



DATA AND SPECIFICATION SHEET

Siveillance™ Video Pro

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SIEMENS

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Siveillance™ Video Pro



A powerful solution for those complex, large and distributed site deployments, including more than 153 features and functions

The Siveillance Video Pro system is designed for centrally managed distributed solutions and centrally managed multi-server solutions for complex large multi-site and multiple server installations requiring 24/7 surveillance, with support of multiple devices. The solution offers centralized management of all devices, servers and users, and empowers an extremely flexible rule engine driven by schedules and events.

What's New in 2022 R3

- Device search filter (Siveillance Video Management Client)
- Enhanced User Experience on Siveillance Video Client and Web Client
- SSO (Single Sign On) support in Siveillance Video Web & Mobile
- Biometry support in Siveillance Video Mobile :
Users can now use biometrics or device credentials to verify their identity to access Siveillance Video Mobile. Available for both Android and iOS users.
- Mobile device management support in Siveillance Video Mobile :
Through MDM, organizations can manage and secure devices, apps, and data from a unified console.

Note:

1. Supports ability to decode compressed audio stream and render the audio on a client.
Full-duplex - Data transmission that can be transmitted in both directions at the same time.
Half-duplex - Data transmission in just one direction at a time.
2. The central site must be Siveillance Video 2022
3. Siveillance Video provides possibility to seamlessly integrate 3rd party management station via MIP SDK – supports three types of integration: basic protocol integration, component-based integration via .NET library and plug-in integration to embed plug-ins directly into Siveillance Video.

*For a complete feature and supported languages overview please refers to the **Siveillance Video Comparison Guide**.

www.siemens.com/siveillance-video

Key Features

- Adding Devices on HTTPS
- Hardware accelerated video decoding using NVIDIA GPU
- Direct streaming method - Mobile server
- Failover Recording Server
- Location search using GPS Coordinates
- Evidence Lock
- People, Vehicle & Location Search Filters
- Rule Based Bookmarking
- Siveillance Video Operates in a Windows FIPS 140-2 compliant mode
- Lock Video on Cameras
- Centralized Search in Video Client
- Adaptive Streaming (Video & Web Client)
- Generic 360-dewarping
- Video Client Performance improvements (Either using NVIDIA cards or Intel Quick Sync)
- Siveillance Video Driver Framework
- Device & Password Management
- The Video Driver API / SDK supports unlimited channels for integration
- Multistage Video Storage
- Video Data Encryption
- 31 Video Client languages supported
- Initial setup of credentials on devices (limited to supported devices, e.g., Axis, Bosch, Hanwha and Avigilon)
- Kerberos Authentication
- Two-step verification
- Multi-category Search
- Adaptive streaming for Siveillance Video Mobile
- Online Activation
- Video Client with better 4K Streaming performance
- DLNA ready
- Web Client and Mobile Client now supports all Video CODEC (MJPEG, H.264 & H.265) via Direct Streaming capability
- Directory service – Microsoft™ Active Directory
- Centralized Management – Monitor/Administer (local/remote sites)
- Integrated Rule Engine – Event/Condition/Action
- Archive Video Recordings
- Intuitive Maps / Smart Maps
- HTTP over SSL/TLS
- Cross version Management/Compatibility
- ONVIF Gateway Interface - private-to-public video, Alarm Centers, and Monitoring Stations
- Failover Management (Redundant Cluster)
- High Availability via Microsoft™ Clustering
- Edge Storage (Record/Playback/Syncing)
- Multi-cast streaming
- Hot-standby for Failover Recording Server

- Scalable Video Quality Recording™ (SVQR)
- Hardware accelerated video decoding in the Mobile Server
- Privacy Masking (permanent and can be removed manually)
- Smart Map function (Building support)
- Encryption on communication from recording server
- Federated Architecture – Central/Remote site
- ACM Access Control Module – Optional
- Siveillance Video Monitoring Wall – Included
- PTZ Specific Camera icon
- Bookmark (Create, Edit, and delete)
- New Export tab in Video Client
- Expanded bookmarks for Mobile Client
- Support for extended Identify Providers
- Refresh of hardware information in Management Client
- AI Bridge
- Siveillance Video API-Gateway
- Push Notification for Mobile Client (this function requires a valid SSA/SUR)
- Siveillance Video Incident Manager

Product Facts

Siveillance Video

- Deployment type Centrally managed, Distributed sites
- Number of cameras per system Unlimited
- Number of recording servers Unlimited
- Number of users Unlimited
- Video export format AVI, MKV and Siveillance Video Format
- Supported manufacturers Above 170
- Supported IP devices 12,000+
- Generic hardware discovery UPnP
- Audio Full Duplex, Half Duplex
- Open standards ONVIF: Profile-S/G/T/Q, PSIA
- Video compression MJPEG, MPEG-4 AVC, MPEG-4, MxPEG, H.264, H.265, H.264+, H.265+

Siveillance Video ACM

- Doors - Up to 5000
- Events - Up to 600 events per second
- Connect multiple Access Control systems
- Access points grouping
- Extended logs and audit trail
- Dynamic syncing of configuration from sub-system to Siveillance Video

Siveillance Video SiPass integrated/ SIPORT Plug-in limitations

- Doors - Up to 3500
- Cardholder - Up to 200,000 / SIPORT – 10,000
- Events - Up to 45 events per second / SIPORT - N/A

Integration

- 3rd Party Metadata integration via MIP SDK
- 3rd Party Event and action rule engine integration via MIP SDK
- Siemens Security Product integration
- SiPass Integrated™ via MIP SDK
- Siveillance Control & Control Pro – via MIP SDK
- Desigo CC – via MIP SDK

Languages (Management Interface)

- Chinese ^(Simplified), Chinese ^(Traditional), Danish, English, French, German, Italian, Japanese, Korean, Turkish, Portuguese ^(Brazilian), Russian, Spanish, and Swedish

Feature Overview

- **Limitless Multi-Server and Multi-Site Solution**
Siveillance Video Pro supports an unlimited number of users, cameras, servers and sites. It allows the expansion of any installation as it is required.
- **Centralized Management**
A Management Client connected to the management server enables full remote system configuration of all recording servers, failover servers, devices, rules, schedules, and user rights.
- **High Availability – Failover Recording Servers**
A redundancy option for recording servers to ensure maximum system uptime while minimizing video interruption in the event of system problems. Operates in two failover modes: cold stand-by and hot stand-by.
- **Siveillance Video Interconnect**
A unique system concept that allows all Siveillance Video systems to be interconnected with Siveillance Video Pro to gain central surveillance operation across geographically dispersed sites.
- **Siveillance Video Federated Architecture**
System concept that enables multiple individual Siveillance Video Pro and Siveillance Video Advanced systems to be connected with a central Siveillance Video Pro system in a hierarchical architecture for infinite scalability and central management.
- **Alarm Manager**
Single-point alarm function that provides a consolidated and clear overview of security and system-related alarms.
- **Siveillance Video Monitoring Wall**
Flexible and hardware independent Monitoring wall feature that seamlessly integrates with the Management Client and Siveillance Video Client.
- **Metadata Support**
Supports reception, storage, and export of metadata, including metadata from camera-resided video analytics and location data in Video Push from Siveillance Video Mobile.
- **Hardware Accelerated Video Motion Detection**
Video motion detection (VMD) decoding is moved from the CPU to the GPU part of the Intel CPU to significantly reduce the CPU load and improve performance of the recording servers.
- **Operational Intelligence**
 - Metadata – Harvesting/Automation
 - Built-in Video Motion Detection (VMD)
 - Adjustable VMD sensitivity
 - Real-time VMD analysis
 - VMD exclusion zones
- **Two-Step Verification**
Prevents non-authorized people from accessing the system and protects against “man in the middle” attacks
- **Centralized Search**
Easy to use search tool that aggregates different data types registered in the Siveillance Video as entries and allows users to find everything they look for in one place. Search categories that include People, Vehicle & Location Search Filters providing improved geographical awareness.
- **Intuitive Map Function**
Multi-layered and interactive maps display the location of every camera and offer control of the entire surveillance system. It also has seamless drag-and-drop integration with Siveillance Video monitoring Wall.
- **Smart Map – offline support**
The Smart Map feature in Siveillance Video Client includes support for offline OpenStreetMap. Administrators can configure a specific map server to show geographical maps without connecting to the Internet
- **Driver API / SDK**
Increased cap on driver API / SDK - The cap on supported channels has skyrocketed to 512, giving professionals more freedom of choice. This is a vast improvement from the 16-channel limit for ONVIF and the 64-channel limit for the Universal Driver. Partners building their own integrations with the Driver API/SDK, can now enjoy complete freedom, going from a 1-channel limit to support for an unlimited number of channels.
- **Bookmarking**
Allows users to mark video sections of interest and add descriptive notes for later analysis or sharing with other users.
- **Multicast Support**
Optimizes network load in systems with many users by sending one video stream per camera to multiple Siveillance Video Clients

- **Multiple Language Support**
Let's most operators use the system in their native language with support for 31 different languages, while the Management Client is available in 14 languages.
- **Fast Evidence Export**
Deliver authentic evidence to public authorities by exporting video to various formats, including video from multiple cameras in encrypted Siveillance Video format with dedicated player application included.
- **Audit Logs**
Enables extensive logging of all user system accesses, configuration changes and operator actions.
- **Flexible User and Rights Management:**
Strict privileges on management of users' access to functions and camera actions. Modular user management with support for basic user accounts to global user management with single sign-on Microsoft® Active Directory accounts.
- **Versatile Rule System**
Facilitates the automation of different aspects of the system, including camera control, system behavior and external devices, based on events or time schedules.
- **Customizable Management User Interface**
Adaptable management user interface makes it possible to toggle the availability of functions on and off in the Management Client.
- **Edge Storage**
Uses camera-based storage as a complement to the central storage in the recording servers. Its flexible video retrieval can be based on time schedules, events or manual requests.
- **Secure Multi-Stage Storage**
Unique data storage solution that combines superior performance and scalability with video data grooming for cost-efficient, long-term video storage, with the option to encrypt and digitally sign stored video and audio.
- **Tiered Management Rights**
Makes it possible to assign partial management permissions to system administrators using the Management Client.
- **64-bit Recording Servers**
Allow more cameras to be run on a single recording server than 32 bits.
- **Smart Maps**
Quickly navigate to the correct geographical overview to identify and preview relevant cameras in a user interface like Google or Bing maps using smartmaps
 - Building support in Smart Map allows to Navigate with ease between cameras on different floors
 - Alarms on Smart Maps
 - Alarms, Input devices and Microphones
 - The ability to hear audio directly in the map view
 - Icons like doorbells and sensors for an improved overview in map
 - Device Clustering
 - Automatically groups near-by map items into clusters for a better visual overview when zooming out
- **Evidence Lock**
Secures availability of video for investigations by overriding normal video retention and grooming policies
- **Incident Manager**
Store video, audio, notes, and other information related to incidents in one place
- **Web Client Alarm List**
List of alarms in the systems so users can quickly get an overview and act if needed
- **User Access Permission**
System administrators controlling systems with multiple users can control access permission per client for each of the three Siveillance Video clients, resulting in safer security access
- **Liftable Privacy Masking**
Privacy well protected both on live and recorded video using permanent and liftable privacy masking
- **Simple Installation**
Selecting "Single Computer" set up during the initial installation the system automatically performs certain configurations for an easier installation experience
- **Open Network Bridge (earlier ONVIF Bridge)**
Includes the ability to do forward playback with different speeds and backward playback for an improved investigation experience
- **DLNA Support**
Connect Siveillance Video to any DLNA supported TV and display video captured from cameras without a computer or a client.

- **One-Click Installer**
Configure Siveillance Video faster and easier during installation, with automatic device detection and retention-time configuration.
- **Wizard-based interface for Plug-in**
- **Siveillance Video Mobile Access Control Support**
Open/close/grant/deny access and control perimeter via Siveillance Video Mobile app.
- **Online License Activation**
Activate Siveillance Video Camera License via internet
- **64-bit Video Client Player**
Take full advantage of the modern CPU's benefits to process more information at once.
- **Siveillance LPR Integration via MIP SDK**
External applications can create and manage match lists fully through the MIP-SDK Configuration API.
- **Trusted Root Certificate via CA**
Use trusted certificates between the Siveillance Management Server and Siveillance Recording Server for heightened security on server communication.
- **More Secured, Stronger data protection and Enhanced Encryption**
 - The latest Microsoft CNG encryption modules
 - Password protected configuration
 - Server Configurator Utility now available for the Mobile Server

Siveillance Video now Operates in a compliant mode that is approved by U.S. Federal information processing standards (FIPS 140-2)
- **Network Configuration**
Camera user handling and network settings configuration done directly in the VMS – for your existing ONVIF-compliant devices Simplify the way you work and quickly change network settings – without the need to access each individual device.
- **Alarm Notification for Video Client**
Even when the Video Client is minimized, or the operator is working on another screen, alarm notifications will appear to help keep focus on what's important. Click on the notification to gain instant access to the Alarm Manager for related video, bookmarking, and further investigation.
Administrators can choose what alarm levels trigger this notification, and as before, can define what these level mean. Feature is community-enabled for MIP SDK
- **Centralized Search - LPR**
Integrating Siveillance LPR results into the Centralized Search agent
Make use of camera application metadata for license plate recognition. Axis Optimizer plugin now including Centralized Search plugin.

Integration Options

- The Siveillance Video Integration Platform Software Development Kit (SDK) enables seamless integration of video analytics algorithms and other third-party applications in Siveillance Video Client and Management Client.
- Compatible with Siveillance Video (ACM)
Access Control Module and integrates with alarms, gates, building management systems, using hardware input/output (I/O) and various types of events.
- Generic event integration enables easy and fast integration of third-party applications and systems via a simple message-based socket communication interface.
- Supports Siveillance Video Open Network Bridge that enables full video interoperability in multivendor installations using a standardized ONVIF compliant video-out interface
- System configuration API enables external applications to make changes to the system's configuration.
- Siveillance Video Driver Framework within MIP SDK allows IoT devices manufacturers to develop their own drivers and provide faster device compatibility and deeper integration with other devices connected via Siveillance Video application.
- AI Bridge simplifies the integration and deployment of AI and intelligent video analytics applications and ensures access to video and the return of events and metadata. The first version of the AI Bridge is developed and aimed specifically at the NVIDIA EGX Enterprise Platform

Recording Server/Failover Recording Server System

- Simultaneous digital multi-channel MJPEG, MPEG4, MPEG-4 ASP, MxPEG, H.264 and H.265 video recording of IP cameras and IP video encoders without any software limitations on number of cameras per server
- Two-way audio allows users to transmit and record audio from connected microphones and audio from the operator's microphone to attached speakers
- Generic framework for receiving and storing metadata from compatible devices and clients
- Route traffic between multiple connected cameras and multiple clients requesting live view, playback, and export
- Multicast one video stream to all Siveillance Video Clients. The infrastructure must support IGMP to reach remote networks
- Multi-live streaming gives the possibility to define multiple streams for live viewing with different properties. It optimizes all Siveillance Video Clients viewing performance according to the available bandwidth and view layouts, which is ideal for deployments with remote viewing. Number of streams supported is set by the camera driverⁱ
- A dedicated recording stream enables optimization stream properties (resolutions, encodings, and frame rate) for video storage and forensic usage
- Secure high-speed recording database holding JPEG images or MPEG4, MPEG-4 ASP, MxPEG, H.264 or H.265 streams
- Flexible control of recording characteristics for MPEG4/H.264/H.265 streams, making it possible to toggle between recording key frames only or the full stream
- Record more than 30 frames per second per camera, limited only by hardware
- Recording quality depends entirely on camera and video encoder capabilities with no software limitations
- Possibility to import pre-event images recorded locally in camera or video encoder
- Pre-recording buffer (used for event/motion-based recording) in RAM minimizes the disk read/write operations when no video is recorded
- Edge Storage with flexible retrieval enables video retrieval from camera storage based on time schedules, events, or manual requests. This enables users to effectively retrieve video recordings across low-bandwidth connections
- Scalable Video Quality Recording™ (SVQR) enables seamless merging of video stored centrally in the recording server, and video retrieved from a camera associated edge storage, or interconnected system.
- Built-in, real-time, camera-independent motion detection with the ability to generate motion metadata for Smart Search
- The recording server runs as a Windows service under local system account or optional local Windows user or Microsoft Active Directory account with run-as-a-service privileges
- Port forwarding enables clients to access the recording servers from outside a network address translation (NAT) firewall
- Support for both IPv4 and IPv6 addressing
- 64-bit recording servers allow more cameras to be run on a single server unit
- Secure HTTPS camera connection on devices supporting HTTPS
- Encrypted communication between Recording Server and services retrieving streaming data
- Digital signing of the recording server's video database can be used to verify that recorded video has not been modified or tampered with while stored or after export
- Remote Connect Services enable you to securely connect remote cameras across different types of private and public networks
- Video decoding takes advantage of processing power in Graphical Processing Units. This includes the GPU part of the Intel CPU (requires CPU with support for Intel Quick Sync Video) and in the GPU of additional external NVIDIA cards
- Functional recording server even if a recording storage area is unavailable. Continued recording of video from devices with available recording storage and live video on devices without available recording storage
- Support for shutdown of recording server if recording storage becomes unavailable, to enable fail over to take over

High Availability

- Siveillance Video Pro offers two levels of redundancy on the recording servers: Cold and hot stand-by failover. Both mechanisms offer fully automatic and user transparent failover in the event of hardware or system failure, with automaticsynchronization at system recovery
- Cold stand-by failover is a cost-efficient redundancy solution where one, or a group of, failover recording servers can act as backup to one or multiple recording servers
- Hot Stand-by failover is a high-security redundancy solution providing minimal interruption in recording and live streams, where a dedicated failover recording server is preconfigured for a recording server

Pan-Tilt-Zoom (PTZ)

- "Pass-through" control of manual PTZ operation from clients with user priority
- 32,000 PTZ priority levels for control of rights between different operators and automatic patrolling schemes
- Execute rule-based go-to preset position on events and patrolling
- Pause PTZ patrolling on event and resume patrolling after manual session timeout
- Configure PTZ preset positions via Video client
- Combine patrolling and go-to preset on event
- Configurable Scanning/Transition speed
- Reserve PTZ priority & rights via video client

I/O and Events

- Support for devices with one or more input and output ports
- Powerful rule processing engine for execution of start and stop actions triggered by events or time profiles.

Setup and Management

- Download and install the recording server from a web page on the management server. The recording server is completely managed via the Management Client and configuration changes are applied instantly while recording is in operation.
- Local recording server configuration data is available during periods where the management server is inaccessible.
- Recording server manager is available in the local console notification area (icon tray) for status messages, start/stop of the service and change of network settings.

Client Access

- Facilitate client access.
- Clients are authenticated and authorized at the management server and use a session-limited access token to access the recording server.
- System administrators controlling systems with multiple users can control access permission per client for each of the three Siveillance Video clients, resulting in safer security access

Logs

- Logging of system, audit, and rule entries to the management server with local caching during offline scenarios.

Storage

- Definition of one or more storage containers with individual archiving schemes and retention times. Recording capacity is limited only by disk space.
- Each storage container is defined as live database and one or more optional archives, where the video data is moved from the live database to secondary disk systems or network drives. The archived data is still online and available for clients.
- Archiving schemes define when video is archived to the next archiving stage in the storage container and how long the video data is retained before deletion.
- Optional video data grooming possibility enables reduction of video recording data size by reducing the frame rate of the video data.
- Ability to allocate individual devices to different storage containers.
- Move a device or a group of devices between two storage containers.
- Light and strong video database encryption option, using DES-56 encryption algorithm.
- Digital signing SHA-2 helps ensure video integrity of video stored in the recording servers.
- Storage overview gives instant indication of used vs. available storage in total and for individual cameras
- Manage maximum recording time for manual recordings
- Recording capacity per device/day – Unlimited
- Video retention time - Unlimited
- Online access to archives
- Configurable Storage & Retention Period (Per device, Per Group)

- Storage Overview (Used Space vs Available Space)
- Trigger Event on premature deletion of video due to insufficient physical storage Archiving schedules (Min - Hourly, Max - Practically Unlimited)
- Archive to network drives (NAS, iSCSI, SAN)
- Video encryption
- Digital video signature
- Multi-stage video & Metadata grooming

Management Server and Client

System

- Management server for user authentication logon, system configuration and logging.
- Management Client for central administration of the system such as recording servers, devices, security, rules, and logging.
- Management Client compatible with Siveillance Video Core, Core plus, Advanced and Pro 2019 R1 and newer
- All configuration and logs from the entire system are stored in a centralized Microsoft SQL database and accessible by the management server only.
- Failover solution for the management server provides a resilient system solution based on Windows Server Clustering, ensuring high system availability.
- Management server manager is available in the local console notification area (icon tray) for status messages and to start/stop the service.
- The management server runs as a Windows service under local system account or optional local Windows user or Microsoft active directory account with run-as-a-service privileges.
- To register and validate your licenses, the system offers easy-to-use online activation via the Internet and alternatively, offline activation via email and web for closed surveillance networks.
- Support for both IPv4 and IPv6 addressing.
- Configuration wizards for aided system setup
- Device Management (Device Grouping, Device Model Detection, Replacement Wizard)
- Seamless virtual hardware movement between recording servers
- Day length time profile
- Run servers as Windows Services
- Scheduled start/stop of devices
- Built-in backup-restore support
- Tiered management rights
- Inheritance of user rights
- Time schedule-controlled user access to devices and functions
- User access permission per client
- Web Client Alarm list

Siveillance Video Interconnect

- System concept that interconnects all Siveillance video management software units to gain central operation and cost-effective management of geographically dispersed surveillance sites.
- Intelligent video storage management makes optimal use of remote/central video storage and available network bandwidth with a choice to store video recordings remotely, centrally or combined with flexible revival of the remotely stored video
- Possibility to define time interval and bandwidth cap for upload of video from an interconnected site
- Enables the proactive detection of errors and cost-efficient management of connected sites by propagation of system status events and embedded remote management of connected system
- Ability to detect system problems and remotely manage interconnected sites reducing operational costs and the need for on-site visits.
- Its intelligent video storage management makes optimal use of available remote and central storage, and network resources.

Siveillance Video Federated Architecture

- System concept that enables multiple individual Siveillance Video Pro and Siveillance Video Advanced. systems to be interconnected with a central Siveillance Video Pro system in a hierarchical architecture for infinite scalability and central management.
Centralized management access to all federated systems.
- Resilient architecture that allows the individual systems to function as autonomous sites in the event of network problems.
- Seamless management of multisite and federated installations running different software generations. Siveillance Video's Management Client 2016 and higher is backward compatible with 2014 version.

Devices

- Hardware wizard to add devices; automatically using Universal Plug and Play (UPnP) discovery, via IP network range scanning, or using manual device detection. All methods support automatic or manual model detection.
- Search and add devices directly on HTTPS
- Wizard for swift replacement of malfunctioning devices with preserved configuration settings and recordings.
- Enable and disable devices if they are not used or are down for maintenance.
- Adjust settings such as brightness, color level, compression, maximum bit rate, resolution and rotation per camera or camera group.
- Select and configure video format, frames per second (FPS), resolution and quality for the video streams used per camera.
- Select and configure one, or more, video streams per camera to be used for live viewing. Each stream can be in different video format, FPS, resolution, and quality.
- Adjustable group of pictures (GOP) length for MPEG4 and H.264/ H.265 encoded video.
- Optional preview window for immediate verification of video settings per camera or for a group of cameras. Assign camera shortcut number for easy operation by clients.
- Define multiple PTZ preset positions on the server.
- PTZ scanning on supported devices.
- Define multiple PTZ patrolling schemes with adjustable wait time between shifts and customizable transitions with disabling of motion detection to avoid false alarms.
- Run multiple patrolling schedules per camera per day. For example, run different schedules for day/night/weekend.
- Privacy masking conceals certain parts of the image, both in live and playback video and in exported material. It supports permanent masks and liftable masks that can be lifted and managed with user credentials. Masking level is adjustable and ranges between 'light blur' to 'solid grey'
- Configure device events like motion detection with pre- and post-buffers, or input signal behavior options.
- Fine-tune motion detection sensitivity per camera manually or automatically.
- Apply one or multiple exclusion zones for where motion detection is to be disabled to avoid unwanted detection.
- Manage device password on one or multiple devices from within the Management Client
- Device firmware upgrade of single devices
- Device firmware upgrade of multiple devices in bulk
- Management client contains a field showing the firmware version of each device
- Option "Update Hardware" updates the information about the firmware and features available for a specific device
- Device search filter enables searches for devices in the recording server tree. Searches can be made on device name and IP address. All disabled devices are by default not shown in the device tree, but they can be displayed by ticking the checkbox in the search bar

Rules, Time Profiles and Notifications

- Powerful Microsoft Outlook®-style rules system supports an unlimited number of rules.
- Rule actions are triggered by event, time interval or a combination of event and time. Rules can be optionally stopped by event or after a certain time.
- Time profiles with reoccurring time selection and expire condition support an unlimited number of time profiles.
- Dynamic day-length time profile follows daylight changes over the year for a given location defined by a GPS position, including daylight savings time.
- Rule-based bookmark creation.

Trigger events: The Siveillance Video Pro system and connected devices support a wide set of events that can be used to trigger actions using the rule system.

Events are grouped in the following categories:

- **Hardware:** events that relate to physical hardware devices connected to the system.
- **Devices:** events that relates to certain functions and states of devices available to the Siveillance Video system via the connected hardware devices.
- **External Events:** events that relate to VMS integrations.
- **Recording server:** events that relate to failover, archiving and database functions.
- Siveillance Video Monitoring Wall start and stop actions; Set Siveillance Video Monitoring Wall to preset layout, set Siveillance Video Monitoring Wall monitor layout and camera content.
- Multi-recipient customizable email notification with image and/or AVI attachment of incidents.
- **Analytics:** events from integrated applications and systems - *For further details on available trigger events, please refer to the Siveillance Video Pro Administrator's Manual.*
- **Start actions:** The triggering events may initiate a wide set of actions in the VMS, connected devices or integrated systems. Actions in the VMS system connected devices or integrated systems upon the completion of a rule. - *For a complete list of available stop actions, please refer to the Siveillance Video Pro Administrator's Manual.*
- **Stop actions:** The rule engine may also trigger stop actions in the VMS, connected devices or integrated systems upon the completion of a rule. *For a complete list of available stop actions, please refer to the Siveillance Video Pro Administrator's Manual.*

User Rights Management

- Supports inherited user rights and the ability to assign partial management rights
Common and central management of all user rights across all user and programmatic interfaces.
- Overall system security definition makes it possible to globally allow or deny permission to devices and functions (such as manage, read, edit and delete).
- Device-specific security definition makes it possible to allow or deny permission to individual devices and functions (such as manage, read, edit and delete).
- Tiered management rights enabled differentiated administrator rights per administrator role.
- Roles control user and administrator access to:
 - **General:** Management Client and Siveillance Video Client profiles, Evidence Lock profile, dual authorization rights, system log-in time profile.
 - **Cameras:** Visibility, administrate, liveview (within time profile), playback (within time profile), search sequences, export, smart search, AUX commands, manual recording, bookmark functions, Evidence Lock functions.
 - **Microphones and speakers:** Visibility, administrate, listen to live audio (within time profile), playback audio (within time profile), search sequences, export, manual recording, bookmark functions, Evidence Lock functions, speak to speakers.
 - **Inputs and outputs:** Visibility, administrate, status, activation.
 - **Remote recordings:** Retrieve remote recordings
 - Siveillance Video Monitoring Wall: visibility, administrate, control
 - **External events:** Visibility, administrate, trigger
 - View groups privileges
 - **Servers:** Siveillance Video Federated Architecture site permissions.
 - **Alarms:** Visibility of alarms and ability to manage alarms.
 - **Application:** Manager, Siveillance Video Client/ Siveillance Video Web Client/ Siveillance Video Mobile, live/ playback/setup, status API and service registration API. Siveillance Video: Plug-in permissions

Logging

- Logs of system, audit and rule entries are consolidated from all recording servers and clients.
- Each log file has adjustable size and time limitations.

Siveillance Video Client Profiles

- Centralized management of Siveillance Video Client application options enables optimization of Siveillance Video Client for different user categories and skill levels.
- Ability to enforce or recommend optional Siveillance Video Client application options for a user or group of users, using an unlimited number of Siveillance video profiles.

- Define general Siveillance Video Client application options, including (listing not exhaustive): visibility of time, visibility of camera live indicators, default image quality, default frame rate, keyboard and joystick setup, startup mode and de-interlacing filters.
- Access to live mode and the availability of individual control panes and overlay buttons.
- Access to playback mode and the availability of individual control panes, overlay buttons and settings for specific functions, such as default export path
- Access to setup mode and the availability of individual control panes and setup functions.
- Access to Centralized Search, Alarm Manager, System Monitor.
- Access to setup mode and the availability of individual control panes and setup functions.
- Definition of available view layouts.

System Administration

- Built-in backup and restore support for manual system backup of all configuration data, including (listing not exhaustive): system configuration data, maps, alarm settings and definitions and client views.
- System Monitor function gives actual and historic performance and usage reports of server. performance, storage availability, network usage and camera performance.
- Configuration Reporting enables complete or partial documentation of system configuration. Custom and site-specific free-text information, integrator's notes and logo can be added to the printer-friendly reports.
- Kerberos Authentication ensures faster and mutual authentication using open and more secure standards than the existing NTLM authentication.
- Change single and multiple-device passwords directly within Siveillance Video for an easier and more secure user experience

License Administration

- Expanded license information for multi-site installations where both the total used licenses for the common SLC is presented and the license use in the specific system.
- License overview that presents the license use of all the individual sites running on the same SLC.

Authentication

- System log-in uses Microsoft Active Directory, local Windows, or basic user account.
- Use current Windows logon for authentication
- Dual authorization offers an optional additional level of system security, where Management Client users are granted access to the system only when a second user or supervisor has confirmed the log-in with a successful authorization of the second user
- Kerberos support enables deployment in high security Kerberos IT environments
- Use organization's own Identity and Access Management system (Open ID Connect based) to authorize and authenticate users. It enables support for SSO

Management Client Profiles

- Centralized management of Management Client application options enables optimization of the Management Client for different user categories and skill levels.
- Ability to tailor the availability of main/sub functions in the Management Client for different user roles.

Event Server

Alarm Manager

- Single-point alarm management of all internal system alarms and external security alarms.
- Alarm descriptions and work instructions make alarms actionable for operators.
- An alarm location map can be linked to each alarm providing instant situational awareness to the operator dealing with the alarm.
- Customizable alarm priorities allow operators to focus on the most critical alarms.
- Customizable alarm categories enable logical grouping of alarms dependent on their type and nature. Customizable alarm statuses enable alignment of the alarm handling workflow with existing workflows and security systems.

- Alarm handling result code enables tracking of the outcome of the alarms.
- Automatic allocation to alarm owner with escalation and alarm forwarding possibilities.
- Time profiles for definition of active alarms.
- Possibility to associate one or more cameras to an alarm (maximum 15 cameras can be displayed simultaneously in the alarm preview window)
- A set of alarm handling reports gives valuable information about alarm inflow and alarm handling performance.
- Extensive logging of alarms.
- Microsoft Clustering support for the event server enables secure and redundant alarm handling.

Siveillance Video Mobile Server

- The Siveillance Video Mobile Server runs as a dedicated service, allowing it to be installed either on the same server as other system components or on dedicated hardware in more demanding installations.
- The Siveillance Video Mobile Server can transcode video so streams are robust and can adapt to changing connection bandwidth. The server also optimizes the use of available bandwidth to get the best possible stream quality.
- Adjustable transcoding logic enables capping of video resolution and frame rate for video streams provided to Siveillance Video Web Clients and Siveillance Video Mobile clients.
- Option to bypass the transcoding logic and send direct streams to Siveillance Video Mobile and Web Clients. With no transcoding happening in the Mobile Server, live video is streamed directly to Siveillance Video Mobile and Web Client.
- Installing the Siveillance Video Mobile Server plugin in the Management Client will give access to Siveillance Video Mobile Server management in order to change settings, read out miscellaneous status information, configure codecs used for exports as well as manage ongoing and completed exports.
- Siveillance Video Mobile Servers can be installed in parallel, offering redundancy and/or allowing more simultaneous users.
- Siveillance Video Mobile Servers can be configured through tray controller to easily adjust/update settings
- Use either a default-generated certificate for HTTPS encrypting the connection to the Siveillance Video Mobile Server or provide your own custom certificate.
- Video Push configuration is done from the server, so users can download and use Siveillance Video Mobile without having to do any configuration.
- Siveillance Video Mobile Server supports creating server-side export through Siveillance Video Web Client and Siveillance Video Mobile.
- Siveillance Video Web Client, including optional browser plug-ins, is included with the Siveillance Video Mobile Server. No additional setup is needed.
- Enables system integrators to verify and validate that the setup is correctly configured before they hand it over to the customer.
- Enables system integrators to verify that they have configured the mobile server correctly without the need for logging in with a smartphone to do the validation.
- Hardware accelerated video decoding in the Mobile Server

Server Configurator

- Makes it easier to select and assign security certificates on the server/computer where it is running
- The security certificates for the Management Server, Recording Server, Mobile Server, Data Collector and Failover Recording Servers can be configured from the same place.
- Server configurator is backwards compatible with components from Siveillance Video 2020 R1 and later
- Registration functionality available through server configurator. This can be used to update configuration after changing hostnames such as when setting up a Windows Server Failover Cluster

Siveillance Video Client

General

- Dedicated task-oriented tabs for the Centralized Search, Alarm Manager and System Monitor, in addition to the traditional Live and Playback tabs.
- Application theme support with choice of dark or light themes.
- True multi-window support where secondary windows have full functionality and can be operated in an independent mode or synchronized mode where they follow the control of the main window.

- Shortcuts to select a specific window or specific camera in a window.
- Camera search function promptly finds cameras, types of cameras and views in the system with the ability to create temporary views to display all or a subset of cameras matching the search criteria.
- Display metadata bounding boxes from supported devices in live views and playback.
- Export video in three simple steps (Select cameras, set start time and end time, Click Export) using Simplified export panel.

Customization

- Application options enables customization of the general behavior and look of the Siveillance Video Client
- The customization can either be made as individual personalization managed by each operator, or centrally enforced through Smart Client Profiles
- Control of general look & feel and navigation properties, such as color mode, camera title bar, grid sizes etc.
- Availability of control panes and functions in live and playback tabs, and in setup mode Information included in timeline in playback tab
- Behavior and availability of expert function
- Setup of keyboard short cuts and joystick controls
- Specific behavior of alarms and access control notifications
- Advanced application settings such as use of multicast, hardware acceleration, videos diagnostics overlay and time zone settings
- Application language

Live View

- View live video from 1-100 cameras per computer monitor/view.
- Multiple computers monitor support provides a main window and any number of either floating windows or full screen views.
- Live view digital zoom allows a full view of recordings while the operator can digitally zoom in to see details.
- Supports 41 different view layouts optimized for 4:3 and 16:9 display settings in both landscape and portrait.
- Independent playback capability allows for instant playback of recorded video for one or more cameras, while in live mode.
- Centralized storage of shared and private camera views, enables coherent access to views across the system
- Possibility to instantly re-arrange cameras in views for optimized monitoring of incidents, with single click restore of original view.
- Seamless access to cameras in interconnected and federated systems.
- Instant camera placement in live view allows for instant replacement of cameras in a view, where new cameras can be placed in a particular view and positioned through a simple drag-and drop operation.
- Update on "motion only" optimizes CPU use by allowing motion detection to control whether the image should be decoded and displayed.
- Global hotspot function allows users to work in detail with any camera selected from any view
- Matrix function shows live video from multiple cameras in any view layout with customizable rotation paths, remotely controlled by computers sending matrix remote commands.
- Import static or active HTML maps for fast navigation to cameras and to provide a good overview of premises.
- Hide HTML page toolbar in HTML page views
- Activate matrix via graphical maps of premises using JavaScript or integrate with centralized access control systems.
- The operator can assign outputs, PTZ presets and views as actions to joystick buttons and as keyboard shortcuts.
- Two-way audio support enables Siveillance Video Client to record and play live audio from camera-connected microphones and outgoing audio from the operator's microphone to one or multiple camera speakers.
- Adaptive de-interlacing option secures high video quality, based on the actual video content received. Siveillance Video Client can optionally apply a filter to areas of the image where jagged edges would otherwise show up.
- Operators may start/stop manual recording on individual cameras, where the recording status is propagated to all Siveillance Video Client users active in the system.
- Support for live video play without recording storage
- Carousel function allows a specific view item to rotate between pre-defined cameras that are not necessarily present in the view at the same time. Operators can select default or custom display times for each camera, and they are able to manually switch to the next or previous camera in the carousel list

PTZ

- Control PTZ cameras by using.
 - PTZ preset positions
 - PTZ point-and-click control
 - Overlay buttons
 - PTZ zoom to a defined rectangle
 - Video overlaid PTZ control
 - Virtual joystick function
 - Joystick
 - Manage PTZ resets and patrolling profiles
 - Start, stop, and pause patrolling
 - View who has PTZ control and time to automatic release
 - Lock PTZ Control
- Take manual control of a PTZ camera that is running a patrolling scheme. After a timeout with no activity the camera reverts to its scheduled patrolling scheme.
- PTZ Camera specific icons to easier identify PTZ cameras
- Fisheye camera (Grandeye™/IPIX™) support for 1x2 or 2x2 "Quad View" for viewing all 360° at once 360° ImmerVision Enables® Panomorph lens technology

Playback

- Playback video from 1-100 cameras per computer monitor/view.
- Advanced video navigation includes fast/slow playback, jump to date/time, single step and video motion search.
- Integrated video timeline with time navigation and playback controls, including an integrated function to select a time interval for export, Evidence Lock or video retrieval from Edge Storage devices and interconnected systems.
- Overview of recorded sequences and bookmarks
- Independent playback capability allows the independent playback of recorded video from one or more cameras.
- Instant camera placement in playback view allows users to instantly replace cameras in a view, where a new camera can be placed in a particular view and position with a simple drag-and drop operation.
- Digital zoom allows the operator to see magnified details in the recorded video.

I/O and Events

- Overlay buttons provide intuitive control of cameras, camera-integrated devices and other integrated Systems directly from the camera view.
- Manually trigger output port relay operation, for example when controlling gates.
- Manually trigger events by activating a server-defined event from a list.

Bookmarking

- Manually define quick or detailed bookmarks with the bookmark function.
- Create bookmarks based on rules.
- Bookmarks are shown in timeline with instant preview.
- Listing and previewing of bookmarks in recording search.
- Bookmark reports enable effortless incident documentation.
- Direct video export of a bookmark reduces the time needed to prepare forensic video material.
- Search and apply filters to bookmarks (searching by camera and key words, and adding time frame)

Centralized Search

- Dedicated tab for centralized Search (replacing Sequence Explorer)
- Search categories are video sequences, bookmarks, motion, alarms, events and LPR
- Multi-category Search combines several search categories and third-party search agents in the same search query. When using multiple search categories, results can be sorted by relevance so that search results matching the highest number of search criteria are displayed on top
- Visualize location of Search result
- Save search templates including camera list and time scope
- Search data from Technology partner solutions integrated with search
- Easy application of filtering with dynamic update of search window

- Preview of selected search results with direct options for export of video, making bookmarks, exporting to pdf, and more
- Hide/show search results that are not matched on all search agents
- Search categories are video sequences, bookmarks, motion, alarms, events, people, vehicle, location and LPR (Note: - People, Vehicle and Location Limited to certain camera models that can perform video analytics and export ONVIF compliant metadata)

Evidence Lock

- Allows manual extension of video retention time for a selected set of cameras in a given time interval, where the operator selects an extended retention time from a pre-defined set of retention time options.
- Evidence Lock overrides defined retention and grooming policies.
- Headline and details information can be added to locked video sequences in order to enhance the manageability.
- Search, filter and listing functions provide an Overview of locked video and allows Siveillance Video Client users to manage locked evidence, including editing comments, modifying the extended retention time and removing the Evidence Lock.
- Locked video can be exported through a single step operation.

Export and Print

- The snapshot function enables operators to produce instant visual documentation of a camera by saving the camera image to a file or sending it directly to a printer.
- The storyboarding function makes it possible to include video sequences from different or overlapping time intervals from different cameras in the one and the same export.
- Export in Siveillance Video format; including the standalone Siveillance Video Client - Player application for instant and easy viewing by authorities.
- Export preview with looped playback
- Encryption and password protection of exported video material with a choice of following strong encryption algorithms: 56-bit DES 128, 192 and 256-bit AES.
- Secure video evidence handling with a digital signature of exported video material that enables users to verify the video has not been modified or tampered with when viewing the export in the Siveillance Video Client – Player.
- Create evidence material in media player format (AVI files), MKV format, or still image format (JPEG images).
- Disable re-export option to prevent undesirable distribution of sensitive evidence material.
- Bulk camera export in multiple formats to multiple destinations, including direct export to optical media, results in more efficient video exports and more secure handling of evidence material.
- Export comment function enables users to add general and/or camera-specific comments to a video export when exporting to Siveillance Video format.
- In media player format comments can be added as pre/post slides.
- Print incident reports including image, surveillance details and free-text user comments.

Incident Manager

- Automatically capture sequences (video and audio) that the operator views live when an incident occurs
- If needed, later add additional sequences from playback to the existing incident project
- Document the incident by adding additional information and selecting incident properties to:
 - Classify the incident for a better overview of the types and frequency of incidents, and for possible future incident prevention plans
- Have a robust set of evidence
- Create incident projects without sequences to store and manage all your incidents from just one system

Map function

- Built-in map function in Siveillance Video Client provides intuitive overview of the system and offers integrated access to all system components.
- Map images can be in standard graphic file formats including JPG, GIF, PNG and TIF.
- Any number of layered maps such as city, street, building and room.
- Instant camera preview on "mouse over" and one-click shows all cameras on map.
- One-click function to open floating window with all cameras (maximum 25 cameras) on the map.

- Depiction of camera view zones on map with clickable PTZ zones for instant PTZ control.
- Easy drag-and-drop and point-and-click definition of cameras, servers, microphones, speakers, I/O devices, hot-zones for map hierarchies, camera view zones and PTZ camera presets position view zones.
- Integrated control of speakers, microphones, and events and output I/O control, including doors, gates, light and access control systems.
- Real-time status monitoring indication from all system components including cameras, I/O devices, and system servers.
- Graphical visualization of the system status through color coding.
- Hierarchical propagation of status indications to higher ordered maps.
- Different levels of status indications available (alarm, warning, and errors).
- System performance data for cameras and servers including camera resolution, FPS, network use and disk space.
- Ability to suppress status indications (such as error and warning) for a given device.
- Possibility to edit device names in a map and assign map-specific names and references to devices in a map.
- Map editing subject to user rights.

Alarm Manager

- Dedicated dockable tab for the Alarm Manager
- Alarm list with extensive filtering capabilities and an alarm preview in both live and playback mode.
- Extensive alarm sort and filtering functions allow operators to focus on most critical alarms.
- Instant preview of primary and related cameras helps reduce the number of false alarms.
- Tight integration with the map function allows operators to indicate and acknowledge active alarms in the map.
- Alarm escalation and alarm forwarding possibilities allow operators with appropriate skills to handle different alarms.
- Alarm reports enable incident documentation.
- Alarm location map presents the alarm operator with a map showing the alarm area when an alarm is selected.
- Optional sound notifications for different alarm priorities for notification of new incoming alarm.
- Alarm disabling option enables users to suppress alarms from a given device in a certain time period.
- Instant access to both live and recorded video from the cameras that are related to the alarm.
- Alarm handling reports give valuable information about alarm inflow and alarm handling performance.
- Common alarm list for all interconnected sites.
- Global common alarm list for all sites in a Siveillance Video Federated Architecture.
- Desktop alarm notification linked to alarm manager
- Alarm notifications to a single or a groups of Siveillance Video Mobile Client users using Push Notifications

System Monitor

- Dedicated dockable tab with system performance and use information.
- Dashboard for task or component specific live monitoring
- System Monitor function gives actual and historic performance and use reports of storage availability, network use, and server and camera performance.

Setup and Management

- Download and install Siveillance Video Client from a web page on the management server.
- Notification about new updates at log-in.
- Application options allow users to adapt the layout and personalize the application to their preferences.

Authentication

- System log-in uses Microsoft Active Directory, local Windows, or a basic user account.
- Use current Windows logon for authentication
- Auto-log-in and auto-restore views.
- Dual authorization offers an optional additional level of system security, where Siveillance Video Client users are granted access to the system only when a second user or supervisor has confirmed the log-in with a successful authorization of the second user.

System

- Support for IPv4 and IPv6 addressing 64-bit Windows® operating system support enables better performance when viewing and operating many cameras.
- Support for multicast streams
- Hardware video decoding is done to significantly reduce the CPU load and improve performance of the recording servers. Siveillance Video supports video decoding done in the GPU part of the Intel CPU (requires CPU with support for Intel Quick Sync Video) and in the GPU of additional external NVIDIA cards

Siveillance Video Client - Player

- Play back recorded or archived video and audio evidence, including edited storyboard exports.
 - Same user-friendly interface and most functions as Siveillance Video Client.
 - Offers a simplified user interface with the possibility option to toggle between "Simple" and "Advanced" modes.
 - Instant one-click playback for easy viewing of exported video evidence.
 - Advanced second-level investigation tools make it easy to refine exported video and re-export the most essential evidence.
 - Metadata bounding boxes included in exports are displayed time synchronized in Siveillance Video Client – Player.
 - The project tool allows users to merge video exports or archives from two different locations or Siveillance Video systems together into one new export.
 - Camera search function promptly finds cameras, types of cameras and camera views in the system.
 - Scrollable activity timeline with magnifying feature.
 - Instant search on recordings based on date/time and activity/alarm (video motion detection).
 - Evidence can be generated as a printed report, a JPEG image, an AVI or MKV film or in Siveillance Video format.
 - Export audio recordings in WAV, MKV or AVI format.
 - Exported video can be digitally zoomed to view an area of interest and minimize export footprint size.
 - Re-export evidence containing Siveillance Video format and Siveillance Video Client - Player for instant, easy viewing by authorities.
 - Verification of digital signatures added in the recording server, or as a part of the export, enables users to verify that the video has not been modified or tampered with.
 - Encryption and password protection of exported video material with a choice of the following strong encryption algorithms: 256-bit AES.
 - Secure video evidence handling with a digital signature of re-exported video material enables users to verify that the video has not been modified or tampered with when viewing the export in Siveillance Video Client – Player
 - View, modify or add general and/or camera-specific comments for a given video export.
 - De-interlacing of video from analog cameras.
- IPIX technology for PTZ in 360° recorded images 360° ImmerVision Enables® panomorph lens technology.

Viewing Clients

- Customizable IP range & port with NAT support
- User Authorization (Local Windows Accounts, Microsoft™ Active Directory, Video Application Accounts)
- Assign ad-hoc content to Monitoring Wall (Alarms, Images, Bookmarks, Maps, Carousels)
- Customizable dashboard tiles with drilldown possibilities
- (E-mail, Alarm, Notification)
- Real-time system health monitor

Siveillance Video Web Client

- Two-way audio in web client
- Broadcast audio to multiple camera-connected speakers at once through Web Client
- Remote users can listen to, playback and export audio recordings remotely from anywhere through an Internet connection
- Access Siveillance Video views through the browser and avoid advanced setup.
- Shared views can be managed centrally via the server with administrator/user rights and user groups.
- Camera search function promptly finds cameras, types of cameras and camera views in the system.
- Easy video playback including fast/slow playback, single frame step and jump to date/time with frame preview while adjusting time.

- Option for client-side video decoding via browser plug-ins (please refer to www.siemens.com/siveillance-vms for details on supported browsers).
- Control PTZ cameras remotely, including preset positions.
- Dynamic bandwidth optimization when streaming from server to client gives better use of bandwidth
- Create AVI files or save JPEG images.
Preview exports on the server without downloading them.
- Export on the server to avoid moving large video files back and forth. Only download needed files or save them for downloading when on a faster connection.
- Trigger outputs and events with live view of related camera.
System log-in using Siveillance Video username and password.
- System log-in using Microsoft Active Directory user.
- Secure connection through HTTPS.
- No installation needed on client computer.
- Use organization's own Identity and Access Management system (Open ID Connect based) to authorize and authenticate users. It enables support for SSO.

Siveillance Video Mobile

- One & Two-way audio in Mobile client
- Audio support on video push enables users to push live video from the device's camera directly into
- Siveillance Video for stronger documentation of incidents.
- Supports any mobile device running Android or iOS.
- Adaptive streaming enables a lower resolution stream from the recording server to the Mobile Client when a high resolution is not required.
- Direct streaming supported meaning that the Mobile client can receive H.264 and H.265 directly from the recording server without transcoding in the Mobile Server, which is more efficient and provides a smoother experience
- Add log-in credentials for multiple servers in Siveillance Video Mobile to easily switch between sites or different connection addresses.
- Views are inherited from the connected Siveillance Video system. The client automatically obtains the
- user's private and shared views from the system to be used as camera lists in Siveillance Video Mobile.
- A view with all cameras is automatically generated, allowing Siveillance Video Mobile to be used when no views are set up. It also provides a quick way of searching through cameras.
- Timeline Search and Preview - The new recording timeline in Video Mobile is enhanced with an enlarged preview image when users scroll the timeline. This makes it easier to see the recorded footage and locate a relevant video sequence.
- Cameras can be viewed in full screen to take better advantage of the device's screen. It is also possible to search through cameras in a view while in full screen by swiping left or right.
- Digital pinch-to-zoom enables users to zoom in on a part of the image for closer review and conduct detailed investigation of video when using megapixel or high-definition cameras.
- Play back recordings from the database and select a specific time or recorded sequence to start playback, step through recordings and select a playback speed.
- Connect securely to the Siveillance Video Mobile Server using HTTPS encryption View recordings from the database while keeping an eye on what is currently happening. The client displays a live picture-in-picture frame of the same camera when in playback mode. The picture-in-picture can be moved by dragging and double-tapping will return to live view.
- Control PTZ cameras with Siveillance Video Mobile either manually or by selecting predefined presets for quick navigation.
- Camera search function promptly finds cameras, types of cameras and camera views in the system.
- Video Push allows users to use their mobile devices' cameras as cameras in the Siveillance Video. Easy to use and requires no setup in the mobile device.
- Option to include location metadata in Video Push
- Option to record audio during Video Push
- Trigger outputs and events:
- Mobile devices can trigger outputs connected to the Siveillance Video, or user-defined events to have greater control while on the go.
- Export on the server to avoid moving large video files back and forth. Only download needed files or save them for downloading when on a faster connection.
- Receive alarm notifications using Push Notifications, notifications include access to video, alarm information and instructions
- Investigation function to access investigations done in the Web client

- System log-in using Siveillance Video username and password. Possible to change basic user password via a link from the login dialogue box.
- System log-in using Microsoft Active Directory user
- Support for two-step log-in verification
- Support of biometric authentication for log-in for Android and iOS devices
- MDM (Mobile Device Management) support for Android and iOS devices
- Use organization's own Identity and Access Management system (Open ID Connect based) to authorize and authenticate users. It enables support for SSO

Audio

- AAC Audio Communication (Full Duplex, Half Duplex)
- Audio Recording (Half Duplex)
- Unlimited audio channels

Siveillance Video Monitoring Wall System

- Hardware independent, it runs on standard servers and displays. No special Monitoring wall hardware or network configurations required.
- Flexible and scalable, it supports multiple Siveillance Video Monitoring Walls with an unlimited number and combination of monitors at any location.
- Maximum number of video streams per display -100
- Enable Rule-based control (Layout/Content)
- Presets for display layouts and camera content
- Enable Rule-based control (Layout/Content)
- Rule-based bookmarking
- Manual bookmarking (Quick bookmark and Bookmark with details)

Management

- Management of Siveillance Video Monitoring Wall is fully integrated with the Management Client.
- Intuitive Siveillance Video Monitoring Wall builder enables easy definition of any number of
- Siveillance Video Monitoring Walls, including the size and position of individual monitors.
- Siveillance Video Monitoring Wall presets provide powerful control of the layout (camera grid) and camera content.
- All user actions are subject to the assignment of user rights.

Control

- Dynamic user control of Siveillance Video Monitoring Wall layout and content through manual drag-and-drop of cameras and views into Siveillance Video Monitoring Wall via Siveillance Video Client.
- Automatic event-driven control of Siveillance Video Monitoring Wall layout and content based on rules, such as motion detection, I/O, integrated third-party applications, time, or video analytics events.
- Layout control enables instant insertion of a camera in a specific monitor and position, changes of Siveillance Video Monitoring Wall monitor layout, setting of all (or some) of the monitors in Siveillance Video Monitoring Wall to a predefined layout and set of camera feeds.
- Intuitive integration with the map function enables users to easily drag-and-drop cameras into Siveillance Video Monitoring Wall from the map.
- Supports seamless manual or rule-based display of any camera in a distributed setup based on Siveillance Video Federated Architecture or Siveillance Video Interconnect.

View

- Individual Siveillance Video Client users can view Siveillance Video Monitoring Wall views as a part of the available view selection, which enables Siveillance Video Monitoring Wall to be used as an operator collaboration tool.
- Share important information with control room personnel using manual text messages or pre- defined messages that are displayed on certain events and incidents.
- Black screen monitoring is a new capability that allows operators to focus on critical activities. In siveillance Video cameras can automatically be removed from the Monitor Wall when an incident has been cleared. This means that the control room operators only are presented with the relevant video feeds.
- In addition to live video Siveillance Video's Monitor Wall supports playback of video, where any authorized operator seamlessly can control playback of video from his/her Video Client. This enables collaboration in assessment of incidents and investigations.
- To enable flexible and efficient collaboration in control rooms the Siveillance Video's Monitor Wall supports a wide set of different content. This means that operators instantly can share alarms, still images,
- bookmarks, maps, carousels, etc. with peers, and coordinate effort and responses.
- Siveillance Video Monitoring Wall has the ability to render video using hardware accelerated decoding in the Monitor Wall. This gives significant performance improvements both in video rendering performance, reduced RAM usage and up to 75% reduction in the CPU load of the workstation running the Siveillance Video's Monitor wall.

Licensing Structure

Server Base License

- A Siveillance Video Pro server base license is mandatory for installing the product
- The base server license permits the following deployments within the legal entity purchasing the base server license:
 - Unlimited number of Management Servers
 - Unlimited number of Recording Servers
 - Unlimited number of Siveillance Video Clients, Siveillance Video Web Clients and Siveillance Video Mobile applications

Hardware Device License

- To connect cameras, audio devices, video encoders and other devices to Siveillance Video Pro, one license per physical hardware devices required. In total, for all copies of the product installed under this license, the product may only be used with hardware devices as you have purchased hardware device licenses for (For encoders, please refer the Supported Hardware webpage for license requirements)
- An unlimited number of hardware device licenses can be purchased. To extend an installation with additional hardware device licenses, the base server license number (SLC) is required when ordering
- New license enforcement logic enables simplified licensing handling:
- Off-line systems require initial activation and re-activation at extensions 15% (min 10/max 100) cameras may be replaced per year without re-activation (e.g., if the customer is licensed with 500 cameras, then 15% of 500 which is 75 cameras can be replaced without re-activation and if the cameras are 2000 then maximum of 100 (as 15% of 2000 is 300 which is greater than 100) cameras can be replaced without re-activation.)

Licensing of Siveillance Video Interconnect

- One Siveillance Video Interconnect device license is required per device (e.g., camera) in an interconnected site that is enabled in the central Siveillance Video Pro system

Licensing of Siveillance Video Federated Architecture

- The use of Siveillance Video Federated Architecture is free and not subject to licensing. This implies that unlimited sites and cameras can be included in the federated hierarchy, without the need for additional or special licenses

Siveillance Video Monitoring Wall Application License

- Siveillance Video Monitoring Wall is an add-on product that is included in the base license of Siveillance Video Pro, which permits connection of unlimited numbers of Siveillance Video monitoring Walls (including physical displays) and camera feeds

Siveillance Video Incident Manager Application License

- Siveillance Video Incident Manager is an add-on product that is included in the base license of Siveillance Video Pro

Note to Value Added Partners:

Certain links in this document may not work for you because they direct to Siemens internal information. Please get in touch with your local Siemens partner for relevant information.

Cybersecurity Disclaimer

Siemens provides a portfolio of products, solutions, systems and services that includes security functions that support the secure operation of plants, systems, machines and networks. In the field of Building Technologies, this includes building automation and control, fire safety, security management as well as physical security systems.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art security concept. Siemens' portfolio only forms one element of such a concept.

You are responsible for preventing unauthorized access to your plants, systems, machines and networks which should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. Additionally, Siemens' guidance on appropriate security measures should be taken into account. For additional information, please contact your Siemens sales representative or visit <https://www.siemens.com/global/en/home/company/topic-areas/future-of-manufacturing/industrial-security.html>

Siemens' portfolio undergoes continuous development to make it more secure. Siemens strongly recommends that updates are applied as soon as they are available and that the latest versions are used. Use of versions that are no longer supported, and failure to apply the latest updates may increase your exposure to cyber threats. Siemens strongly recommends to comply with security advisories on the latest security threats, patches and other related measures, published, among others, under <http://www.siemens.com/cert/en/cert-security-advisories.htm>

Issued by

Siemens Schweiz AG
Smart Infrastructure Division
International Headquarters
Theilerstrasse 1 a
CH-6300 Zug, Switzerland
Tel. +41 41 724 24 24