ORBNET S2 Milestone ACM Installation Guide

For software version 1.3.7

November-2024

1 Contents

2 Overview

ORBNET have developed a Milestone Access Control Module (ACM) for the S2 NetBox system. This document details the prerequisites and installation and licensing steps.

3 Principal Scheme

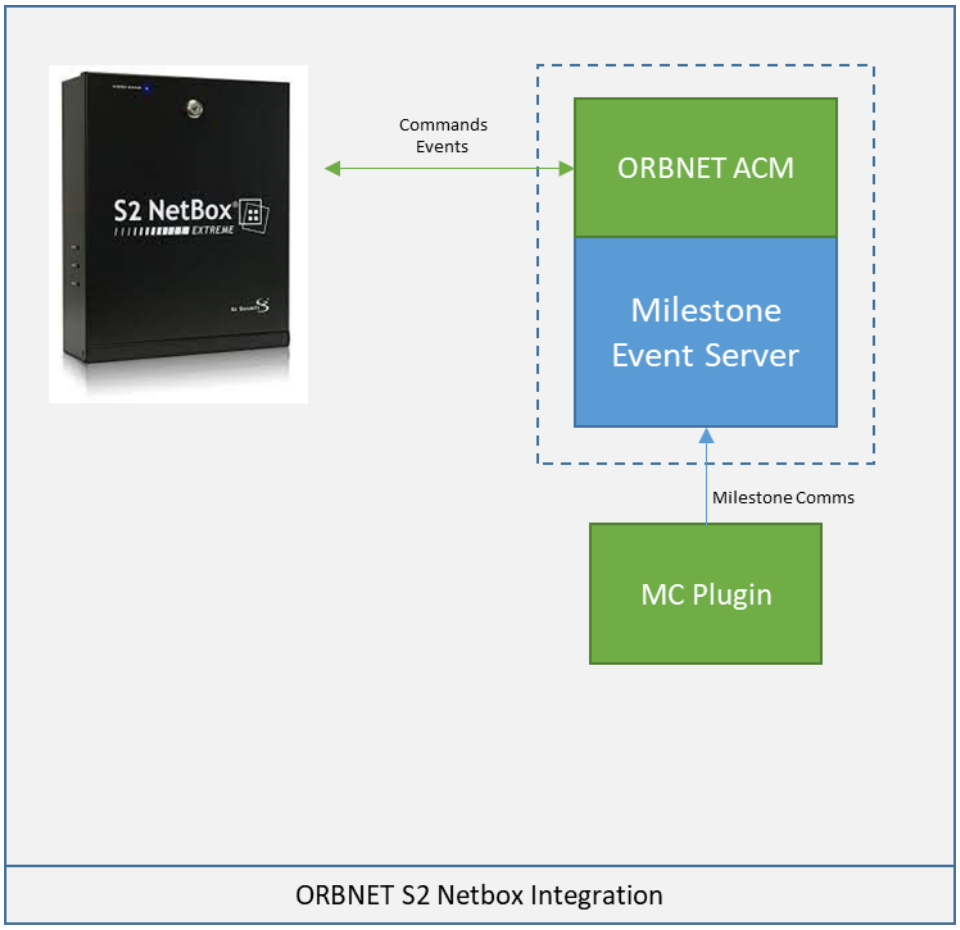
The Access Control integration comprises of the following elements:

- Milestone Access Control Module
- Milestone Management Client (MC) plugin

The following items must also be installed and configured prior to deploying the Access Control Module:

1. S2 NetBox device and associated nodes
2. Milestone XProtect 2023 R1 servers with XProtect Access license installed and sufficient Access Control Door licenses to cover the number of doors required.

NOTE: The Access Control integration should work on older versions of Milestone XProtect but this has not been tested and therefore compatibility is not guaranteed.



ORBNET S2 Netbox Integration

4 Prerequisites

1. S2 NetBox device
    a. IP address and port (if port is non-standard)
    b. Administrator access to the web administration interface
    c. User Account added for use by the integration – details to configure this are provided in this guide (username + password made available)
2. Administrator access to the Milestone Event Server (to install software on)
3. Milestone account with admin privileges (a Domain Service Account or Basic Milestone User)
    a. Add new Access Control integration
    b. Configure Alarms and assign cameras to readers
4. .NET Framework v4.8 installed on all Milestone servers
5. Installation package from ORBNET
6. A valid license after the 30-day trial period has finished
7. **Any previous S2 Integrations uninstalled and removed completely**

5 Features Support

The ORBNET S2 Milestone access control integration supports the following S2 NetBox features:

- **API Version 1** AND **API Version 2** (N.B. API Version 1 is set to be retired from NetBox 6.0)
- Card holder search and view details (including photos)
- Retrieval of doors and associated readers
- Door commands (Lock, Unlock, Momentary Unlock)
- Events (real-time from S2)
- Multiple partitions
- Activate and Deactivate Outputs
- Personalised Login (Milestone Smart Client)
- Door Status Polling (supported in NBAPI v2)

6 Known S2 API Limitations

The S2 NetBox API has several limitations which impact some features of the Milestone Access Control integration:

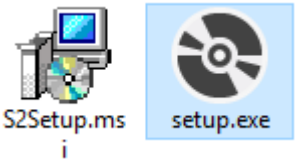
1. **Reader states are not available**. Therefore, all Readers will show as Normal. If connectivity to the S2 API fails, then all elements will be marked as Unknown until connectivity is restored.
2. **Only one integration connection at a time**. This is not a limitation per se, and note Prerequisites point 7, but the NetBox API only allows a single concurrent connection to the API (for event stream), therefore to avoid contention, remove any existing integration software.

7 Installation Steps

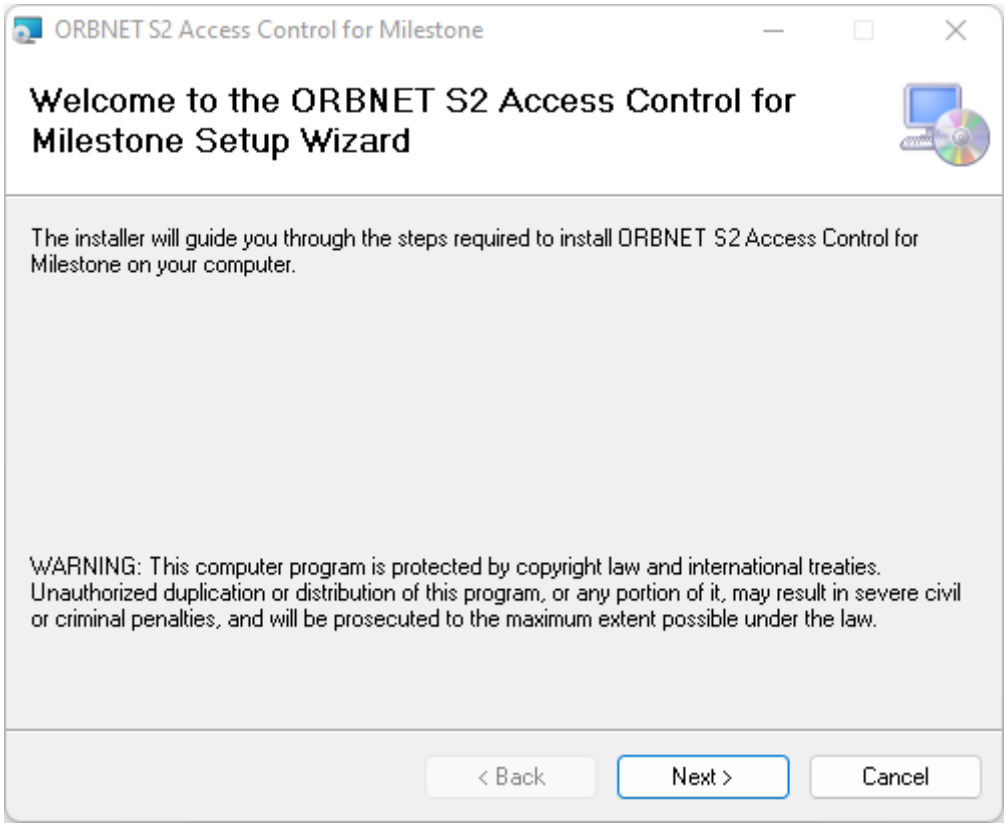
The ORBNET ACM and Management Client Plugin are installed using the supplied installation package. This should be run on the Milestone Event Server by a user with local administrator privileges (Milestone privileges are not required).

NOTE: After the installation has completed the Milestone Event Server will require a restart. This should be scheduled during a suitable maintenance window.

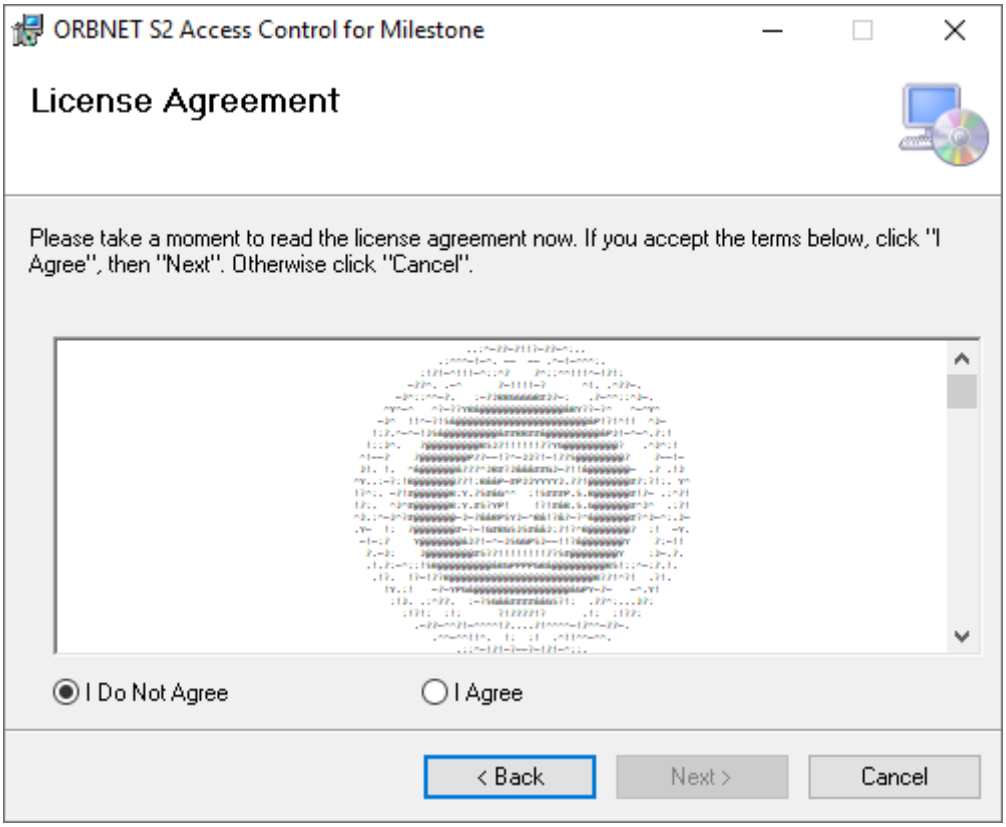
1. Double-click on setup.exe in the installer folder. This will launch the install program.



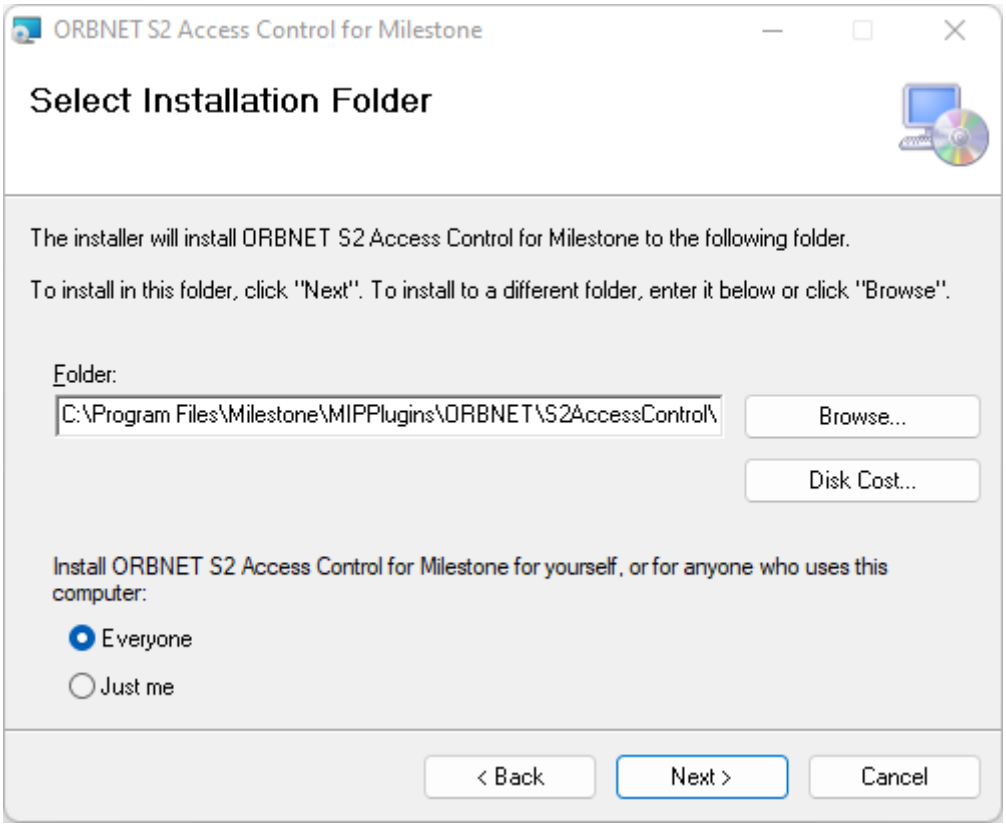
2. Click Next on the opening screen.



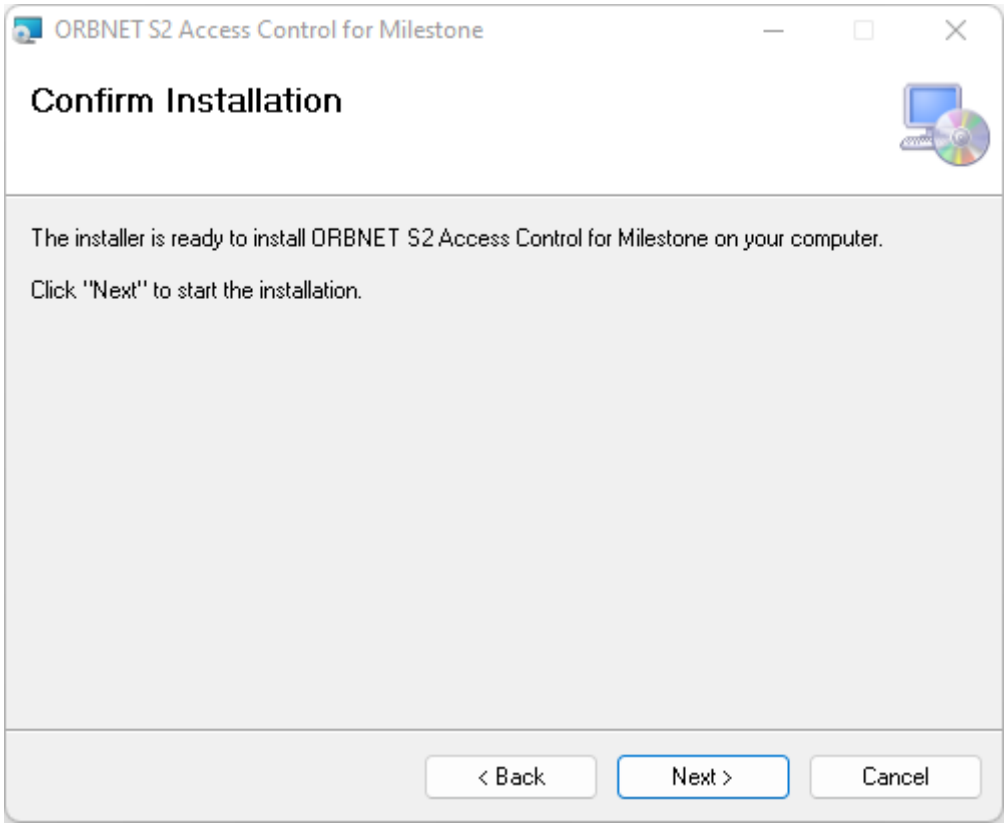
3. Agree to the End User License Agreement



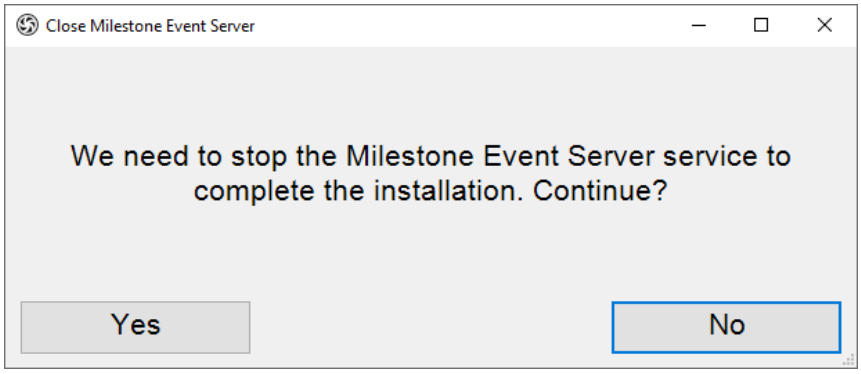
4. Leave the installation folder as the default value and click Next.



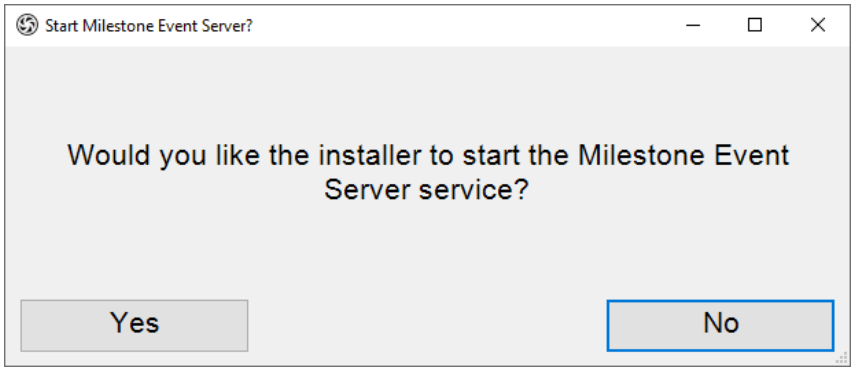
5. Click Next to start the installation process.



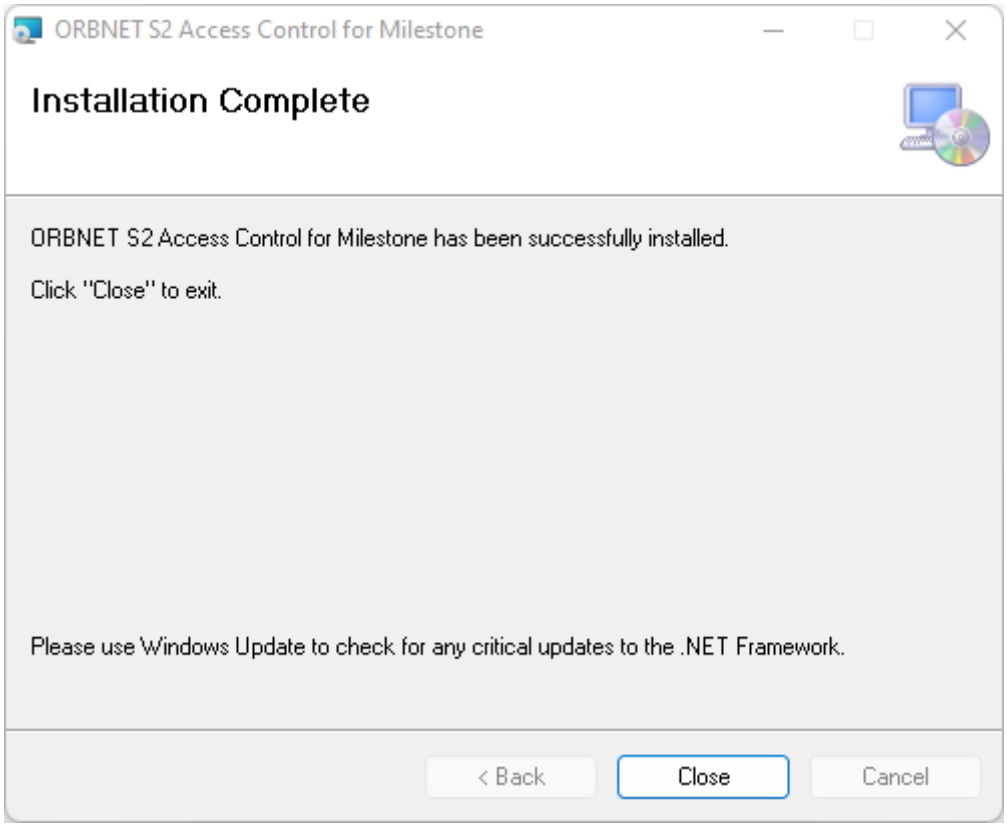
6. The installer will prompt to Stop the Milestone Event Server (if it is running), click Yes to continue:



7. The installer will prompt to Start the Milestone Event Server, click Yes to continue:



8. Once the installation has completed, click Close.


ORBNET S2 Access Control for Milestone
Installation Complete
ORBNET S2 Access Control for Milestone has been successfully installed.
Click "Close" to exit.
Please use Windows Update to check for any critical updates to the .NET Framework.
< Back
Close
Cancel

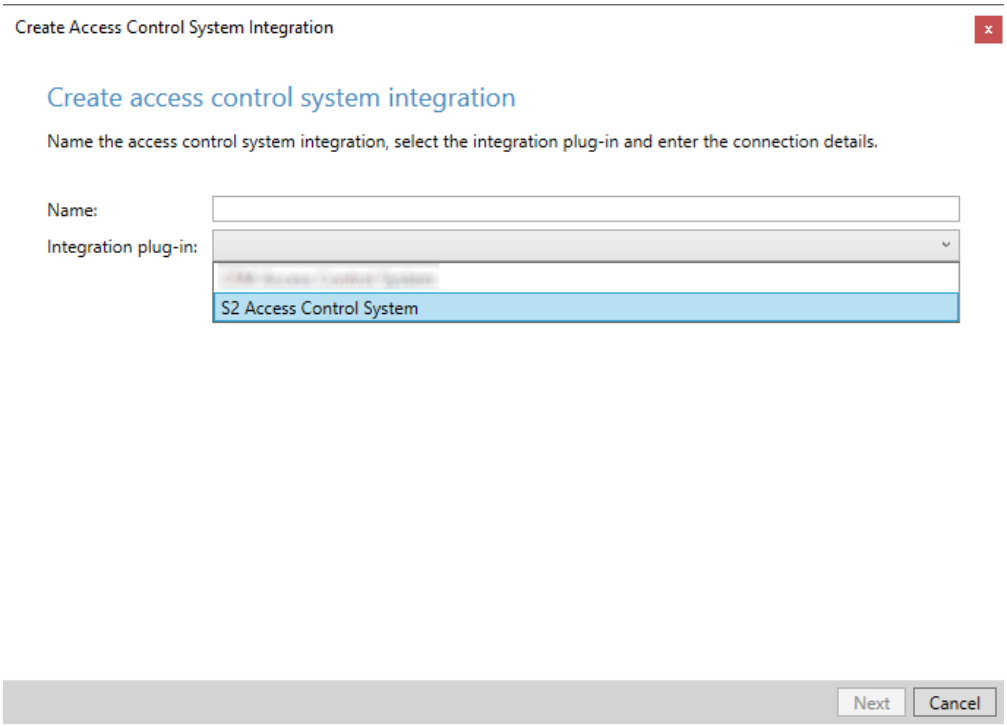
8 Confirm Installation

Once the installation process has completed the Milestone Event Server service should be restarted (if the prompted restart in the installation program was not utilised). This will load the necessary Access Control Module and initialise the 30-day trial license.

8.1 Confirm Access Control Integration is accessible

Follow these steps to confirm that the Access Control Module has installed correctly:

1. Open the Milestone Management Client and navigate to Access Control on the left-hand side.
2. Right click on the Access Control node and select Create New.
3. On the Create Access Control System Integration screen, open the Integration plug-in drop-down.
4. Confirm that the S2 Access Control System is visible (it will be added later, this is just to check it is appearing in the list)

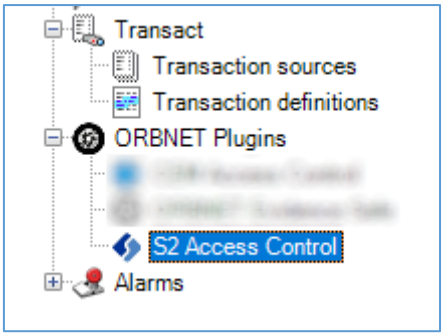


NOTE: If it is not listed, please ensure that the installation completed successfully and that the Milestone Event Server has restarted.

8.2 Confirm Management Client Plugin is accessible

Follow these steps to confirm that the Management Client Plugin has installed correctly:

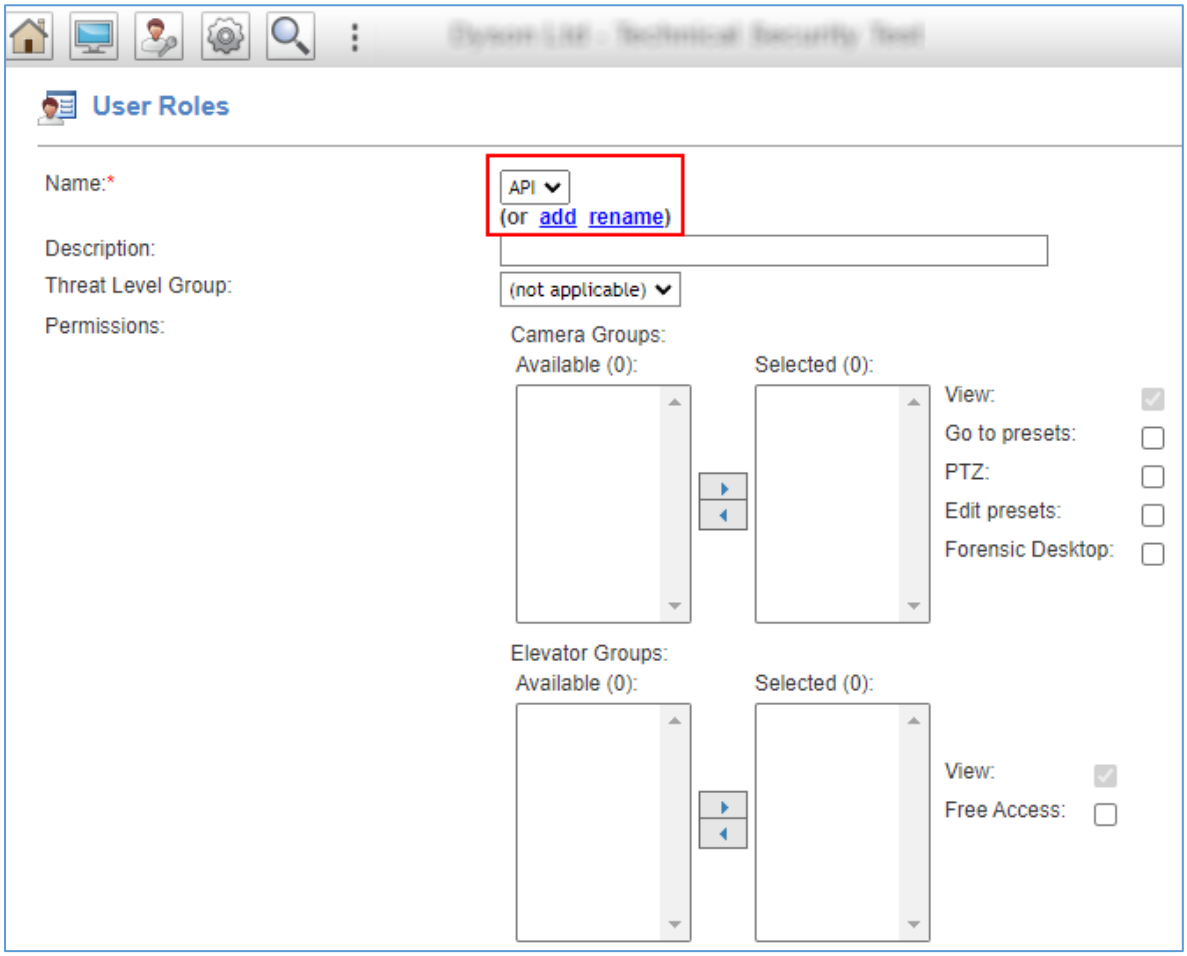
1. Open the Milestone Management Client (on the Milestone Event Server).
2. Confirm that the S2 Access Control node is visible under ORBNET Plugins.
3. Click on it and confirm that the plugin contents load.


Transact
Transaction sources
Transaction definitions
ORBNET Plugins
S2 Access Control
Alarms

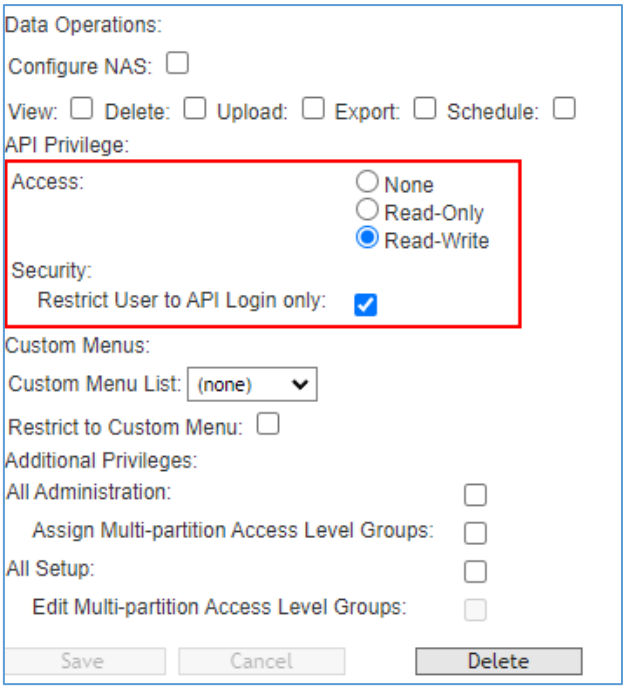
9 Create S2 API User

The Milestone integration requires an API user to be created within the S2 NetBox system to grant it access. Follow these steps to set up the correct permissions for the user account:

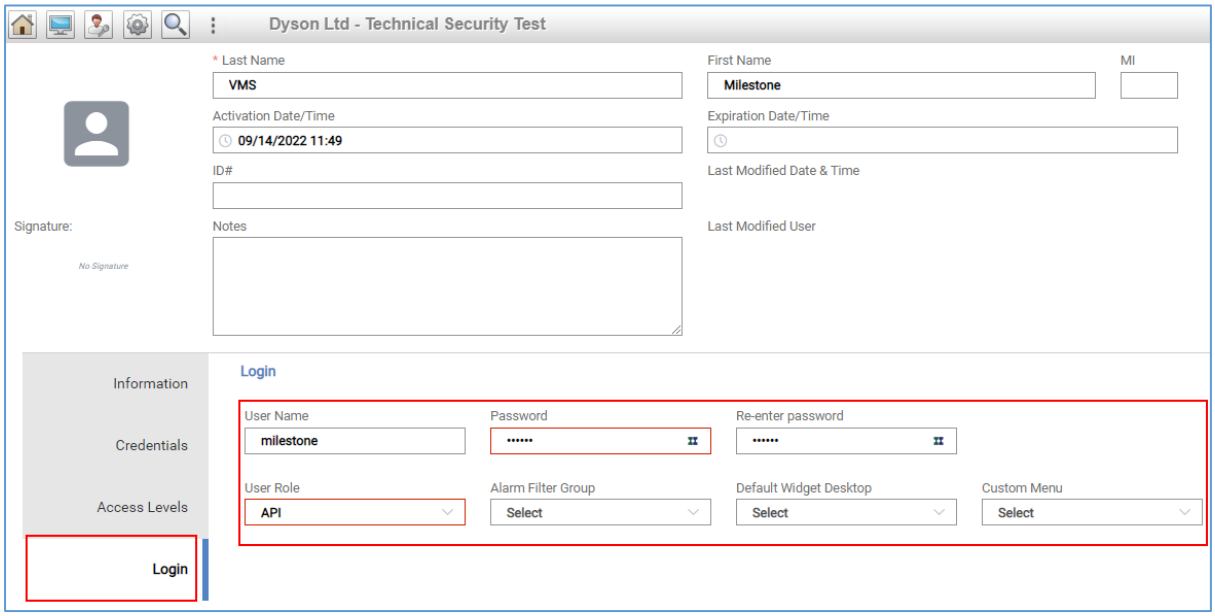
1. Login to the S2 NetBox administration web interface.
2. Navigate to Configuration > Site Settings > User Roles.
3. Click Add and provide a Name and Description:



4. Scroll down and check Read-Write under API Privilege > Access and tick Restrict User to API Login only (under Security).



5. Click Save.
6. From the top bar, Select Administration > People Add.
7. Provide a Last Name and First Name and under the Login section enter a username, password and select the API User Role under User Role:

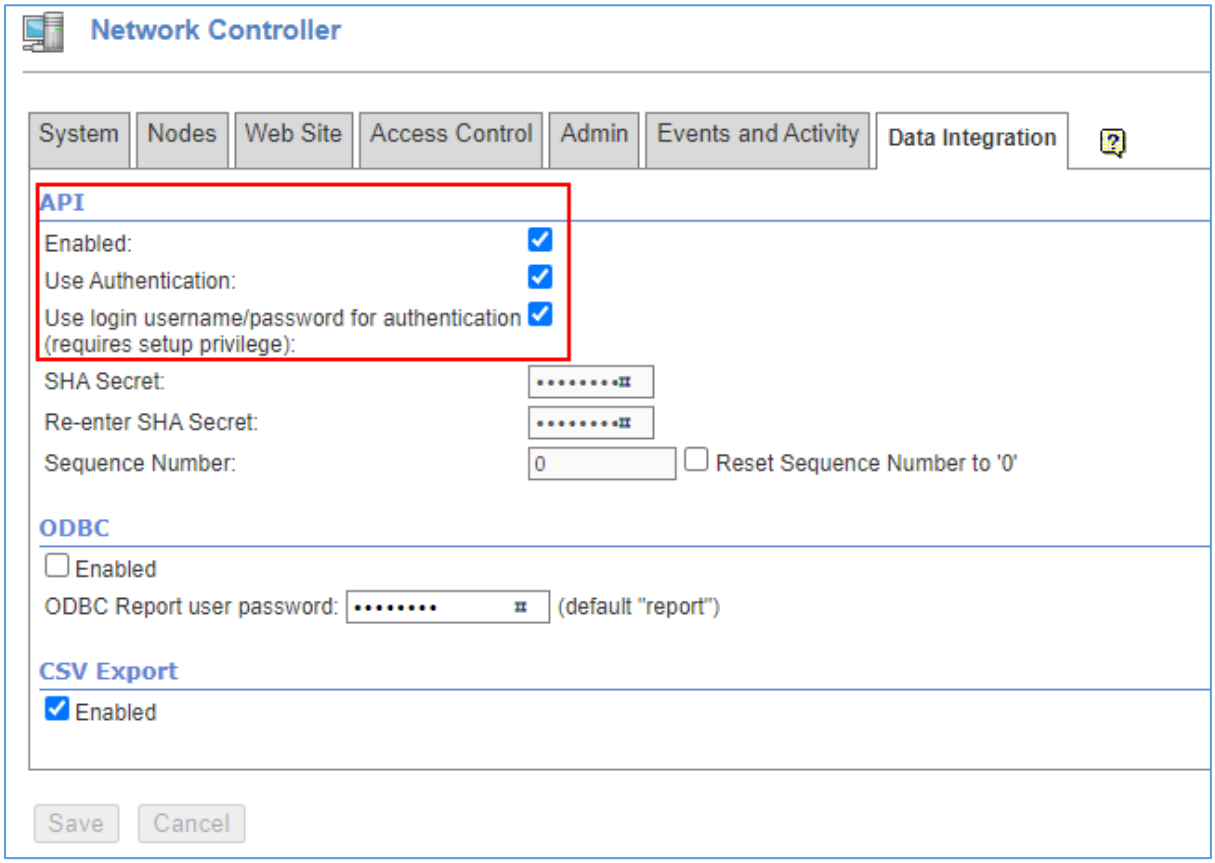


8. Click Save when completed.

10 Enable S2 NetBox API

In order for the Milestone Access Control integration to communicate with the S2 NetBox system, the API must be enabled. Follow these steps to do so:

1. Login to the S2 NetBox administration web interface.
2. Navigate to Site Settings > Network Controller > Data Integration tab.
3. Under API check Enabled, Use Authentication and Use login username/password.

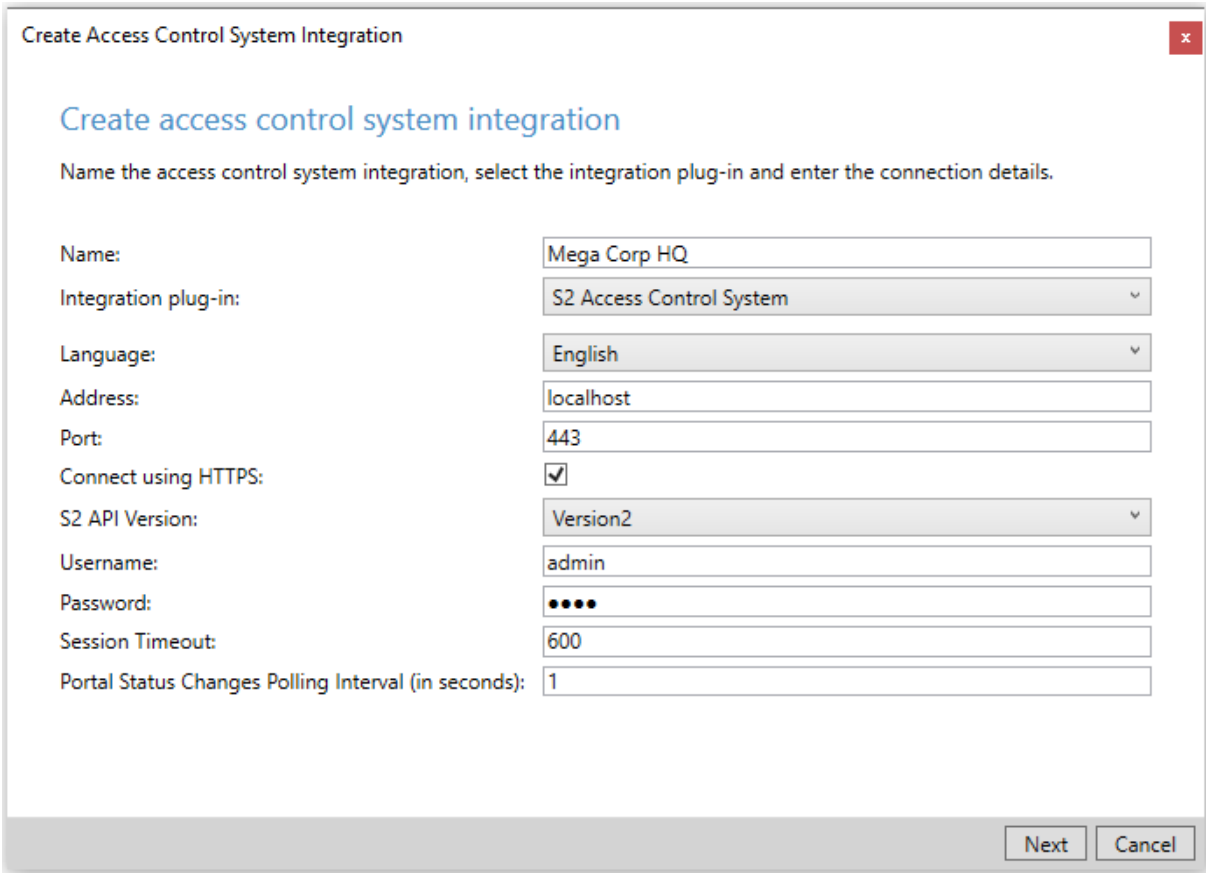


4. Leave all other settings as default.
5. Click Save when done.

11 Add Access Control Integration

In order to utilise the Access Control Module within Milestone, the Access Control integration must be added. This is done through the Milestone Management Client.

1. Open Management Client.
2. Navigate to Access Control.
3. Right click on Access Control and select Create New.
4. Provide a Name for the Access Control System (e.g., the organisation or premises).
5. Select S2 Access Control System from the Integration plug-in drop-down.

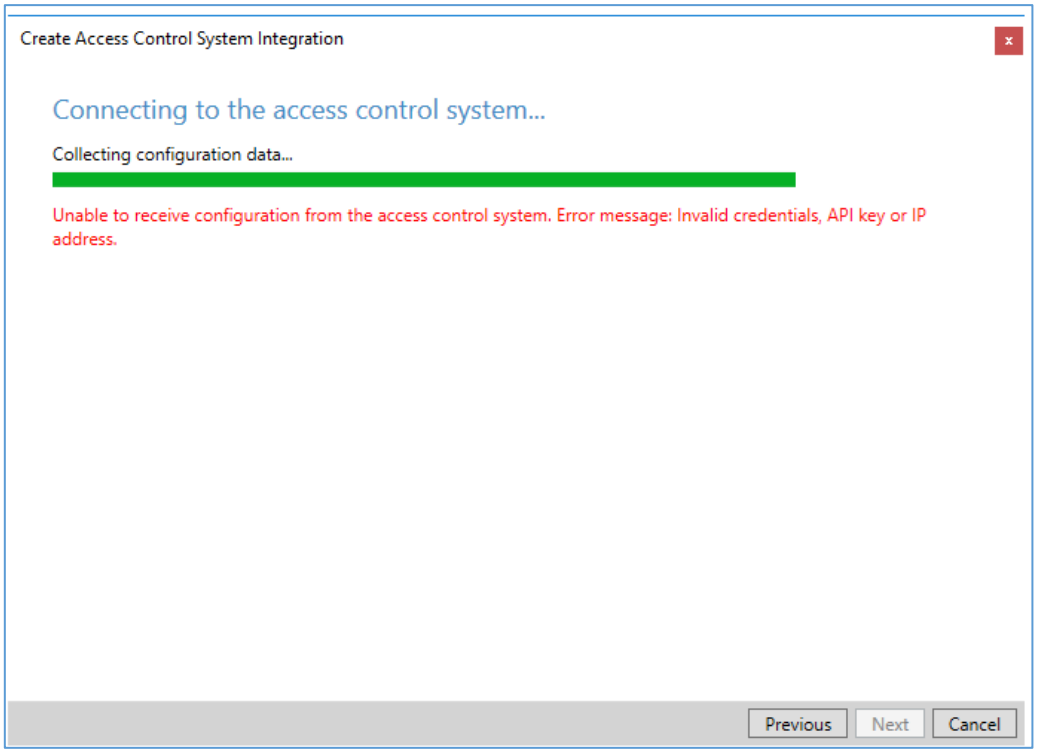


6. Complete the settings as follows:

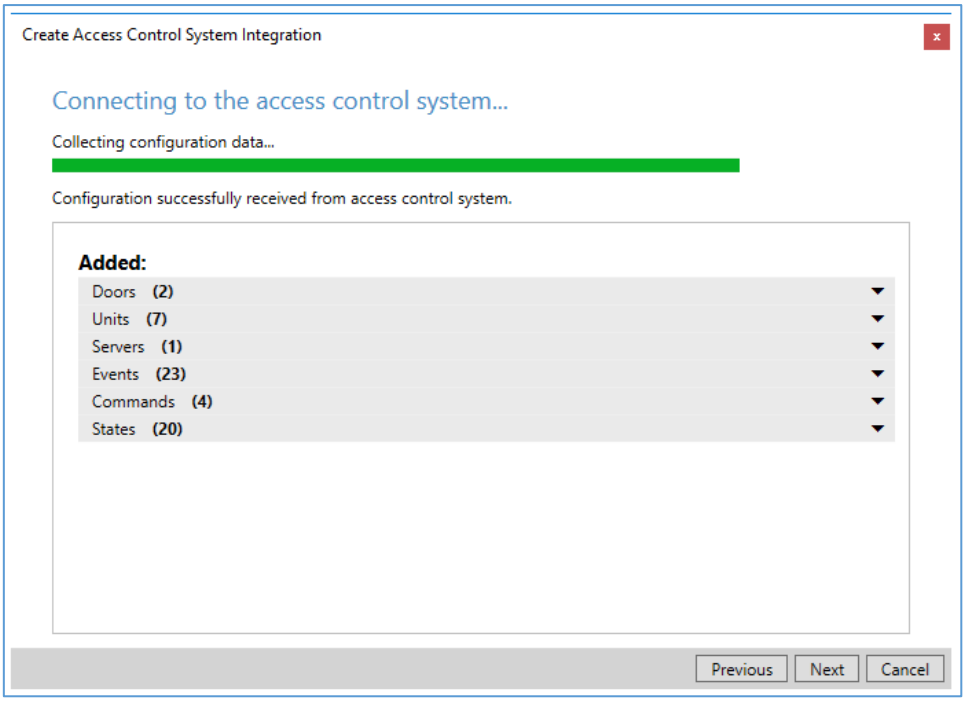
Setting	Default Value	Notes
Language	English	English is the only language currently available.
Address	Localhost	IP address or hostname of the S2 NetBox server.
Port	80	TCP port of the S2 NetBox server.
Connect using HTTPS	Off	Enable if using HTTPS on the S2 NetBox server.
S2 API Version	Version1	Adjust to match the version of S2 API.
Username	milestone	API user for S2.
Password	N/A	Password for the S2 API user.

Session Timeout	600	Session timeout as defined in S2 (entered in seconds).
Poll for Portal Status Changes (v2 only)	Off	Enable polling of NBAPI for portal status changes. NOTE: This is only supported in v2 of the NBAPI.
Portal Status Changes Polling Interval (in seconds)	1	The number of seconds between polling of NetBox API for portal status changes

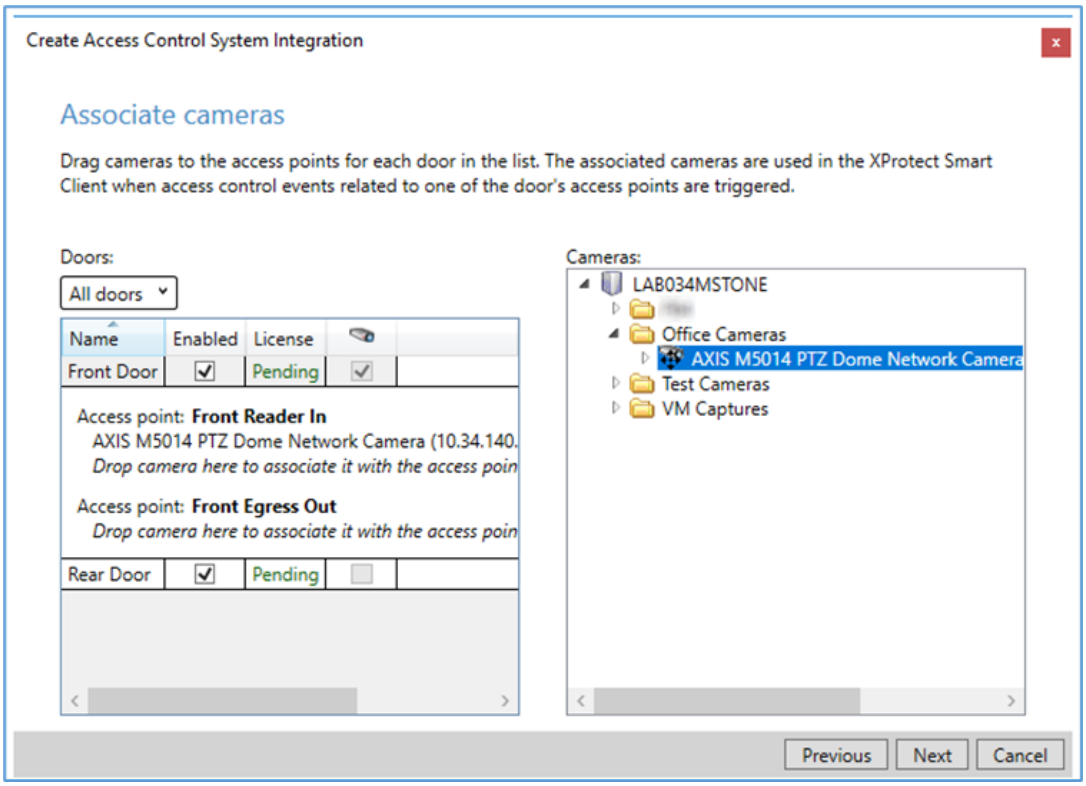
7. Once completed, click Next.
8. The Access Control Module will now attempt to connect to the S2 NetBox API to authenticate and import all Access Control elements
    a. If there is an error, you may see the following message:



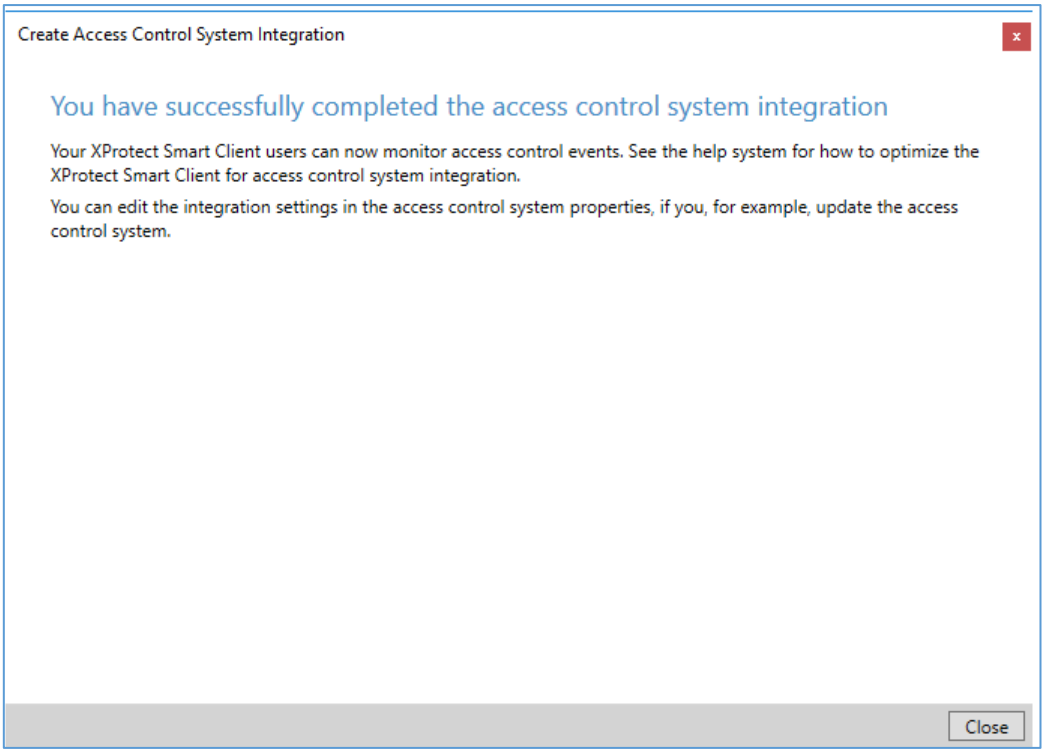
    b. Click Previous, re-check all settings and try again. If the error persists, contact ORBNET support.
9. Once completed, you can review the configuration that has been added:



10. Click Next to continue.
11. Use the following screen to associate Milestone cameras to access points (this can be done later if required).



12. Click Next.



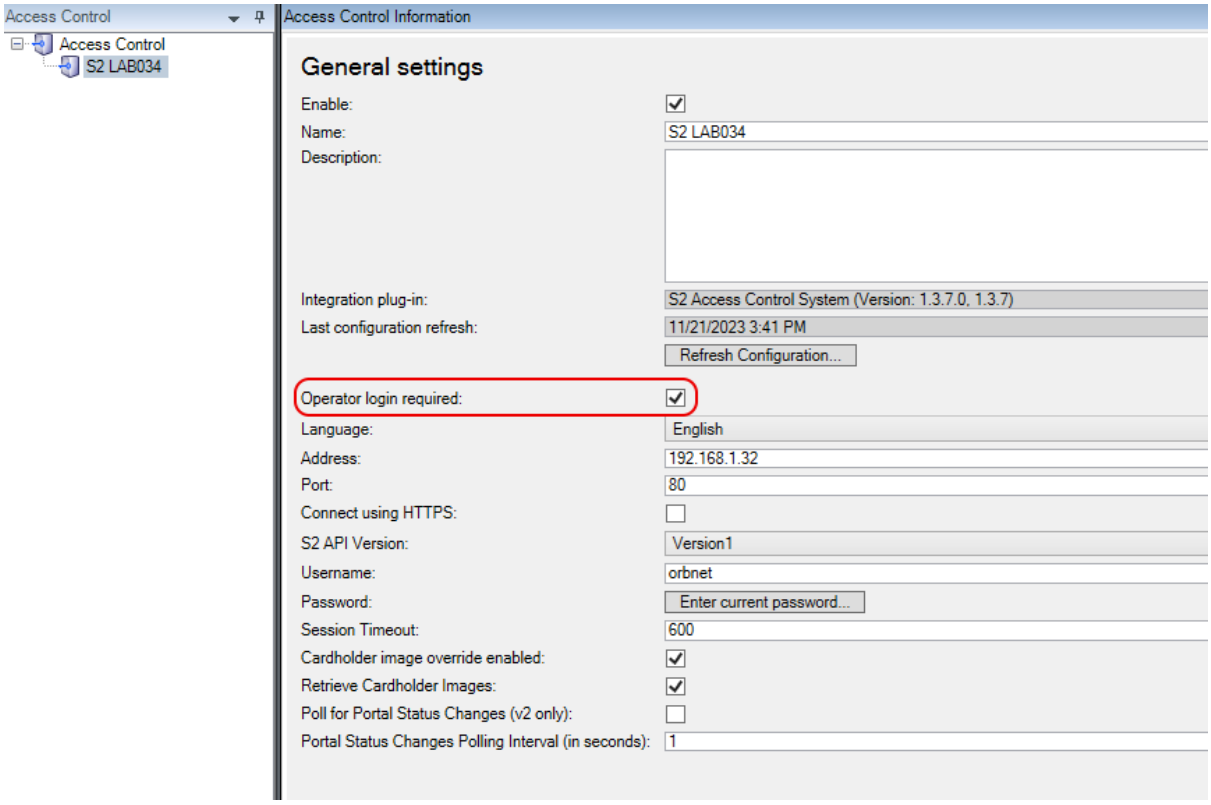
13. Click Close to complete.

The Access Control Module is now configured. All the standard Milestone Access Control functions will now be available on the access control units that are available and licensed – for example doors and readers, each ACU and the server.

12 Enable Personalised Login

The integration supports Milestone Personalised Login. This must be enabled through the Milestone Management Client as follows:

1. Open Milestone Management Client
2. Navigate to Access Control node and select the relevant S2 Integration
3. Under General Settings, tick Operator login required, and click Save



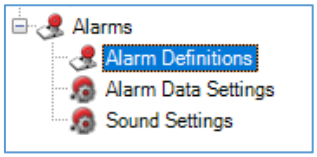
13 Configure Alarms

The S2 Access Control System can raise alarms when certain events occur. For example:

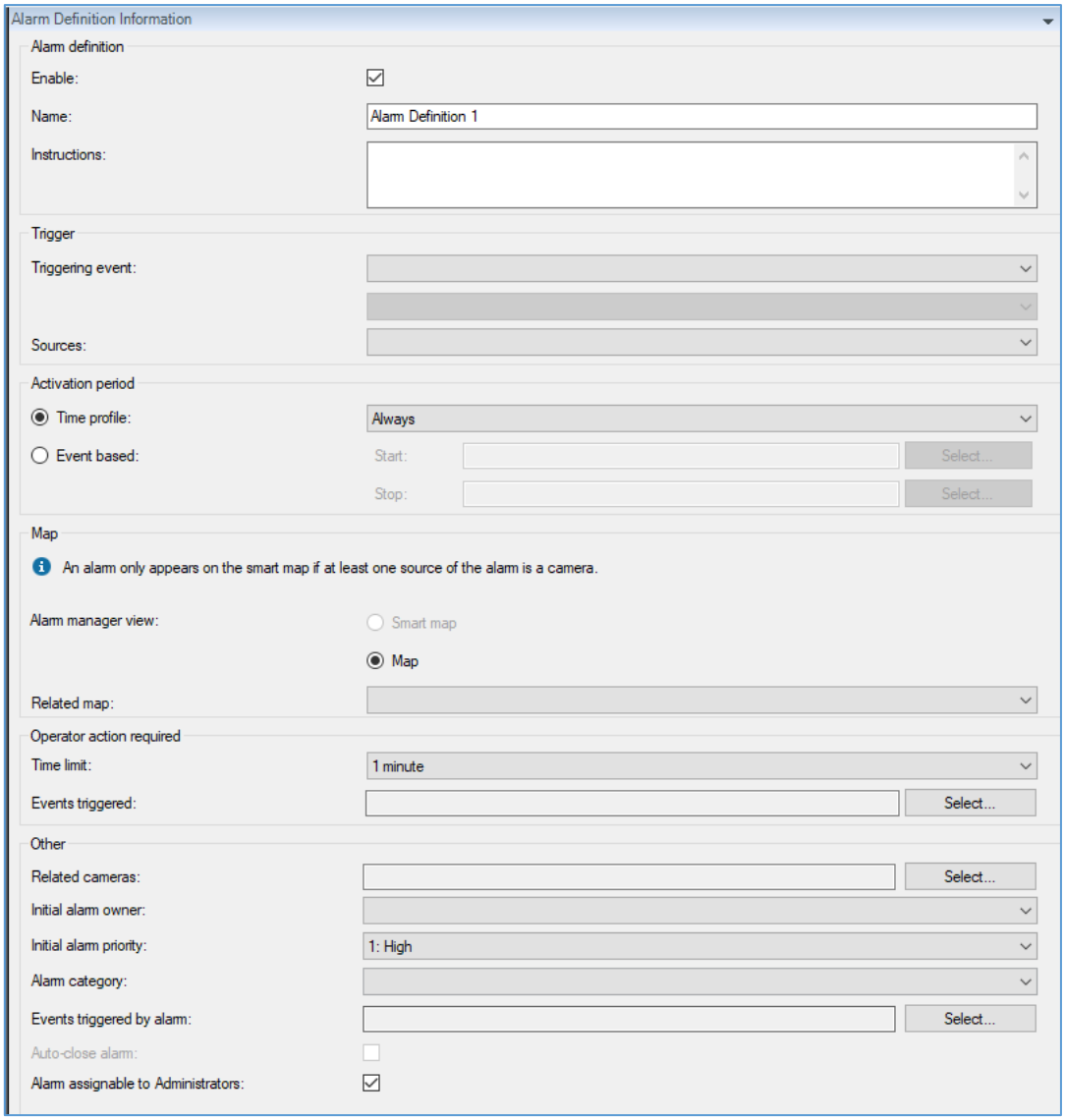
- A user denied access to a reader/door.
- A specific door was opened out of office hours.
- A reader went offline.

These alarms are monitored by the Milestone Access Control Module and presented as events. In order to get these alarms to appear within Milestone, the Alarms must be configured, and the door/reader must be licensed. Follow these steps to do so:

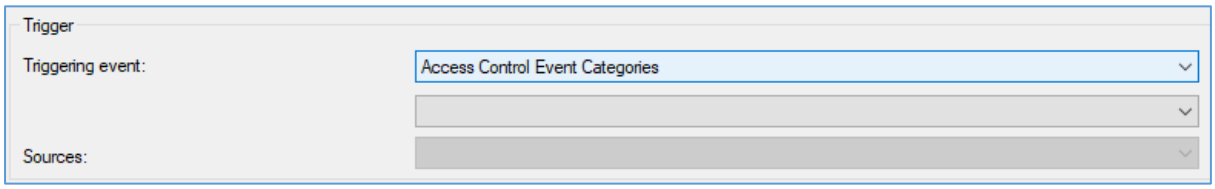
1. Open the Management Client.
2. Expand the Alarms node on the left-hand side and select Alarm Definitions.



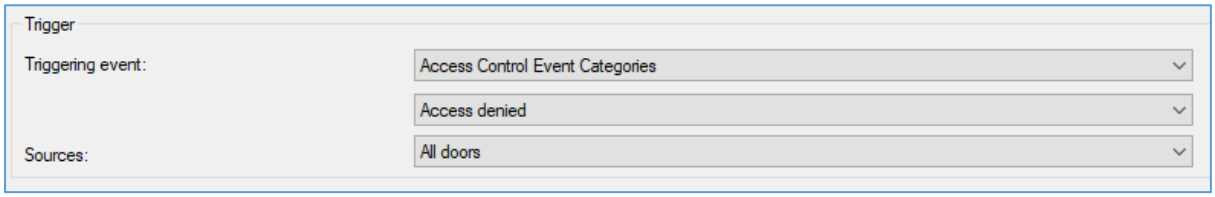
3. On the right-hand side, right click on Alarm Definitions and select Add New.
4. Milestone presents a several options to configure an Alarm Definition:



5. Under the Trigger section, open the Triggering event drop-down box and select Access Control Event Categories.

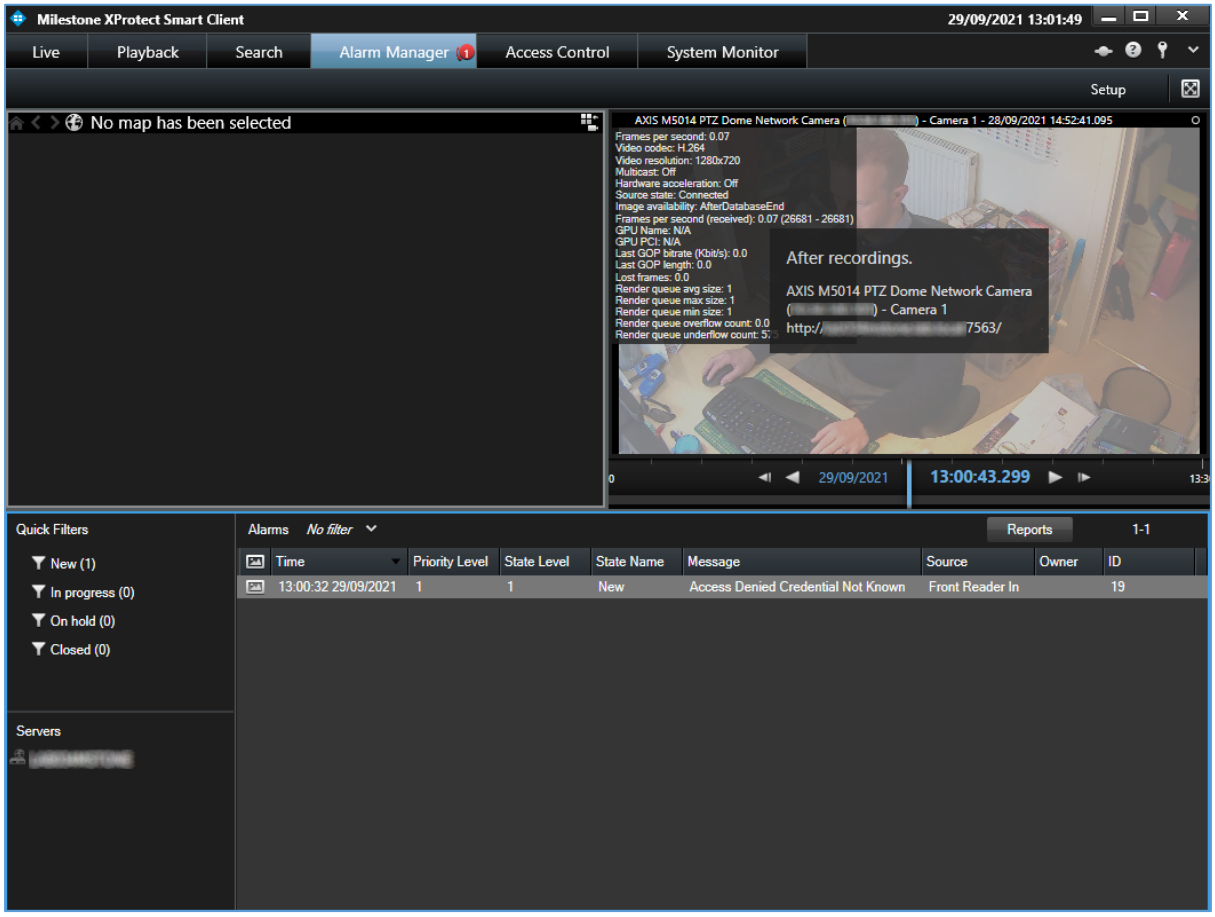


6. In the subsequent drop-down boxes, select the event category (e.g., Access Denied) and related source:



7. Set any other options as desired and click Save.

Now, when an Access Denied event on the selected door (in this example) is raised via The Access Control Module, Milestone will raise an alarm which can be observed in the Milestone Smart Client:

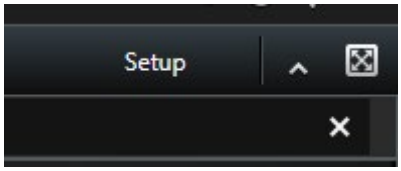


14 Adding overlay buttons in the Milestone Smart Client

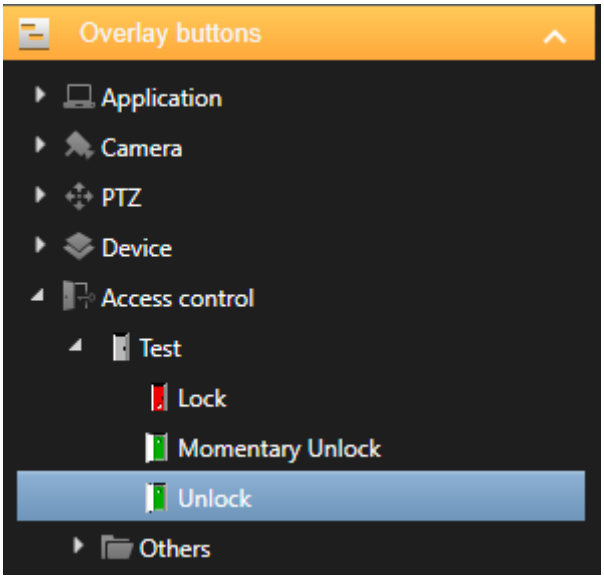
The Milestone Smart Client supports the placing of “overlay buttons” on live camera tiles to initiate a variety of actions, including Access Control commands. This can be used for example to provide a quick action to open a door that the operator can action based on the activity identified by the live camera feed.

Follow these steps to add an overlay button as described:

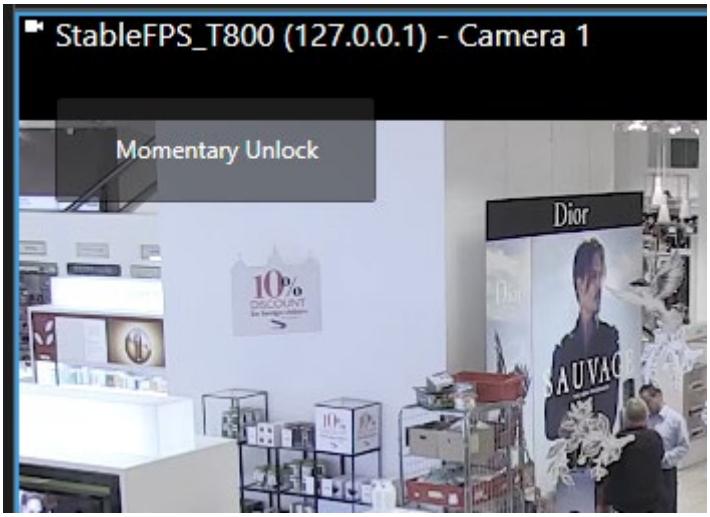
1. Open the Milestone Smart Client and login.
2. Ensure the Live tab is selected, and the desired View is open.
3. Click on the Setup button:



4. From the left-hand menu, under “Overlay buttons” expand the Access control node and select a command relating to the door in question. Draft this onto the video tile.



5. Click on the Setup button again to save the changes.
6. Hover the mouse over the edited tile, the overlay button should appear.

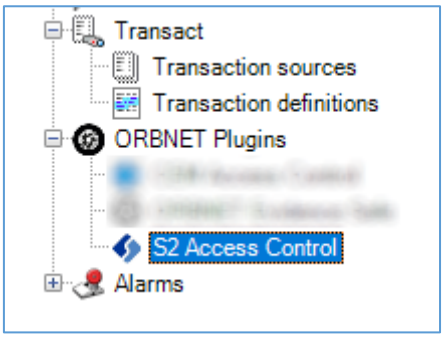

StableFPS_T800 (127.0.0.1) - Camera 1
Momentary Unlock
Dior
10%
DISCOUNT

15 License Activation

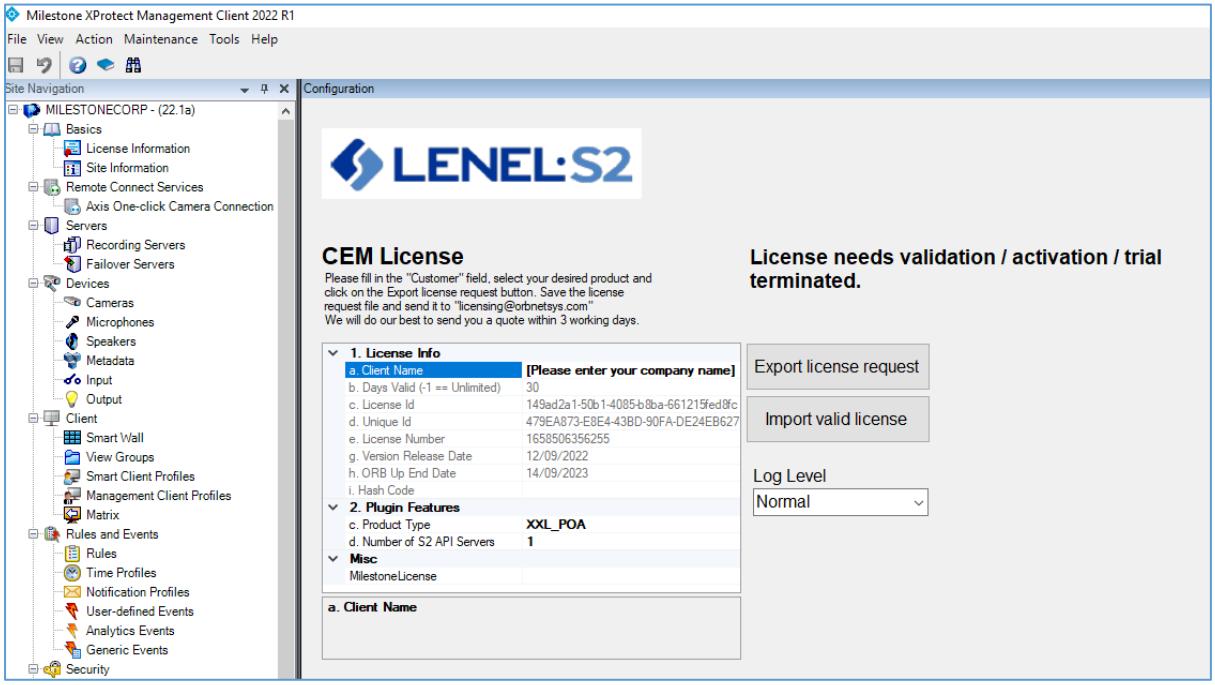
The Access Control Module comes with a free 30-day trial license. After that the software will no longer function. In order to activate a license, follow these steps.

NOTE: After a valid license has been loaded the Milestone Event Server will require a restart. This should be scheduled during a suitable maintenance window.

1. Open the Milestone Management Client ***on the Milestone Event Server*** and login.
2. On the left-hand side navigate to ORBNET Plugins > S2 Access Control.



3. Click on the Settings tab, this will show the current license status:



4. Complete the Client Name field and click on Export license request. This will generate a ".s2licr" file.
5. Send this file to license@orbnetsys.com to get your license activated. Once ORBNET has received payment, a return email will follow containing the ".s2lic" file which needs to be imported as follows.
6. In the same Management Client, click on Import valid license. Select the ".s2lic" file that was sent to you.
7. The license status should now update showing the duration of the license and any other license features.

8. **NOTE:** The Milestone Event Server will now need to be restarted to activate any previously unlicensed features. This should be done manually by a system administrator.
9. After the Milestone Event Server has restarted, re-open the Settings tab in the Management Client plugin to confirm the license status.

16 Important Locations

The following table lists important locations containing log files. Files from these paths may be requested for support and troubleshooting. Access to all paths should be secured appropriately according to local security policies.

Base path

The base path depends on whether the Export Service is running under a Domain Service Account or with a built-in account e.g., NETWORK SERVICE (this is the default account after installation, and suitable for a non-domain environment).

Running as a Windows User Account: `C:\Users\<service-user>`

Running as Built-in Account: `C:\Windows\ServiceProfiles\NetworkService`

Item	Path	Server/Client
MIP Logs	`C:\ProgramData\Milestone\XProtect Event Server\logs\MIPLogs\*.log`	Milestone Event Server
Install Path	`C:\Program Files\Milestone\MIPPlugins\ORBNET\S2AccessControl\`	Milestone Event Server
Management Client Logs	`C:\Users\<username>\AppData\Local\S2AccessControl\ManagementClient\Logs\`	Workstation