LumiCenter Video Management System

NDAA COMPLIANT

Overview

LumiCenter is a state-of-the-art video management software (VMS) designed to seamlessly integrate surveillance cameras, AI-based analytics, and robust server software with web clients and mobile applications.

With highly customizable features and flexible scaling, LumiCenter eliminates the common frustrations of most video management systems and provides a streamlined, intelligent solution to video monitoring and management.

Key Benefits

- Integrates and manages multiple surveillance systems within one interface
- Receive alerts to predict potential security threats before they escalate
- Scalable without requiring significant additional investment
- Robust failover capabilities
- Dynamic Map Navigation and Event Response systems for quick access to video feeds and automated control

Key Features

All-in-One Control Interface

LumiCenter can effectively manage multiple systems within a single interface. It acts as a systems integration hub by connecting to a variety of devices such as access control readers and alarms.

Seamless Integration

Faillover and GPU acceleration ensure efficient, continuous operation and prevent downtime and unnecessary operational costs.

Advanced Analytics

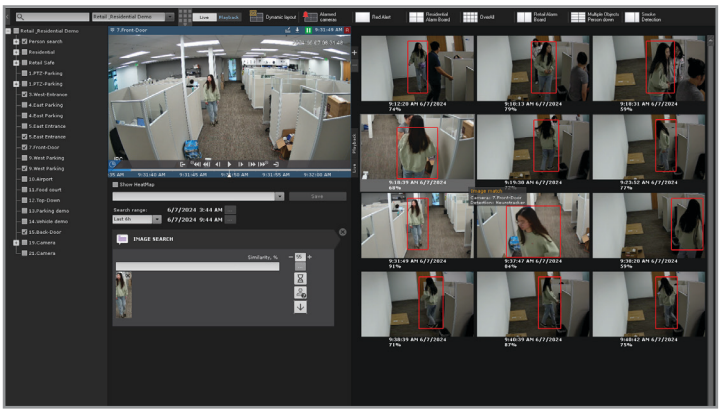
LumiCenter can monitor and analyze videos in real time for quick responses. Its advanced algorithms take into account characteristics such as posture and movement to detect potential threats.

Real-Time Monitoring and Event Management

LumiCenter's intuitive mapping system lets you locate cameras easily. Responses to specific security events can be automated, reducing required manpower and ensuring fast, accurate responses to incidents.

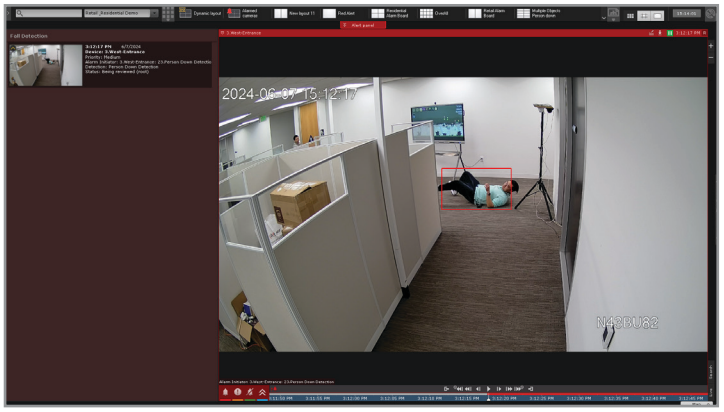
A Look at the Software

LumiCenter allows for seamless, streamlined video monitoring with its smart UX design. The software's advanced analytics provide comprehensive video metadata from multiple cameras with different video viewing options.



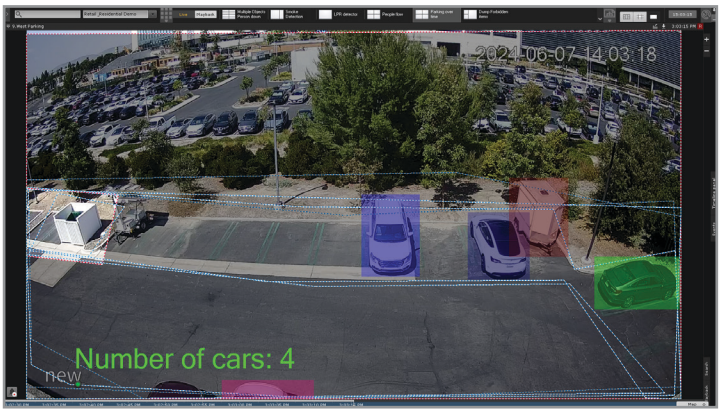
LumiSearch VMS

Harness the power of AI-driven video analytics with LumiSearch VMS. Exclusive to and included with LumiCenter Max, this add-on module enables LumiCenter to extract apperance attributes such as clothing type and color and store them in a database. Users can then select or upload an image and find visually similar individuals within stored video, streamlining investigations and enhancing surveillance efficiency.



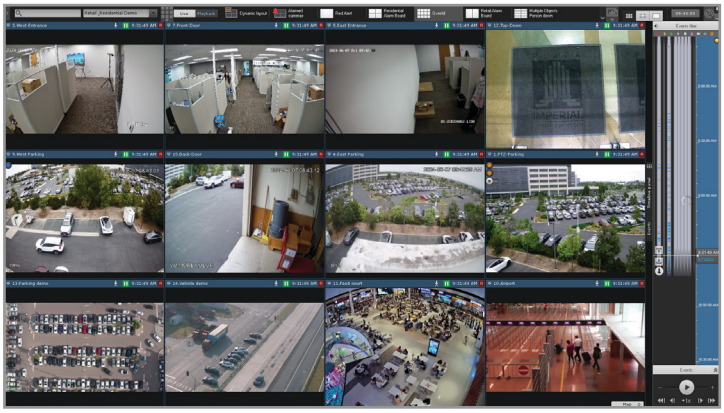
AI Tracker

The LumiCenter AI Tracker Channel (LCE-AIT) integrates seamlessly with LumiCenter Plus or Max and provides advanced AI-driven features such as MomentQuest Intelligent Foresenic Search, data reports, and human/vehicle detection to enhance video surveillance capabilities.



Vehicle Detection and Counting

LumiCenter can track vehicular objects with its vehicle detection and counting functionality. See how many cars are in an area at any given time and highlight specific cars to track.



Live View of Multiple Cameras

LumiCenter streamlines watching video from multiple cameras by combining them into one video wall. No toggling between cameras is required, making full situational awareness possible.

Technical Specifications

Maximum Number of

Servers in the distributed system	Up to 30 for Basic and Plus; Unlimited for Max
Clients which support simultaneous connection to the server	Unlimited
Servers which simultaneously transmit video images to a client	Unlimited
Camera views displayed simultaneously on a clients screen	Unlimited
Video input channels per server	Unlimited
Simultaneously processed signals from microphones	Unlimited
Audio output channels (speakers, headphones, etc.)	Refer to your sound card specifications
PTZ devices used	Unlimited
Event sources (POS devices)	Unlimited
Objects simultaneously tracked by the Object tracker	Unlimited
License plate recognition channels	Unlimited
Face recognition channels	Unlimited

Device Support

IP Devices	More than 3,000 models supported including proprietary protocols and ONVIF profiles G, M, S and T
Analog Devices	Supported via DVRs and encoders
CPU	32-bit (x86), 64-bit (x64)

Video

Video compression algorithms	MJPEG, MPEG-2, MPEG-4, MxPEG, H.264, H.265, Motion Wavelet
Maximum resolution support	8MP (4K)
Embedded video camera video analytics	Supported
Touch-sensitive monitors	Supported

Core Functions

- Automated device discovery
- Pre-event video recording
- Simultaneous recording to storage and real-time surveillance
- Capability to use different streams from a camera for recording and display
- Capability to choose the write location and recording parameters for various cameras events
- Synchronous playback of video footage recorded by several cameras
- Playback with fast- or slow-motion in forward or reverse
- Audio and video analytics
- Archive navigation through events recognized by video analytics or tagged by operators
- Event-driven response scenarios: recording, alarm generation, activation of relays and starting PTZ camera through user defined presets, notifications via SMS, e-mail, or through camera speaker output. Continuous or alarm recording (including initiated by an operator)
- Multi-level user rights
- Support for widescreen displays and cameras, and touch screen displays
- Interface Languages: English, French, Spanish

Special Features

- Cloud service for remote monitoring and situational awareness
- Deep learning video analytics (fire and smoke detection, human and vehicle detection).
- Multiple criteria forensic search of recorded video
- Face and license plate search
- Motion events summary
- AutoStream™ bandwidth optimization technology
- Support for Intel Quick Sync hardware video decoding
- UDP and multicast video streaming
- Motion detection recording by default
- Bulk configuration of cameras
- Support for LDAP authentication
- SolidStore a proprietary highly-efficient file system for video storage
- Micromodule-based and decentralized architecture for unprecedented reliability
- Supported failover redundancy types: 1+1, N+1, N+M

System Requirements

It is strongly recommended to install the latest updates for your operating system prior to using LumiCenter. Only 64-bit versions of operating systems are supported.

Servers

Windows OS

- Windows 11[3]: Home, Pro, Education, Pro Education, Pro for Workstations, Enterprise
- Windows 10: Pro, Enterprise, Education, Home Edition
- Windows 10 IoT[2]: Enterprise, Enterprise LTSB 2016, Enterprise LTSC 2019

Windows Server OS

- Windows Server 2022[3]: Standard, Essentials, Datacenter, Azure Datacenter
- Windows Server 2019[3]: Essentials[1], Standard, Datacenter
- Windows Server IoT 2019[3]

Linux OS (Available Upon Request)

- Ubuntu: 22, 20, 19, 18
- Debian: 12, 11, 10

Clients

Desktop Client

- Windows 10
- Windows 11

Web Client

- Google Chrome
- Latest version of Windows 10 and 11

Mobile Application

- iOS 15.0 or higher
- Android OS 5.0 or higher

Use the LumiCenter Server Calculator on our official website to determine the best hardware configuration, analytics, and storage options for your application.

1. There are restrictions depending on the OS edition. See http://www.microsoft.com for more information.
2. Core edition is not supported.
3. Full Installation type is supported. Server core installation type is not supported.

Tier Comparison

LumiCenter comes in three different tiers to accomodate every type of application. Consult the table below to find out which option is most suitable for your purposes.

Feature	Basic	Plus	Max
Maximum Number of Distributed Servers	30	30	Unlimited
Maximum Number of Cameras	Unlimited	Unlimited	Unlimited
Real-Time Analytics (Object Tracker)	✓	✓	✓
Edge Analytics (Camera Metadata)	✓	✓	✓
Edge Storage (Playback Only)	✓	✓	✓
AutoStream™ Adaptive Bandwidth Management	✓	✓	✓
Interactive 3D Map	✓	✓	✓
Web Client	✓	✓	✓
Timeslice Search (Search by Time Interval)	✓	✓	✓
Privacy Masking	✓	✓	✓
Macros (Event-Response Scenarios)	✓	✓	✓
ONVIF Profiles G, S, T, M	✓	✓	✓
Video Bookmarking (Searchable Text Comments)	✓	✓	✓
PanoMerge™	✓	✓	✓
LumiCenter Net (Cloud Service)		✓	✓
Reports		✓	✓
Cross-System Client		✓	✓
Video Wall		✓	✓
LumiSearch VMS			✓
Storage Replication			✓
Failover			✓
LDAP Service			✓

LumiCenter also offers the ability to add features per channel license. Consult the chart below to see what features are available at each tier for add-ons.

Add-On Module	Basic	Plus	Max
Access Control*	✓	✓	✓
AI Tracker		✓	Included
Face Recognition		✓	✓
LPR Search		✓	✓
LPR		✓	✓
LumiCenter PPE		✓	✓

*The access control add-on is sold per reader.

Ordering Information

LumiCenter License

There are three variants for LumiCenter VMS. Each license enables video capture, display, record, transmit and playback of one video channel from an IP camera or IP device. Additional functionality is included (I/O, audio, PTZ).

SKU	Product
LCE-BASV	LumiCenter Basic Version
LSC-PLSV	LumiCenter Plus Version
LSC-MAXV	LumiCenter Max Version

LumiCenter Add-On Modules

Each video channel requires a LumiCenter license to support add-on modules.

SKU	Add-On	Description
LCE-AC	Access Control Channel	Enables LumiCenter Basic, Plus and Max to connect with access control systems to monitor events and control readers. ⓘ LumiCenter supports up to 50 access control readers per server.
LCE-AIT	AI Tracker Channel	Enables AI-driven features (MomentQuest Intelligent Forensic Search, human/vehicle detection, data reports, heat map generation, queue detection) for LumiCenter Plus and Max. ⓘ This module is included with LumiCenter Max.
LCE-FR	Face Recognition Channel	Enables LumiCenter Plus and Max to run facial recognition in real time from any surveillance camera and instantly compare individuals captured on footage against a watchlist of individuals. The facial recognition module can send notification alerts (UI, Text, Email, API) when a certain person matches the positive/negative lists. Watchlist enrollment database size is not limited by license and can be synchronized to the cloud. The module can initiate opening a door or other actions running a macro to automate tasks. A LumiCenter video license is required for each camera in addition to this add-on module.
LCE-FR10	Face Recognition - 10 Pack	Enables LumiCenter Plus and Max to run facial recognition in real time for up to 10 cameras/channels and instantly compare individuals captured on footage against a watchlist of individuals. The facial recognition module can send notification alerts (UI, Text, Email, API) when a certain person matches the positive/negative lists. Watchlist enrollment database size is not limited by license and can be synchronized to the cloud. The module can initiate opening a door or other actions running a macro to automate tasks. A LumiCenter video license is required for each camera in addition to this add-on module.
LCE-LPR	LPR Channel	Enables LumiCenter Plus and Max to run vehicle license plate analysis in real time from any surveillance cameras and send notification alerts (UI, Text, Email, API) when a certain license plate is detected from positive/negative lists. The module can initiate opening gates or other actions running a macro to automate tasks. It also allows searching for license plates in the archives. A LumiCenter video license is required for each camera in addition to this add-on module.
LCE-LPRS	LPR Search Channel	Enables LumiCenter Plus and Max to search license plates in the video archive.

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