

# SSM

## Total Management Software



### Professional / Enterprise

- System Manager
- Media Gateway
- Recording Server
- Virtual Matrix
- Screen Mirroring
- Transaction Server
- Transcoder
- Federation
- Failover Server

# TOTAL MANAGEMENT SOFTWARE

## SSM Features

SSM is a one-stop management software platform that maximizes the efficiency of Wisenet network products.

- **Centralized Management**

The system manager can configure all servers, cameras, recorders as one system in one UI and setup user/group policy for all systems.

- **Distributed Computing Architecture**

By module-based system architecture, SSM can fit on from small to large system because various combinations of modules can meet any end-user needs and system requirements.

- **Extended Scalability**

In addition to small biz site, SSM provides a suitable solution for enterprise site with numerous features for high-end market such as federation, failover, 3rd party integration and so on.

- **Guaranteed Reliability**

Because reliability is the key of surveillance system, SSM will keep your system alive at any time through 1-n failover system, auto network-fail recovery (ARB) and full system dashboard.

- **Flexible System Integration**

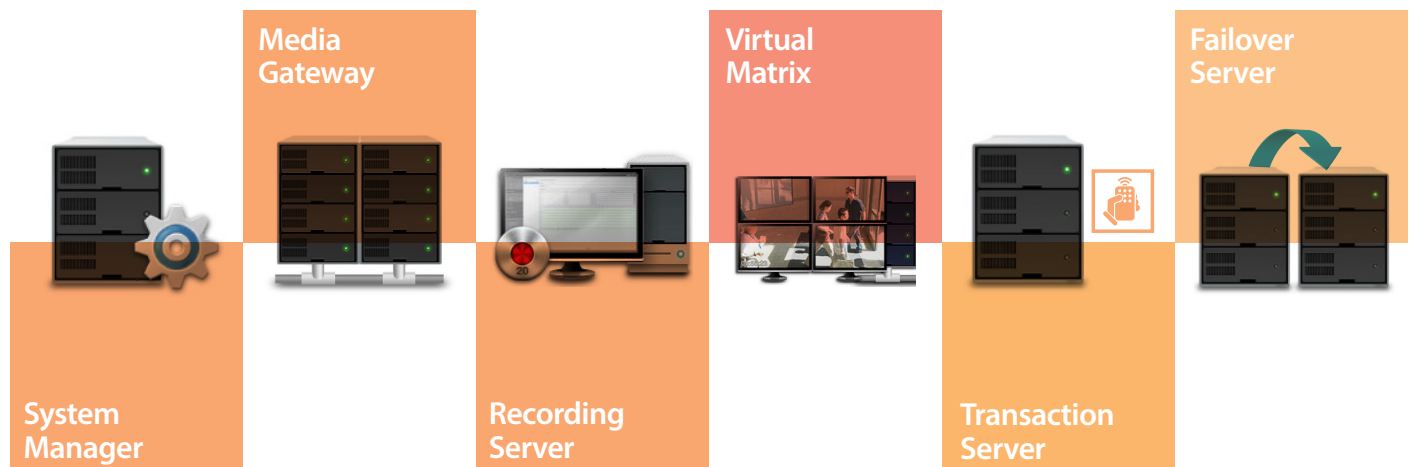
With Transaction server, 3rd party system like access control and intrusion detection will be easily integrated with SSM as one solution.

- **Efficient Monitoring**

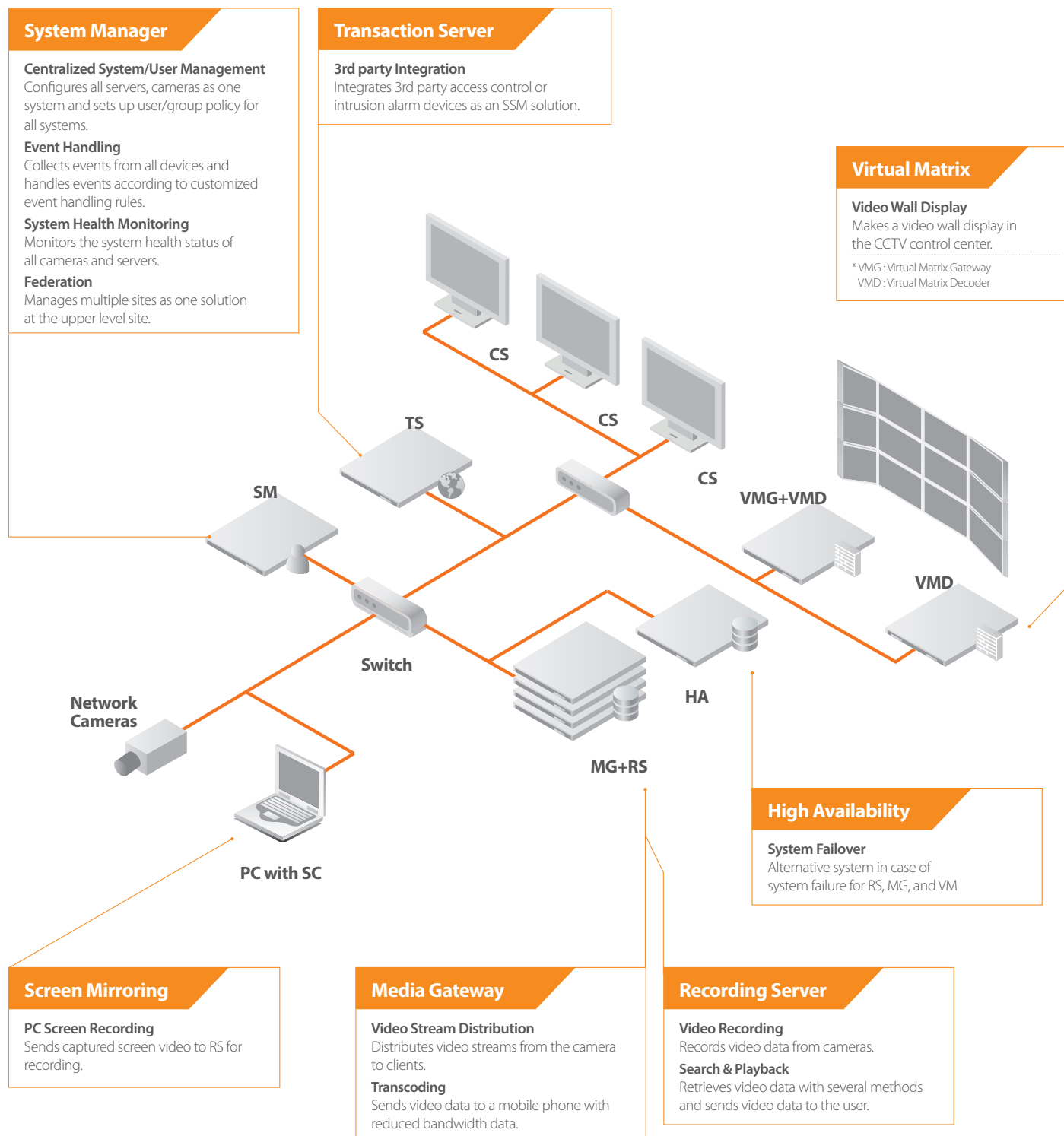
Event action triggered by rule, event-centered monitoring and processing support make operators to focus only on a meaningful subject.

- **Powerful Search Engine**

9 types of search methods make operators find evidences very quickly and easily. Especially Video Summary feature shows 1 minute video clip for 24 hours.



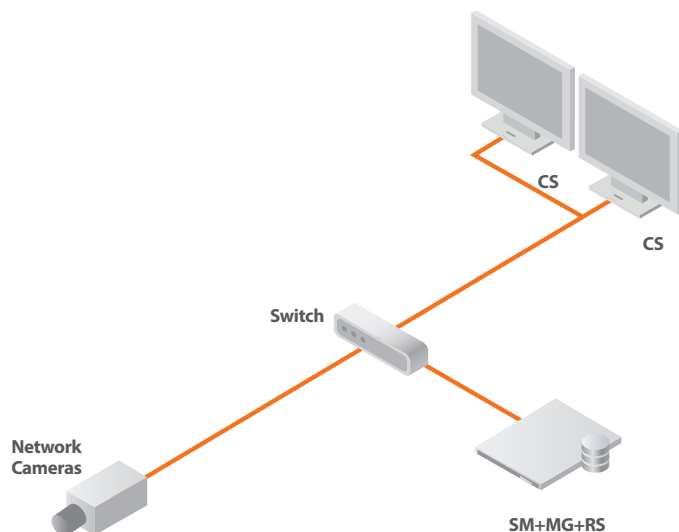
# SSM System Overview



# TOTAL MANAGEMENT SOFTWARE

## Small System

Up to 100 cameras, suitable for applications such as Commercial Building, Education, Government Offices (City Hall, Museum, Library and more)

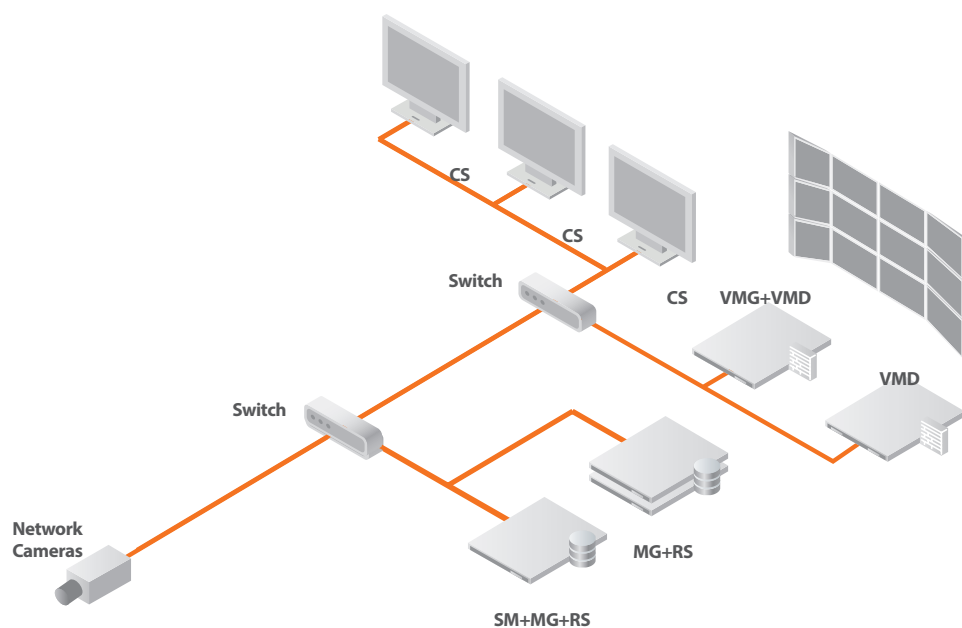


### Network Camera + Server Recording System

- Only one SM needs to be installed for a surveillance solution.
- If a server is used RS, SM and MG is preferred to be installed to that server.
- Even though it depends on performance of the server, one server can handle a solution under 100 cameras.

## Mid System

Up to 300 cameras, suitable for applications such as Industrial Factory, Public Utilities, Commercial Building, Healthcare, Sports Complex, Prison



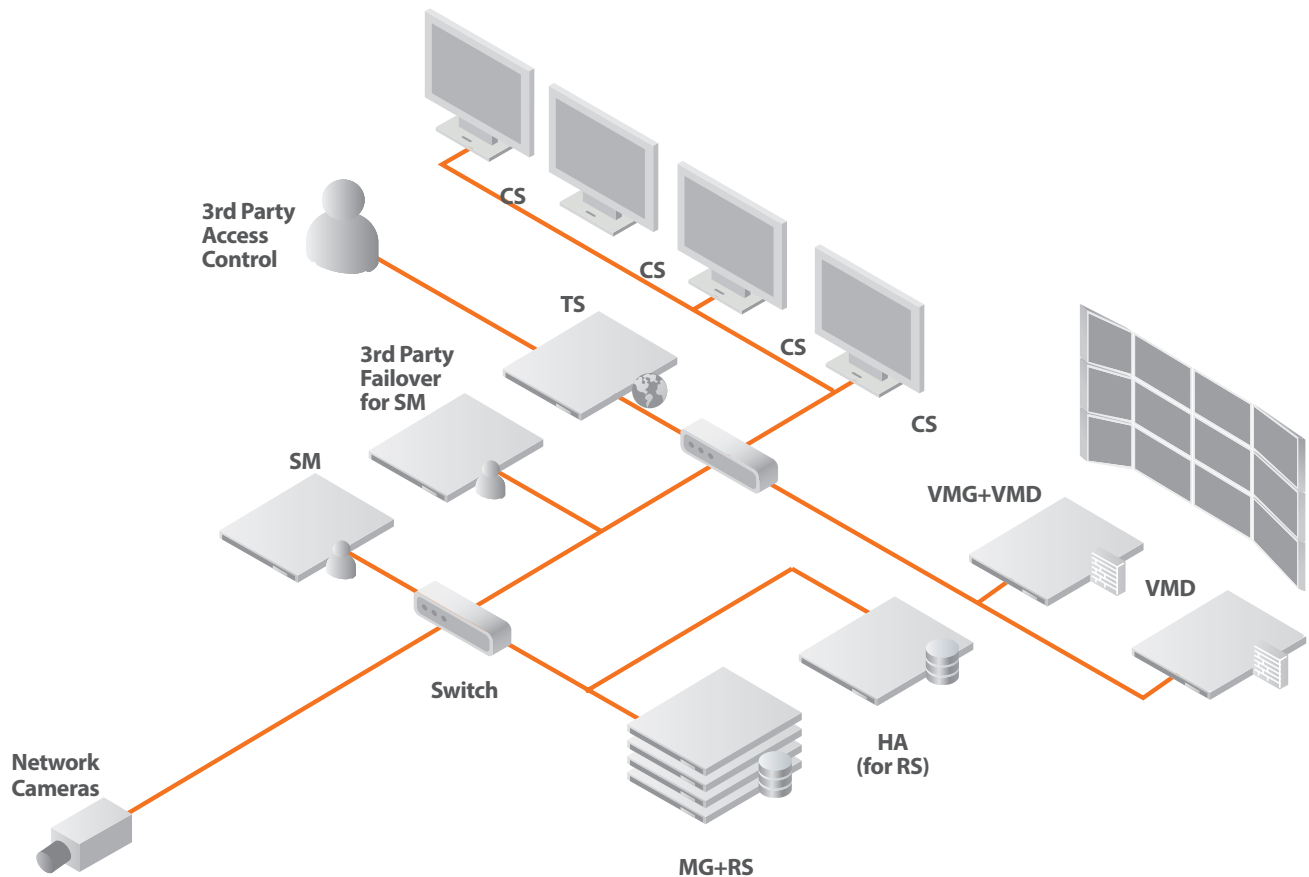
### Network Camera + Server Recording + Video Wall System

- Only one SM needs to be installed on site.
- SM is not needed to be installed to a separated server but can be installed with a recording server.
- MG and RS can be installed to a server.
- Only one VMG needs to be installed on site and it can be installed with VMD.
- For video wall system, a display server with 4 or more monitor output is commonly used instead of the expensive server that has RAID storage system.



## Enterprise System

More than 300 cameras, suitable for applications such as Airport, Convention Center, Railway, Port, Casino



### Network Camera + Server Recording + Video Wall + Failover + Access Control System

- SM is recommended to be installed at a separated server because it might need more performance for handling a mid to high site which may cause unstable recording.
- Failover system for SM and RS is recommended for stable system operation and redundancy for video data.
- TS is needed for integration with a 3rd party access control or intruder alarm system

# SERVER FEATURES

## Multi-site / Multi-client monitoring

Conventional monitoring solutions have an on-site administrator to control the local devices; this can limit the scope when expanding the monitoring system. The SSM supports multi-site / multi-client monitoring that removes this limitation making it suited for mid to large sized monitoring applications.

### Expandability

Wisenet network connected products are registered and managed by SSM server. The server can search the connected equipment, support health checks and upgrade each device to ensure that they are maintained in the best condition.

### Reliability and Security

Individual sites, users and user group management is controlled by the system manager. With this level of authorization access and management, certain sites or devices and management function can be controlled at the user level.



## Virtual Matrix

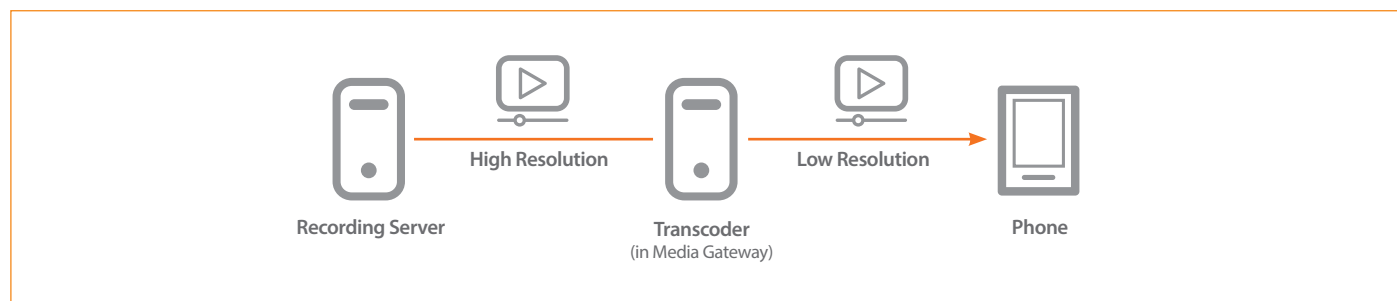
SSM Virtual Matrix is designed to control wall-monitors and ensures that operators maintain a complete control of all monitors, allowing immediate video view control and switching event video to resolve incidents fast.

- Provide sequence, event and map monitoring mode for more efficient monitoring.
- Multi monitors can be merged as one monitor without any additional devices.



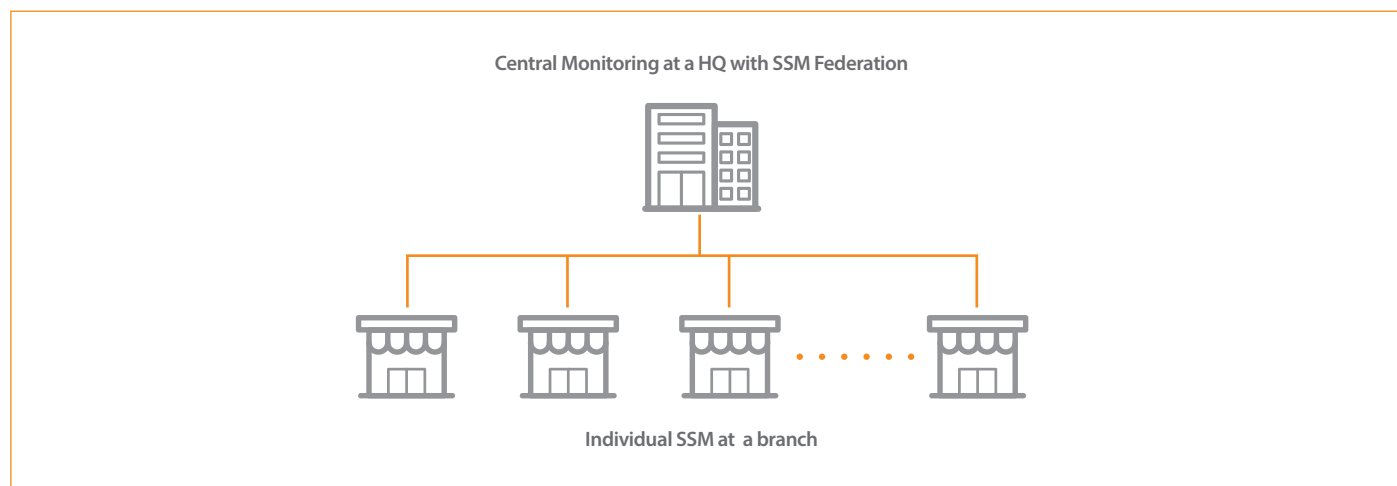
## Transcoder

In mobile environment, recorded video with high resolution and framerate cannot be played because of bandwidth limitation. Transcoder transcodes the recorded video to a lower bandwidth stream for more reliable monitoring.



## Federation

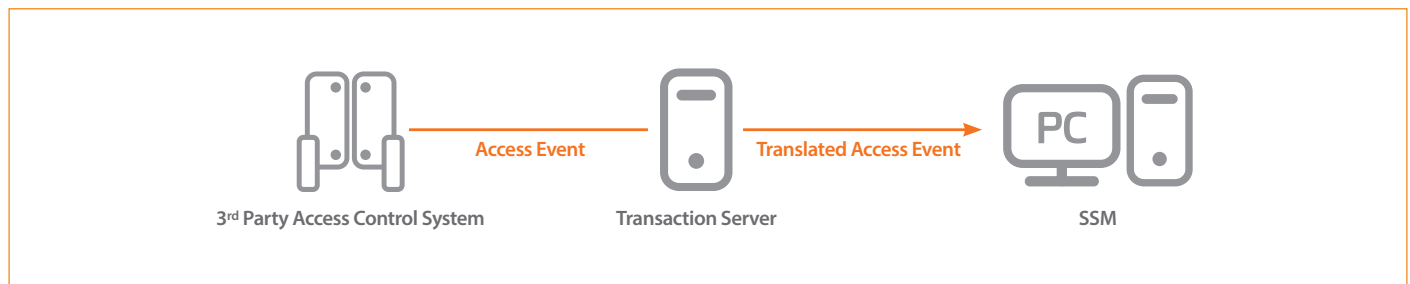
SSM's Federation feature makes it possible to connect geographically distributed, independent SSM systems to mimic a larger system. All systems are managed independently, easing the problem of managing a single, centralized system, yet providing the benefits of centralized systems. Connecting two SSM systems takes less than a minute and users will be able to access the remote system's live and recorded video as if it is a local system.



# SERVER FEATURES

## Transaction Server

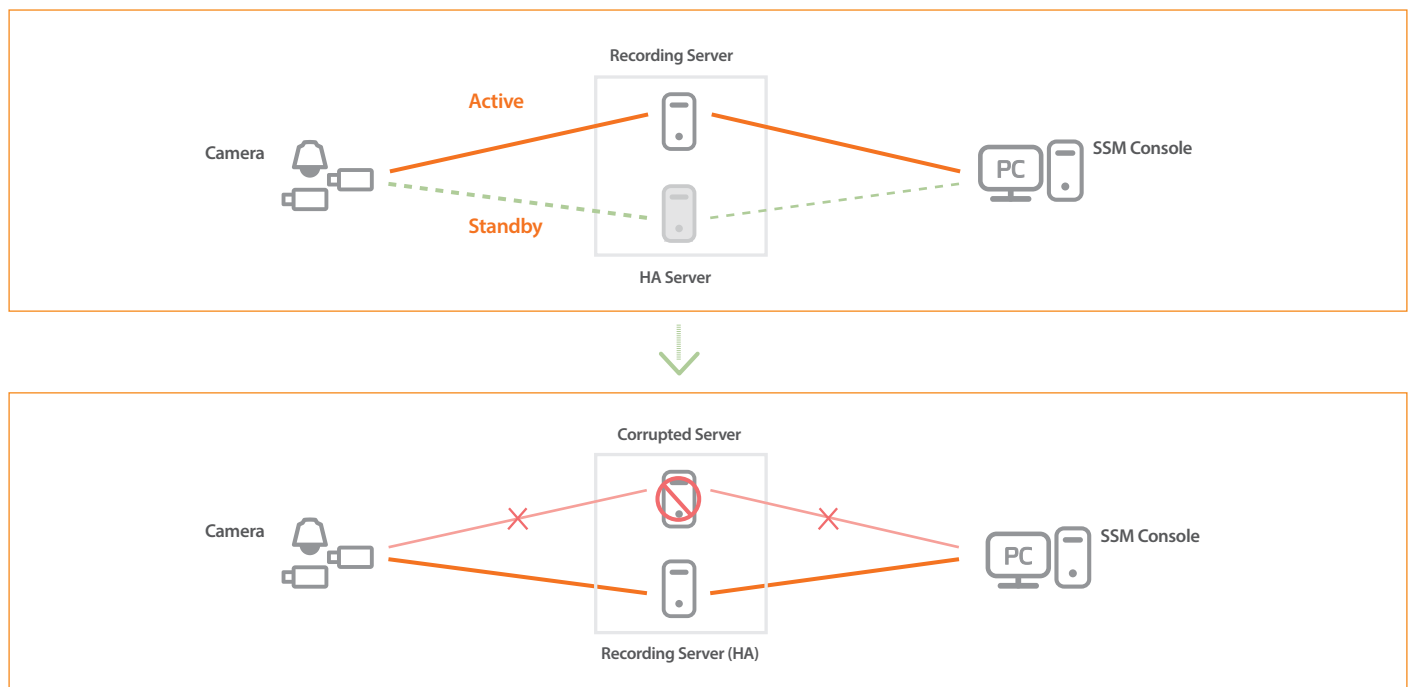
Transaction Server is an interface between SSM and a third-party system such as access control or intrusion alarm system. It makes SSM be an enterprise system that generally needs system integration with those systems.



## HA(Failover) Server

For the sustainable system operation, HA server acts like a watchdog for SSM servers and if a server is corrupted by the network or system itself, HA takes over the role of the system. After recovering the corrupted system, HA will automatically hand over vice versa.

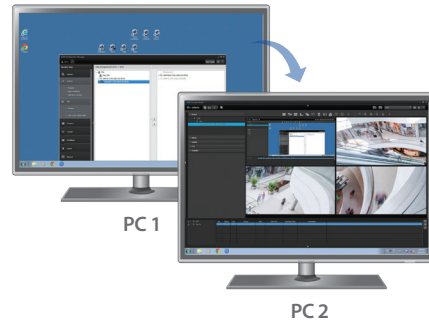
- HA is ready for Recording Server, Media Gateway and Virtual Matrix.
- For cost reduction, a single HA can watch multi servers because all servers are seldom corrupted simultaneously.





## Screen Mirroring

The screen of a PC with Screen Mirroring can be displayed on a console or video wall with Virtual Matrix Server and can be recorded in Recording server. This is used for making video evidence of third party software like building management software, energy system, PoS system and so on.



## Recording Server

SSM RS is designed for easy and efficient recording of network cameras.

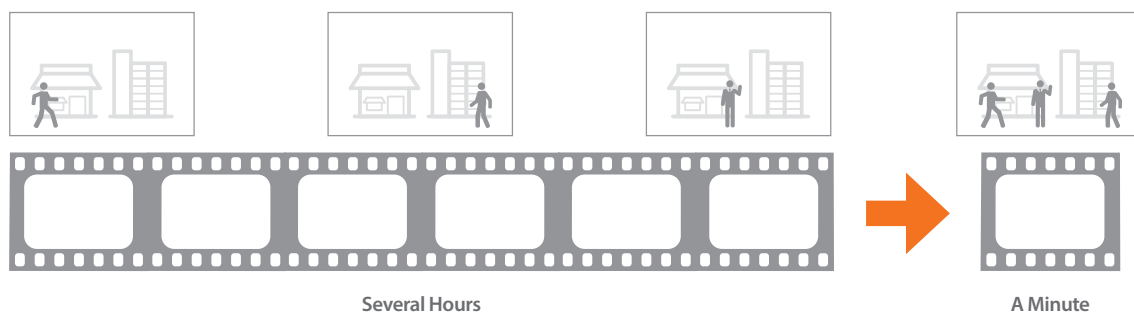
It supports simultaneous 16CH live stream and real-time recording. SSM Professional version offers a free promotional SW license.

\* Promotional SW license can store up to 16 cameras for free. The maximum storage period is 15 days.



## Video Summary

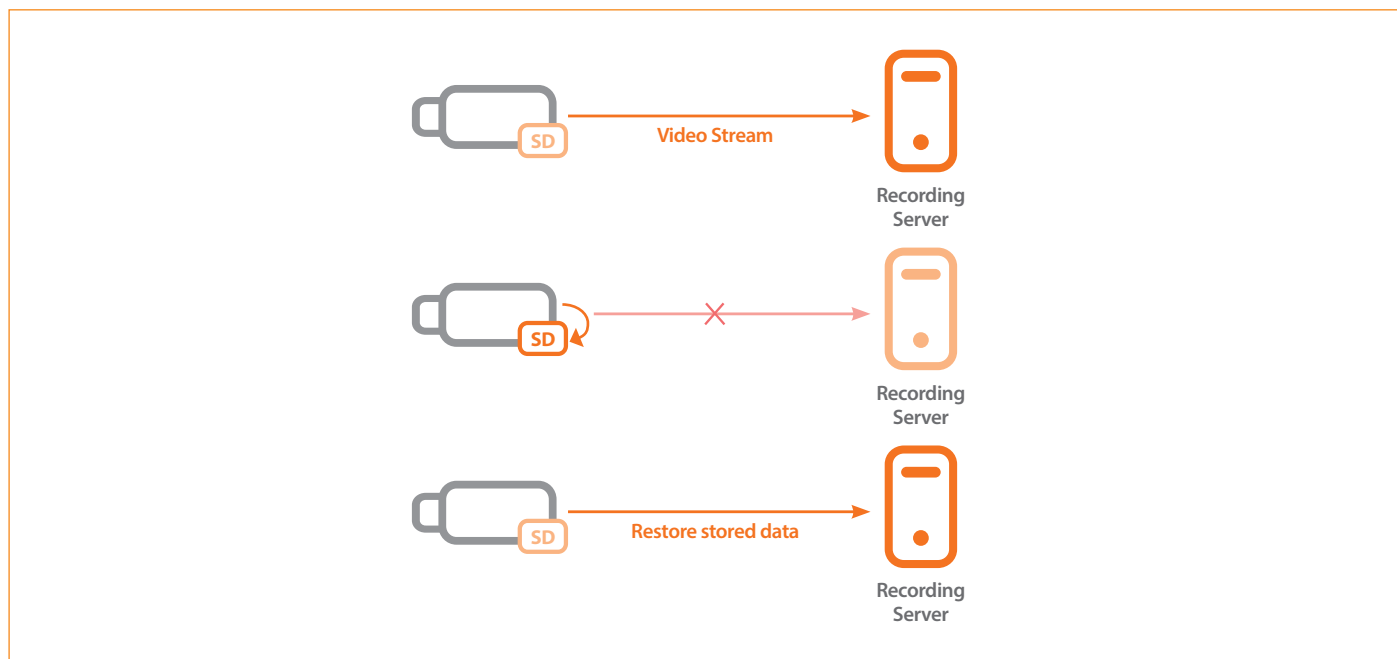
For rapid video evidence search, Video Summary provides several minute-long video clips for several hours-long video data. It shows only meaning moving objects at extremely reduced time.



# SERVER FEATURES

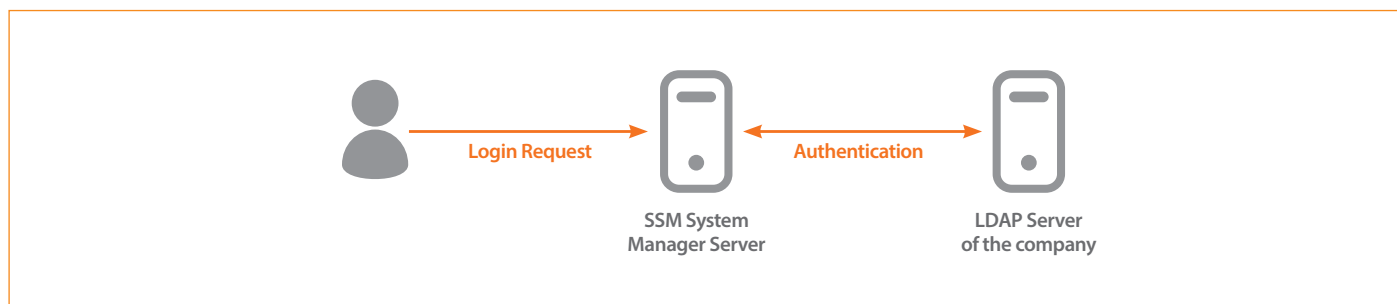
## Auto Recovery Backup

In case of network failure, video data from a camera cannot be streamed to Recording Server so important evidence may be missed. However Auto Recovery Backup feature enables the camera to store video data to the SD Card on the camera and when the network comes up the camera sends the stored data to the Recording Server for recording reliability.



## LDAP Integration

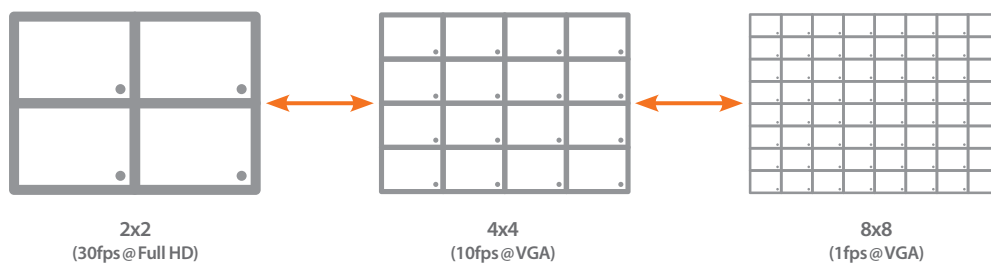
Companies usually use their own user authority policy so additional user setup for SSM could be time consuming job. SSM support LDAP so that it can utilize company's pre-defined user authority system such as MS Active Directory.



# CONSOLE FEATURES

## Bandwidth and performance optimized live monitoring

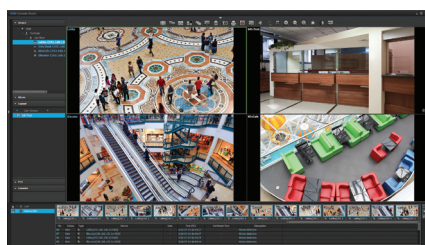
For efficient and reliable monitoring, SSM provide automatic profile change feature in which a high profile video stream is displayed on a big picture screen format such as 1x1, 2x2 and low profile is displayed on a small picture screen format automatically. This is very effective because high profile video quality is not needed on a small picture screen. For screen format like 6x6 or 8x8, 'I-frame only' can be a more comprehensive option because of PC performance limitation.



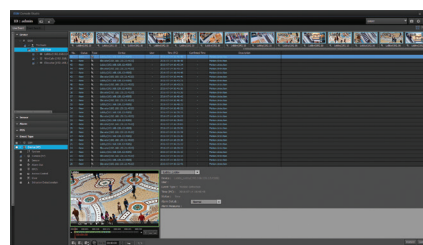
## Efficient monitoring through powerful event management

All event related features such as event priority, event coloring, rule-based event action setup, real-time event thumbnail display and so on are for more efficient monitoring, which means more surveillance coverage is possible with lower budgets. Furthermore, SSM provides a separated event viewer that provides real-time event log with a single channel preview.

- Each event could be acknowledged by operator with some notes.
- Audio broadcasting for warning people in a dangerous event situation.



Live viewer event thumbnail



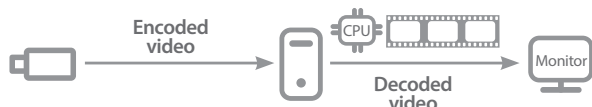
Event viewer

# CONSOLE FEATURES

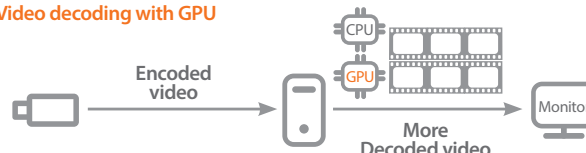
## GPU video decoding

By utilizing GPU processing power of Nvidia graphic card, workstation can display almost doubled channels without any additional hardware equipment. For example, a workstation can display 21 channels Full HD real-time streams if only with CPU but with CPU and GPU, 39 channels can be displayed. (Tested with Intel Xeon CPU E3-1270 3.60GHz, NVIDIA GeForce GTX 960, Win10 64bit, 8G RAM)

Conventional video decoding

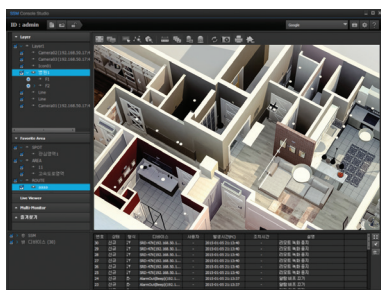


Video decoding with GPU

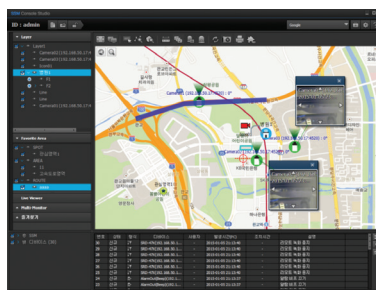


## Map monitoring with Google Map

With SSM, an administrator can set a map-based layout to match with the live videos in real-time. Overlaying camera or sensor icons means the resolving of issues becomes extremely easy. By utilizing map based monitoring together with live monitoring, an event pop-up window will appear on the location where the event has happened helping towards a quick resolution to the event. As well as 2D map image, Google map can be used for wide area surveillance.



2D Map

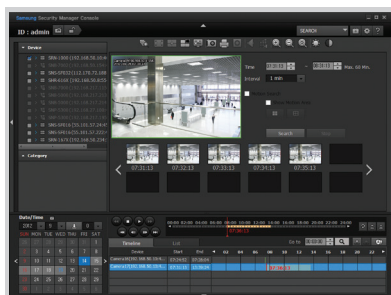


Google Map

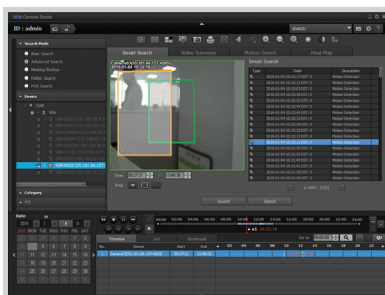
## Various searching mode

SSM provides totally 9 types of search modes for quick evidence retrieval.

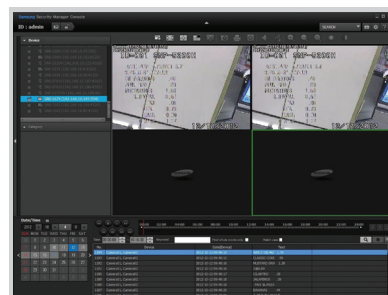
- Date/time, event, bookmark, and local folder search are the basic search features.
- POS, heat-map is one of business intelligence features for retail shop owners.
- Motion search and smart search make it possible to retrieve evidence within a very short period of time.
- Video Summary is one of key features of SSM that provides 1 minute video clip for 24 hours.



Motion search



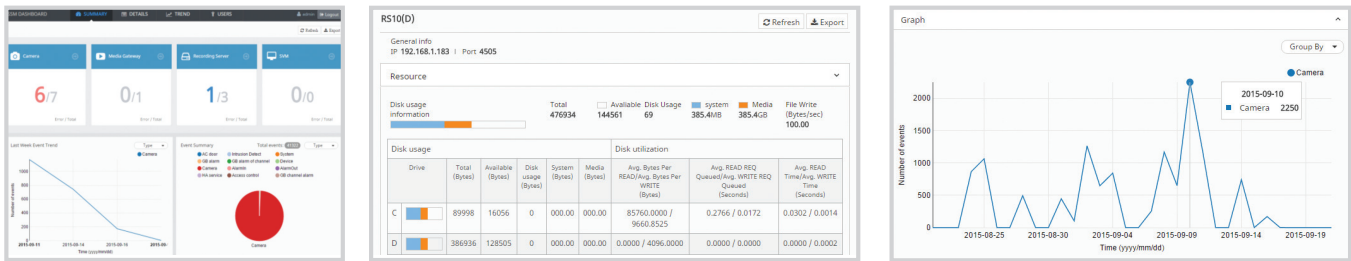
Smart search



POS search

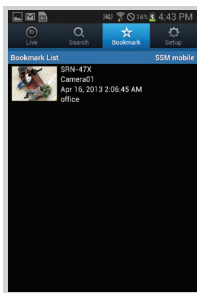
## System Dashboard

All system devices that include servers, cameras and recorders can be monitored with a single dashboard. It shows detailed system information such as device and component status, CPU performance, memory usage, network bandwidth and HDD consumption. It also gives event statistics for efficient event management. For mobile accessibility such as tablet PC and smartphone, Dashboard provides plug-in free web access feature for any browsers like Google Chrome, Safari, Firefox and IE.



## SSM Mobile

Security guard can access to SSM system via a SSM mobile with very intuitive user interface. With SSM mobile, the guard can monitor live video and playback recorded video also. If mobile bandwidth is not enough, SSM transcoder can make a stable streaming environment.



Bookmark



Live 4ch



LivePTZ

# SSM SPECIFICATIONS

General		Professional	Enterprise
Maximum number of cameras		288	Unlimited
Maximum number of clients		5	Unlimited
Centralized management		Yes	Yes
Architecture		Multi-server	Multi-server
Clients		SSM Console, Configuration Manager, SSM Mobile	SSM Console, Configuration Manager, SSM Mobile
Supported devices		Network camera/encoder/decoder, DVR/NVR	Network camera/encoder/decoder, DVR/NVR
Summary			
Basic Component	System Manager	Yes	Yes
	Media Gateway	Yes	Yes
Add-on Component	Recording Server	Yes	Yes
	Screen Mirroring	Yes	Yes
	Virtual Matrix	-	Yes
	Transaction Server	-	Yes
	Transcoder	-	Yes
Features	Failover Server	-	Yes
	Live Monitoring	Yes	Yes
	Search Playback	Yes	Yes
	Event Monitoring	Yes	Yes
	Map Monitoring	Yes	Yes
	POS/ATM Monitoring	Yes	Yes
	Wall Management	-	Yes
	Google Map Monitoring	-	Yes
	Video Analytics Monitoring	-	Yes
	Advanced Health Monitoring	-	Yes
	Access Control Monitoring	-	Yes
	Video Summary Search	-	Yes
	Active Directory Integration	-	Yes
	Site Federation	-	Yes
Component			
Media Gateway	Max. Media Gateway	4	Unlimited
	Max. Bandwidth(In/Out)	400/600Mbps	400/600Mbps*
	Max. devices per server	128 network cameras or 288 cameras of recorders	128 network cameras or 288 cameras of recorders*
Recording Server	Max. cameras	128	128
	Recording performance	400Mbps	400Mbps*
	Playback performance	100Mbps	100Mbps
	Mode	Manual, Continuous, Event(Pre/Post), Schedule	Manual, Continuous, Pre/Post Event, Schedule
	Auto Recovery Backup	Yes	Yes
	Video Summary	-	Yes
	Event Profile Recording	Yes	Yes
	ONVIF protocol	Profile S (except SSM-RS00L)	Profile S (except SSM-RS00L)
Screen Mirroring	PC screen streaming for recording	Yes	Yes
	Max. monitors	4	4
	Max. streaming	5	5
Virtual Matrix	Frame rate	Up to 30fps	Up to 30fps
	Max. monitors	-	48
	Modules	-	VM Manager, VM Gateway, VM Decoder
	Sequence monitoring	-	Yes
	Event monitoring	-	Yes
	Map monitoring	-	Yes
	Playback on wall monitor	-	Yes
	Screen merge	-	Yes
Transaction Server	Access Control	-	Samsung, Honeywell, JCI, Gallagher, Siemens
	Intrusion Detection	-	Bosch, Honeywell
	Intercom	-	Samsung, Stentofon
	Video Analytics	-	Agent Vi
Transcoder	Playback transcoding	-	For console and mobile
	Max. input resolution	-	5M
	Max. output resolution	-	D1
	Max. transcoding channels	-	10
Federation	Max. site hierarchy level	-	4*
	Max. sites	-	25*
	Cameras per site	-	288*
Failover Server	Auto system failover	-	Yes
	Target server	-	MG, RS, VM
	Architecture	-	Active / Standby
Configuration & Maintenance			
General	Setup file backup/restore	Yes	Yes
	Login fail time limitation	Yes	Yes
	Time sync	with NTP or a server component	with NTP or a server component
	Data Security	SSL	SSL
System Management	Device discovery	Auto / Manual	Auto / Manual
	Device name synchronization	Server, Recorder to SSM	Server, Recorder to SSM
	Edits multi-device names	Yes	Yes
	Server setup file import/export	Yes	Yes
	Device firmware update	Yes	Yes
User Management	Device access authority setup	Yes	Yes
	Feature level authority setup	Yes	Yes
	LDAP Integration	-	Yes
Event Management	Event priority setup	From 1 to 10 with color	From 1 to 10 with color
	External event integration	Yes	Yes
	Rule based event action Setup	Yes	Yes
System Dashboard	Real-time system monitoring	-	Yes
	System status summary	-	Yes
	Detailed system status	-	Yes
	Event statistics graph	-	Yes



Operation		Professional	Enterprise
General	Viewers	Live, Search, Event	Live Search, Event, Google Map, Plug-in
	Multi-monitor	Up to 4	Up to 4
	Video decoding via GPU	Nvidia CUDA processor	Nvidia CUDA processor
	System health monitoring	Yes	Yes
	Screen lock	Yes	Yes
	Multicast	-	Yes
Live Monitoring	Auto bandwidth control	Changes camera profile, I-frame mode and deblocking by split format automatically	Changes camera profile, I-frame mode and deblocking by split format automatically
	System controller integration	SPC-2000, SPC-7000	SPC-2000, SPC-7000, Axis T8310
	Number of channels for live	100CH	100CH
	Sequence monitoring	Yes	Yes
	Pre-defined layout	Yes	Yes
	User Favorite layout	Yes	Yes
	PTZ control	Yes	Yes
	PTZ Area Zoom	Yes	Yes
	Digital zoom	Yes	Yes
	Fisheye camera view	Single, quad, panoramic	Single, quad, panoramic
	Two-way Audio	Yes	Yes
	Audio broadcasting	Yes	Yes
	Manual Recording	Local PC, Recorder	Local PC, Recorder
	Playback on live	Yes	Yes
	Video adjustment	Brightness, Contrast	Brightness, Contrast
	Video enhancing	Deinterlace, Flip, Defog	Deinterlace, Flip, Defog
	Manual alarm out control	Yes	Yes
	Export/print image	Yes	Yes
	Video wall control	-	Yes
Event Handling	Live event list	Yes	Yes
	Event thumbnail image on live	Yes	Yes
	Event acknowledge	Normal, abnormal, etc with note	Normal, abnormal, etc with note
	Instant viewer	Yes	Yes
	Instant player	Yes	Yes
	Event search	Yes	Yes
	Event sequential playback	Yes	Yes
	Rule based event setup	Yes	Yes
	Event handling history	Yes	Yes
	Event report	PDF file with chart and graph	PDF file with chart and graph
Search & Playback	Number of channels for playback	16CH	16CH
	Date/Time search	Yes	Yes
	Event search	Yes	Yes
	Local folder search	Yes	Yes
	Bookmark search	Yes	Yes
	Smart search	Yes	Yes
	Video Summary	-	Yes
	Heat-map (for NVR)	Yes	Yes
	Motion search (for DVR)	Yes	Yes
	Multi channel time line	Yes with color variaion per recording type	Yes with color variaion per recording type
	Synchronous playback	Yes	Yes
	Export video/image	SEC, AVI	SEC, AVI
	2 men rule	Yes(Backup for SSM, Search&Backup for NVR)	Yes(Backup for SSM, Search&Backup for NVR)
	Backup	Scheduled backup, Masking backup, Onetime Schedule Backup	Scheduled backup, Masking backup, Onetime Schedule Backup
Monitoring with Map	2D/3D image map monitoring	Yes	Yes
	Number of layout format for map	10	10
	Map link on map	Yes	Yes
	Set coordinates for 2D map	Yes	Yes
	Export image	Capture, Print	Capture, Print
	Google map monitoring	-	Yes
PoS integration	Measure distance on Google map	-	Yes
	PoS receipt display on live	Yes	Yes
	PoS instant viewer	Yes	Yes
ETC	PoS search	Yes	Yes
	Customizable Plug-in	-	Yes
Misc.			
Language		English, French, German, Spanish, Italian, Russian, Chinese, Japanese, Korean, Turkish, Polish, Czech, Serbian, Romanian, Portuguese, Dutch, Croatian, Hungarian, Greek, Swedish, Danish, Finnish, Norwegian, Taiwanese	English, French, German, Spanish, Italian, Russian, Chinese, Japanese, Korean, Turkish, Polish, Czech, Serbian, Romanian, Portuguese, Dutch, Croatian, Hungarian, Greek, Swedish, Danish, Finnish, Norwegian, Taiwanese
Technical Support		-	Yes

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