improve operational efficiency and decision-making information. Gain highly-accurate security and business data with pre-configured deep intelligence. The analytics engine can also track movement, loitering, entering, and occupancy with confidence. Detect suspicious objects and abnormal behavior to identify trends that help mitigate threats, and pinpoint exact location of alarms on maps to arm security teams with life-saving details.



By simply allocating an analytics license to a camera, the NVR will immediately begin collecting behavioral metadata that can be leveraged for reporting key performance indicators and trigger real-time alarms. Expand upon the current amount of analytics channels available to include four channels for license plate recognition and up to 16 channels for video intelligence with the Tyco Analytics Appliance.

Video Intelligence and Analytics Features



Deep Intelligence

This hardware offers highly accurate people counting and tracking from an overhead view by classifying humans as opposed to other objects in the camera's field of view.



Color Filtering

Hone in on objects or people by searching video based on color attributes.



Crowd Formation

Set a region of interest and when a crowd of a certain size forms, an alert can be raised. Improve responsiveness to "flash mob" and other multiple offender crimes.



Direction

Gain visibility to critical situations such as motorists driving the wrong way on a freeway, or vehicles crossing a security checkpoint in the wrong direction.



Dwell

Draw a region of interest that triggers an alarm when a person within the field is stationary for an extended period of time.



Enter/Exit

Count objects or people entering or exiting a specific area at different times. Generate reports and trigger alarms as needed.



Facial Recognition

Set up real-time alerts and forensic searches from a database of known identities. Enable quick identification of VIPs to ensure proper customer service, or detect known faces of interest to mitigate risk.



People Counting

Provide metrics into footfall, traffic trends, or occupancy counts.



Illustra Video Analytics Support

Activate business intelligence and forensic assistance at the edge by interfacing with Illustra Video Intelligence Analytics within the victor VMS.



License Plate Recognition

Identify, track, and analyze vehicles at entry and exit points without adding a server to the infrastructure.



Linger

Determine if people are pacing in certain areas for suspicious or non-permissible periods of time.



Object Abandoned

Abandoned objects can be a huge concern, particularly in places such as airports, train stations, or other high-traffic areas. This rule can detect changes in a scene or region of interest and immediately alert authorities.



Object Detection

Detect items that have been added to a previously empty space, such as a hallway or restricted area.



Queue Analysis

Sound an alarm when a line gets too long. Analyze the data to pinpoint times during the day when lines are empty, short, medium or long to better manage cashier lanes.



Perimeter

Draw an area of interest to trigger an alarm when the zone is approached or breached.



Object Removed

Trigger an alarm when an item within the region of interest is suddenly or unknowingly removed to avoid costly theft or confusion.

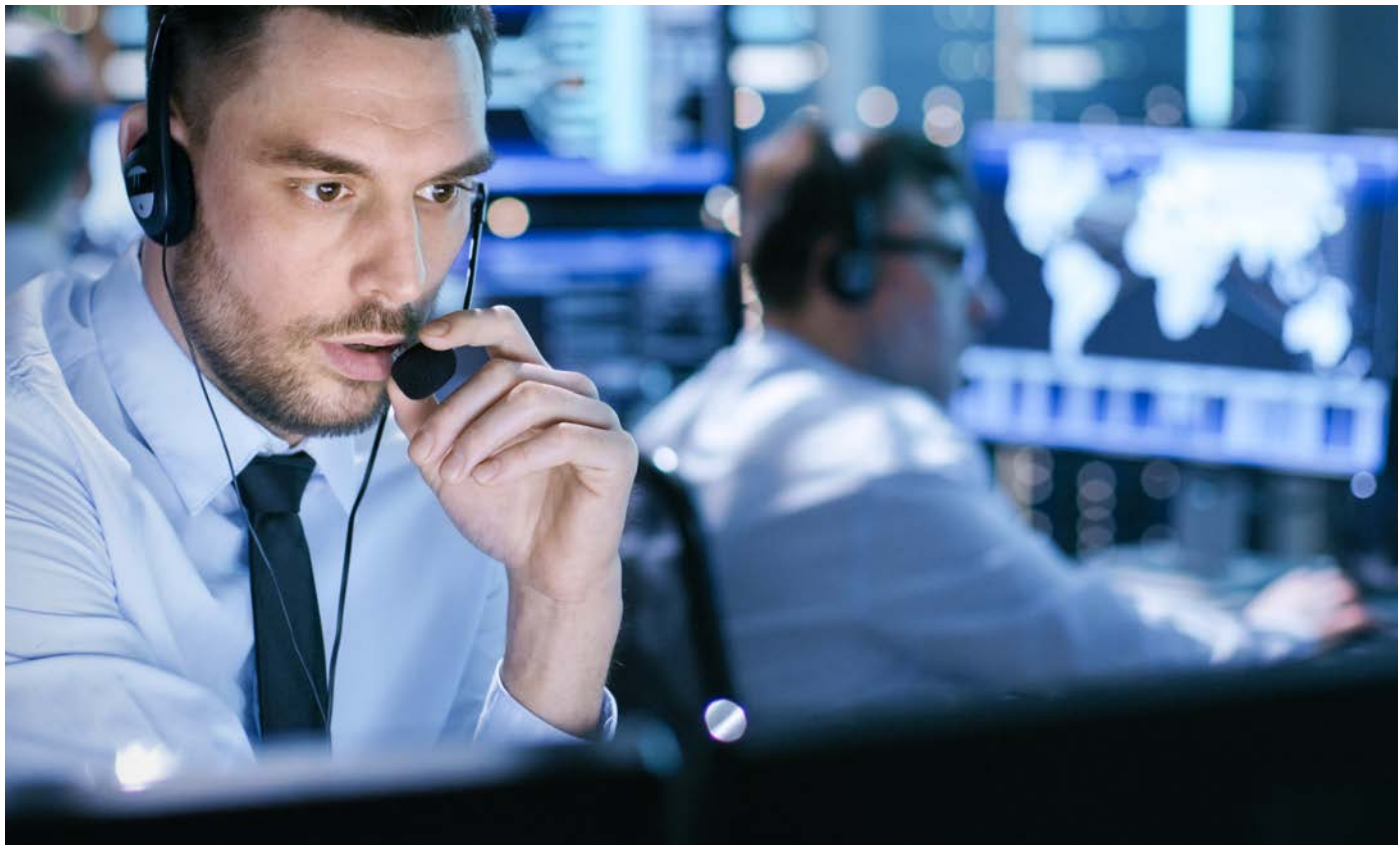
Focused on a Better User Experience

From the initial licensing and automatic device discovery tools that get your system quickly operational to the critical health monitoring of all systems, victor and VideoEdge simplify system management.

Whether using our intuitive local client, web client, or mobile apps, you can quickly view live or recorded video from one or multiple cameras for timely event management. When it's time to add cameras or new functionality, our centralized license

management streamlines IP camera, analytics, and Software Service Agreement (SSA) licenses, including proactive expiration alerts to ensure you are always current.

To avoid costly downtime, victor offers system-wide health monitoring delivered through an intuitive dashboard that allows you to proactively identify system issues or outages that can disrupt business operations.



System Management Features



Health Monitoring Dashboard

Quickly identify issues through intuitive dashboards that enable system-wide diagnostics to avoid outages or prolonged downtime.



Firmware and Password Management

Reduce system appliance configuration, firmware, and other maintenance tasks.



Operator Auto Logoff

Guarantee compliance while saving bandwidth with a system that signs users out after a specific period of inactivity.



Multi Stream Support

Improve user experience in constrained environments with the ability to select streaming parameters based on bandwidth and number of live view cameras.



Configurable Video Loss Alarms

Decrease disruptive video loss alarms by altering sensitivity settings to only alert you after a specified period of time.



Centralized License Management

Simplify camera, analytic, and SSA management across an entire infrastructure via a single user registration.



Web-Based Administrator and User Interface Options

Save installation time and access remote administration and provisioning functions for NVRs on a web-based user interface.



TCP from Camera

Configure cameras to use TCP to resolve camera connections prone to high packet loss.



Camera and NVR Auto Discovery

Minimize set-up time with simplified camera and NVR configuration through plug-and-play capabilities.



SQL Database

Access databases that can scale with your business to quickly manage massive data sets collected from alarms and events.



Virtual VideoEdge

Support hundreds of cameras with industry-leading throughput from a single virtual environment ideal for IT-centric deployments.



Identity Management

Simplifies bulk enrollment across an enterprise and combines with a powerful, end-to-end facial biometric analytic engine.

Smart Tools for Increasing Productivity

victor provides innovative solutions that increase response times while improving overall system performance. Operators can create tailored layouts that best suit their needs, while point-in-time bookmarks let them mark video for quick replay. To further save valuable time, lengthy surveillance operations can be easily captured and saved, including all operator surveillance panes, camera call-ups, and digital or mechanical PTZ. Routine video clip downloads can be scheduled to automatically occur during non-peak hours, freeing operators for other assignments and saving network bandwidth.

Smart Streaming automatically manages network bandwidth by selecting appropriate streams for video with no visible difference. This reduces client-side CPU and memory requirements, while

delivering optimal user experience and significantly reducing network traffic. Scale further with the Tyco Transcoder that adds 14 additional transcoding channels to VideoEdge NVRs.

Victor also supports enhanced dewarping for distortion-free video streaming of 180°, 360° panoramic 16:9, or active 4:3 views. Its edge-based technology keeps your cameras recording and storing data even when connection to the server is unavailable, seamlessly reconnecting when the issue is resolved. Always storage-sensitive, victor's embedded policies help you control the retention time of video that has been recorded from a triggered alarm.



Recording and Storage Efficiency Features



Schedule Clip Download

Schedule routine video clip downloads during non-peak hours to save bandwidth, increase operator productivity, and lower overhead costs.



Smart Streaming

Reduce centralized client requirements while viewing more cameras simultaneously without increasing bandwidth usage.



Push to Talk Audio

Be heard when necessary and keep offline conversations private by ensuring audio is only activated when required.



Motion Recording

Save on storage requirements by setting recording on certain areas only when motion is detected.



Operator Point-In-Time Bookmarks

Import event videos into case investigations and mark video for instant replay when something of interest has occurred.



Pre and Post Alarm Recording

Configure alarms to record video just before and after an alarm to guarantee the required video is saved for later investigation.



Dewarping Support for NVRs

Improve operator experience and video forensics for fisheye cameras on live or recorded video.



Video Retention Policies

Ensure compliance by setting an amount of time that recorded video is kept, then regain that storage space after expiration.



VideoEdge® TrickleStor

Provides cost-effective redundancy by storing video on select Illustra cameras when network connectivity to the NVR is lost. When the connection is restored, a media backfill process restores the edge-recorded video to its place in the timeline.



Ensure Reliability and Business Continuity

Sharing information while maintaining security is paramount. victor and VideoEdge protects video and confidential data, allowing you to give access to only those whose jobs require it. Leverage existing HR databases to centrally manage who has access to the system while ensuring autonomy and privacy compliance by partitioning, encrypting, and restricting access to data containing classified information.

victor and VideoEdge's user management policies combine with industry-leading cybersecurity and redundant/failover recording

to provide business continuity in the event of a natural disaster, cyber threat, physical attack, and other causes of outages. Our products are gated, analyzed, tested and required to meet or exceed the rigorous standards of the Johnson Controls Cyber Solutions Product Security Program for every consecutive release. This holistic approach is aimed at providing peace of mind to our customers. Our security mindset begins at initial design concept and is supported through deployment, including a rapid incident response to meet the comprehensive and evolving cybersecurity environments.



Data Protection and Cybersecurity Features



Dual Operator Log-On Authentication

Two-step application log-on verification requires that a supervisor's credential is also presented each time operators attempt to access the system.



Secure By Default User Permissions

Default secure permission assures that users are initially configured with no system access, reducing the risk that a user is assigned more capabilities to the VMS and its functions than authorized.



Customizable User Account Access

Each operator within the system is assigned their own user account for a higher level of accountability and control.



Role-Based Permissions

User permission may be assigned by role, simplifying the management of authorizations as the level of access for a group of operators can be configured with a single step.



Central User Management

Central management of all user accounts and their permissions throughout the system eliminates the need to configure the user accounts for each device independently.



Media Encryption

This allows the NVR to protect against file tampering as well as remote and local sabotage.



Restricting of Ports, Protocols, and Services

victor and VideoEdge user interfaces allow administrators to disable unused ports, protocols and services, enabling the practice of "Least Functionality" which minimizes the risk of unauthorized access as unnecessary entry points will not be available to attackers.



VideoEdge Operating System

By leveraging a highly customized open Linux operating system, VideoEdge offers a robust, reliable, and stable recording platform.



Encrypted Command and Control

TLS provides additional privacy and data protection over IP security networks when executing commands.



SHA-256 Certificate Support

The system requires that all HTTPS certificates use a SHA-256 HASH algorithm enabling cryptographic validation of encrypted communications.



Redundancy and Failover Recording

Reliability is increased when a redundant server or failover NVR is configured. This assures that high-priority data is retained with minimum loss when a primary system goes offline.



About Johnson Controls

Johnson Controls is a global diversified technology and multi-industrial leader serving a wide range of customers in more than 150 countries. Our 120,000 employees create intelligent buildings, efficient energy solutions, integrated infrastructure and next generation transportation systems that work seamlessly together to deliver on the promise of smart cities and communities. Our commitment to sustainability dates back to our roots in 1885, with the invention of the first electric room thermostat.

For additional information, please visit www.americandynamics.net or follow us on Facebook, Twitter, and LinkedIn.