

The background of the entire slide is a photograph of a modern building's interior. It features a large glass facade on the right side, reflecting the sky. In the foreground, there are several people walking and an escalator. The lighting is bright, suggesting a well-lit, open-plan space.

NUCLEUS

3D Unified Management System for Smart Buildings & Cities

Milestone XProtect Adapter

User Training

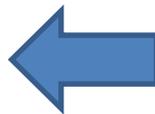
#	Topic
1	Overview
2	Setup
3	Configuration
4	Add external credentials
5	Add a Milestone Camera
6	Matrix Monitor
7	Milestone Alarm

Overview

Overview

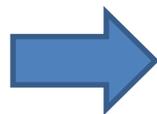
The screenshot shows the Milestone XProtect Smart Client interface. At the top, there are tabs for 'Live', 'Playback', 'Sequence Explorer', 'Alarm Manager', and 'System Monitor'. The main area displays two camera feeds: 'Axis M5013 Camera (10.0.0.227) - Camera 1' and 'Axis P85xx Camera Series (10.0.0.148) - Camera 1'. Below the feeds is an 'Alarms' section with a table of events.

Event	Time	Priority Level	State Level	State Name	Message	Source	Owner	ID
New	2:19:20 PM 5/22/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2284
New	11:05:20 AM 5/22/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2283
New	10:33:08 AM 5/22/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2282
New	10:21:03 AM 5/22/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2281
New	10:28:59 AM 5/22/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2280
New	10:07:13 AM 5/22/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2277
New	9:58:37 AM 5/22/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2276
New	9:44:44 AM 5/22/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2275
New	7:59:59 AM 5/22/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2274
New	6:58:42 PM 5/17/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2273
New	10:31:18 AM 5/17/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2272
New	10:31:09 AM 5/17/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2271
New	8:41:52 AM 5/17/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2270
New	7:15:22 PM 5/16/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2269
New	7:12:34 PM 5/16/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2268
New	6:52:21 PM 5/16/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2267
New	6:52:21 PM 5/16/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2266
New	1:19:40 PM 5/16/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2265
New	10:55:58 AM 5/16/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2264
New	10:47:46 AM 5/16/2013	1	1	New	Motion Detect	Axis M50xx Camera (10.0.0.)		2263



From XProtect...

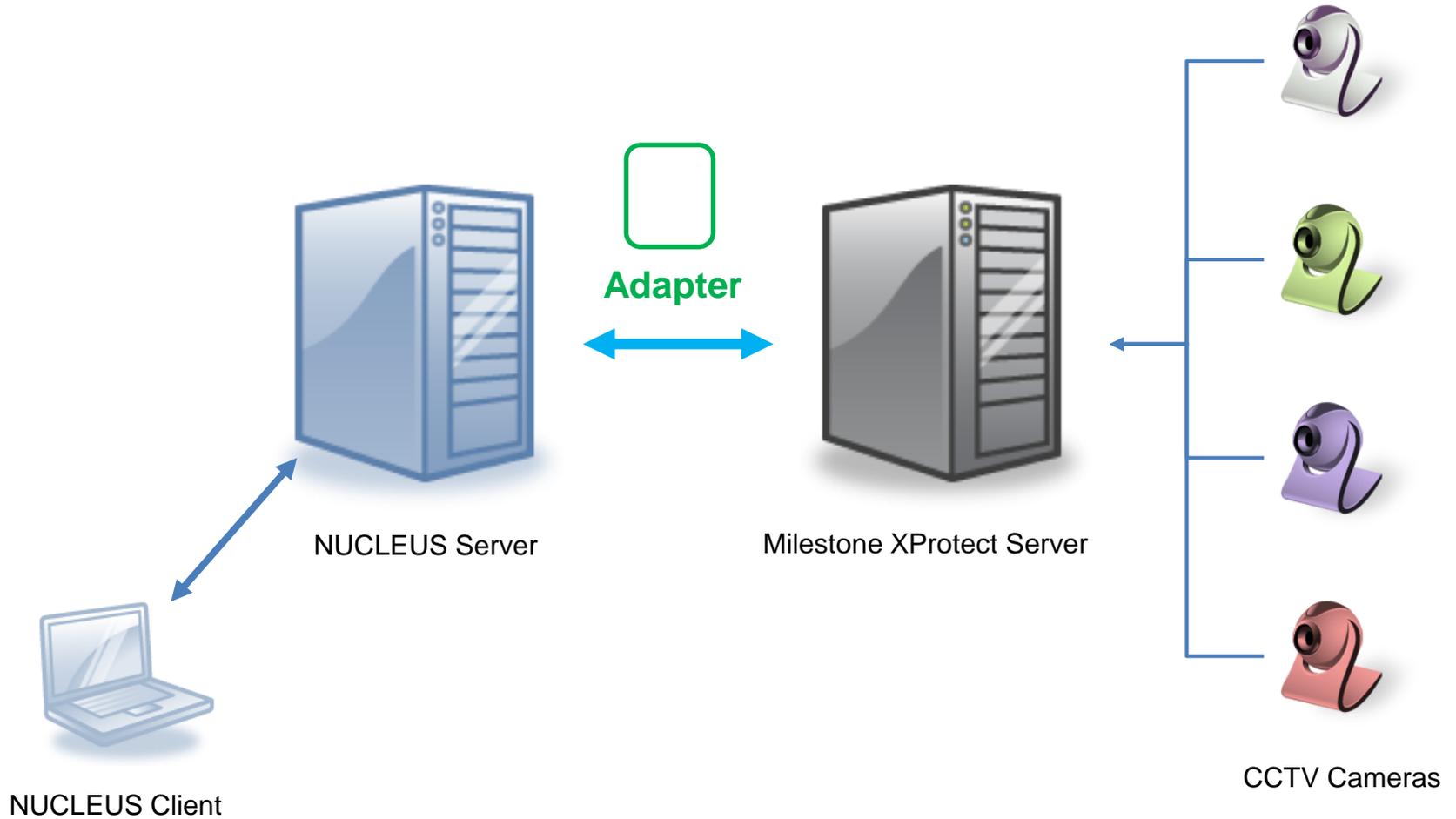
... to
NUCLEUS



The screenshot shows the NUCLEUS 3D Unified Management System interface. The main view is a 3D floor plan of a building with a camera feed window titled 'Axis Covert Camera P8514' showing a room interior. The interface includes a top navigation bar with 'Administrator [admin]', 'Scene Control', and 'Tue May 14 2013 5:53:33 PM'. On the right, there is an 'Advanced Filter' section with a list of devices and their attributes.

Name	Local Id	State	Time	Source	A...
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Overview



Supported editions

The Milestone XProtect video management system is available in different editions, and the editions that NUCLEUS 4.5.0 have been tested to integrate with :

- **Milestone XProtect Corporate (v5.0 2013, 2013 R2, 2014)**
- **Milestone XProtect Enterprise (2013, 2014)**

Detail specifications are stated in "NUCLEUS Milestone XProtect Integration Specifications".

Setup

Adapter installation

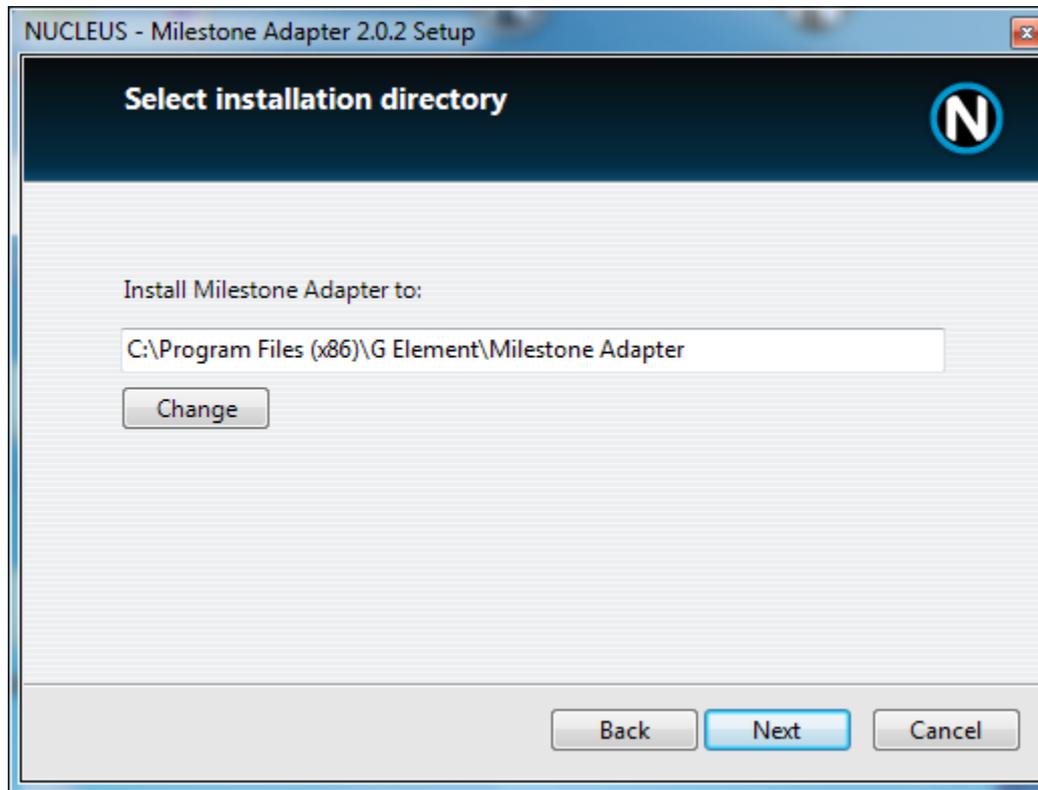
1. Double click the installer to start installation.



NOTE: install the adapter on the computer that runs NUCLEUS Server.

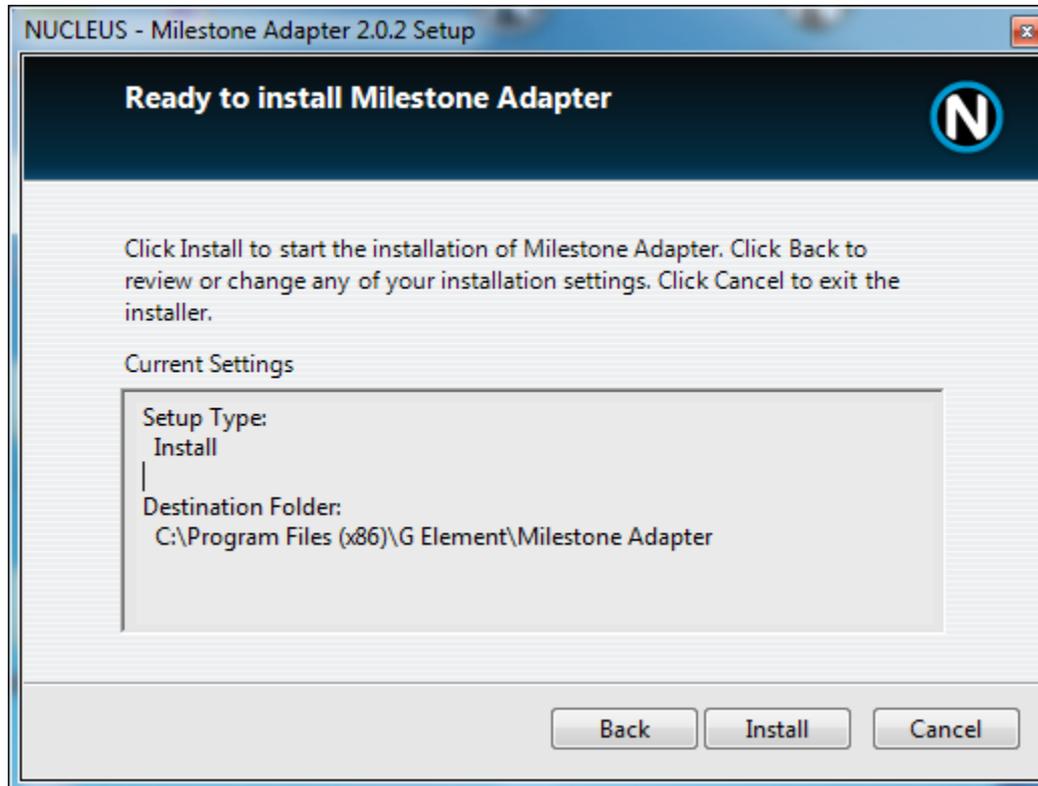
Adapter installation

2. You can change the NUCLEUS-Milestone adapter default installation directory.



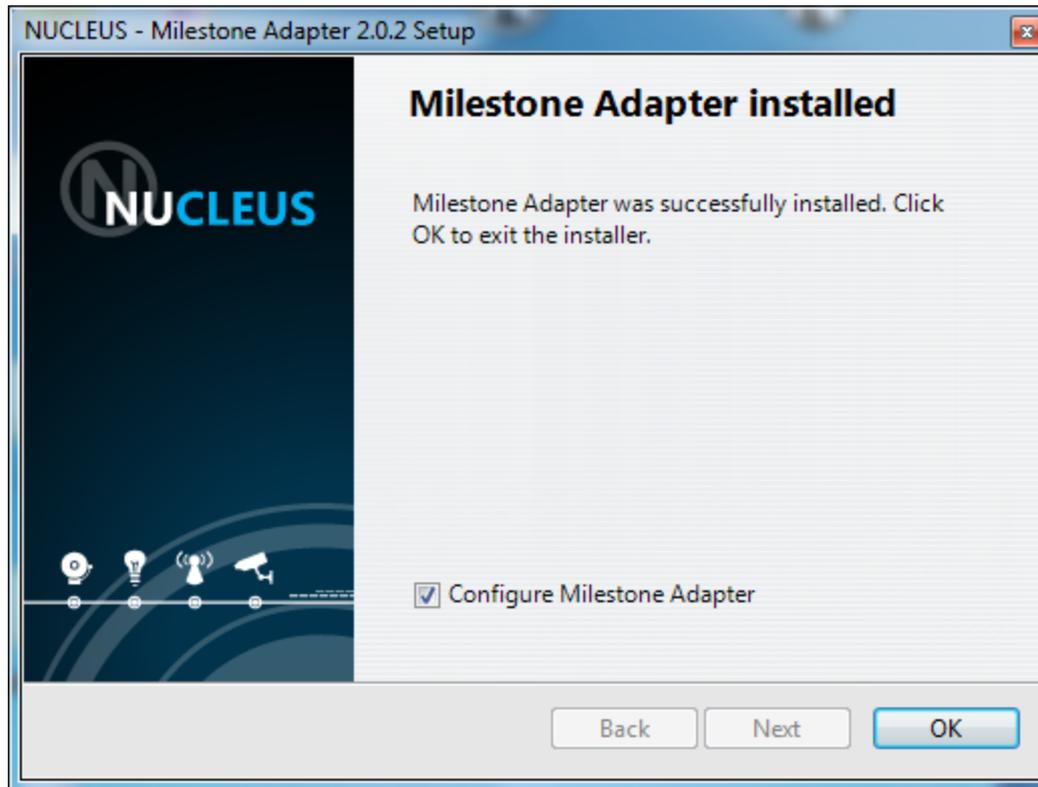
Adapter installation

3. Confirm to click "Install" button to proceed.



Adapter installation

4. You can select to let installation wizard direct you to the configuration page as below.



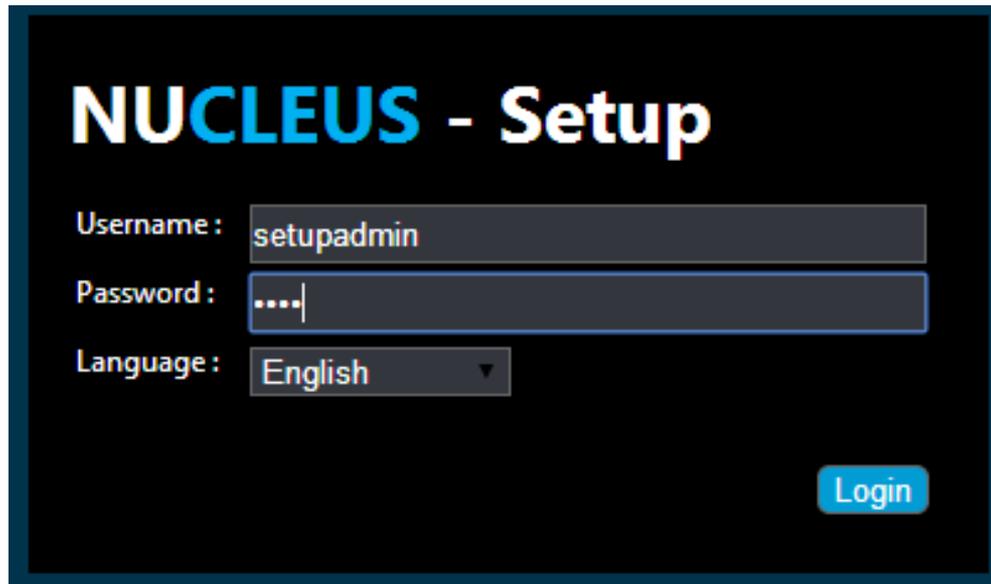
Configuration

Configure the Integration

1. Login the NUCLEUS Server setup page by `http:<Nucleus-Server-addr>/nu/setup` (or `http:<Nucleus-Server-addr>:<port>/nu/setup`).

Username: setupadmin

Password: pass



NUCLEUS - Setup

Username :

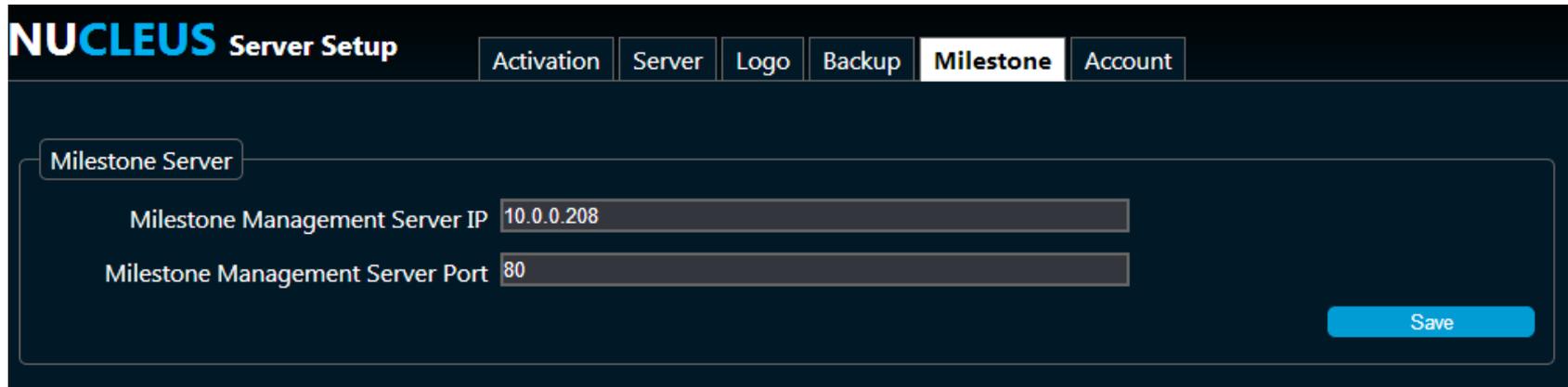
Password :

Language :

Login

Configure the Integration

2. Go the "Milestone" tab. In the section of "Milestone Server", type in the Milestone Management Server IP and its port number, then "save"



The screenshot displays the "NUCLEUS Server Setup" interface. At the top, there are navigation tabs: "Activation", "Server", "Logo", "Backup", "Milestone" (which is highlighted), and "Account". Below the tabs, there is a section titled "Milestone Server" with a sub-header "Milestone Server". This section contains two input fields: "Milestone Management Server IP" with the value "10.0.0.208" and "Milestone Management Server Port" with the value "80". A blue "Save" button is located at the bottom right of the form.

Configure the Integration

3. In the section “Milestone Admin User”, type in a Milestone account that has admin rights. Leave the item “Windows Domain” empty if there is no domain.



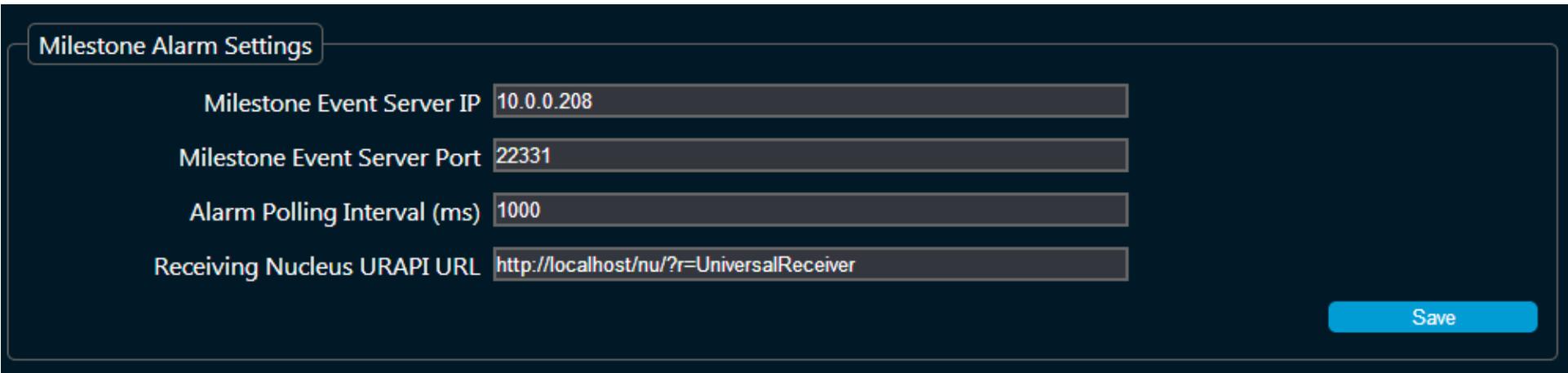
The screenshot shows a configuration form titled "Milestone Admin User". It contains four input fields: "Windows Domain" (empty), "Administrator Username" (containing "Administrator"), "Password" (masked with dots), and "(repeat)" (masked with dots). A blue "Save" button is located at the bottom right of the form.

Windows Domain	<input type="text"/>
Administrator Username	<input type="text" value="Administrator"/>
Password	<input type="password" value="....."/>
(repeat)	<input type="password" value="....."/>

Save

Configure the Integration

4. In the section "Milestone Alarm Settings", type in the Alarm setting information.

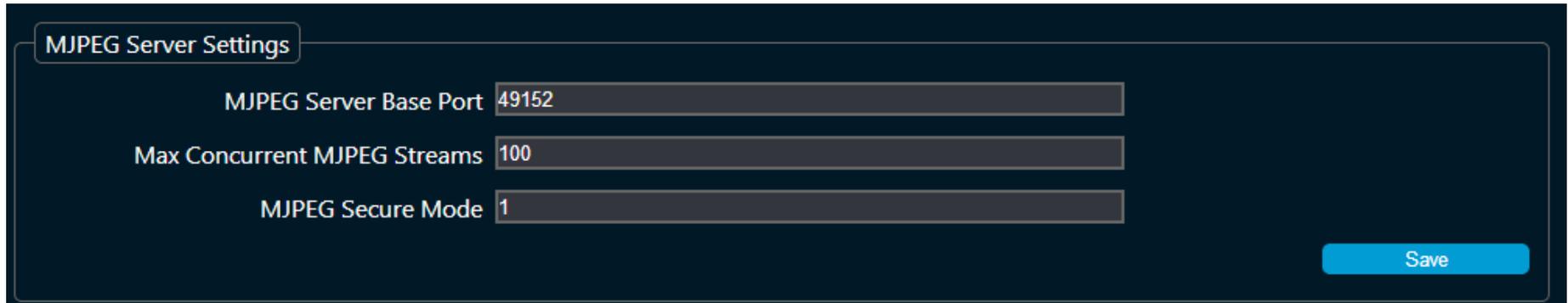


The screenshot shows a configuration window titled "Milestone Alarm Settings" with four input fields and a "Save" button. The fields are: Milestone Event Server IP (10.0.0.208), Milestone Event Server Port (22331), Alarm Polling Interval (ms) (1000), and Receiving Nucleus URAPI URL (http://localhost/nu/?r=UniversalReceiver).

Milestone Alarm Settings	
Milestone Event Server IP	10.0.0.208
Milestone Event Server Port	22331
Alarm Polling Interval (ms)	1000
Receiving Nucleus URAPI URL	http://localhost/nu/?r=UniversalReceiver
	Save

Configure the Integration

5. In the “MJPEG Server Settings” section, fill the relevant information.



The screenshot shows a configuration panel titled "MJPEG Server Settings". It contains three input fields: "MJPEG Server Base Port" with the value "49152", "Max Concurrent MJPEG Streams" with the value "100", and "MJPEG Secure Mode" with the value "1". A blue "Save" button is located in the bottom right corner of the panel.

MJPEG Server Base Port	49152
Max Concurrent MJPEG Streams	100
MJPEG Secure Mode	1

Save

Configure the Integration

6. Check the "Milestone adapter status".

The screenshot shows a web interface for configuring the Milestone adapter. It is divided into two main sections: "Milestone Adapter Status" and "Miscellaneous".

Milestone Adapter Status

- Service Status: RUNNING
- Milestone Adapter Version: 2.0.1.0
- Milestone Server IP Address: 10.0.0.208
- Nucleus Server URL: http://localhost/nu/?r=UniversalReceiver
- Connection to Milestone Server: Connected
- Connection to Milestone Alarm Service: Connected
- Connection to Nucleus Server: Connected
- Current MJPEG streams: No active streams

At the bottom right of this section are two buttons: "Start" (disabled) and "Stop" (active).

Miscellaneous

- Production Mode: 0

A "Save" button is located at the bottom right of this section.

Configure the Integration

The communication channel between **NUCLEUS Server and Milestone XProtect Server** is setup if the previous configurations are correctly done.

Add External Credentials

Add External Credentials

Each NUCLEUS user account that wants to use the NUCLEUS-Milestone integrated devices needs a Milestone account that has been given access rights to those devices.

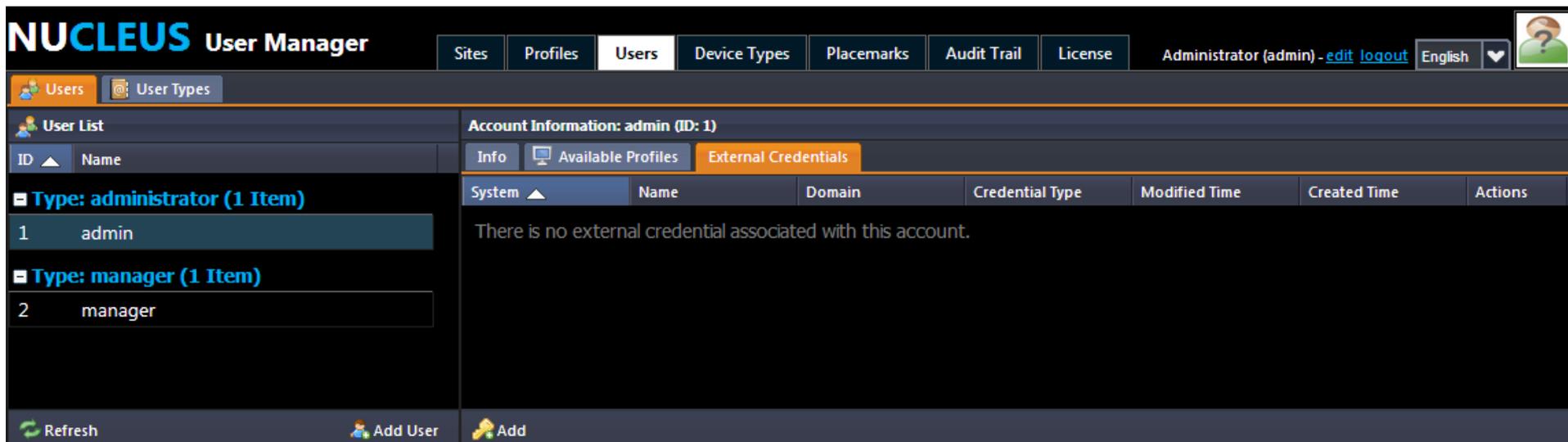
1. On your client machine, access NUCLEUS Server by Desktop Client. The default Administrator account:

username: admin

password: nimda

Add External Credentials

2. Click the "Users" tab and then select the user to whom an external credential would be created.

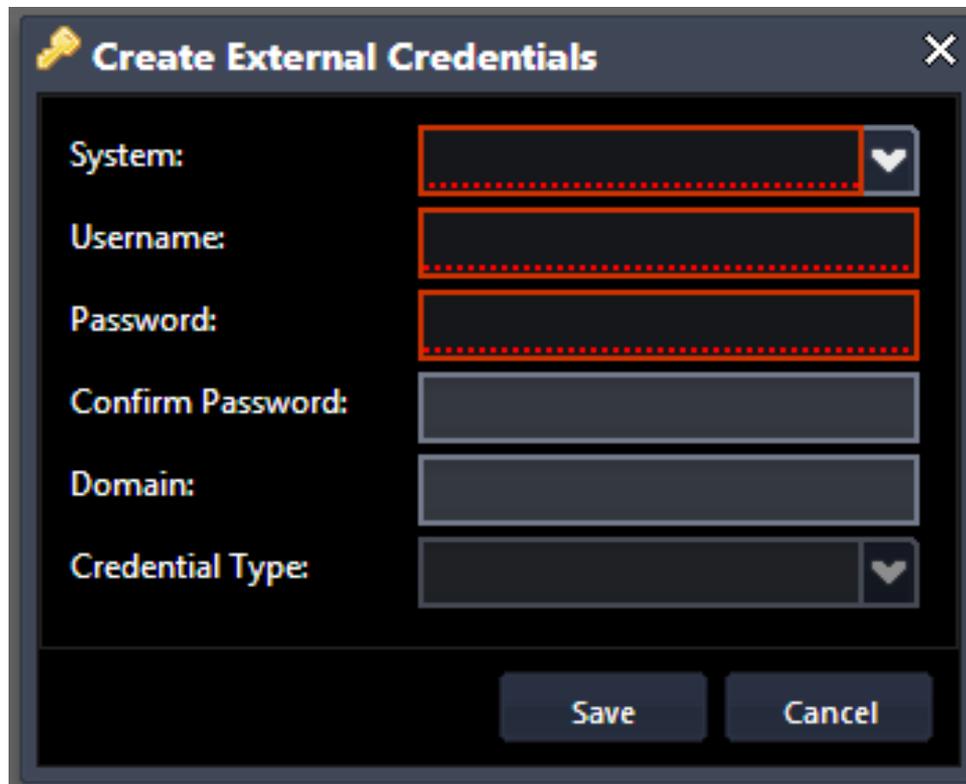


The screenshot displays the NUCLEUS User Manager interface. At the top, the title 'NUCLEUS User Manager' is visible. The navigation menu includes 'Sites', 'Profiles', 'Users', 'Device Types', 'Placemarks', 'Audit Trail', and 'License'. The 'Users' tab is selected, and the user 'admin' is chosen. The 'External Credentials' sub-tab is active, showing a message: 'There is no external credential associated with this account.' The user list on the left shows 'admin' (ID: 1) and 'manager' (ID: 2).

ID	Name	System	Name	Domain	Credential Type	Modified Time	Created Time	Actions
There is no external credential associated with this account.								

Add External Credentials

3. Click the "Add" icon to pop up a box for filling in external credential information.



The image shows a dialog box titled "Create External Credentials" with a close button (X) in the top right corner. The dialog contains several input fields:

- System:** A dropdown menu with a downward arrow icon.
- Username:** A text input field.
- Password:** A text input field.
- Confirm Password:** A text input field.
- Domain:** A text input field.
- Credential Type:** A dropdown menu with a downward arrow icon.

At the bottom of the dialog, there are two buttons: "Save" and "Cancel".

Add External Credentials

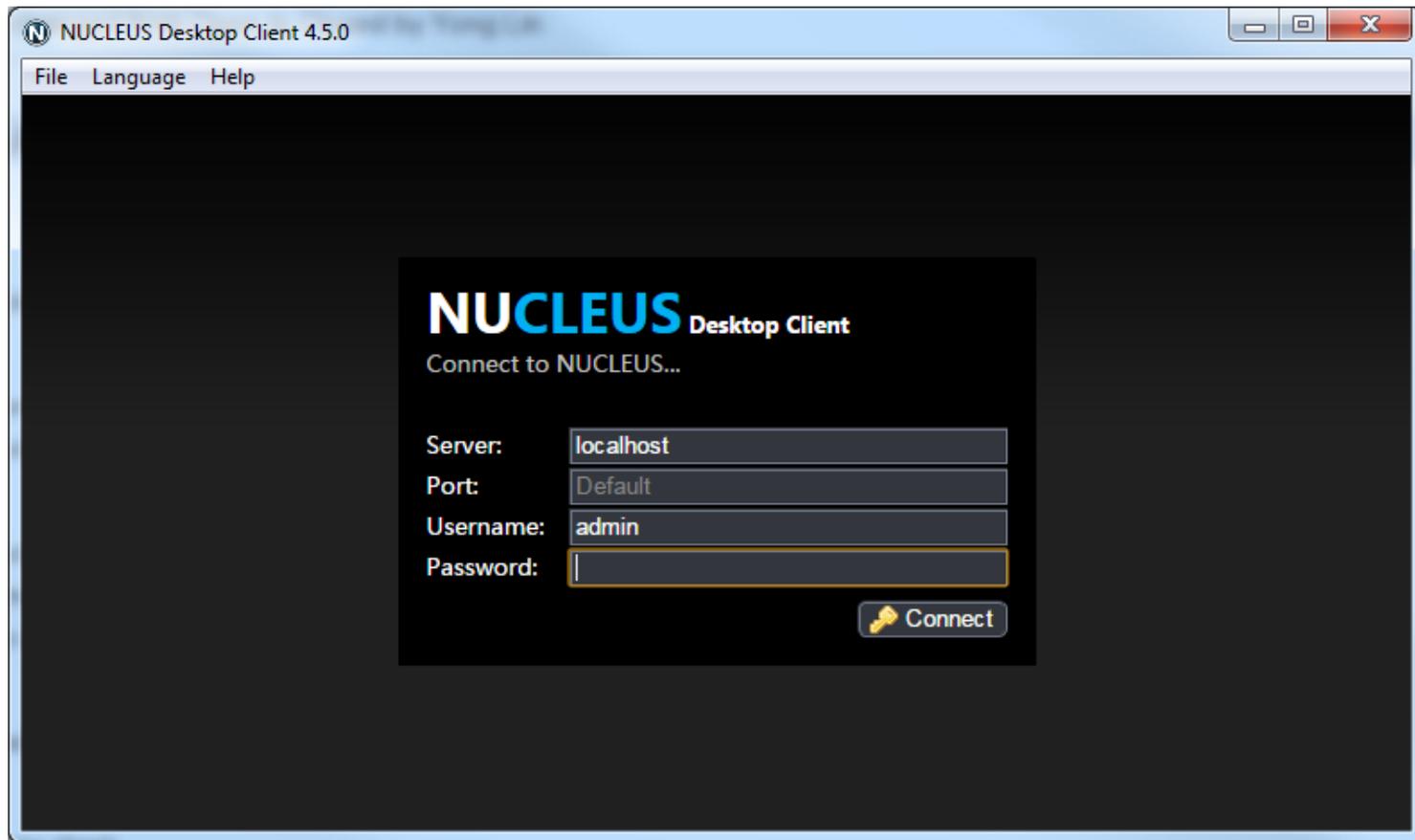
Warning

If your external credential is not entered or incorrectly entered, the camera list will be blank when you intend to plant a MilestoneLiveVideoType camera into NUCLEUS.

Add a Milestone Camera

Add a Milestone Camera

1. Open NUCLEUS Client.



Add a Milestone Camera

2. Load a profile in a site.

The screenshot displays the NUCLEUS Site Manager interface. The main window shows a 3D model of a business park labeled "Business Park (ID: 1)". A modal window titled "Site 'Business Park' (ID: 1): 1 Profiles" is open, displaying a table with one profile:

ID	Name	Description	
1	demo		Open

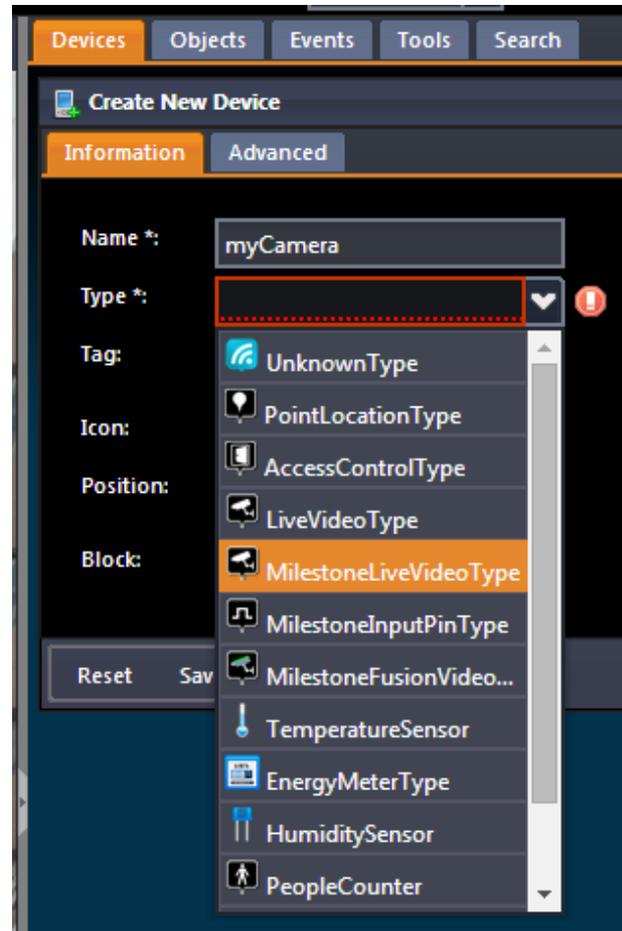
Below the table, the profile details are shown:

- Name: Business Park (ID:1)
- Model: business_park.x3d
- Created: 2012-04-26 09:24:12
- Modified: 2012-04-26 09:24:12
- Description:

At the bottom of the modal, there are two buttons: "Edit Site" and "Delete Site".

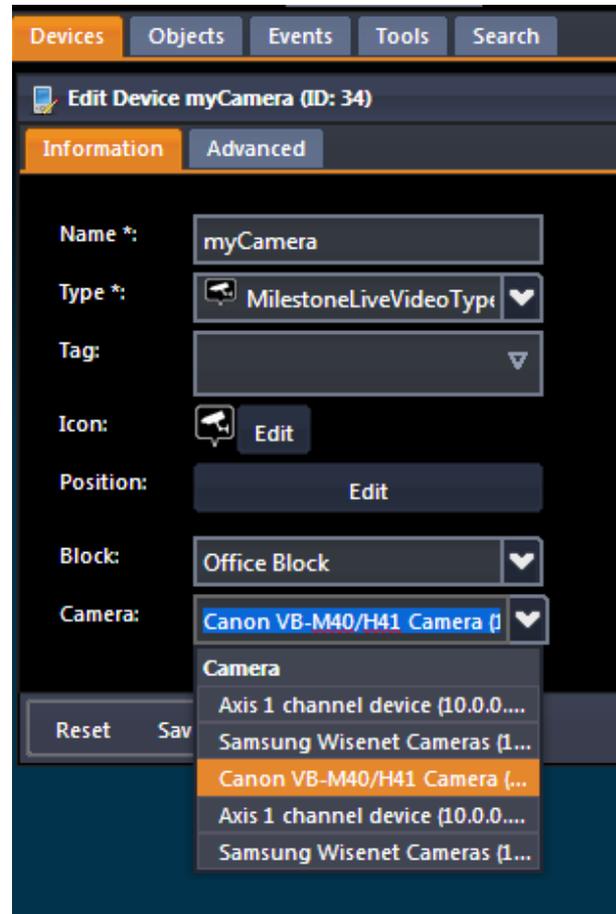
Add a Milestone Camera

3. Add a device of "MilestoneLiveVideoType".



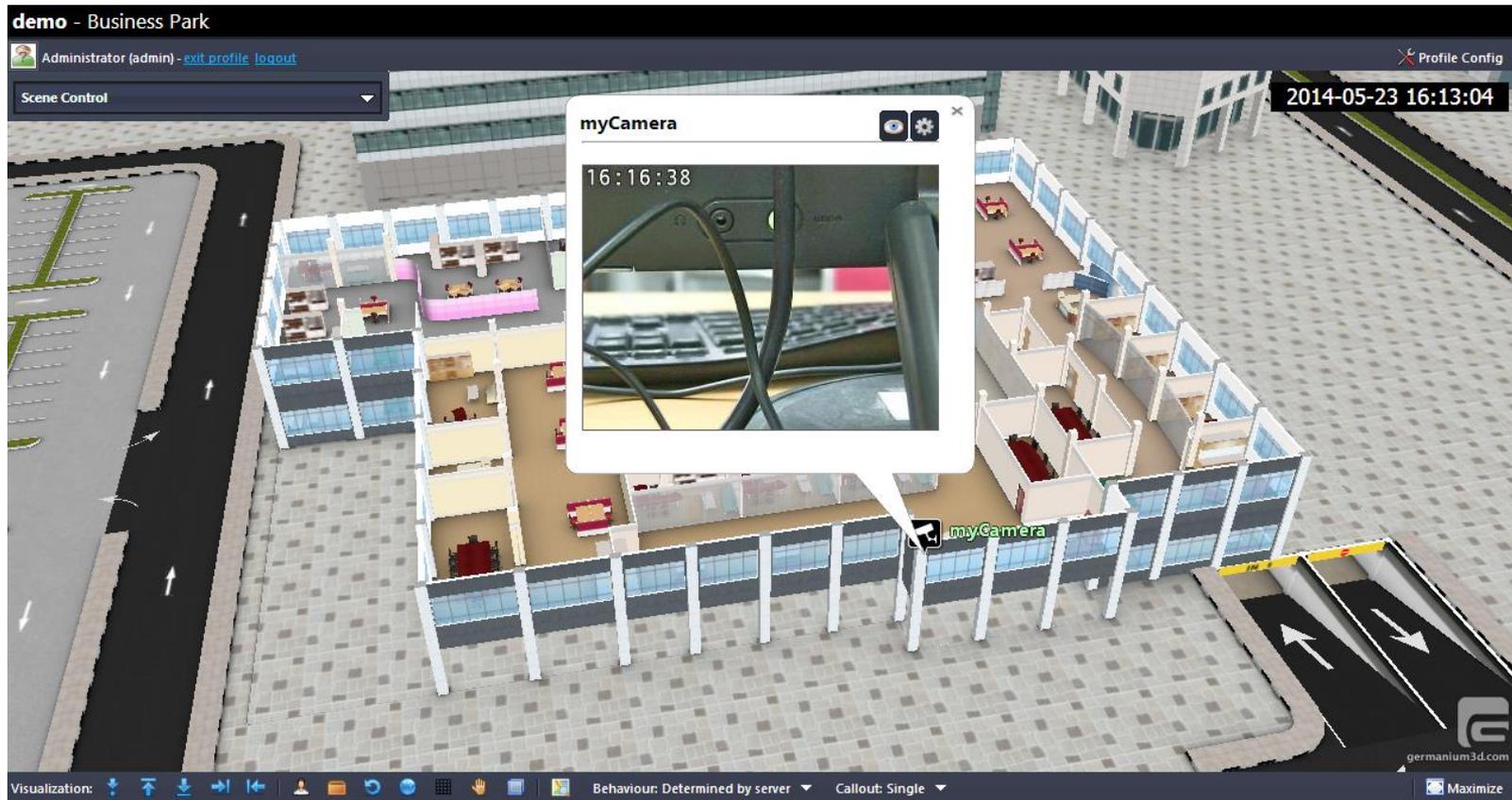
Add a Milestone Camera

4. Choose one of camera that have been planted in Milestone.



Add a Milestone Camera

5. Finish the rest steps of adding a device. Then, the video feed will be displayed in NUCLEUS.



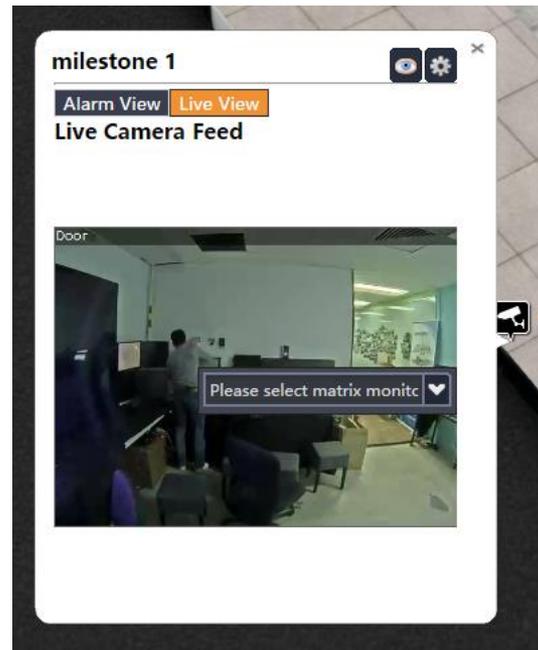
Matrix Monitor

Matrix Monitor

- Matrix Monitor is a feature of Milestone XProtect that allows distributed viewing of video from any camera on any monitor
- Using the Milestone XProtect management client, the user can add one or more Matrix Monitor under Matrix Configurations

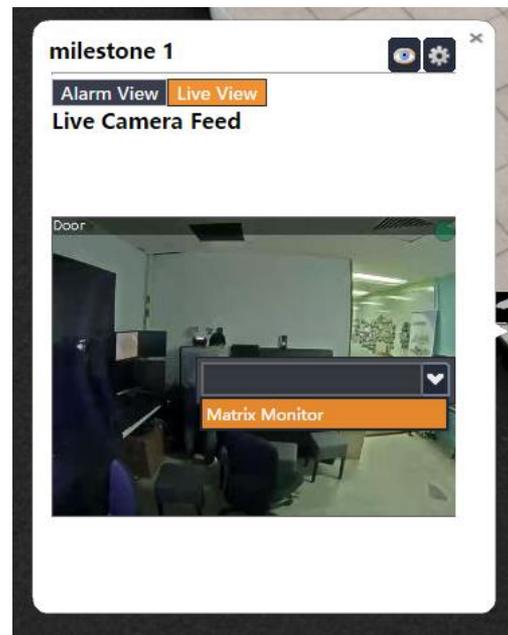
Sending a live feed to Matrix Monitor

- Right click on a live view. A dropdown will be displayed. Select [Please select matrix monitor].

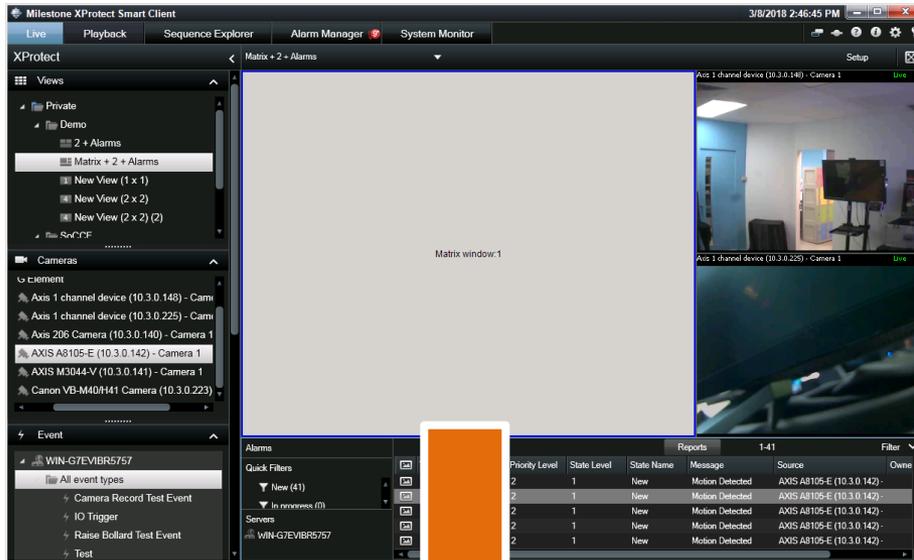


Sending a live feed to Matrix Monitor

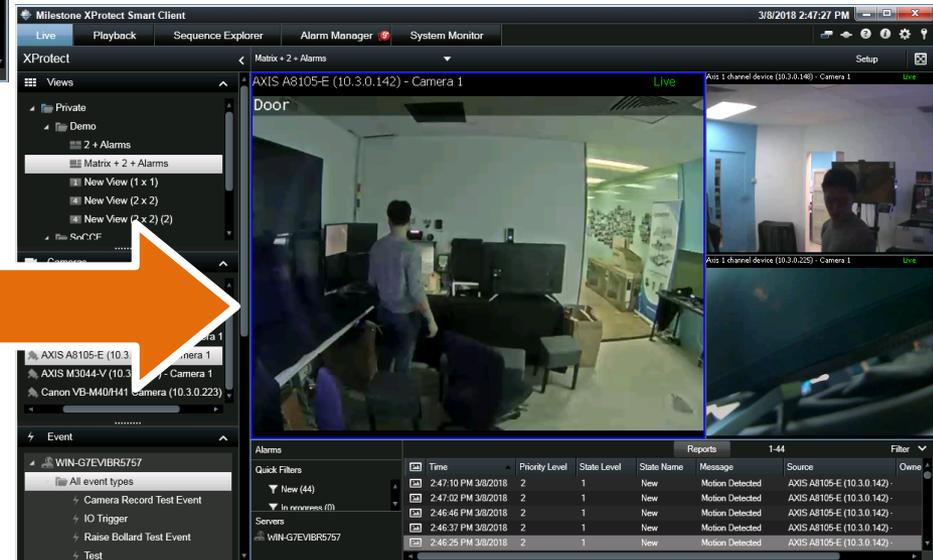
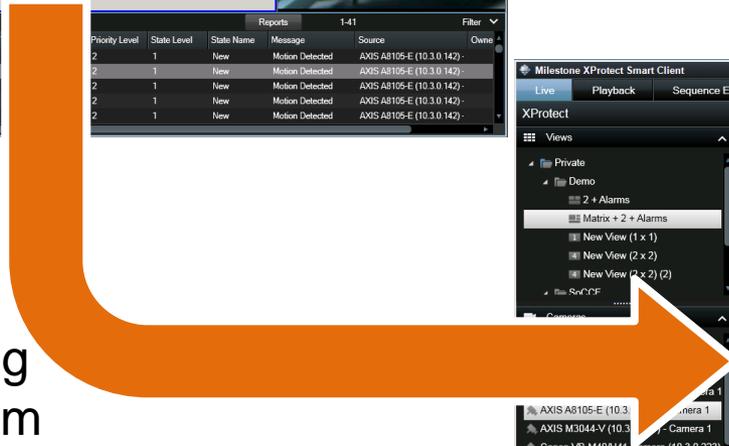
- The list of Matrix Monitors available will be shown. Select the Matrix Monitor that you intend to send the live feed to.



Sending a live feed to Matrix Monitor



After receiving
command from
NUCLEUS



Milestone Alarm

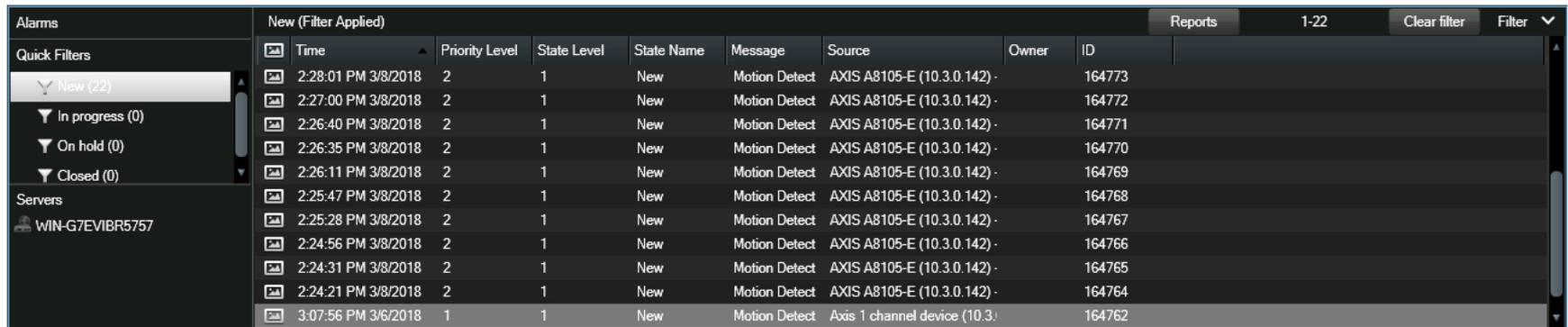
Milestone Alarm

- NUCLEUS can display Milestone XProtect Alarms
- Alarm status can be changed via NUCLEUS

- Note that not all Milestone Alarm features are supported
- Read *NUCLEUS Milestone XProtect Integration Specifications* for supported features

Milestone Alarm

- Typical alarms in the Milestone XProtect Smart Client



The screenshot displays the 'Alarms' section of the Milestone XProtect Smart Client. On the left, there are 'Quick Filters' for 'New (22)', 'In progress (0)', 'On hold (0)', and 'Closed (0)'. Below these are 'Servers' listed as 'WIN-G7EVIBR5757'. The main area shows a table of alarms with columns for Time, Priority Level, State Level, State Name, Message, Source, Owner, and ID. The table is filtered to show 'New' alarms. The top row is highlighted in grey.

Time	Priority Level	State Level	State Name	Message	Source	Owner	ID
2:28:01 PM 3/8/2018	2	1	New	Motion Detect	AXIS A8105-E (10.3.0.142) -		164773
2:27:00 PM 3/8/2018	2	1	New	Motion Detect	AXIS A8105-E (10.3.0.142) -		164772
2:26:40 PM 3/8/2018	2	1	New	Motion Detect	AXIS A8105-E (10.3.0.142) -		164771
2:26:35 PM 3/8/2018	2	1	New	Motion Detect	AXIS A8105-E (10.3.0.142) -		164770
2:26:11 PM 3/8/2018	2	1	New	Motion Detect	AXIS A8105-E (10.3.0.142) -		164769
2:25:47 PM 3/8/2018	2	1	New	Motion Detect	AXIS A8105-E (10.3.0.142) -		164768
2:25:28 PM 3/8/2018	2	1	New	Motion Detect	AXIS A8105-E (10.3.0.142) -		164767
2:24:56 PM 3/8/2018	2	1	New	Motion Detect	AXIS A8105-E (10.3.0.142) -		164766
2:24:31 PM 3/8/2018	2	1	New	Motion Detect	AXIS A8105-E (10.3.0.142) -		164765
2:24:21 PM 3/8/2018	2	1	New	Motion Detect	AXIS A8105-E (10.3.0.142) -		164764
3:07:56 PM 3/6/2018	1	1	New	Motion Detect	Axis 1 channel device (10.3.0.142) -		164762

Milestone Alarm

- The same list is show in NUCLEUS under Milestone Alarm List

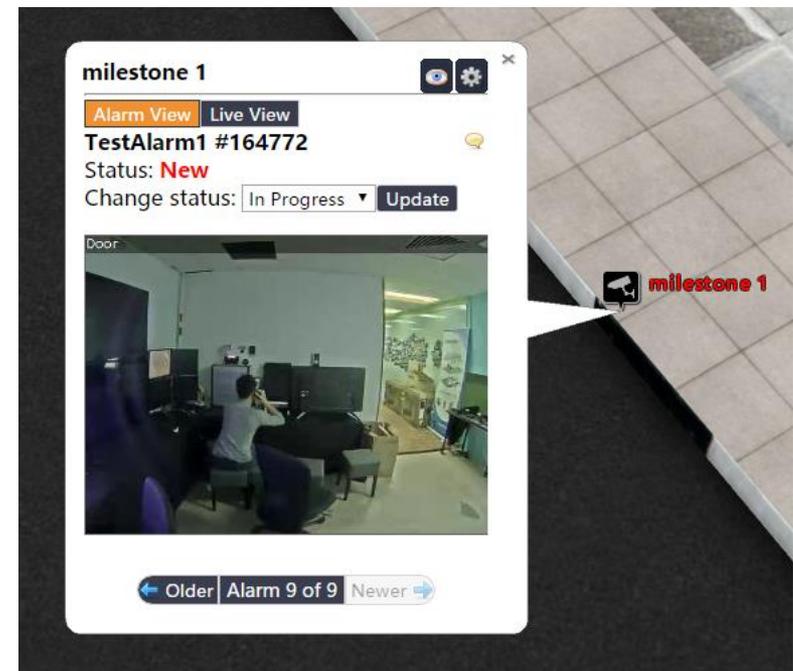


The screenshot displays the 'Alarms' section of the NUCLEUS interface. A tab labeled 'Milestone Alarm List' is selected. Below the tab is a table with the following columns: Name, Local Id, State, Time (with a dropdown arrow), and Source_ms_alarm. The table contains 10 rows of test alarm data, all with a state of 'New'. A summary bar above the table indicates 'State: New (10 Alarms)'. Each row has a small circular icon with a play symbol on the right side.

Name	Local Id	State	Time	Source_ms_alarm
TestAlarm1	164773	New	14:28:01 08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1
TestAlarm1	164772	New	14:27:00 08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1
TestAlarm1	164771	New	14:26:40 08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1
TestAlarm1	164770	New	14:26:35 08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1
TestAlarm1	164769	New	14:26:11 08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1
TestAlarm1	164768	New	14:25:47 08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1
TestAlarm1	164767	New	14:25:28 08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1
TestAlarm1	164766	New	14:24:56 08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1
TestAlarm1	164765	New	14:24:31 08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1

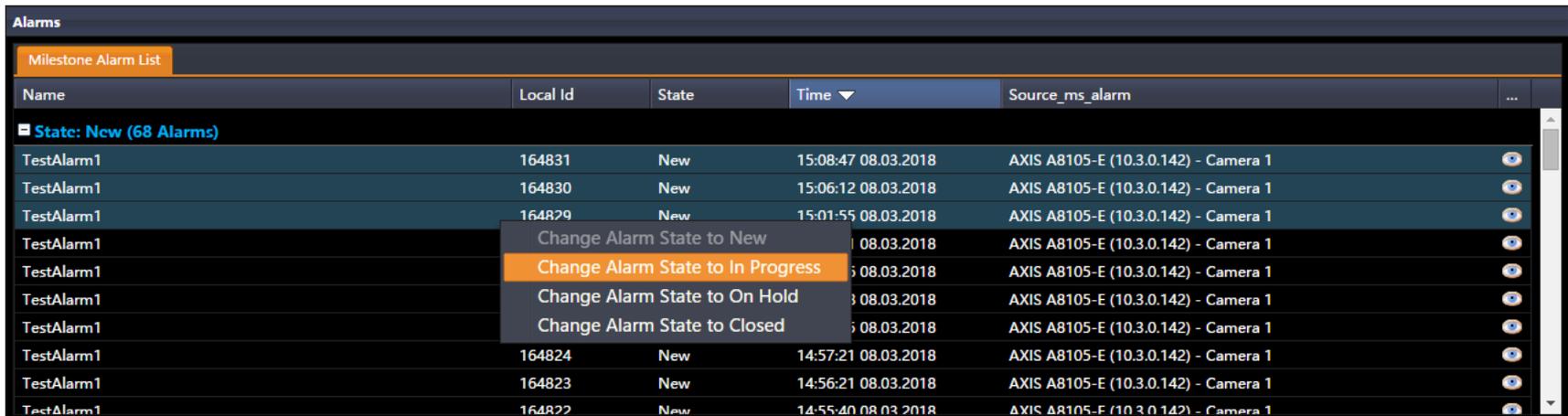
Milestone Alarm

- NUCLEUS automatically opens the callout for the device associated with the alarm
- User can view all alarms associated with the device
- User can change the status of the alarm in the callout



Milestone Alarm

- User can also change the status of Milestone alarms under Milestone Alarm List.
 - Select one or multiple rows
 - Right-click and choose the new status



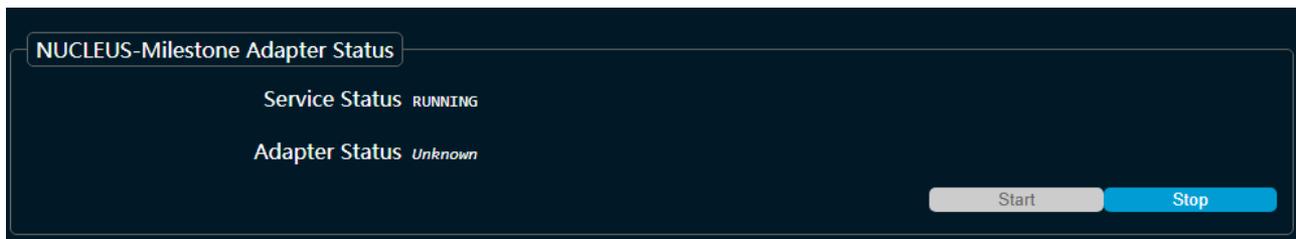
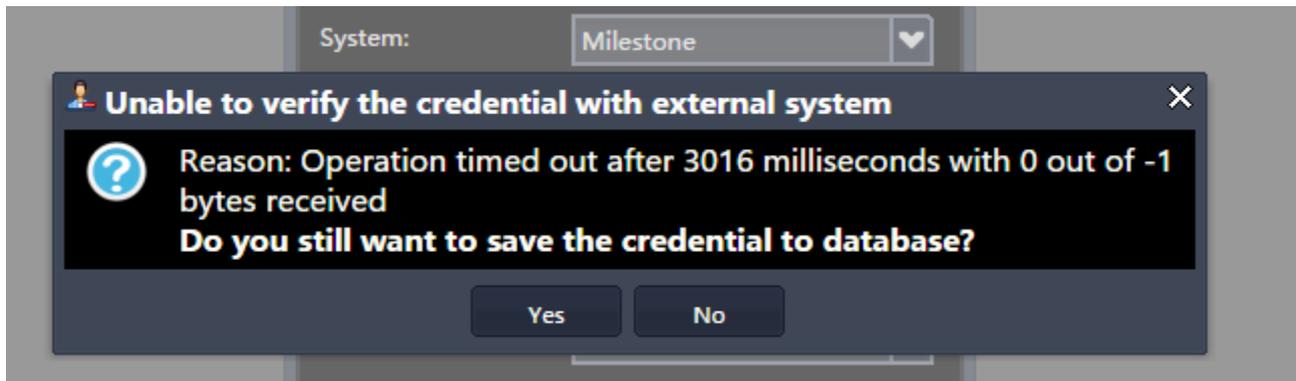
The screenshot displays a web interface titled "Alarms" with a sub-section "Milestone Alarm List". It features a table with columns for Name, Local Id, State, Time, and Source_ms_alarm. A context menu is open over the table, showing options to change the alarm state to New, In Progress, On Hold, or Closed. The "Change Alarm State to In Progress" option is highlighted in orange.

Name	Local Id	State	Time	Source_ms_alarm
State: New (68 Alarms)				
TestAlarm1	164831	New	15:08:47 08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1
TestAlarm1	164830	New	15:06:12 08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1
TestAlarm1	164829	New	15:01:55 08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1
TestAlarm1			08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1
TestAlarm1			08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1
TestAlarm1			08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1
TestAlarm1			08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1
TestAlarm1	164824	New	14:57:21 08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1
TestAlarm1	164823	New	14:56:21 08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1
TestAlarm1	164822	New	14:55:40 08.03.2018	AXIS A8105-E (10.3.0.142) - Camera 1

Troubleshooting

Milestone Server Not Responding

The following error message indicates that the adapter is unable to contact Milestone Server. Please check that Milestone Server is up, and that network connection between NUCLEUS Milestone Adapter and Milestone Server is not blocked.



For NUCLEUS Support

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