

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

	erver	Status			
127.0.	0.1	Offline			
192.16	58.0.77	Offline			
192.16	58.0.67	Online			
		List of SMS	Servers		
				Add	Delete
	aps Processing				
	Pro	cess Stop	Settings		
	Pro	cess Stop	Settings		
arms	Pro	cess Stop	Settings		
arms Index	Pro Alarm Time	cess Stop	Settings	Camera	Alarm Ge
arms Index 6	Pro Alarm Time 2018-01-30::14:42:17	Cess Stop	Settings Server 192.168.0.77	Camera Cam017	Alarm Ge VC_Cam(
arms Index 6 5	Pro Alarm Time 2018-01-30::14:42:17 2018-01-30::14:42:04	Details Motion detection Motion detection	Server 192.168.0.77 192.168.0.77	Camera Cam017 Cam017	Alarm Ge VC_Cam(VC_Cam(
arms Index 6 5 4	Pro Alarm Time 2018-01-30::14:42:17 2018-01-30::14:42:04 2018-01-30::14:41:46	Details Motion detection Motion detection Motion detection	Server 192.168.0.77 192.168.0.77 192.168.0.77	Camera Cam017 Cam017 Cam017	Alarm Ge VC_Cam(VC_Cam(VC_Cam(
arms Index 5 4 3	Pro	Details Motion detection Motion detection Motion detection Motion detection	Server 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77	Camera Cam017 Cam017 Cam017 Cam017 Cam017	Alarm Ge VC_Cam(VC_Cam(VC_Cam(VC_Cam(
arms Index 6 5 4 3 2	Pro	Details Motion detection Motion detection Motion detection Motion detection Server Online	Server 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77	Camera Cam017 Cam017 Cam017 Cam017 Cam017	Alarm Ge VC_Cam(VC_Cam(VC_Cam(VC_Cam(
arms Index 6 5 4 3 2 1	Pro	Details Motion detection Motion detection Motion detection Server Online Motion detection	Settings Server 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.67 192.168.0.67	Camera Cam017 Cam017 Cam017 Cam017 Cam017	Alarm Ge VC_Cam(VC_Cam(VC_Cam(VC_Cam(VC_Cam(
arms Index 6 5 4 3 2 1 0	Pro	Details Motion detection Motion detection Motion detection Server Online Motion detection Server Online	Settings Server 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77	Camera Cam017 Cam017 Cam017 Cam017 Cam015	Alarm Ge VC_Cam(VC_Cam(VC_Cam(VC_Cam(VC_Cam(
arms Index 6 5 4 3 2 1 0	Pro	Details Motion detection Motion detection Motion detection Server Online Motion detection Server Online Motion detection Server Online Motion detection	Server 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 yed from SMS set	Camera Cam017 Cam017 Cam017 Cam017 Cam015	Alarm Ge VC_Cam(VC_Cam(VC_Cam(VC_Cam(

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.

SMS Se	rver	Status			
127.0.	0.1	Offline			
192.16	8.0.77	Offline			
192.10	6.0.07	Orime			
				\square	
				Add	Delete
NMP Tr	aps Processing			\square	
	Pro	cess Stop	Settings		
arms					
larms Index	Alarm Time	Details	Server	Camera	Alarm Ge
larms Index 6	Alarm Time 2018-01-30::14:42:17	Details Motion detection	Server 192.168.0.77	Camera Cam017	Alarm Ge VC_Cam(
larms Index 6 5	Alarm Time 2018-01-30::14:42:17 2018-01-30::14:42:04	Details Motion detection Motion detection	Server 192.168.0.77 192.168.0.77	Camera Cam017 Cam017	Alarm Ge VC_Cam(VC_Cam(
larms Index 6 5 4	Alarm Time 2018-01-30::14:42:17 2018-01-30::14:42:04 2018-01-30::14:41:46	Details Motion detection Motion detection Motion detection	Server 192.168.0.77 192.168.0.77 192.168.0.77	Camera Cam017 Cam017 Cam017	Alarm Ge VC_Cam(VC_Cam(VC_Cam(
Index 6 5 4 3	Alarm Time 2018-01-30::14:42:17 2018-01-30::14:42:04 2018-01-30::14:41:46 2018-01-30::14:41:39	Details Motion detection Motion detection Motion detection Motion detection	Server 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77	Camera Cam017 Cam017 Cam017 Cam017	Alarm Ge VC_Cam(VC_Cam(VC_Cam(VC_Cam(
Index 6 5 4 3 2	Alarm Time 2018-01-30::14:42:17 2018-01-30::14:42:04 2018-01-30::14:41:46 2018-01-30::14:41:39 2018-01-30::14:41:38	Details Motion detection Motion detection Motion detection Motion detection Server Online	Server 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77	Camera Cam017 Cam017 Cam017 Cam017	Alarm Ge VC_Cam(VC_Cam(VC_Cam(VC_Cam(
Index 6 5 4 3 2 1	Alarm Time 2018-01-30::14:42:17 2018-01-30::14:42:04 2018-01-30::14:41:46 2018-01-30::14:41:39 2018-01-30::14:41:38 2018-01-30::14:41:36	Details Motion detection Motion detection Motion detection Server Online Motion detection	Server 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.67 192.168.0.77	Camera Cam017 Cam017 Cam017 Cam017 Cam015	Alarm Ge VC_Cam(VC_Cam(VC_Cam(VC_Cam(VC_Cam(
Index 6 5 4 3 2 1 0	Alarm Time 2018-01-30::14:42:17 2018-01-30::14:42:04 2018-01-30::14:41:46 2018-01-30::14:41:39 2018-01-30::14:41:38 2018-01-30::14:41:36 2018-01-30::14:41:35	Details Motion detection Motion detection Motion detection Server Online Motion detection Server Online	Server 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77	Camera Cam017 Cam017 Cam017 Cam017 Cam015	Alarm Ge VC_Cam(VC_Cam(VC_Cam(VC_Cam(VC_Cam(
Index 6 5 4 3 2 1 0	Alarm Time 2018-01-30::14:42:17 2018-01-30::14:42:04 2018-01-30::14:41:46 2018-01-30::14:41:39 2018-01-30::14:41:38 2018-01-30::14:41:36 2018-01-30::14:41:35	Details Motion detection Motion detection Motion detection Server Online Motion detection Server Online	Server 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77	Camera Cam017 Cam017 Cam017 Cam017 Cam015	Alarm Ge VC_Cam(VC_Cam(VC_Cam(VC_Cam(

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



Add SMS

Ad	ld New S	MS Server			×			
	Login	SMS Server I	P Address :	127 . 0 . 0 . 1				
		Login User Na	ame :	UserName				
		Login Passwo	ord :	•••••				
	Port 1	forwarding' ena	abled at serve	r				
	TCP Port	1:	5500	RTSP Port(TCP):	1024			
	HTTP Por	t(TCP):	9900	RTP Port(UDP):	20000			
				RTCP Port(UDP):	20001			
	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 in 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

- i) **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
- ii) **Stop Button:** Stops processing. After doing "Stop Processing", user can add / delete SMS servers and can also change various settings.

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

ten nap bestind ons.				
Trap Destination				
1 177.0.0.1				Add New
1 127.0.0.1				
IP address of the SN	MP N	/lanage	r machine	Remove
ogs				
✓ Log all SNMP rraps and SNM	1P trap	errors		
vents for SNMP Traps				
Events Net Colorted			Events Colocted	
Events Not Selected			Events Selected	
Activity Logs Full	^		Audio signal loss	
Activity logs recovery			Server Offline	
ATM/POS Transaction Update			Server Online	
ATM/POS Transaction Update Audio signal recovery		>	Server Online Video signal loss	
ATM/POS Transaction Update Audio signal recovery Camera IO In 1		>	Server Online Video signal loss	
ATM/POS Transaction Update Audio signal recovery Camera IO In1 Camera IO In10		> <	Server Online Video signal loss	
ATM/POS Transaction Update Audio signal recovery Camera IO In1 Camera IO In10 Camera IO In11		> <	Server Online Video signal loss	
ATM/POS Transaction Update Audio signal recovery Camera IO In1 Camera IO In10 Camera IO In11 Camera IO In12		>	Server Online Video signal loss	
ATM/POS Transaction Update Audio signal recovery Camera IO In1 Camera IO In10 Camera IO In11 Camera IO In12 Camera IO In12		>	Server Online Video signal loss	
ATM/POS Transaction Update Audio signal recovery Camera IO In1 Camera IO In10 Camera IO In11 Camera IO In12 Camera IO In13 Camera IO In13 Camera IO In14		> <	Server Online Video signal loss	
ATM/POS Transaction Update Audio signal recovery Camera IO In10 Camera IO In10 Camera IO In11 Camera IO In12 Camera IO In13 Camera IO In14 Camera IO In15		> <	Server Online Video signal loss	
ATM/POS Transaction Update Audio signal recovery Camera IO In1 Camera IO In10 Camera IO In11 Camera IO In12 Camera IO In13 Camera IO In14 Camera IO In15 Camera IO In15		> <	Server Online Video signal loss	
ATM/POS Transaction Update Audio signal recovery Camera IO In1 Camera IO In10 Camera IO In10 Camera IO In12 Camera IO In13 Camera IO In13 Camera IO In14 Camera IO In15 Camera IO In16 Camera IO In2		> < >> <<	Server Online Video signal loss	
ATM/POS Transaction Update Audio signal recovery Camera IO In1 Camera IO In10 Camera IO In11 Camera IO In12 Camera IO In13 Camera IO In14 Camera IO In15 Camera IO In15 Camera IO In2 Camera IO In2 Camera IO In3		> < >> <<	Server Online Video signal loss	
ATM/POS Transaction Update Audio signal recovery Camera IO In1 Camera IO In10 Camera IO In11 Camera IO In12 Camera IO In12 Camera IO In14 Camera IO In15 Camera IO In16 Camera IO In16 Camera IO In2 Camera IO In2 Camera IO In3 Camera IO In3 Camera IO In4		> <	Server Online Video signal loss	
ATM/POS Transaction Update Audio signal recovery Camera IO In1 Camera IO In10 Camera IO In11 Camera IO In12 Camera IO In12 Camera IO In14 Camera IO In15 Camera IO In15 Camera IO In2 Camera IO In2 Camera IO In2 Camera IO In2 Camera IO In4 Camera IO In5		> <	Server Online Video signal loss	
ATM/POS Transaction Update Audio signal recovery Camera IO In1 Camera IO In10 Camera IO In11 Camera IO In12 Camera IO In12 Camera IO In14 Camera IO In15 Camera IO In15 Camera IO In2 Camera IO In3 Camera IO In3 Camera IO In3 Camera IO In4 Camera IO In5 Camera IO In5 Camera IO In5 Camera IO In6		> < >> <<	Server Online Video signal loss	
ATM/POS Transaction Update Audio signal recovery Camera IO In1 Camera IO In10 Camera IO In11 Camera IO In12 Camera IO In12 Camera IO In14 Camera IO In15 Camera IO In16 Camera IO In16 Camera IO In2 Camera IO In3 Camera IO In4 Camera IO In4 Camera IO In5 Camera IO In5 Camera IO In6 Camera IO In6 Camera IO In7		> <	Server Online Video signal loss	

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:

VMS		Status			
127.0.	0.1	Offline			
192.16	8.0.77	Online			
192.16	8.0.67	Online			
				Add	Delete
MP Tra	aps Processing				
MP Tra	aps Processing	cess Stop	Settings		
MP Tra	aps Processing Pro	cess Stop	Settings		
NMP Tra arms	aps Processing	cess Stop	Settings		
NMP Tra arms Index	aps Processing Prov	cess Stop	Settings	Camera	Alarm ^
NMP Tra arms Index 9	Alarm Time 2018-01-30:::14:31:37	Cess Stop Details Motion detection	Settings Server 192.168.0.67	Camera Cam281	Alarm ^ VC_C
IMP Tra arms Index 9	Alarm Time 2018-01-30::14:31:37 2018-01-30::14:31:33	Details Motion detection Server Online	Settings Server 192.168.0.67 192.168.0.67	Camera Cam281	Alarm ^ VC_C
arms Index 9 7	Alarm Time 2018-01-30::14:31:37 2018-01-30::14:31:33 2018-01-30::14:31:31	Details Motion detection Server Online Motion detection	Server 192.168.0.67 192.168.0.77	Camera Cam281 Cam017	Alarm ^ VC_C VC_C
arms Index 9 7 6	Alarm Time 2018-01-30::14:31:37 2018-01-30::14:31:33 2018-01-30::14:31:31 2018-01-30::14:31:31	Cess Stop Details Motion detection Server Online Motion detection Server Online	Server 192.168.0.67 192.168.0.77 192.168.0.77 192.168.0.77	Camera Cam281 Cam017	Alarm ^ VC_C VC_C
arms Index 9 8 7 6 5	Alarm Time 2018-01-30::14:31:37 2018-01-30::14:31:33 2018-01-30::14:31:31 2018-01-30::14:31:31 2018-01-30::14:31:30 2018-01-30::14:30:40	Details Motion detection Server Online Motion detection Server Online Server Online Server Online	Server 192.168.0.67 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77	Camera Cam281 Cam017	Alarm ^ VC_C VC_C
arms Index 9 8 7 6 5 4	Alarm Time 2018-01-30::14:31:37 2018-01-30::14:31:33 2018-01-30::14:31:31 2018-01-30::14:31:31 2018-01-30::14:31:30 2018-01-30::14:30:40 2018-01-30::14:30:11	Cess Stop Details Motion detection Server Online Motion detection Server Online Server Online Motion detection	Server 192.168.0.67 192.168.0.67 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77	Camera Cam281 Cam017 Cam015	Alarm ^ VC_C VC_C VC_C
IMP Tra arms Index 9 8 7 6 5 4 3	Alarm Time 2018-01-30::14:31:37 2018-01-30::14:31:33 2018-01-30::14:31:31 2018-01-30::14:31:31 2018-01-30::14:31:30 2018-01-30::14:30:40 2018-01-30::14:30:11 2018-01-30::14:30:3	Cess Stop Details Motion detection Server Online Motion detection Server Online Server Online Motion detection Motion detection	Server 192.168.0.67 192.168.0.67 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77	Camera Cam281 Cam017 Cam015 Cam017	Alarm ^ VC_C VC_C VC_C VC_C
arms Index 9 8 7 6 5 4 3 2	Alarm Time 2018-01-30:: 14:31:37 2018-01-30:: 14:31:33 2018-01-30:: 14:31:31 2018-01-30:: 14:31:31 2018-01-30:: 14:31:30 2018-01-30:: 14:30:40 2018-01-30:: 14:30:11 2018-01-30:: 14:30:32 2018-01-30:: 14:29:52	Cess Stop Details Motion detection Server Online Motion detection Server Online Server Online Motion detection Motion detection Motion detection Motion detection	Server 192.168.0.67 192.168.0.67 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77	Camera Cam281 Cam017 Cam015 Cam017 Cam017	Alarm ^ VC_C VC_C VC_C VC_C VC_C VC_C
Index 9 8 7 6 5 4 3 2 1	Alarm Time 2018-01-30:: 14:31:37 2018-01-30:: 14:31:33 2018-01-30:: 14:31:31 2018-01-30:: 14:31:31 2018-01-30:: 14:31:30 2018-01-30:: 14:30:11 2018-01-30:: 14:30:11 2018-01-30:: 14:30:3 2018-01-30:: 14:29:52 2018-01-30:: 14:29:52	Cess Stop Details Motion detection Server Online Motion detection Server Online Server Online Motion detection Motion detection Motion detection Motion detection Motion detection	Settings Server 192.168.0.67 192.168.0.67 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77 192.168.0.77	Camera Cam281 Cam017 Cam015 Cam017 Cam017 Cam017 Cam015	Alarm ^ VC_C VC_C VC_C VC_C VC_C VC_C
Index 9 8 7 6 5 4 3 2 1 0	Alarm Time 2018-01-30:: 14:31:37 2018-01-30:: 14:31:33 2018-01-30:: 14:31:31 2018-01-30:: 14:31:31 2018-01-30:: 14:31:30 2018-01-30:: 14:30:11 2018-01-30:: 14:30:11 2018-01-30:: 14:29:52 2018-01-30:: 14:29:52 2018-01-30:: 14:29:52	Cess Stop Details Motion detection Server Online Motion detection Server Online Server Online Motion detection Motion detection Motion detection Motion detection Motion detection Server Online	Settings Server 192.168.0.67 192.168.0.77 19	Camera Cam281 Cam017 Cam015 Cam017 Cam017 Cam015	Alarm ^ VC_C VC_C VC_C VC_C VC_C VC_C VC_C

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.