

Security Management System – SNMP Trap Interface

Security Management System software generates various alarms on events. SMS SNMP trap Interface application connects to one or more SMS Servers and receives all the alarms generated by the SMS application. It then generates “SNMP Traps” for events selected by user

(A) Installation

‘SMS SNMP Trap Interface’ application is not part of the Security Management System software installation. A separate installer is available for the same.

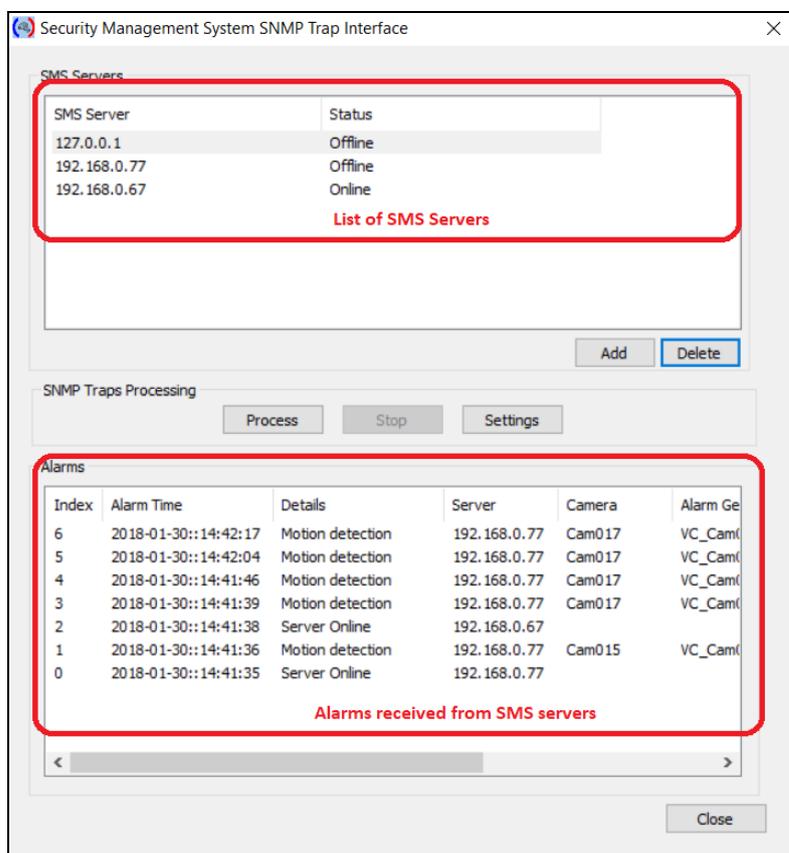
1. Please download the ‘SMS SNMP Trap Interface’ application installer.
2. Copy the installer on the computer which is on the same network as one or more SMS servers. So that SNMP Trap application can connect and receive alarms from SMS servers.
3. Execute the installer
4. Follow the installation wizard to complete the installation

(B) Execute 'SMS SNMP Trap Interface' Application

After installation, the 'SMS SNMP TRAP Interface' application can be executed from any of the following shortcuts –

1. Desktop shortcut 'SMS SNMP Trap Interface'
2. Programs menu shortcut 'SMS SNMP Trap Interface -> SMS SNMP Trap Interface'

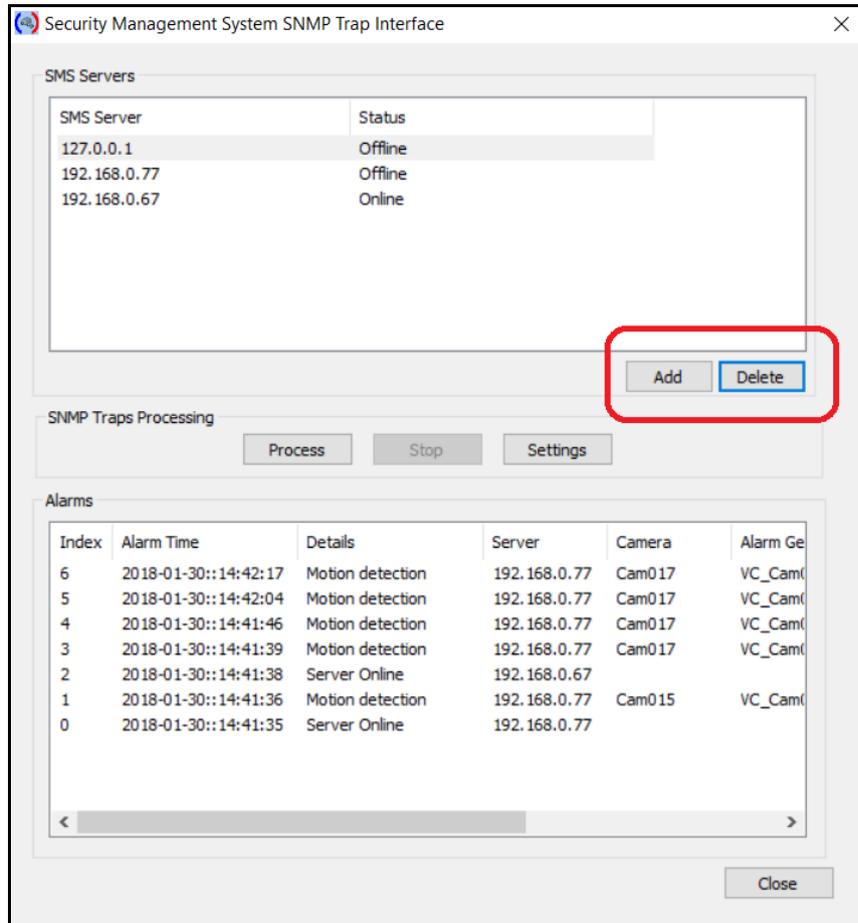
(C) User Interface



Applications main user interface is as shown in above image

- a) **SMS servers:** This shows list of SMS servers added. SNMP Trap application connects to these servers with TCP/IP protocol when user clicks on "Process". The "Status" column shows the status of the server connection.
Online: Connected to SMS server
Offline: Connection to SMS server failed.

SMS servers can be added or deleted with “Add” and “Delete” buttons present below SMS servers list.



These operations can be done only after the SNMP traps processing is stopped with “Stop” button

Add SMS

The screenshot shows a dialog box titled "Add New SMS Server". It contains the following fields and controls:

- Login Section:**
 - SMS Server IP Address : 127 . 0 . 0 . 1
 - Login User Name : UserName
 - Login Password : [Masked with dots]
- Port Forwarding:** 'Port forwarding' enabled at server
- Port Configuration:**
 - TCP Port 1: 5500
 - RTSP Port(TCP): 1024
 - HTTP Port(TCP): 9900
 - RTP Port(UDP): 20000
 - RTCP Port(UDP): 20001
- Buttons:** Test Connection, Add, Cancel

- For adding SMS server, user needs to enter IP address of the SMS server and the operator username and password.
- If port forwarding is enabled then the inputs for same can be given in "Port forwarding section".
- User can test whether connection settings (Login details and port details) are correct by "Test Connection"
- If connection information is correct, then "Test Connection" will show "Connection Success" message, otherwise the error is shown.
- Clicking "Add" will add the SMS server in the list on the main UI. Application will not connect to SMS server unless user starts SNMP Traps processing with "Process" button.

Delete SMS server

- User can select any SMS server from the list on the main application interface and delete it from the list.
- Deleting SMS server will disconnect from the SMS server. It will not receive any alarms from the server and not send SNMP traps for events from that server.

b) SNMP Traps Processing

- Process Button:** This button starts processing for SNMP traps. After clicking "Process", application first connects to all the SMS servers present in the list and keeps receiving alarms from each of the SMS servers. Then it generates SNMP traps for events selected in "Settings" options
- Stop Button:** Stops processing. After doing "Stop Processing", user can add / delete SMS servers and can also change various settings.

iii) **Settings Button:** Enables user to do various settings for processing as shown below



SNMP Trap Destinations: user can specify the IP addresses of SNMP Manager applications which will receive the traps for selected events.

Logs: User can enable / disable logging of SNMP trap event status
Logs are created as text files in the installation path

Events for SNMP Traps: User can select the events for which “SNMP Traps” should be generated. By default, “Server Offline”, “Server Online”, “Video Signal Loss” and “Video Signal Recovery” events are selected.
User must select at least 1 event to generate traps.

c) **Alarms:**

The screenshot displays the 'Security Management System SNMP Trap Interface'. It features three main sections: 'VMS Servers', 'SNMP Traps Processing', and 'Alarms'. The 'Alarms' section is highlighted with a red border and contains a table of alarm events.

VMS	Status
127.0.0.1	Offline
192.168.0.77	Online
192.168.0.67	Online

Buttons: Add, Delete

SNMP Traps Processing: Process, Stop, Settings

Index	Alarm Time	Details	Server	Camera	Alarm
9	2018-01-30::14:31:37	Motion detection	192.168.0.67	Cam281	VC_C
8	2018-01-30::14:31:33	Server Online	192.168.0.67		
7	2018-01-30::14:31:31	Motion detection	192.168.0.77	Cam017	VC_C
6	2018-01-30::14:31:30	Server Online	192.168.0.77		
5	2018-01-30::14:30:40	Server Online	192.168.0.77		
4	2018-01-30::14:30:11	Motion detection	192.168.0.77	Cam015	VC_C
3	2018-01-30::14:30:03	Motion detection	192.168.0.77	Cam017	VC_C
2	2018-01-30::14:29:52	Motion detection	192.168.0.77	Cam017	VC_C
1	2018-01-30::14:29:45	Motion detection	192.168.0.77	Cam015	VC_C
0	2018-01-30::14:29:39	Server Online	192.168.0.77		

Buttons: Close

Alarms list shows all the alarms generated on connected SMS servers.

This list shows following details about every alarm

1. Alarm Time: Time of alarm generation
2. Details: Alarm description
3. Server: IP address of SMS server which generated this alarm
4. Camera: Camera Name
5. Alarm Generator ID: Camera ID
6. Additional Info 1 and Additional Info 2: Additional information about alarm as received from SMS server
7. Trap Status: Status of SNMP trap generation. If the event is not selected in “Settings” for trap generation, then the status is “Event Ignored”

(D) Watchdog and 24X7 working

'SMS SNMP TRAP Interface' application watchdog is automatically launched when 'SMS SNMP TRAP Interface' application is executed.

When computer is rebooted, the watchdog and the 'SMS SNMP TRAP Interface' application restarts automatically, and no manual steps are required to launch 'SMS SNMP TRAP Interface' application.