



ORBNET
SYSTEMS

Paxton Net2 > XProtect Access

Installation, Setup, and User guide



Paxton



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Prerequisites

Software and Licensing

Microsoft System Requirements

- Microsoft® Windows® 10 Pro (64 bit)
- Microsoft® Windows® 10 Enterprise (64 bit)
- Microsoft® Windows® 10 Enterprise LTSB 2016 (version 1607 or later)
- Microsoft® Windows® 10 IoT Enterprise, version 1803 or later (64 bit), IoT Core

- Microsoft® Windows® Server 2016 (64 bit): Essentials, Standard and Datacenter
- Microsoft® Windows® Server 2019 (64 bit): Essentials, Standard and Datacenter

Milestone XProtect System Requirements

- XProtect Express+, Professional+, Expert, Corporate 2020 R1 (20.1a) or above

- Milestone Event Server
 - The Event Server is included as part of you Milestone installation. ***Note* If this component has not been installed with your version follow the steps found in troubleshooting at the end of this document.**

- Milestone Access Licenses applied to your XProtect base license.
 - XProtect Access does not run as a trial license by default – if wanting to add a trial license to you XProtect license you must contact Milestone Sales Support – sales@milestone.dk or create a sales request on the Milestone website.

LICENSES		MSRP	
SKU ID	Name	EUR	Note
XPABL	XProtect Access Base License (BL)	129,00	1
XPADL	XProtect Access Door License (DL)	39,00	2

MILESTONE CARE OPTIONS

The XProtect Add-on product will be covered by the Milestone Care service level of the underlying VMS or NVR product without separate charge.

Open the Milestone Management Client and ensure that you have XProtect Access Licenses associated with the installed Milestone version before installation of a ORBNET trial system. If nothing is listed here then you will not be able to use the ORBNET Systems Net2 Plugin as XProtect Access is not enabled as part of the trial version of the ORBNET installation, you must request a trial license or purchase beforehand from Milestone.





◆ milestone | XProtect®

Licensed to:

N/A

United Kingdom

N/A

[Edit details...](#)

[End-user license agreement](#)

Milestone Care

Your current level: Basic

[Access Milestone Care portal...](#)

[Information about Milestone Care...](#)

Installed Products

Product Version	Software License Code	Expiration Date	Milestone Care Plus	Milestone Care Premium
XProtect Corporate 2020 R3 Test	M01-C01-203-02-6C4FF6	20/03/2022	N/A	N/A
Milestone XProtect Smart Wall	M01-P03-100-02-6C9A73	Unlimited	Unlimited	
Milestone XProtect Access	M01-P01-100-02-6C4476	06/04/2022	06/04/2022	
Milestone XProtect Transact	M01-P08-100-02-6C438B	23/04/2022	23/04/2022	

Paxton Access

- Net2 Professional, Lite (6.02) or above
- API Key to be installed
C:\Program Files (x86)\Paxton Access\Access Control\ApiLicences\
- The API key is provided with the ORBNET .msi package.
 - Once the ORBNET software is installed – copy the file found in
C:\Program Files\Milestone\MIPPlugins\ORBNET\Paxton Access\
(764be017-a15e-4426-b5e3-cdd896743140.lic)
Copy to the location below on the Paxton NET2 Server. The folder may have to be created.
- Restart Paxton Net2 Services
 - Net2 Service
 - Net2 Nginx Service
 - Net2 Client Service

(Alternatively reboot the Paxton server)

ORBNET Systems

- Installer – ‘Paxton Access for XProtect Setup’
 - Available to download from <https://orbnet.com/> Register once registered and signed into the website <https://orbnet.com/Paxton/>
- License - The integration will install as a 30-day trial.
To request a full/commercial license please complete the section in the





(Milestone Management Client > ORBNET Plugins > Paxton Access)

Send the exported license file to purchase@orbnet.com – who will then advise as to pricing for your installation and provide an invoice for payment.

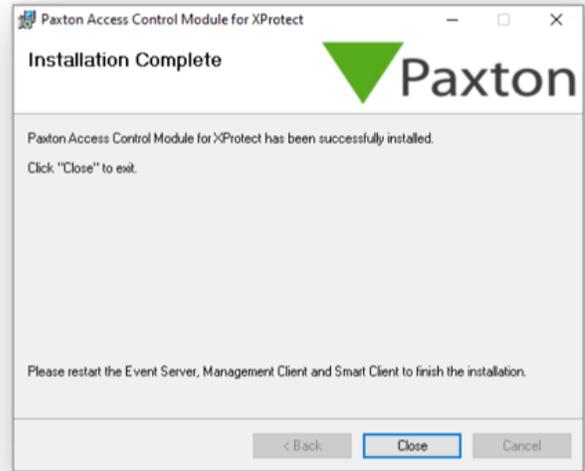
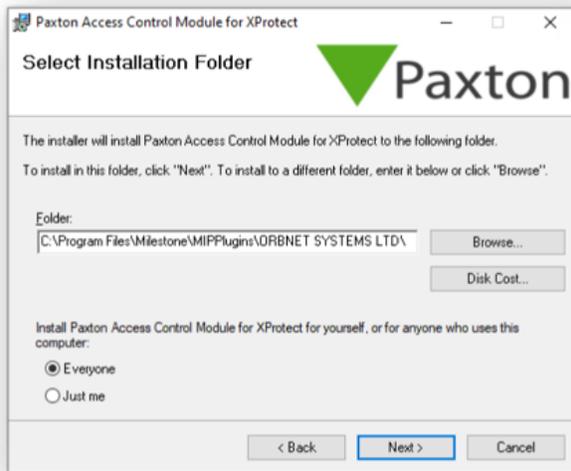
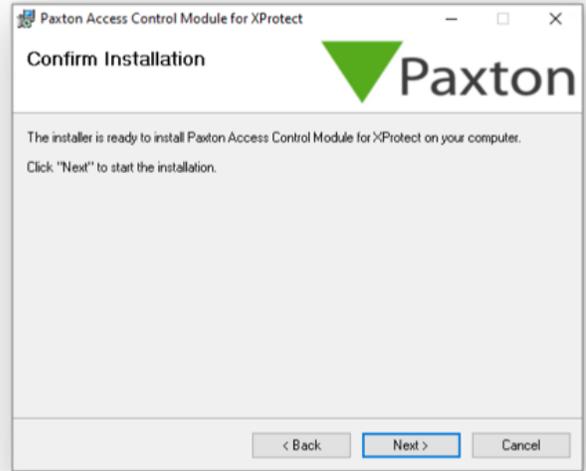
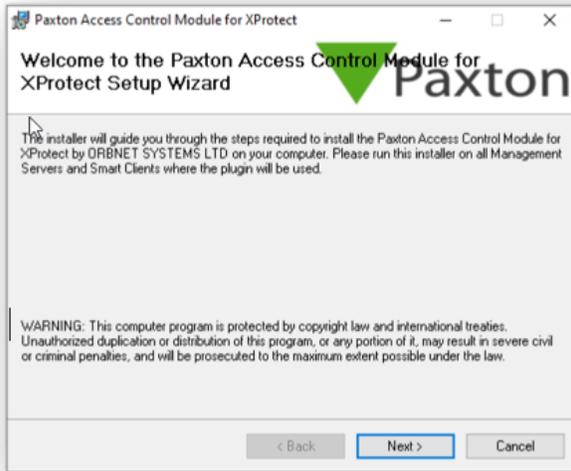
- There are 5 versions of the integration linked to Net2 system size.
 - S – up to 25 doors
 - M – up to 50 doors
 - L – up to 100 doors
 - XL – up to 500 doors
 - XXL – unlimited



Installation of Paxton Access for XProtect

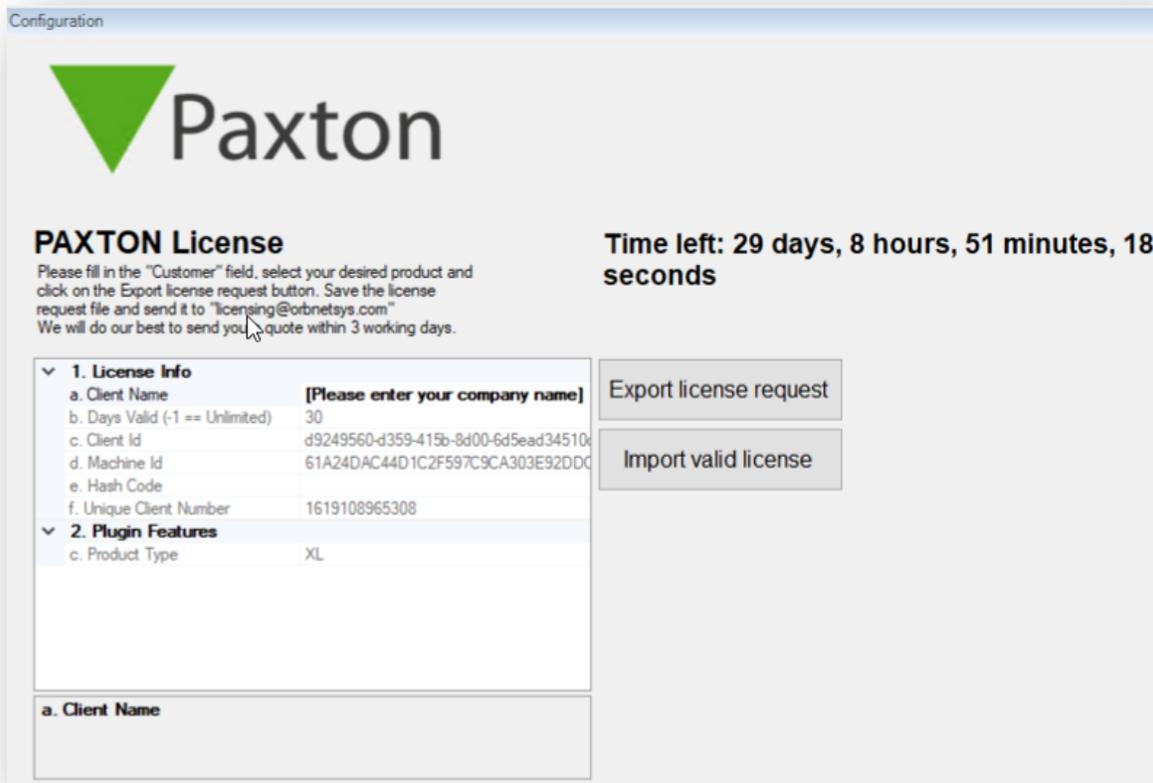
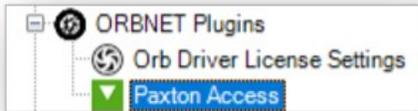
Begin with the server/machine running the XProtect Management and Event Server. Close any open Milestone Smart Clients or Management Clients first. Place the 'Paxton Access for XProtect Setup.msi' in a folder on the desktop and double click and select 'Install'.

During installation, a window will appear behind the installer to request restart of the Milestone Event Server.





Upon installation completion of the Plugin installation navigate to the ORBNET Plugins Section from within the Milestone Management Application, expand and Select Paxton Access. This shows that the software is now in a 30day trial period, endless the installation and trial had been completed prior.



Export License request process

When you decide to purchase a license, fill in the "Client Name" field, select the size of your installation and press the "Generate License Request File" button.

This will prompt you to save the license on your hard drive. Email the license request to purchase@orbnet.com and we will send you an invoice for payment.

Once the payment is sent, please send another email to purchase@orbnet.com and allow 1 business day to deliver you the license to you. Import this license to validate your software.





Configuration

Access Control

Paxton User Setup

It is recommended to create a new user account within Paxton for the connection to the Milestone Access module. This will allow better management of the doors to be included and controlled.

In this installation we created a user 'ORBNET' in the NET2 Pro software with access to 'All Doors' at 'All Times'. The user was assigned as a Net2 Operator.

Access rights | Tokens | Other details | Memo | Events | Current validity

Individual permissions

Access level permissions

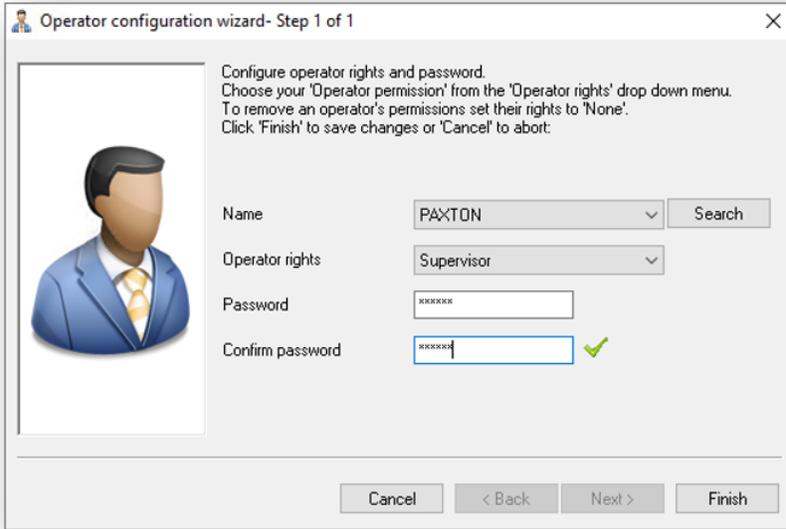
All hours, all doors

Door / Area name	Timezone
ORBNET Doors - ORBDdoor (In)	All day, every day
ORBNET Doors - ORBDdoor (Out)	All day, every day





Add this user account as a Net2 Operator, this will be the username a password used for the connection to Milestone. The Operator rights should be set as Supervisor.

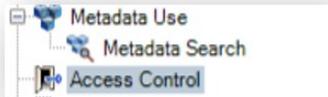




Milestone Access Setup

This integration allows for XProtect Access to connect your access control system directly to Milestone's XProtect VMS. It is designed to fit perfectly with any XProtect product. No matter your installation size, with XProtect access you can control your video cameras and access your control system from a central interface.

Select the Access Control entry in the Milestone Management Client tree

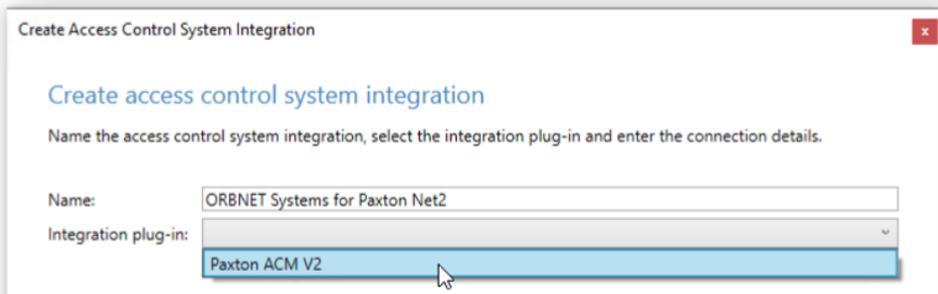


Right-Click 'Access Control' and select 'Create new....'



Define a Name for your Access Control System

Select the Paxton ACM from the dropdown





Enter the IP Address or Hostname of your Paxton Server with the port used for Paxton Web Access (Default 8080) *Note* If you are installing an 'all-in-one' system where Milestone XProtect and Paxton NET2 are on the same server follow steps under troubleshooting at the end of this document.

Enter the credentials of a Net2 Operator with sufficient access rights to the doors you wish to monitor in XProtect.

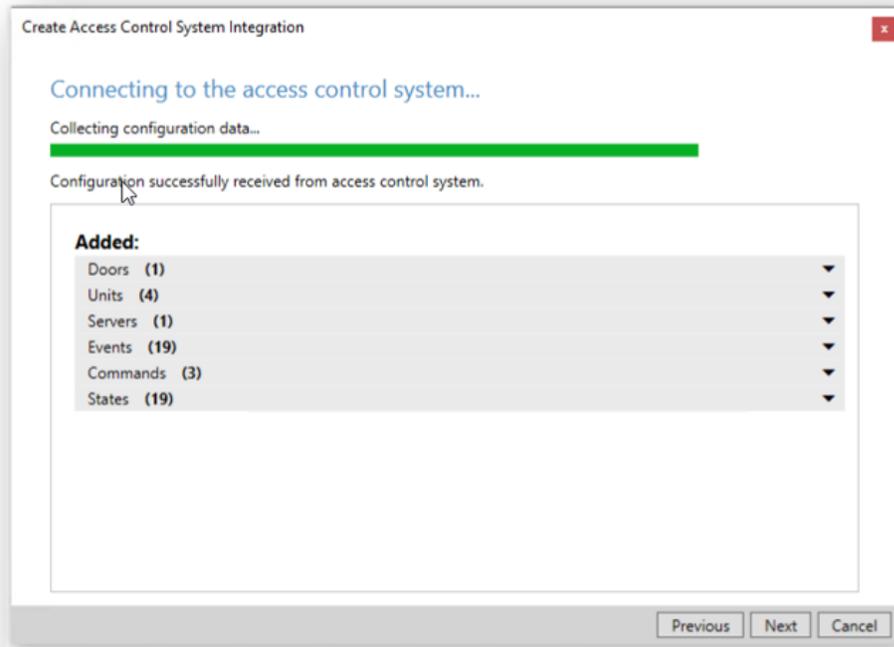
The API key is the name of the file located on the Paxton Server as below, Copy this file name to the 'API Key:'

C:\Program Files (x86)\Paxton Access\Access Control\ApILicences\

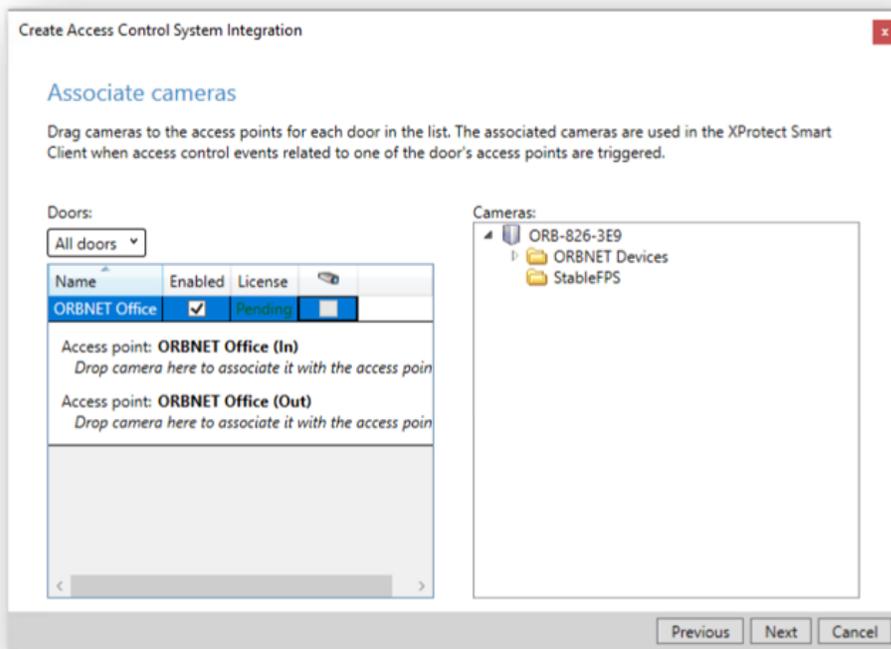
A screenshot of a Windows dialog box titled "Create Access Control System Integration". The dialog box has a white background and a grey border. At the top, it says "Create access control system integration" in blue text, followed by the instruction "Name the access control system integration, select the integration plug-in and enter the connection details." Below this are several input fields: "Name:" with the text "ORBNET Systems for Paxton Net2"; "Integration plug-in:" with a dropdown menu showing "Paxton ACM V2"; "Address:" with the text "localhost"; "Port:" with the text "8083"; "HTTP over SSL (HTTPS requires certificate):" with an unchecked checkbox; "User:" with the text "ORBNET"; "Password:" with a field of black dots; and "API Key:" with a field of black dots. At the bottom right, there are "Next" and "Cancel" buttons.



Connection to the Net2 system will now be completed and the permitted configuration will be received.

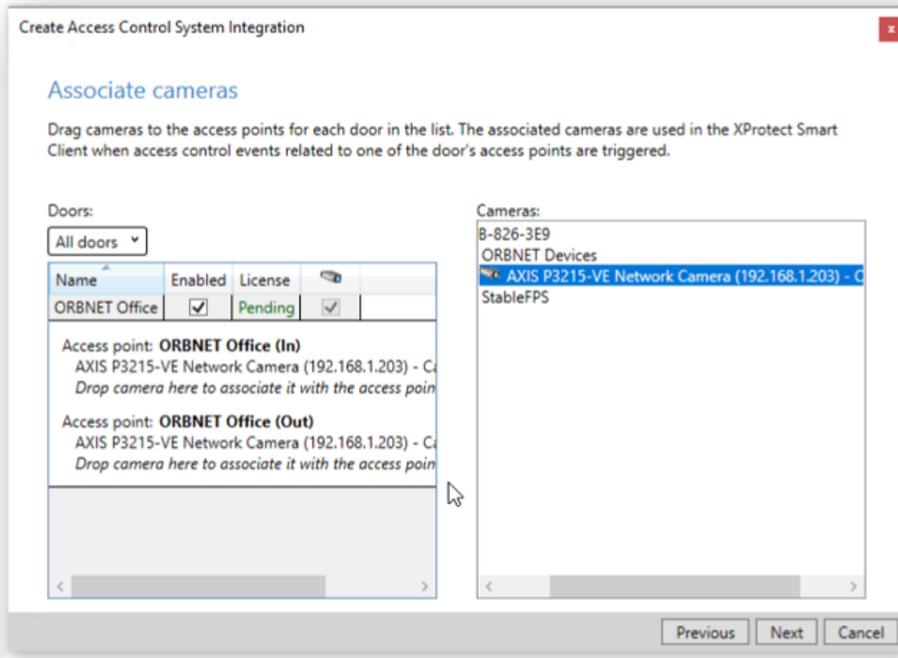


Expand the available Milestone cameras and drag and drop the associated camera to the access points.

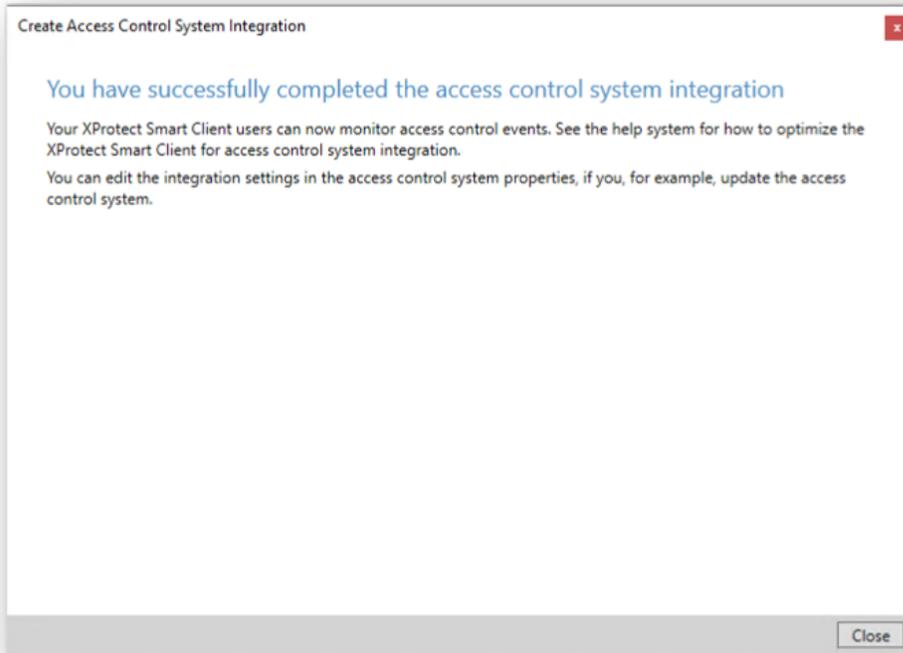




Once added click 'Next'



The initial configuration is now complete. We can now go to the Milestone Management Client and enable additional settings.

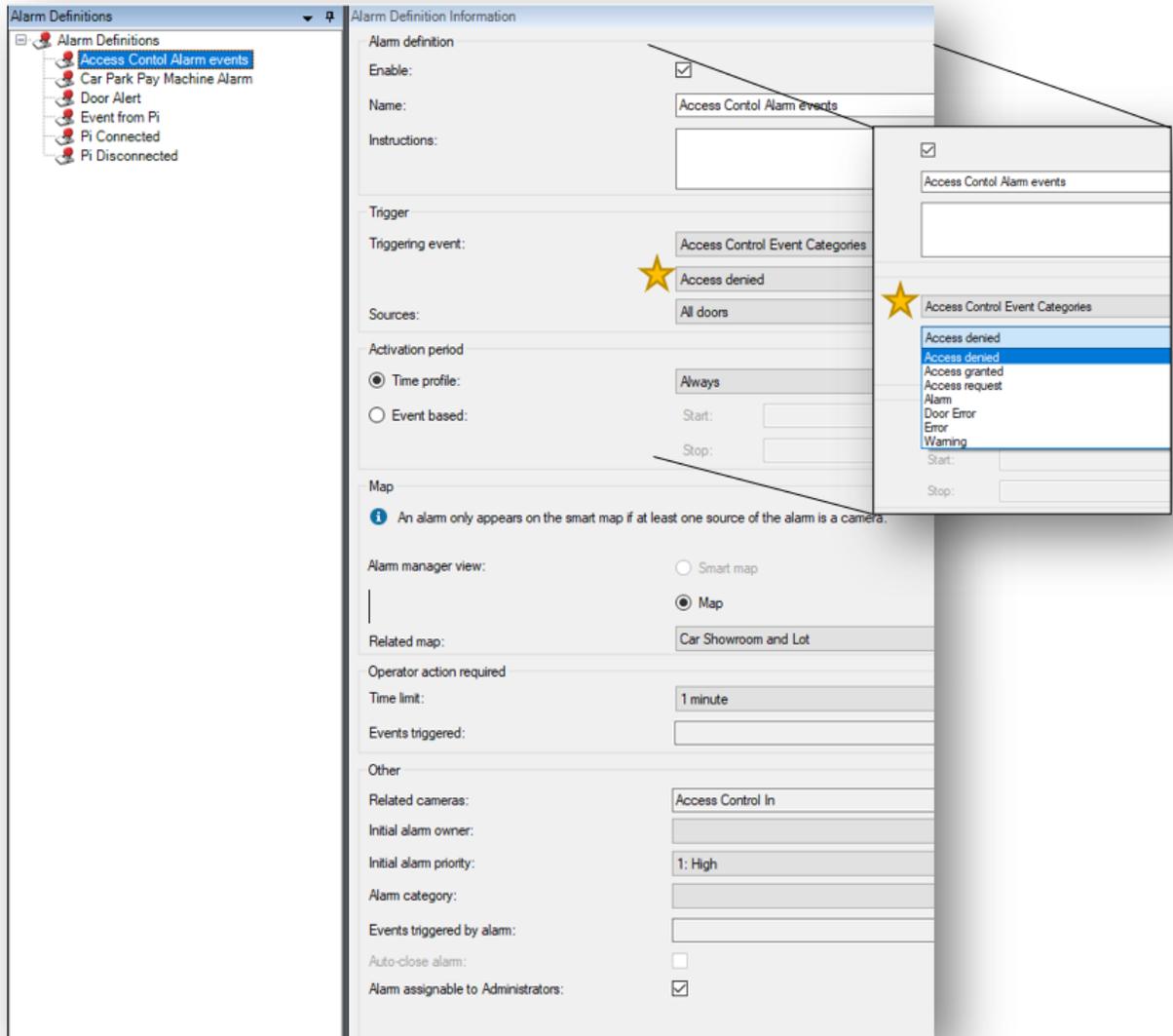




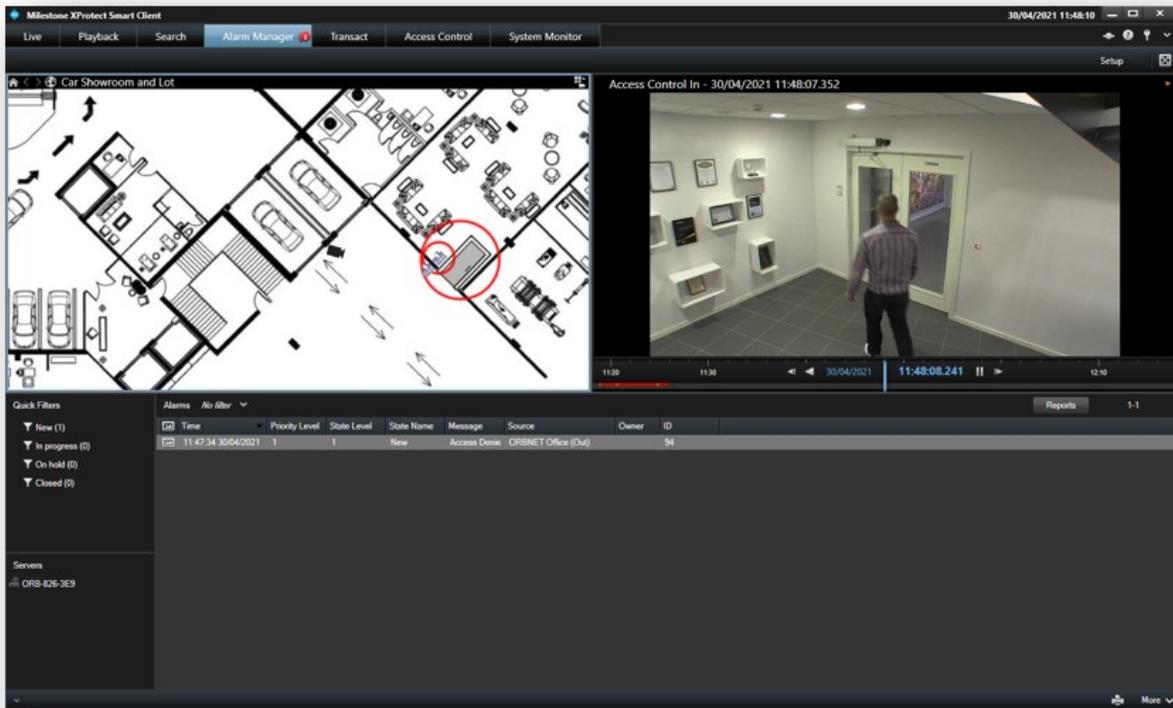
Alarm definitions

In the Milestone Management alarms can be created from Access Control Events –

The below alarm shows an easy method to create an access denied event on all doors in the system and then have that event auto display an alarm in the Milestone Smart Client showing a specified map view.



Below shows the Alarm being triggered within the Smart Client. This will display a red flashing ring around the door that has triggered the event.

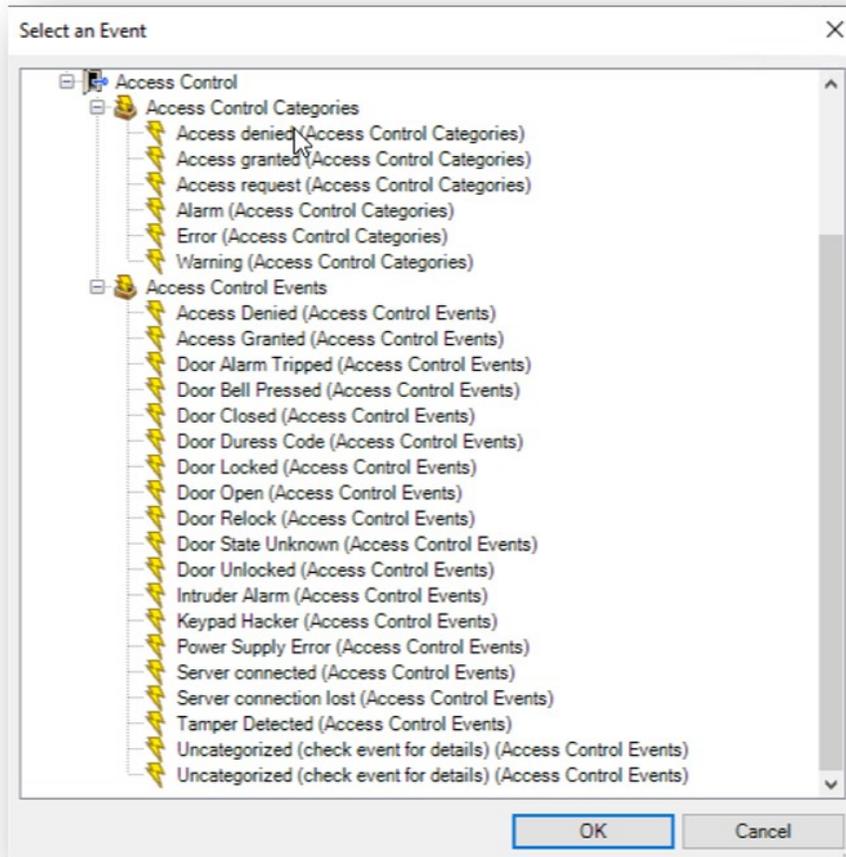




XProtect Access in Milestone Rules and Events

To access the Access Control events in Milestone select the Rules and Events > Rules section in the Management Client and then right click in the center column to add a new rule.

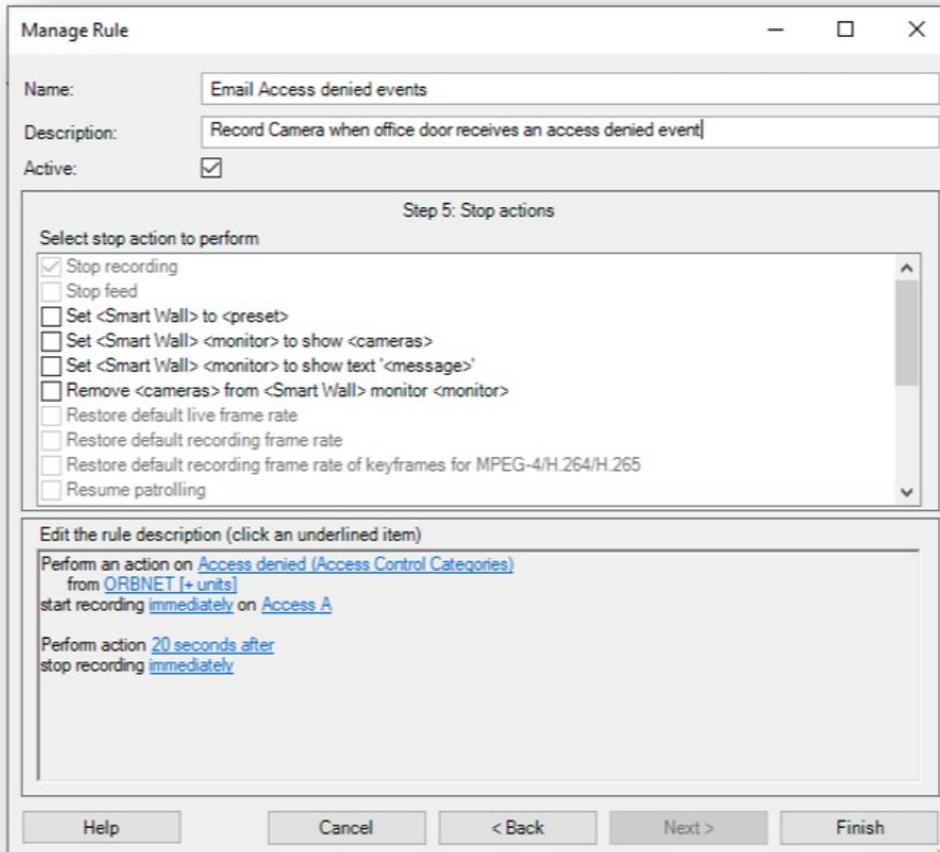
- Perform and action on <event>





With Milestone <Rules and Events> you can enable an event from the Net2 Access Control System to trigger an additional event or action in XProtect, the rule below is a simple example of how to record a specific camera when an Access denied event is received.

This is an example of a very simple rule to start recording on a given camera following the receipt of an 'access denied' event



I/O Boards

The Integration supports the operation and control of Paxton Input/Output boards. This has four inputs and four outputs. This would be treated as a “door controller” within Milestone for licensing and for the ORBNET licensing.

This offers additional solutions that can be used within the Smart Client. Using overlay buttons, we are able to trigger the Paxton device relays connected to any device that would support a relay connection as a trigger. The inputs can be used to trigger events into Milestone via the ruling system, this could be a fire alarm or intruder alarm system so to make central users aware of certain activations.



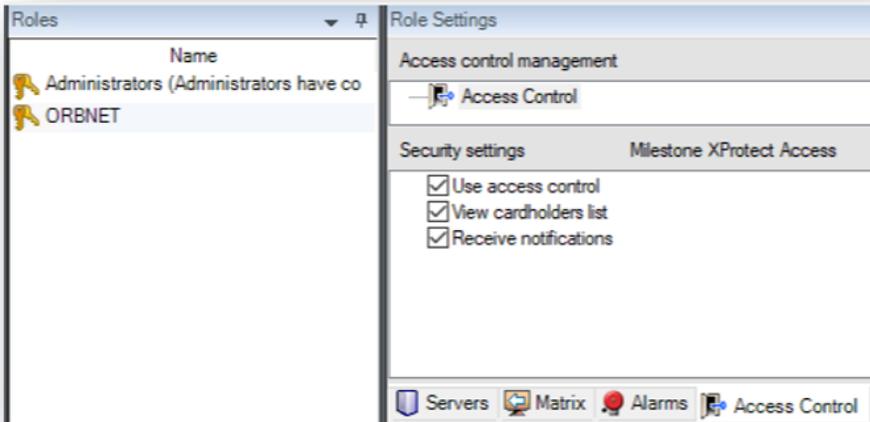


Net2 Access Control in Milestone XProtect Smart Client

User Configuration

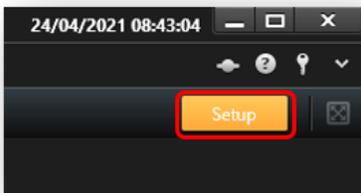
There are many options for the display and management of Access Control data in the Milestone Smart Client and the ORBNET Systems for Paxton Net integration seeks to enable many of these.

To begin with log into the Smart Client with a user who is a member of a role with Access Control Settings enabled in the Milestone Management Client



Smart Client Setup

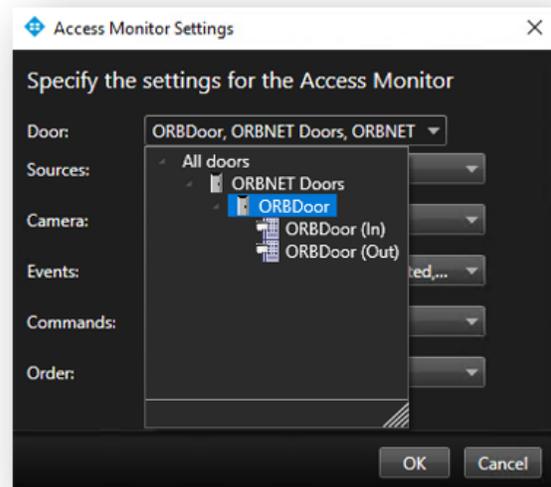
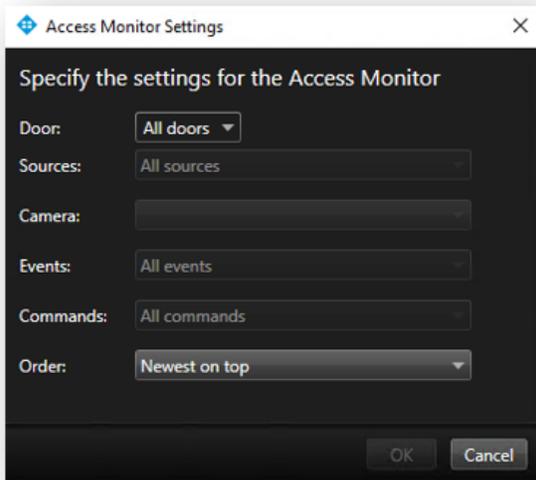
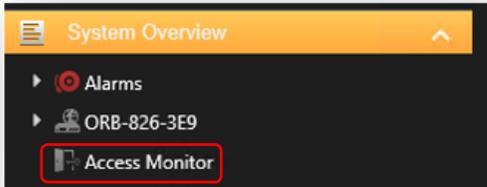
Once logged into the Smart Client enter Setup mode via the right-hand site menu.

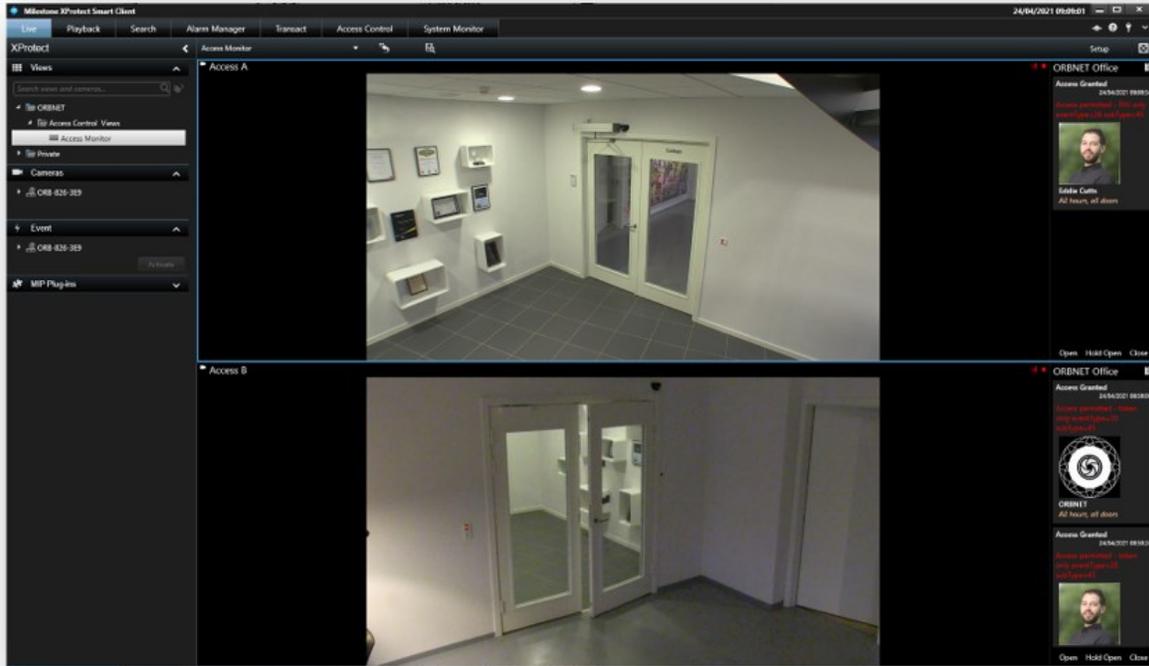




Access Monitor

Drag the Access Monitor into the window tile and select the source door and then choose if you are to receive events from a specific reader. The below example is of a door with read in/read out. Here we have 1 door / 2 readers and 2 cameras. The same door is associated with both windows in the Smart Client and individual readers per door.

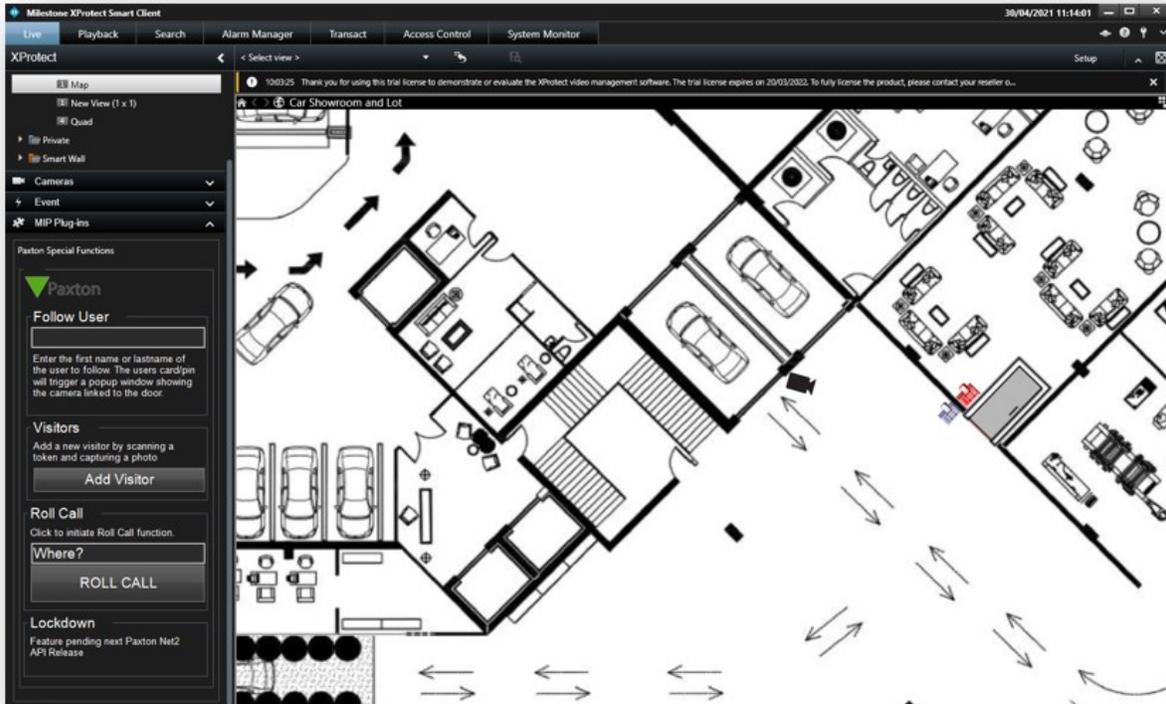






Smart Client Maps

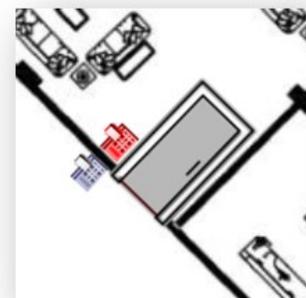
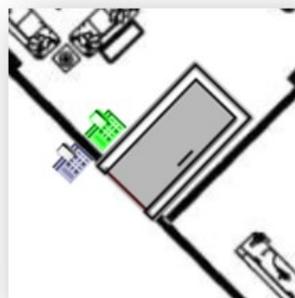
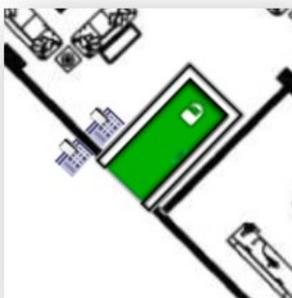
All the Paxton components can be added to a map created within the Milestone Smart Client.



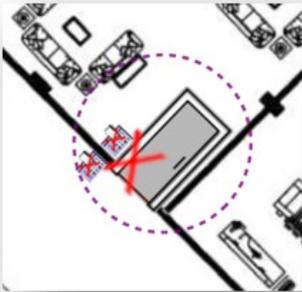
Icons for the Doors and readers can be added to the Milestone Maps. Note in the screenshot above that the reader icon will change color depending on the badge result.

Doors will be gray when closed, green when unlocked and show when they are physically open.

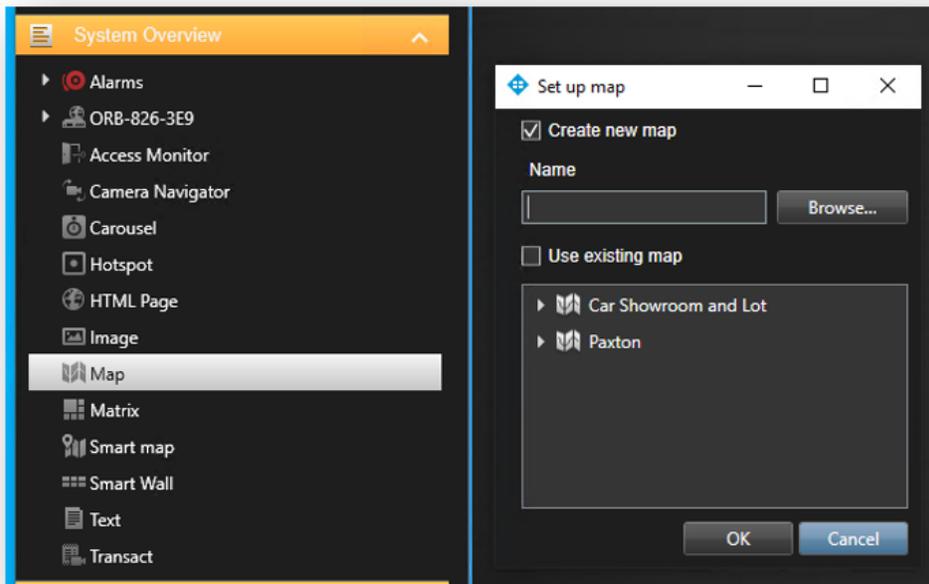
Readers / Door controllers will flash green and/or red depending on the badge presented.



If there are faults with a door controller you will see a red X on the map

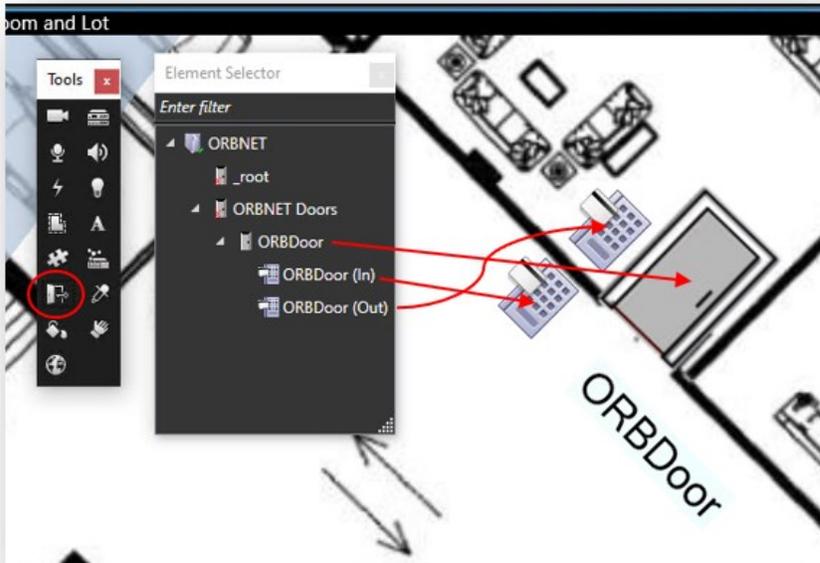


Under setup create a new layout (Recommended 1x1), drag the Map component into the blank tile. Select a floorplan image representing your site layout.





From the tools menu select Access Control, from the drop-down list you will now see Paxton devices that have been enabled within Milestone.



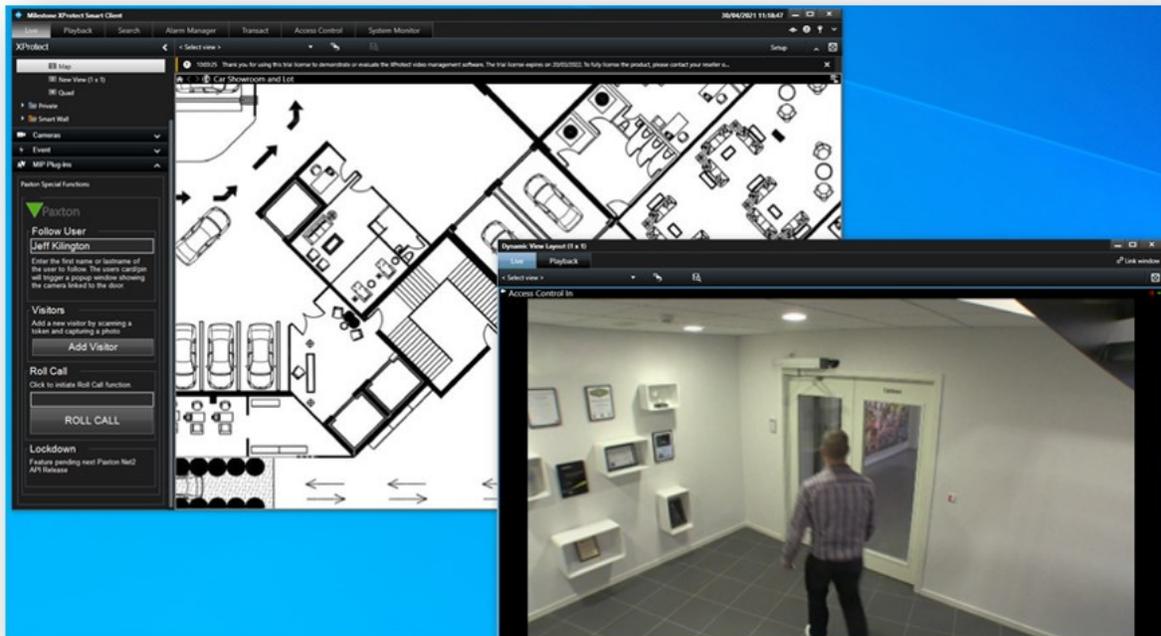


Special Features in MIP Side Panel

The Milestone Integration Platform panel provides some new features and shows upcoming features in new releases of the integration

Follow User

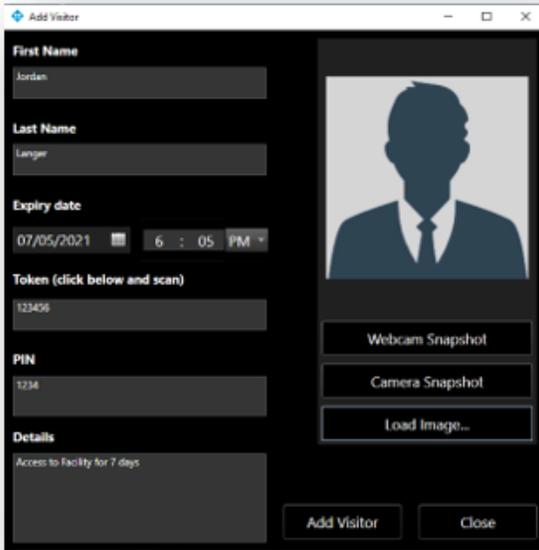
In the 'Follow User' field this is a quick way to find a member of staff or a cardholder. Simply adding their name to the box will mean that the next time they badge any door in the system this will generate a popup to alert as to their whereabouts.





Adding Visitors

With the integration to Paxton Net2 is the ability to create users in the Milestone Smart Client. **To complete this and provide a card will require a 3rd party card reader.** The GUI below shows the options. You can use a webcam connected to the Smart Client PC, import a picture and are also able to use a Milestone camera to generate a snapshot of the visitor.

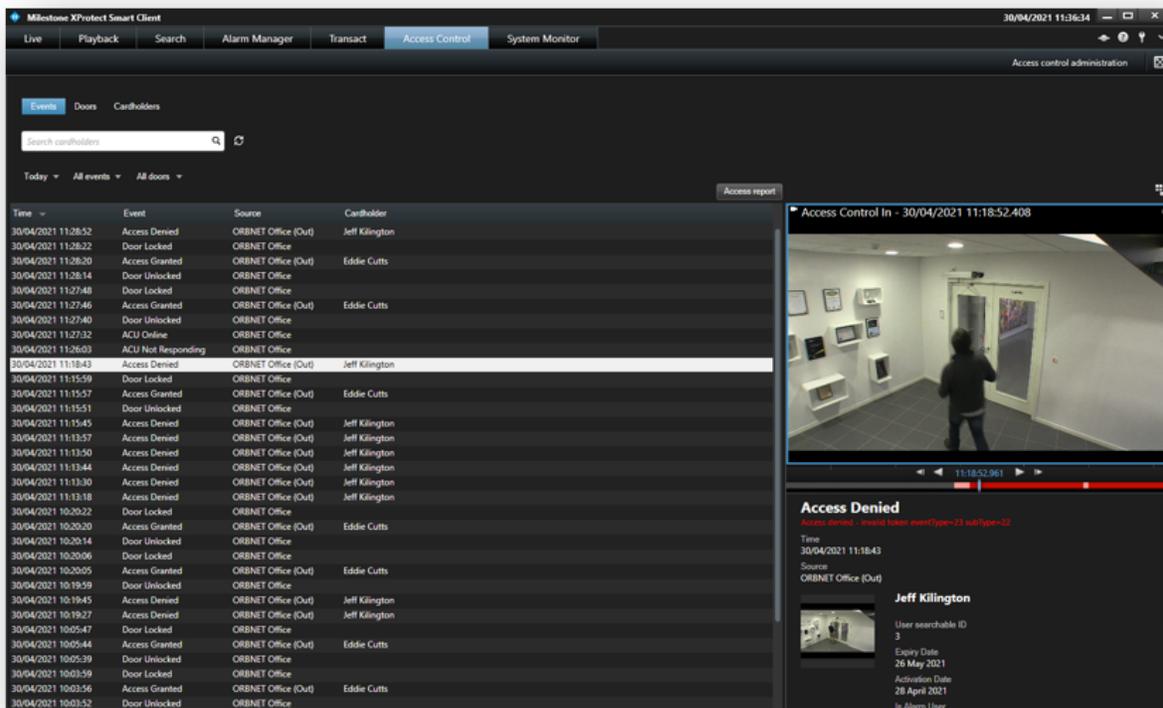




Access Control Tab

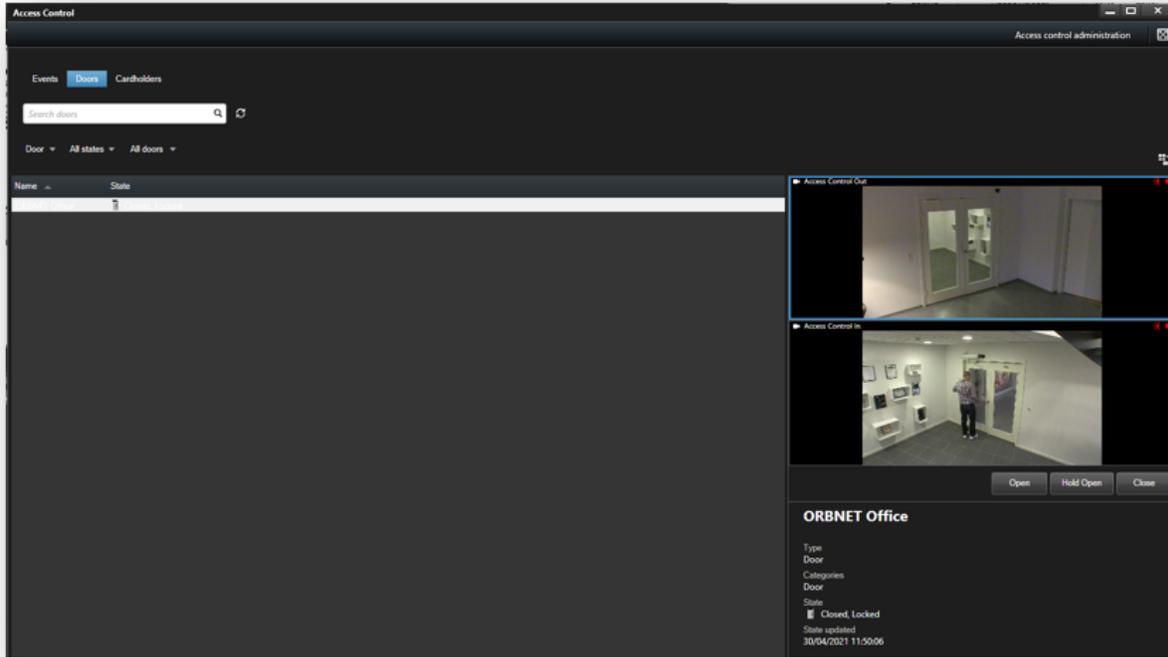
The Access Control Tab in the Milestone Smart Client can be configured to be the central monitoring interface for the access control system. Net2 can have all events searched in the fields Events, specific doors and or cardholders. There is also an option to have the list live update.

Once an event is selected, as seen in the below screenshot – additional information is shown from the cardholder detail held in Net2.



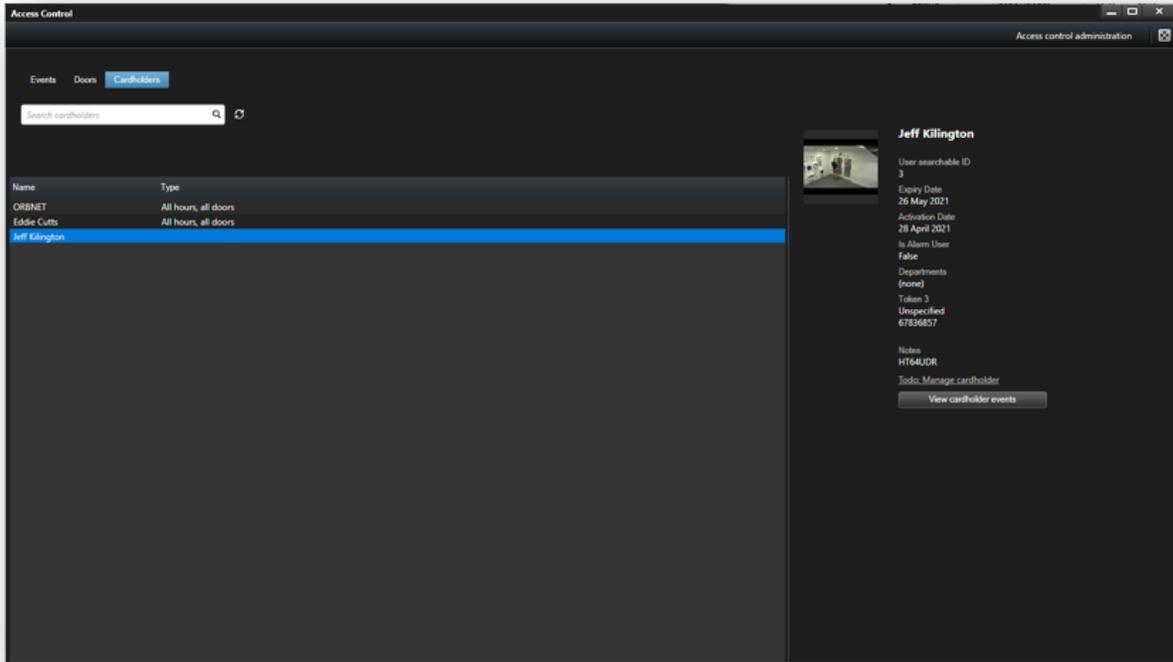


The Doors tab shows the list of doors in the system and also allows the control of the door from Milestone – Open – Hold Open - Close





Cardholders tab allows the test search of users and also the single click search of all events for a specific user. It is then possible to create a report complete with a screenshot thumbnail for every event for the cardholder.

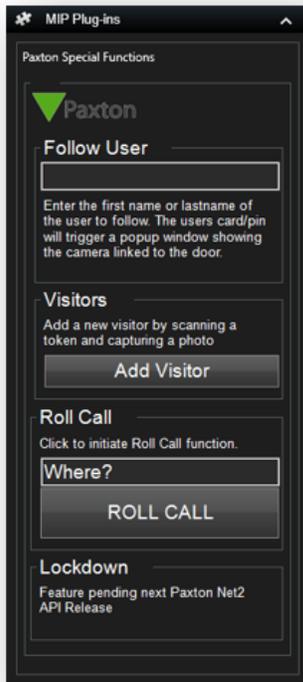




Future Features

ORBNET Systems intend to release regular updates to the Net2 to Milestone Integration. If there are any features that you would like to see please contact info@orbnet.com and we will investigate the potential to include feature requests.

Roll Call and Lockdown are future Developments and will be in upcoming releases.



Troubleshooting

Event Server Installation

If Milestone was installed via a custom installation, the Event service may not have been included as it is not always required.

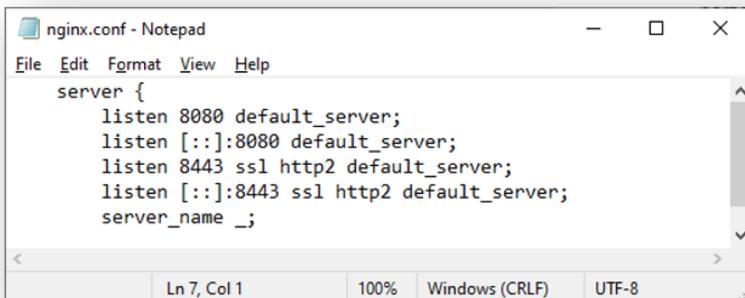
From the server/machine with the Milestone Management service follow to <http://localhost/installation/admin/>

This will provide a Milestone installation page where you will be about to run the installer for the Event Server. This must be installed

All-In-One Milestone/Paxton Server Installation

If you are installing a system where Milestone XProtect and Paxton NET2 are on the same server (common in demo scenarios) the default Paxton port of 8080 must be modified. This is because XProtect also uses this port for internal Management Server communication and only one process can use this port. It is not possible to modify this port in XProtect. To modify in Paxton:-

Navigate to C:\Program Files (x86)\Paxton Access\Access Control\nginx\conf\ – first take a backup of the file 'nginx.conf' – Then open a notepad as administrator and open the original file. Find the lines –



```
nginx.conf - Notepad
File Edit Format View Help
server {
  listen 8080 default_server;
  listen [::]:8080 default_server;
  listen 8443 ssl http2 default_server;
  listen [::]:8443 ssl http2 default_server;
  server_name _;
}
Ln 7, Col 1 100% Windows (CRLF) UTF-8
```

Modify 8080 to a port unused on your system –we moved to 8083 and then be sure to save the file type as 'all files' and re-click the original .conf file before saving to ensure that you do not create a .txt file in this location. Now go to Services and restart the Paxton nginx service. This modification will now mean that the Local Web API for Paxton will now be located at <http://localhost:8083>