Senstar® security solutions managed by Senstar’s Network Manager can be integrated with any security software application that processes text strings received over TCP/IP or serial interfaces as events. For example, consider a scenario where a Senstar perimeter sensor like FlexZone or OmniTrax detects an intrusion attempt in zone 2 of a site. The Network Manager can then generate a custom-formatted text string that directs a Video Management System (VMS) to direct cameras to the area to record the event or a Security Management System (SMS) to generate an alarm and display the zone on an operator’s map.

Text-string output enables the Network Manager to be quickly integrated into many systems, thus avoiding the requirement to use cumbersome relay-based approaches or custom software integrations.

In this application note, we show how to integrate Senstar products with a site managed by Milestone’s XProtect VMS (Professional and Corporate versions, 2014 and 2016) by using its event server and generic event functionality.

**INTEGRATING XPROTECT WITH SENSTAR PRODUCTS**

While the configuration differs slightly between XProtect Professional and Corporate versions, the integration process consists of two basic overall steps:

1. Enable text string output in the Senstar Network Manager and add the text to each individual alarm or event.

2. Configure these strings as generic events in the XProtect Management Client.

Once completed, the two systems are integrated. You can then configure XProtect to handle Network Manager events like other events, including assigning rules to initiate actions as well as generating alarms.
STEP 1. CONFIGURE NETWORK MANAGER

Configuring the Network Manager to generate text strings in response to alarms and events is a simple process.

First, configure text output in the Network Manager:

1. In the Text tab of the SMS settings:
   - XProtect Corporate: Select TCP/IP Client
   - XProtect Professional: Select UDP/IP
2. Configure the IP addresses and ports used by the XProtect Event Server
3. Select ASCII text encoding
4. Set the message end delimiter values to 0D (carriage return) and 0A (line feed).
5. Configure a periodic keep alive message (optional).

STEP 2. CONFIGURE GENERIC EVENTS (CORPORATE)

In XProtect Management Client (Corporate version), you define each text string from the Network Manager as a “generic event”:

1. In the Generic Events settings (Tools > Options), configure the system to accept events from the Network Manager’s IP address. Depending on your system, you will need to configure the IP address, port number, and separator bytes.

   Configure Generic Events Settings

2. In the Rules and Events node, right-click and select Add New.
3. Create an expression that generates a match for the text string.
4. Repeat this process for the other text strings generated by Senstar devices. Once complete, the Senstar alarms will be accessible within XProtect, thus integrating the two systems.

   Sample Match Criteria for a Generic Event

Text Output Settings in Network Manager

Next, in the configuration options for each Senstar device (or node), configure a different text string for each event to be reported in XProtect, including:

- Zone and supervision alarms
- Auxiliary input and relay output events
- Communication and diagnostic alarms

Depending on the type of event, you can include different text strings for enable and disable states.

Sample Text String for an Alarm
INTEGRATING NETWORK MANAGER WITH MILESTONE XPROTECT

APPLICATION NOTE

STEP 2 CONFIGURE GENERIC EVENTS (PROFESSIONAL)

In XProtect Management Client (Professional version), you define each text string from the Network Manager as a “generic event”.

1. In the Events and Output > Generic Events node, add a new event for each alarm.
2. Create an expression to match the Network Manager text string.
3. Select UDP as the Event protocol.
4. Repeat this process for the other text strings generated by Senstar devices. Once complete, the Senstar alarms will be accessible within XProtect, thus integrating the two systems.

TRIGGER CAMERA ACTIONS

In XProtect you can create rules that perform actions whenever one of the previously defined generic events occurs. For example, you could create a rule that automatically starts a live video feed of zone 2 on the perimeter whenever an intrusion is detected.

5. If the Network Manager is running on a different server, add its IP address to XProtect (Options menu).
6. In the Rules and Events node, right-click on Rules and select Add Rule.
7. Create an action based on the generic event. You can add actions like adjust a PTZ camera, start recording, or display a live stream.
8. Repeat this process for the other generic events.

LINK GENERIC EVENTS WITH ALARMS

In XProtect, you can associate generic events with alarms that appear in the user’s Smart Client Alarm Manager.

Any generic event can be used to generate an alarm. For example, you can create a unique alarm for each zone alarm, supervision or tamper alarm, as well as the state of any auxiliary input devices.

1. Expand the Alarms node.
2. Create an alarm based on the generic event. You can associate the alarm with custom perimeter maps as well as have the XProtect display instructions to the operator. You can also have the alarm other events, if required.
3. Repeat this process for the other generic events that you want to generate alarms in the operator’s Smart Client screens.

TEST THE INTEGRATION AND MILESTONE CONFIGURATION

You can test the integration and Milestone configuration before deploying it by using terminal software to generate the generic events in XProtect, as well as viewing the Network Manager text output directly.
VIEWING ALARMS IN SMART CLIENT

Now that the Senstar Network Manager and Milestone XProtect VMS are integrated, the events generated by the Network Manager are displayed in the Smart Client. In the following sample screen, an intrusion attempt on the perimeter generates an alarm. The operator can click on the camera icon to display the live video feed.

ABOUT SENSTAR

Senstar researches, develops, manufactures, and markets the largest portfolio of sensor-technology-based security products and systems in the world. We are the trusted choice and industry leader in perimeter security solutions around the world, while our life safety/emergency call solutions are used throughout penitentiaries, jails, and courthouses in the U.S. and Canada.

By offering products that we manufacture, we can service, customize, and expand to meet the requirements for any project. From sensors to alarm monitoring and control, life safety systems to infrared illuminators and CCTV solutions, Senstar delivers superior technology, products and service in providing you with a complete security solution.