SSM (Samsung Security Manager)

Central Management Software

PERFORMANCE

Video

Supported Video Compression Format: H.264, MPE\F-4, MPE\F

Audio

Supported Audio Compression Format: Depending on the device

Live Monitoring

- Multi-monitor: Up to 4 monitors (Follow the recommended system requirements)
- Split-screen Mode: To up to 3 screens per monitor (Follow the recommended system requirements)
- Full-screen mode: While in multi-monitor environment, layouts and split modes for less than 100 channels will be available.

System

- Requirement
- System
- Language
- System manager, Media gateway, Console, service manager, schedule back up

Modules

- Max. number of Cameras per Media gateway
- Max. number of Media gateways per System

Supported Devices

- Update
- Automatic self upgrade (Connection to samsung upgrade server)
- Time Synchronization

System Settings

- Osd display, date/time, Capture, Recording, start up, Language, Ui auto lock, Log

Device Management

- Search & Playback
- Automatic device iP scanning, viewing the device settings (device webpage), exporting / importing devices settings, Updating the device

Event Monitoring

- Real-time Event List
- Event searching
- Event reporting
- Event Action

Site / User Management

- Site / user group / user account management, Permission management for viewer functions

Device Management

- Automatic device IP scanning, Viewing the device settings (Device webpage), Exporting / Importing device settings, Updating the device

Map

- System
- Real-time Event List
- Searching Events
- Reporting
- Recording
- Event Action

Screen Management

- Setting / Adding / Deleting layouts, Map / Video layout

Environment

- User display, Multi-time, Capture, Recording, start up, Language, UHD native mode, etc.

System Settings

- Map servers, Client

Update

- Automatic self upgrade (Connection to Samsung upgrade server)

GENERAL

Supported Device

- Samsung IP camera, Encoder, DVR, NVR

Max. Number of Cameras per System

- Default 64 cameras per system

Max. Number of Cameras per Media Gateway

- 15 cameras / 2chIn or 72chIn / NVR (216chIn)

Max. Number of Clients per Media Gateway

- 6 clients

Supported Add-on Modules

- Samsung recording server (SSM-PR/1000), SSM Virtual Matrix (SSM-VM10/VM20), SSM mobile

Language

- English, Korean, Spanish, Italian, Russian, Chinese, Japanese, Korean, Turkish, Polish, Czech, Serbian, Romanian, Portuguese, Dutch, Slovenian, Hungarian, Greek, Swedish, Danish, Finnish, Norwegian

System Requirement

- Recommended
- CPU (Note: (1) Sandy bridge above, (2) Intel Core i7 above, (3) Intel Core i5 above, (4) Intel Core i3 above, (5) Intel Pentium above, (6) Intel Celeron above), RAM (Note: (1) 4GB above, (2) 8GB above, (3) 12GB above, (4) 16GB above, (5) 24GB above, (6) 32GB above)
- HDD: more than 10GB of free space for installation. For operation, the system log databases requires 10GB or more free space, DirectX 9.1 above, Display Resolution: 1280 x 1024 above, OpenGL compatible
- Minimum
- CPU Intel Core i2 Duo (1.6GHz above), RAM (Note: (1) 2GB above, (2) 4GB above, (3) 8GB above, Video memory (512MB)

Operating System


* The entire items are not supported in every device. Some items are not supported in certain devices.

This Eco mark represents Samsung

Techwin’s will to create unification from the products and indicate that the product satisfies the 60W/18W Directive

Design and specifications are subject to change without notice.

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SAMSUNG TOTAL MANAGEMENT SOFTWARE

SSM (Samsung Security Manager)

SSM is a one-stop management software platform that maximizes the efficiency of Samsung’s network products (including network cameras, encoders, DVRs and NVRs). The client-server architecture features stable video surveillance system management through multi-site and multi-client configuration. Access to the live/recorded videos is extremely easy from remote sites making it suitable for medium to large-scale multi site applications.

SSM Features

- **Samsung network solution is the ideal choice for a total management system**
  Samsung Techwin’s video surveillance products (network cameras, encoders, DVRs and NVRs) are effortlessly managed from a single SSM platform. The SSM is provided free of charge and is ideally suited to optimize the performance and management of Samsung network products.

- **Efficient management via Multi-site & Multi-client configuration**
  Numerous clients can administer video surveillance products installed across multiple sites. This helps maximize the efficiency of the monitoring system enabling real-time management by the authorized personnel.

- **Easy-to-use simple UI (User Interface)**
  Most of the essential functionalities required by users are possible with SSM; including simultaneous monitoring of maps/live images, real-time event monitoring, playback and not forgetting an automatic health check for each device.

- **A system that offers flexibility and expandability**
  Adding new or replacing old devices is an easy process so that they can be changed on demand or on system expansion, using a simple add/replace feature.

- **Immediate event management using an auto event reaction setting**
  Users can set specific reactions for a certain type of events, this allows for the immediate control of typical events, enhancing the monitoring efficiency.

**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.

Configuration modules

- **Console**: Provides the user with an interface for monitoring and control
- **System Manager**: Manages every piece of connected equipment and listed user within the system
- **Media Gateway**: Works as a server for the video from cameras, Pan/Tilt/Zoom, and event on a single platform
- **SSM Recording Server**: Add on recording module for SSM, all settings through Configuration Manager
- **SSM Virtual Matrix**: Add on Multi-monitor (Wall monitor) control module for SSM, settings from VM Manager

Up to 5 clients can simultaneously access the server that manages and monitors the remote devices with real-time access to the video sources, providing efficient/effective monitoring solution.

**Expandability**

Network connected Samsung Techwin products are registered and managed by SSM server. The media gateway server can handle 72 Samsung network cameras or 36 DVRs/NVRs (based on 8CH system, support up to 288CH). 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 user level.
One-stop Live / Map monitoring

Efficient live monitoring

Samsung’s intuitive UI design makes it simple to monitor live images and maps. One monitor can display 64CH, and with a maximum of 4 monitors connected up to 100CH can be monitored. The video images can be displayed in various formats: full screen, split screen, and 4:3/16:9, so that users can create best-fit layouts. If there are numerous administrators in a single control station, users can immediately load their own pre-saved display format layouts. The software will manage Samsung Techwin products and support image resolutions up to megapixel with a range of video/audio compression formats at different video profiles. These profiles will manage the network and computer environment to their optimum capability.

Simultaneous monitoring/playback support

While monitoring a live view, the user can also playback recorded data on the same or a different device at the same time, this allows the user to compare the recorded data showing the suspicious event/person with the live view, helping to prevent potential incidents.

Map monitoring

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.

Efficient Alarm/Event Monitoring

When there is an event/alarm input, the SSM system manager will instigate a set of pre-set follow up actions of the related device. Once an event occurs, manager and administrators can approve and write a comment on it. The result and status of the events are recorded and can be referred to in post-event reporting.

Event viewer

The real-time event viewer provides an event log that includes a single channel preview and event type that are easily viewed. Useful information such as sorting by event type, individual event comments and their approver can be displayed here. The event log also can be exported in excel/PDF format and used as evidence for the incident.

SSM Recording Server

SSM Recording Server is designed for high quality video recording, simultaneous searching and viewing of Samsung’s network cameras/encoders. Operators maintain a complete overview using Configuration Manager easily.

SSM Recording Server provides 400Mbps high performance recording, 100Mbps playback/backup throughput for supporting high quality megapixel video.

Event action

The setting of follow-up actions for each event can be managed in the event management function of the SSM. Matching motion detection, alarm or video loss with pop-up, move to preset and e-mail notification ensure prompt handling of events. For example, when network camera 1 gives a tampering event, pop-up for camera 2 which is installed in the corridor next to the camera 1 is possible proving the required information to the security staff.

SSM Recording Server provides single access point using Configuration Manager, operators configure and control of recording functions at the same PC.
Smart Search and Backup

Various searching mode
As well as date/time, POS (if using a Samsung DVR/NVR that support POS recording) and event/time-line searches which support preview images, a user can additionally check past events in a certain area or ROI (Region Of Interest). The motion search from the SSM can extract the event that occurred in the ROI therefore reducing the search time.

Backup function
Manual back up mode allows the user to select the required time-line, while the schedule back up mode will automatically back up the recorded data of the DVR/NVR at the pre-determined time. The backup can be done on the SSM PC and the user can extract the video when required.

Easy & Convenient configuration
It can be difficult for the managers to set up all registration and setting process, (such as device set up, site configuration, user group assignment, and profile set up, etc). Through the configuration manager of SSM a helpful guide for each set up menu is available this assists anyone to easily complete the configuration procedure.

Remote monitoring via mobile device

SSM mobile
Managers now have access to SSM via SmartPhone or tablet PCs where they can monitor live and recorded videos data. In addition, SSM mobile provides an easy-to-use user interface with preconfigured customized layout configurations that are setup on the main SSM.

※ SSM mobile is supported by both Android and iOS (iPhone, iPad) and can be downloaded from the app store.

Easy Video Wall Monitor Control

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

SSM Virtual Matrix is an important add-on product to enterprise, professional system. The video streams from Media Gateway module combined with the corresponding events for simultaneous viewing on wall monitor.
SSM Virtual Matrix provides event-based virtual salvo switching. If an important event occurs (based on pre-setting), the monitors show the video events automatically. Admin can select wall spot, monitor spot, or tile spot type.

**SSM Model**

<table>
<thead>
<tr>
<th>Model Name</th>
<th>Product Description</th>
<th>Price</th>
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<tr>
<td>SSM Professional</td>
<td>-</td>
<td>-</td>
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<tr>
<td>SSM Recording Server</td>
<td>16 Channels recording, on server only</td>
<td>-</td>
</tr>
<tr>
<td>SSM-RS10</td>
<td>36 Channels recording, scalable recording</td>
<td>Licensed</td>
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<tr>
<td>SSM-RS20</td>
<td>72 Channels recording, scalable recording</td>
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</tr>
<tr>
<td>SSM-Virtual Matrix</td>
<td>Managing SPD-400 only</td>
<td>-</td>
</tr>
<tr>
<td>SSM-VM10</td>
<td>16 monitors, control, S/W decoding</td>
<td>Licensed</td>
</tr>
<tr>
<td>SSM-VM20</td>
<td>36 monitors, control, S/W decoding</td>
<td>Licensed</td>
</tr>
</tbody>
</table>

**SSM-RS10/20 SSM Recording Server**

**DEVELOPMENT**
- **Supported Device**: Samsung’s Network Camera, Encoder
- **Supported Protocols**: Samsung, ONVIF profile S
- **Max. Registered Devices**: 36, 72, 16

**PERFORMANCE**
- **Video**: Supported Format: H.264, MJPEG, MJPEG
- **Audio**: Supported Audio Compression Format: G.711 u-law (PCM), G.722, G.726 (ADPCM)
- **Performance**: Up to 400Mbps (Four or more HDDs (SATA II 7200rpm) should be used for 400Mbps recording performance)
- **Mode**: Manual, Continuous mode, Event (Pre/Post alarm recording), Event & Schedule mode
- **Quality**: Depending on the device
- **Pre/Post Record Time**: Pre: 1 ~ 18CH 30sec, 19 ~ 36CH 15sec, Post: 120sec (when D1 resolution 30fps)

**Log**
- System, User access, Back up, Recording log, Event log (Motion, Alarm, Video loss, Video analytic, Audio)

**Playback**
- **Performance**: Up to 120Mbps, Up to 4CH simultaneously
- **Mode**: Time, Event, Timeline

**Storage**
- **Max. Controller of HDD**: 2xHDDs
- **Supported HDD Format**: SATAII 7200rpm, e-SATA, SAS, 6G
cs

**Functions**
- Storage space assigning by each disk, warning against lower disk space
- NIC: NIC is selectable by device connection and client connection type
- SW Status: Device connection, Manual/Schedule recording status
- Data Security: Login packet encryption
- Settings: Initialization / Export / Import
- Functions: Auto power-on record
- Time Synchronization: NTP client

**Programs**
- Configuration Manager: Recording & storage settings, User management, Event action setting, Schedule back-up, System settings
- Console: Live monitoring, Playback, Back-up

**GENERAL**

**System Requirement (Recommended)**
- CPU: Intel Core i7 Sandy bridge,
- RAM: 8GB, Video memory: 256MB, 4HDDs (SATA II 7200rpm 64MB) above

**System Requirement (Minimum)**
- CPU: Intel Core i3 Sandy bridge, RAM: 8GB
- Video memory: 256MB, 2HDDs (SATA II 7200rpm 64MB) above
- OS: Windows XP SP2, Windows Server 2003 SP2
- Windows Server 2008 R2, Windows Server 2012, Windows 7 32/64bit, Windows 8 32/64bit

*Only 1 Recording Server connection is available with Samsung Security Manager when using the trial version.
SSM-VM10/20

SSM Virtual Matrix

DEVICE

SSM-VM10

SSM-VM20

SSM-VM20 (for SPF-400)

Integration software

SSM v1.2

Max. Number of Monitors

Up to 1

Max. Number of Packets

16

36 (SPF-400 only)

The Number of Wall per Each Package

Up to 1

FEATURES

Video Streams

Receives from SSM/Media gateway module. Depending on the device

Device > SPF-400

*Use SPF-400 specification

Line Monitoring

Wall Layout

As per VM manager configuration

Monitor Layout (Screen-split mode)

VM decoder

4:3 screen modes: 1/4 / 6 / 8 / 10 / 15 / 16 / 17 / 21 / 25 / 36 / 49 / 64

16:9 screen modes: 6 / 12 / 20 / 30

While in multi-monitor environment, layouts and split modes for less than 100 channels will be available.

(SPF-400)

Depends on SPF-400 up to quad view

Sequencing Mode

Wall layout group sequence:DUPLICATE: Max. = 16 (Min. = 1) (wall layout)

5 settings per wall, register-up to 20 layouts per wall sequence.

Map Monitoring

Split view mode for map layout, 2D/3D view, zoom in / out, Camera / Sensor / Alarm icons on the map

ETC

OSD off / on, Wall / Monitor setting sync. function

VM Manager (Configuration Tool)

Max. Number of Managing Wall

Up to 3. Maximum 1 wall available per VM10/VM20 license

Wall Management

Configuration tool for virtual Matrix. Maximum 3 walls per VM manager configuration tool

Registration and allocation decoder to wall monitor registration

Wall layout configuration. Wall sequence

Event Management (Include Spot Setting)

If event activation, based on the configuration, is possible to display a specific wall layout/monitor layout/tile layout.

Event settings (X-loss, M-loss, Flashing, Entering, Exiting, ScopeApp, Temparming, Tracking, Face detection, Audio detection), depending on the device

Functions

Bandwidth management using 1-frame or by dynamic switching of additional camera profiles which could be off when management free primary streams

Update

Automatic wall upgrade (Connection to Samsung upgrade server)

GENERAL

Modules

VM manager, VM gateway and VM decoder

VM Manager

Configuration tool for Virtual Matrix. Maximum 3 walls per VM manager configuration tool

Maximum 1 wall per VM10/VM20 license

VM Gateway

A module to manage decoders and SPF-400. It also handles commands and verifies the license.

Maximum 1 VM gateway per VM10/VM20 license

VM Decoder

The decoding module of Virtual Matrix. One decoder can connect maximum 48 monitors. Maximum decoding capacity of 64 channels@4CIF 25fps or 100 channels@CIF 25fps. Follow recommended PC specifications.

Language

Total 23 languages support: English, French, German, Spanish, Italian, Russian, Chinese, Japanese, Korean, Turkish, Polish, Czech, Serbian, Romanian, Portuguese, Dutch, Croatian, Hungarian, Greek, Swedish, Danish, Finnish, Norwegian, Bulgarian

System Requirement

Recommended CPU Intel i7 (sandy bridge) above

RAM 4GB above, Video memory 1GB above, DirectX 8.1 above, Display resolution: 1280 x 1024 above, OpenGl, compatible, H.264/AVC, Mpeg 4, for installation.

Minimum CPU Intel i5 above, RAM 4GB above, Video memory 512MB, Operating System Windows 7 (32bit, 64bit), Windows 8 (32bit, 64bit)

SSM mobile

SSM mobile (Version: 1.1)

DEVICE

Supported Device

Samsung Security Manager

PERFORMANCE

Video

Supported Format

H.264, MJPEG

Supported Resolution

Up to 1280 x 1024 resolution

Audio

Supported Format

G.711 u-law (PCM), G.726 (ADPCM)

Functions

Listen (TCP)

Live Monitoring

View list

Providing the layout list and the device list according to SSM user authority, favorite list

Line Monitoring

G.Wing Type

Vertical, Horizontal

PTZ Control

Pan, Tilt, Zoom, Focus, Encoder / DFR only

Functions

Flip, Capture, Digital zoom (16x), Display the network traffic status

Search / Playback

Search Mode

Date/time, Event

Playback Mode

1CH only, 8x playback speed

Functions

Bookmark

Security

Password

SSM mobile viewer for Android / iOS

Supported Device

Samsung Security Manager

PERFORMANCE

Video

Supported Format

H.264, MJPEG

Supported Resolution

Up to 1280 x 1024 resolution

Audio

Supported Format

G.711 u-law (PCM), G.726 (ADPCM)

Functions

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Mobile Device Requirement

Operating System

Android OS 2.3.x, 4.0.x, 4.1.x and 4.2.x

iOS 5.1.1, 6.0, 6.1 and 6.1.3

Tested Mobile Devices

This application had been tested for listed devices:

- Samsung Galaxy S2 (Android v2.3.5) series
- Samsung Galaxy S3 (Android v4.1.2) series
- Samsung Galaxy S4 (Android v4.2.2) series
- Samsung Galaxy Note (Android v4.0.4) series
- Samsung Galaxy Note 10.1 (Android v4.1.3) series
- iOS
- Apple iPhone 4 (iOS v5.1.1) model
- Apple iPhone 5 (iOS v5.6.1, 7.1) model
- Apple iPad (iOS v5.6.1, 7.1) model
- Apple iPad (iOS v7.0.2) model

* For proper monitoring with SSM mobile on your mobile device, the device should suffice minimum requirements.

SSM-VM20 (for SPF-400)

- Apple iPad 4 (iOS v7.0.2) model

SSM Mobile viewer for Android / iOS

Supported Device

Samsung Security Manager

PERFORMANCE

Video

Supported Format

H.264, MJPEG

Supported Resolution

Up to 1280 x 1024 resolution

Audio

Supported Format

G.711 u-law (PCM), G.726 (ADPCM)

Functions

Listen (TCP)

Live Monitoring

View list

Providing the layout list and the device list according to SSM user authority, favorite list

Line Monitoring

G.Wing Type

Vertical, Horizontal

PTZ Control

Pan, Tilt, Zoom, Focus, Encoder / DFR only

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- Samsung Galaxy S4 (Android v4.2.2) series
- Samsung Galaxy Note (Android v4.0.4) series
- Samsung Galaxy Note 10.1 (Android v4.1.3) series
- iOS
- Apple iPhone 4 (iOS v5.1.1) model
- Apple iPhone 5 (iOS v5.6.1, 7.1) model
- Apple iPad (iOS v5.6.1, 7.1) model
- Apple iPad (iOS v7.0.2) model

* For proper monitoring with SSM mobile on your mobile device, the device should suffice minimum requirements.