

Orbnet Systems are proud to Present:
The Alarm Server



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What is The Alarm Server?

The Alarm server is a single .msi that is installed on the same machine as the Milestone XProtect Event Server.

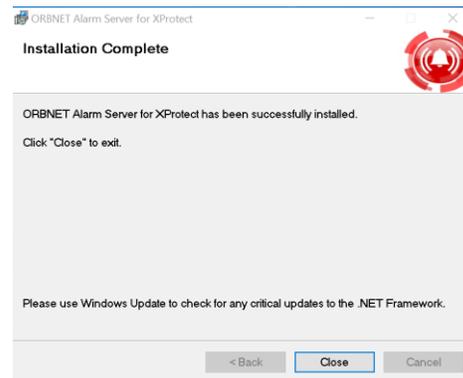
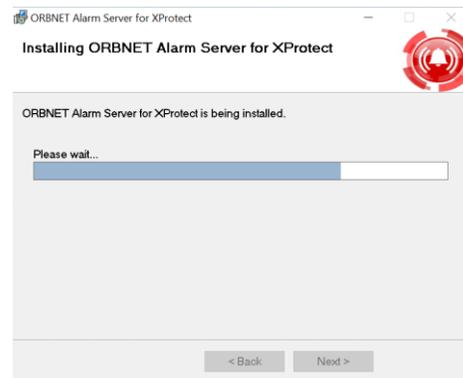
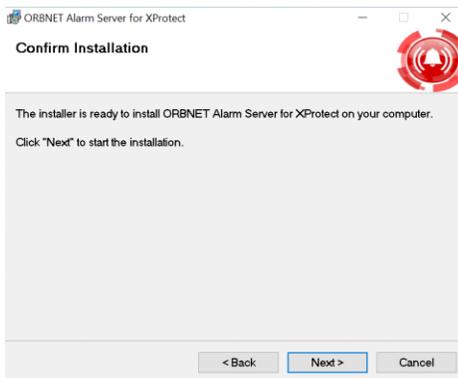
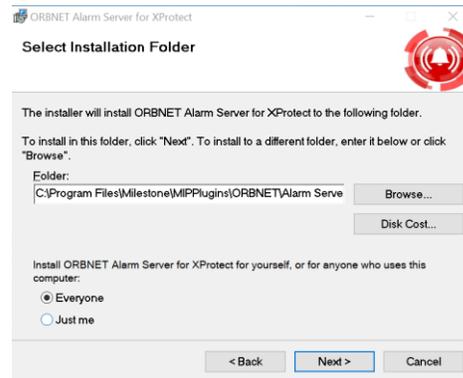
Current list of supported features and protocols:

- SIA-DCS and Contact ID protocols for sending alerts to alarm monitoring stations (no hardware required).
- SIA-DCS alarm receiver. You can configure up to 1000 alarm points per alarm panel and place them as sensor on XProtect maps. You can associate cameras to your alarm points and select an icon for each alarm point.

Installation

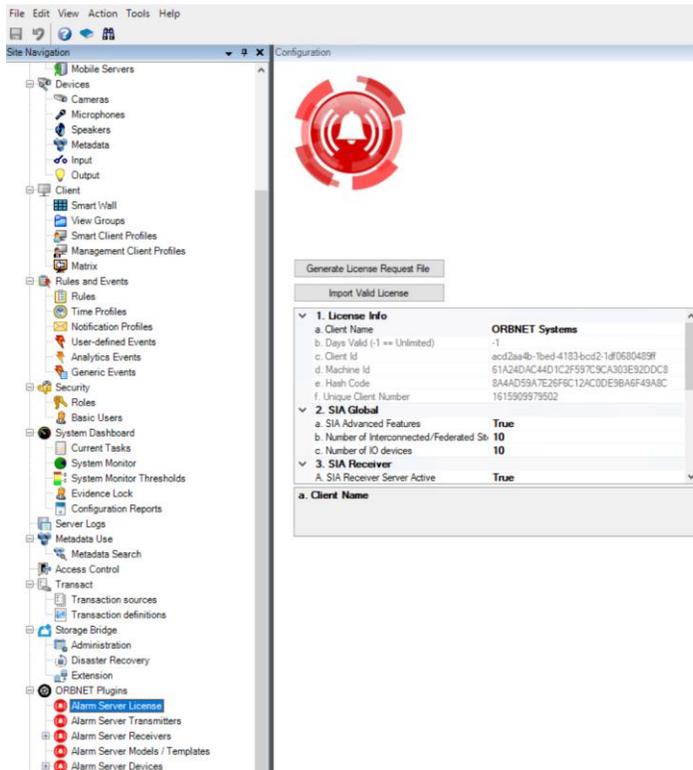
Everything you need to install The Alarm Server is self-contained in the “AlarmServerSetup.msi”

- right click the .msi and hit install. The installer will prompt you to restart the Event Server.



License

After installing The ORBNET Systems Alarm Server, a 30day trial is initiated. The number of testing days remaining in the trial will appear in a popup window every time you open this page. You must make sure the features you want to use are activated in the list below. If the page is blank, re-open the management client and run as “Administrator”.



The screenshot shows the ORBNET Systems Alarm Server Configuration window. The 'Site Navigation' tree on the left includes categories like Mobile Servers, Devices, Client, Rules and Events, Security, System Dashboard, Server Logs, Metadata Use, Access Control, Transaction, Storage Bridge, Administration, and ORBNET Plugins. The 'Configuration' panel on the right features a red alarm bell icon and two buttons: 'Generate License Request File' and 'Input Valid License'. Below these buttons is a table with the following data:

1. License Info	
a. Client Name	ORBNET Systems
b. Days Valid (-1 == Unlimited)	-1
c. Client Id	acd2aa4b-1bed-4183-bcd2-1d0680489f
d. Machine Id	61A24DAC44D1C2F597C9CA303E32DDC8
e. Hash Code	8AAAD59A7E26F5C12AC0DE9BA6F49A8C
f. Unique Client Number	1615909979502
2. SIA Global	
a. SIA Advanced Features	True
b. Number of Interconnected/Federated St.	10
c. Number of IO devices	10
3. SIA Receiver	
A. SIA Receiver Server Active	True

Below the table is a section for 'a. Client Name'.

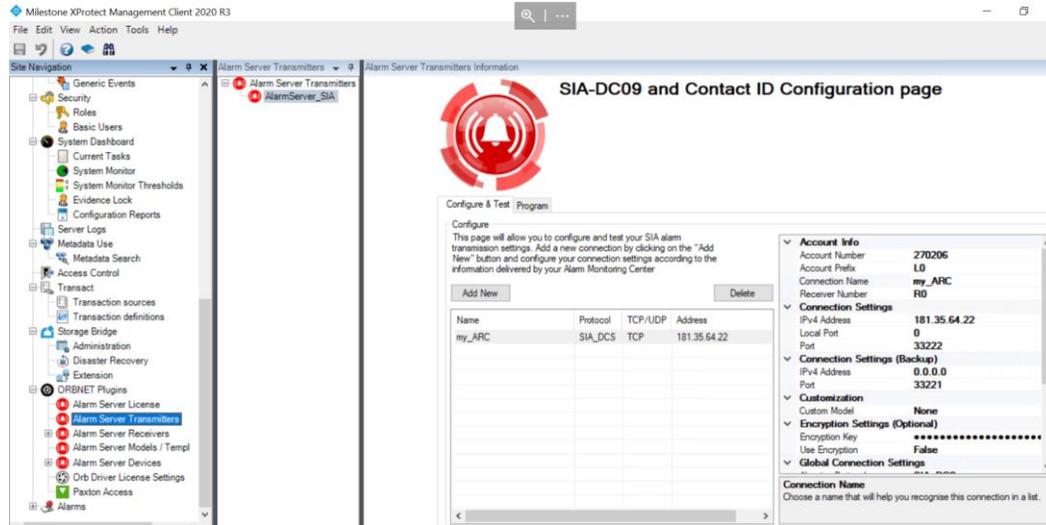
When you decide to purchase a license, simply select the features you want to use and add the values, complete the “Client Name” field and press the “Generate License Request File” button. This will prompt you to save the license on your hard drive. Send an email with the license request (license.aslr) to purchase@orbnet.com and our purchase department will send a quotation or invoice depending upon the request. Once the payment is sent, please send another email to purchase@orbnet.com allowing 1 business day to deliver you the license to you.



Please restart the Event Server after making changes to the license or when opening this page for the first time.

Alarm Server Transmitter

This page allows you to configure multiple Alarm Receiving locations for the ORBNET Alarm Server to transmit/send SIA and/or Contact ID alarms. Click "Add New" and fill in the relevant information using the box on the far right.



Account Info

A. Account Number

- i. Commonly a 6-digit code provided by your alarm monitoring station. This number identifies you to the monitoring center.
- ii. The account number prefix. Usually "LO" unless your alarm monitoring center indicates otherwise.
- iii. Choose a name that will help you recognize this connection in a list
- iv. The receiver number. Usually "\"R0\"" unless your alarm monitoring center indicates otherwise.

B. Connection Settings

- i. The IPv4 address of the alarm monitoring station.
- ii. The local port number of the alarm monitoring station
- iii. The port number of the alarm monitoring station

C. Connection Settings (Backup)

The backup settings are used for redundancy. The Alarm Server will attempt to send the alarm 3 times at 30s intervals before using the backup.

- i. The IPv4 address of the alarm monitoring station.
- ii. The local port number of the alarm monitoring station

D. Customization

- i. Custom Model – (specific for custom developments of the alarm server)

E. Encryption Settings (Optional)

- i. Select "\"True\"" if the alarms are to be encrypted. For this, you will need a 128 or 256 bit encryption key from your alarm monitoring company"

F. Global Connection Settings

- i. Alarming Protocol - The alarm protocol used. Supported protocols include SIA-DC09 and Contact.
- ii. Network Protocol - The network protocol used. Supported protocols include TCP and UDP

G. Keep Alive Settings

- i. Active – True/False | Encrypted – True/False and interval time in minutes

Testing

To test the SIA-DC09 or Contact ID connection, select a receiver from the “Configure” list above and press the "Test Send" button. Please warn the alarm monitoring station before sending the message or use a test code (like 600) to avoid causing panic. If your alarm monitoring station does not receive the alarm, try disabling the encryption or removing the extension data. When you click “Test Send”, the alarm being sent will be presented to you. At this point, you can “paste” the message in a text editor. Once you click ok, the message will be sent. Any errors will be displayed to you. If you receive a message that contains an “ACK”, you can be sure that the alarm has been properly received.

Test

This section allows you to send a test message to your alarm monitoring station. To test the connection, select one from the list above and press the "Test Send" button. Please warn your alarm monitoring company before sending the message or use a test code (like 600) to avoid causing panic. If your alarm monitoring station does not receive the alarm, try disabling the encryption or removing the extension data.

Event Point Used to describe the group or point on which the event occurred.	0	Response from server
Sequence Number Should be incremented after each message is sent (can be left at zero for testing)	0	

Test SIA Protocol

SIA Alarm Criteria
2 letter code used to indicate the type of alarm.

Use text field (Supported by most receivers, will encase the message between ^ characters)

Send Extension Data

A list of extensions can be send with the SIA alarm if your alarm monitoring station supports it.
Typical data can include floor, building, address, GPS coords, etc... each enclosed in [].
The first letter following a [is the identifier. The identifier can be any letter from G to Z.

[H13:59:58, 12:31:2012][2nd Floor West PIR]
[S123Main St., 55123][OIDS Center][L3rd Floor Hallway]
[R2322]

Test Contact ID protocol

Event Definition Code
Values from 0-999 used to indicate the type of alarm.

[http://library.ademconet.com/MWT/fs2/MX8000/List-of-Contact-ID-Codes PDF](http://library.ademconet.com/MWT/fs2/MX8000/List-of-Contact-ID-Codes-PDF)

600

Test Send

Examples

A list of common alarm codes can be found for both SIA-DC09 and contact ID using these links:

http://www.nexgenerationcentral.com/Portals/7/sia_library.pdf

<https://www.emergency24.com/images/pdf/Contact-ID-codes.pdf>

Please check with your local alarm monitoring center to make sure these codes comply with their expectations.

Alarm Configuration – Simple mode

In simple configuration mode you can quickly setup SIA alarms for new and existing alarm definitions. The idea is to use the data contained inside XProtect Alarm definitions to generate SIA alarms.

Setting up the categories

The category is very important to send alarms. You must make sure to create the Category with the following template:

<Account number>_<Alarm criteria>

- The Account number must be a valid 6-digit account number that has been preconfigured in the SIA configuration tab.
- The alarm criteria is a 2 digit code (capital letters) describing the type of alarm.
- Make sure there is an underscore (_) between the account number and the alarm criteria.

The screenshot shows the Milestone XProtect Management Client 2020 R3 Configuration window. The left sidebar shows the navigation tree with 'Alarm Data Settings' selected. The main window displays the 'Alarm Data Levels' configuration page, which includes three tables: 'Priorities', 'States', and 'Categories'.

Level	Name	Sound	Repeat sound	Enable desktop notifications
1	High	Windows Beep	<input type="checkbox"/>	<input type="checkbox"/>
2	Medium		<input type="checkbox"/>	<input type="checkbox"/>
3	Low		<input type="checkbox"/>	<input type="checkbox"/>

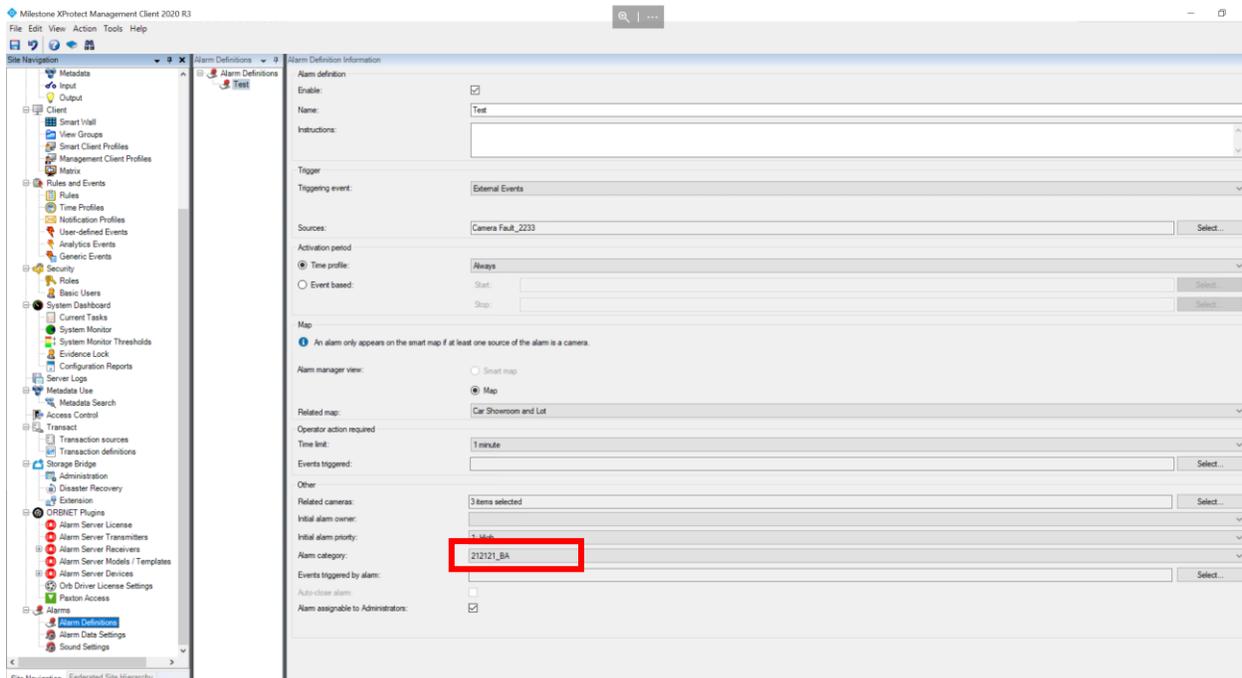
To display desktop notifications for new alarms, desktop notifications must be enabled in the Smart Client profiles.

Level	Name
1	New
4	In progress
9	On hold
11	Closed

Level	Name
1	159263_BR
1	147258_BA
1	212121_BA

Configuring the alarm definitions

Any alarm definition created using the custom categories you have implemented in the step above can be used to generate SIA alarms. Make sure you select the right Alarm Category and that the Time profile is active when you are making tests. All of Milestone's events are available, including any events added by installed 3rd party plugins. You can easily test your alarms using "External Events" that can be added and triggered in the "User-defined Events" tab.



The SIA alarm will look something like this:

FE3800A3"SIA-DCS"000R0L0#212121[#212121|NBA001][|AlarmName: Test, AlarmType: External Event, Source: SmartWall1][GUID cam1, GUID cam2, GUID cam3, etc...]_11:30:49,04-15-2019

The extension data will contain the Alarm Definition name, the source type and the source name, followed by the comma delimited GUID of attached cameras. The camera GUID's are generally used by the monitoring station in combination with Milestone SDK to view cameras when alarms are triggered. Orbnets RTSP Server may also assist with this feature is required, please write to info@orbnet.com for further information.

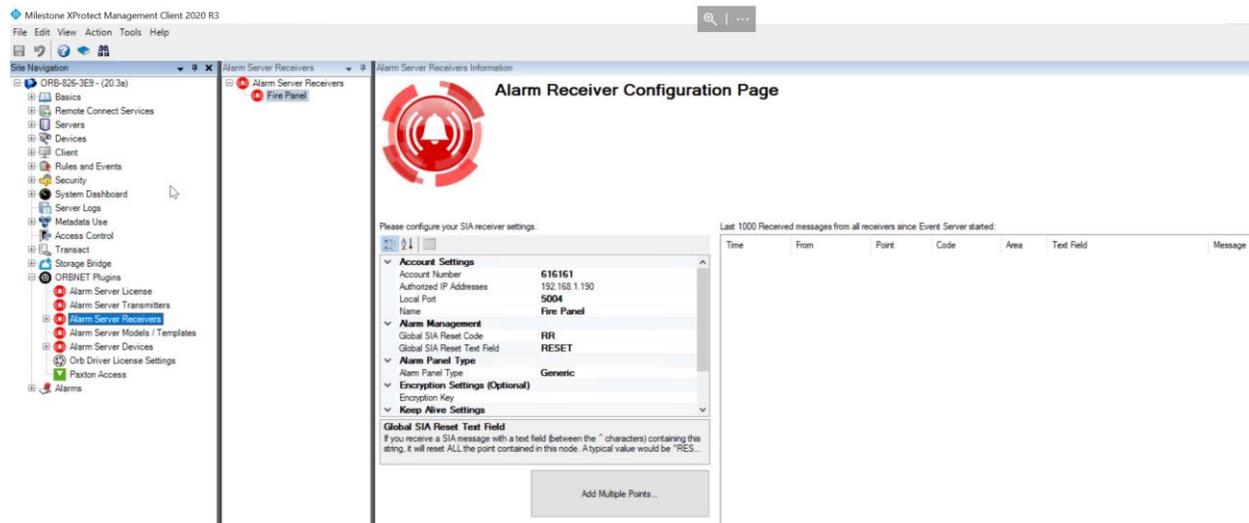
The Alarm Server – SIA-DCS Receiver

Adding an alarm panel

When activated, this feature turns Milestone into a supervisor for any compatible SIA-DCS alarm panel. To add a panel, start by selecting the “Alarm Server Receivers” node, right click on the top node and select “Add New”.

Fill in all the field. A detailed description is available for each field in the help box. You may need to expand the help box if some text is cut out.

To the far right and to aid configuration there is a logger that will display the last 1000 messages since the Milestone Event Server was last started.



The screenshot shows the Milestone XProtect Management Client 2020 R3 interface. The main window is titled "Alarm Receiver Configuration Page" and features a red fire alarm icon. The configuration area is divided into several sections:

- Account Settings:** Account Number (616161), Authorized IP Addresses (192.168.1.190), Local Port (5004), Name (Fire Panel).
- Alarm Management:** Global SIA Reset Code (RR), Global SIA Reset Text Field (RESET).
- Alarm Panel Type:** Alarm Panel Type (Generic).
- Encryption Settings (Optional):** Encryption Key.
- Keep Alive Settings:** (Empty section).

Below the configuration sections is a "Global SIA Reset Text Field" help box with the text: "If you receive a SIA message with a text field between the " characters) containing this string, it will reset ALL the port contained in this node. A typical value would be "RES...". Below this is an "Add Multiple Ports..." button.

On the right side, there is a table titled "Last 1000 Received messages from all receivers since Event Server started:" with columns: Time, From, Port, Code, Area, Text Field, and Message. The table is currently empty.

Adding alarm points

This page allows you to add and configure alarm points. Click the “Add New” button by right clicking on the panel you added, select it and you can fill in the information. Each point is characterized by its unique “Point Number” ranging from 0-999. You can choose if you want the alarm to be triggered by a SIA code or by a match in the text field. This can be useful to differentiate warning from alarms. Changing the “Zone Type” will change the icon for the alarm point.

There is a help list of supported SIA codes along with their names and descriptions included at the bottom of the page. If you use a code in this list, the name and description will appear in the Milestone Alarm description.

You do not need to create any alarms in the Milestone alarm definitions tab for these alarms to be activated and display icon status in the Smart Client.

The screenshot displays the 'Alarm Points Configuration Page' in the Milestone XProtect Management Client. The left sidebar shows a navigation tree with 'Alarm Points' selected. The main content area features a red fire alarm icon and a configuration form. The form includes a 'Point Settings' section with the following fields:

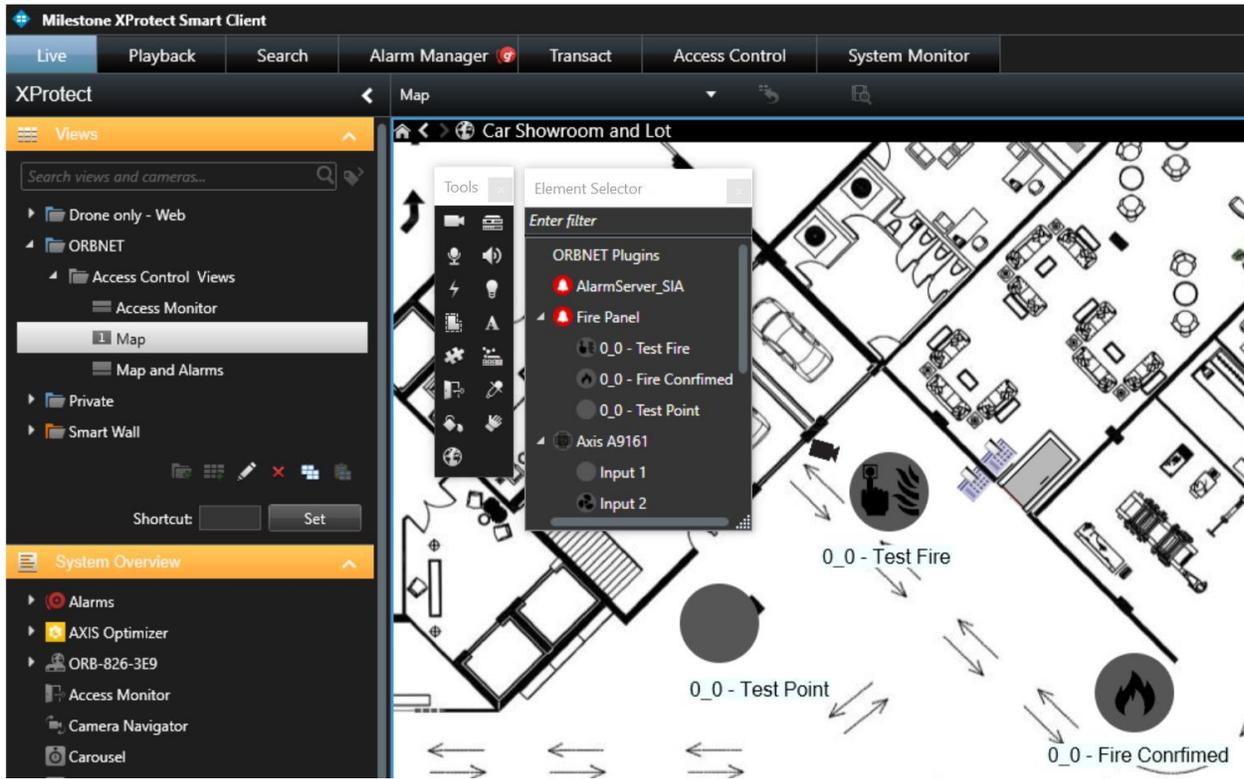
- Point Description: Test Fire
- Point Model: Fire Condition
- Point Name: Test Fire
- Point Number: 0

Below the form, there are four buttons: 'Select Model...', 'Select Cameras...', 'Select Alarm External Events...', and 'Select Reset External Events...'. At the bottom of the page, a table titled 'The properties of your selected model' provides the following information:

Priority	SIA Alarm Codes	Text Field Matches	Restoration Codes
Red	BA		BR
Orange	BT		BC
Yellow	BX		BJ

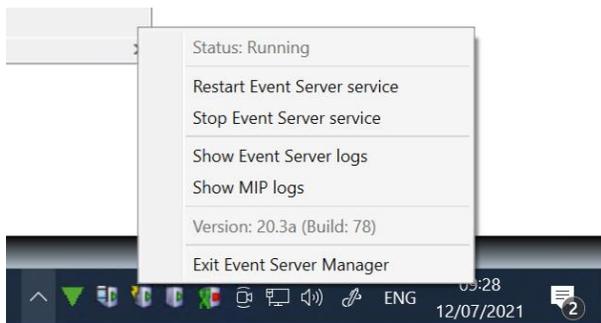
Adding alarm points on a Milestone Map

Enter the setup mode in the Smart Client and create a new Map. Once the map is created, you will see your panels and zones in the MIP items folder. Simply drag & drop the icon to the map - it will light up if an alarm is triggered on that zone. The icon will go back to a grey icon if the reset event is triggered, if the alarm is simply closed and the reset event is not triggered, the icon will remain in the color related to the state in the Alarm model.



Debugging

If you have trouble sending the SIA alarms or want to check if the SIA alarms have been received by your alarm monitoring station, you can open the MIP logs of the event server.



These logs will show if the alarm has been sent, if any alarms have been received, if any errors have occurred, if an ACK has been received or not after having sent the alarm and if the backup IPv4 address has been used. We advise you to check the logs in case of a failure before

contacting Orbnets Support, Milestone XProtect Event Server and MIP logs are highly verbose and can provide useful information to debug the problem before contacting Orbnets Systems.

Alarm Server Devices

The Alarm Server now supports IP/IO devices (as of the writing of this manual this is limited to the Axis A9161 with firmware 1.84.1. The advantage to supporting the device directly in the ORBNET Alarm Server is that the continual state of an input on a device can then be shown on a map.

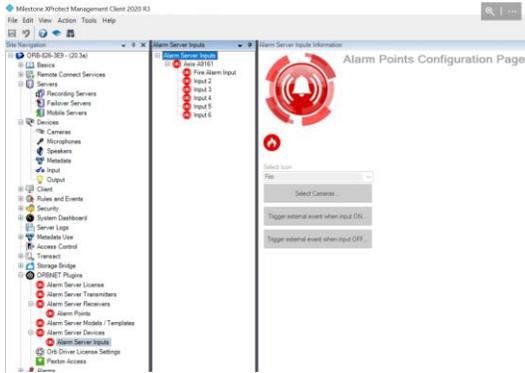


Select the Device type, Set the IP Address, specify the port, username, and password. If successfully connected with the Auto Detect button and the Alarm Server will query the device and then place the inputs in the right window.

In the window to the right, you can in real time see the state of the inputs

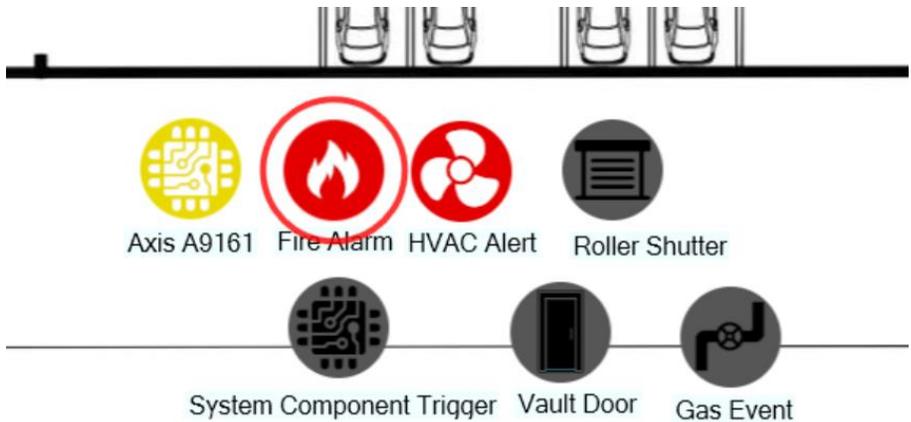
Alarm Server Points Configuration

Once the device is added you can move to the Alarm server Inputs dialog, here each icon be set with an icon and renamed.



Alarm Server Devices inputs on a map





Status of devices – note that the IP/IO device itself can be added to the map and will turn yellow under fault / disconnection condition. There are 28 icons to choose from and these can be set to be red (active) and grey (normal condition)

If Milestone alarms are configured on the input, then the red alarm alert ring will appear around the input. The alarm in Milestone can be closed – though the icon will remain in the current input state.

Supported Devices

Manufacturers	Supported IP Devices	Firmware	Notes
Axis Communications	A9161	1.84.1	
Axis Communications	M1054	5.51.7.4	