



Inception - Milestone XProtect Access Plugin Guide

Description

The Inception to Milestone XProtect Access integration plugin allows Milestone XProtect to monitor and control items in the Inception system via the Inception REST API. The plugin supports real-time item state monitoring, user/cardholder info syncing, event monitoring and item control commands. With the Inception plugin, the XProtect Smart Client can act as the “head-end” software through which access control, security, and CCTV operations are carried out.

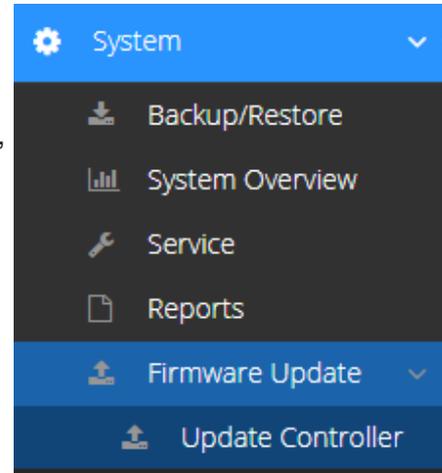
Features

- Real-time Item State Monitoring
 - Doors – Locked, Unlocked, Open, Closed, Forced
 - Areas – Armed, Disarmed, Entry/Exit Delay, In Alarm
 - Outputs – On, Off
- Item Control Commands
 - Doors – Grant Access, Unlock, Lock, Lock Out, Reinstate
 - Areas – Arm, Disarm
 - Outputs – Turn On, Turn Off
- Real-time Event Monitoring
 - Server Connection/Disconnection
 - Area Arm/Disarm and Alarm events
 - Door access granted/denied events
- Access Request Notifications
 - Optionally require a guard to visually validate cardholders requesting door access.
- User/Cardholder Data Syncing
- Direct link for User Editing
- Inception Web Interface within XProtect Smart Client

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Setup - Inception

- The Milestone ACM plugin requires at least Inception Firmware version 3.1.0
- To upgrade the firmware, log into the Inception web interface, go to the **[System > Firmware Update > Update Controller]** page and click the “Download Firmware to Controller” button to update the firmware directly from the internet, or the “Update Application Software” button if you have acquired the firmware file already and want to upload it to the device.



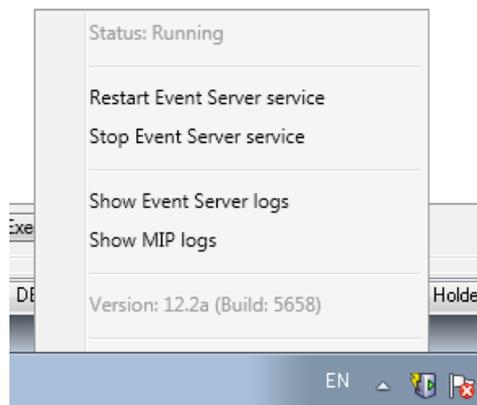
Setup - Milestone

This guide assumes you are running Milestone XProtect Server Software 2018 R2 or newer installed.

- Download the Inception Milestone ACM plugin installer onto the PC running the Milestone Server software.



- In the notifications tray in the bottom right of the screen, right-click the Milestone XProtect Event Server icon and click the “Stop Event Server service” option.



- Run the Inception Milestone ACM plugin installer and choose the folder that you want to install the plugin to.
- Right-click the Milestone XProtect Event Server icon again and click the “Start Event Server service” option.
- The Inception plugin is now installed on the Milestone server and should show up in the list of available integration plug-ins when you add a new integration.

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Configuration - Inception

1. Log into the Inception web interface and create a new User from the [Configuration > Users > Manage Users] page.
2. Assign the new User a Web Login Username & Password. This User's login credentials will be used by the Milestone integration to authenticate with the Inception REST API.
3. Assign a web page profile for the user. By default, the *REST Web API User* should have the correct web permissions assigned.
4. Assign the desired item permissions and/or permission groups to the Milestone REST API User. The permissions assigned to the User will determine which areas, doors, and outputs are visible and controllable through the Milestone interface.

The screenshot shows the 'Manage Users' interface. On the left is a user list with 'Milestone Access User' selected. The main area shows the configuration for this user, divided into sections: General, Credentials, and Permissions. The 'Permissions' section contains a table of assigned permissions.

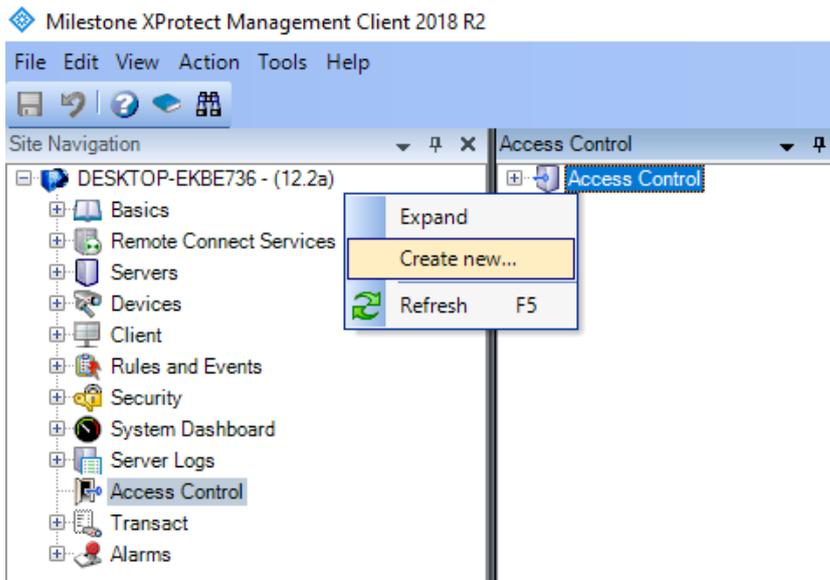
Permissions	Allowed	What	What
	Allow	Door	Inception - Meeting Room Door Access
	Allow	Door	Inception - Server Room Door Access
	Allow	Area	Meeting Room Arm, Disarm, Access
	Allow	Area	Server Room Arm, Disarm, Access
	Allow	Hardware Output	Level 4 Lights Control
	Allow	Hardware Output	Inception Controller - pump Control

Below the table are buttons for 'Add Items' and 'Remove Selected Items', and checkboxes for 'Use Extended Unlock Times' and 'Permanently Add to SLAM Cache'.

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Configuration - Milestone

1. Open the XProtect Management Client software and go to the Access Control section in the Site Navigation window.
2. Right-click the Access Control option and select Create New



3. Name the Access Control System.
4. Enter the IP Address or hostname URL of your Inception device into the Address field, and the username and password of the Milestone Access User that you created in the Inception system. Multiple Inception systems can be added to a Milestone system.

The screenshot shows the 'Create Access Control System Integration' dialog box. The title bar reads 'Create Access Control System Integration'. The main heading is 'Create access control system integration'. Below the heading, there is a instruction: 'Name the access control system integration, select the integration plug-in and enter the connection details.' The form contains the following fields:

- Name: [Empty text box]
- Integration plug-in: [Dropdown menu showing 'Inception Access Control System']
- Address: [Text box containing '127.0.0.1']
- Username: [Text box containing 'ACMUser']
- Password: [Text box with masked characters '••••••']

5. The Inception Milestone plugin will sync the system configuration from your Inception device (NOTE: if you make future changes to the Inception system configuration, e.g. adding/removing doors, you will need to manually refresh the configuration from the Milestone server software in order to pull in the new changes. This can be done from the "General Settings" panel of the Milestone Access Control screen for the plugin).

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Configuration - Milestone (cont.)

Connecting to the access control system...

Collecting configuration data...



Configuration successfully received from access control system.

Added:

- Doors (2) ▼
- Units (8) ▼
- Servers (1) ▼
- Events (51) ▼
- Commands (10) ▼
- States (23) ▼

- At this point, you can choose to associate cameras with Access Points in the system if required. Each door has “Inside” and “Outside” access points, both of which can have cameras assigned to them.
- From the XProtect Management Client, you should now be able to see that state changes, access events, and user updates are coming into the Milestone system from the connected Inception in real-time.
- In the Access Control Events section of the plugin configuration, specific events can be disabled or added to other event categories if required. Events are assigned relevant event categories by default.

Access control events

Select the events you want to monitor in XProtect Smart Client. Use categories to simplify the use of triggering events.

Enabled	Access Control Event	Source Type	Event Category
<input checked="" type="checkbox"/>	Card Read Failed because Card Parity Check Failed	Access Point	Access denied, Access request
<input checked="" type="checkbox"/>	Card Read Failed because Card was Unknown	Access Point	Access denied, Access request
<input checked="" type="checkbox"/>	Card Read Failed because Reader is Locked Out	Access Point	Access denied, Access request

- (Optional) The Inception web interface does not natively support adding images for users/ cardholders, but the Milestone software supports adding its own image data to users synced from the Inception system. This can be done from the “Cardholders” tab of the Inception plugin configuration in the XProtect Management Client.

Cardholders

Search for cardholders to view, add or delete a picture of the cardholder. The cardholder picture is used in the XProtect Smart Client, when an access control event has been registered.

ja

Name	Type
Jade Binns	
James Allwood	

James Allwood

Select picture...
Delete picture

Manage Cardholder: <http://192.168.7.39/EditUser?id=83afd4b7-b97d-4e7f-8f81-3505175f532d>
Cards: 52101

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Using the Integration

State Monitoring

- Inception Item states will update automatically in the Milestone client interface as they change in the Inception system. If you can't see a certain door/item's state, make sure the REST API User in Inception has been given permission to control it.

Item Control

- Control doors from the Milestone Client software on the Access Control tab, grant access, unlock, lock, etc.
- Make sure the appropriate item control permissions have been assigned to the Milestone ACM User you created in the Configuration > Inception step of this guide, or item control commands may fail due to permissions.

Access Event Monitoring

- In the Access Control Events section of the Inception plugin instance in the Milestone Management Client, you can choose which events to enable or disable from view on a per-event basis, as well as what event categories the event should be in.

Cardholder/User Management

- Add images for users using the Milestone client software if required (pictures are stored with the Milestone software only; Inception does not currently support User images as of version 3.1.0).
- Within the client, the Manage Cardholder link below a user's details will open the Inception web interface and automatically go to the edit page for that user.

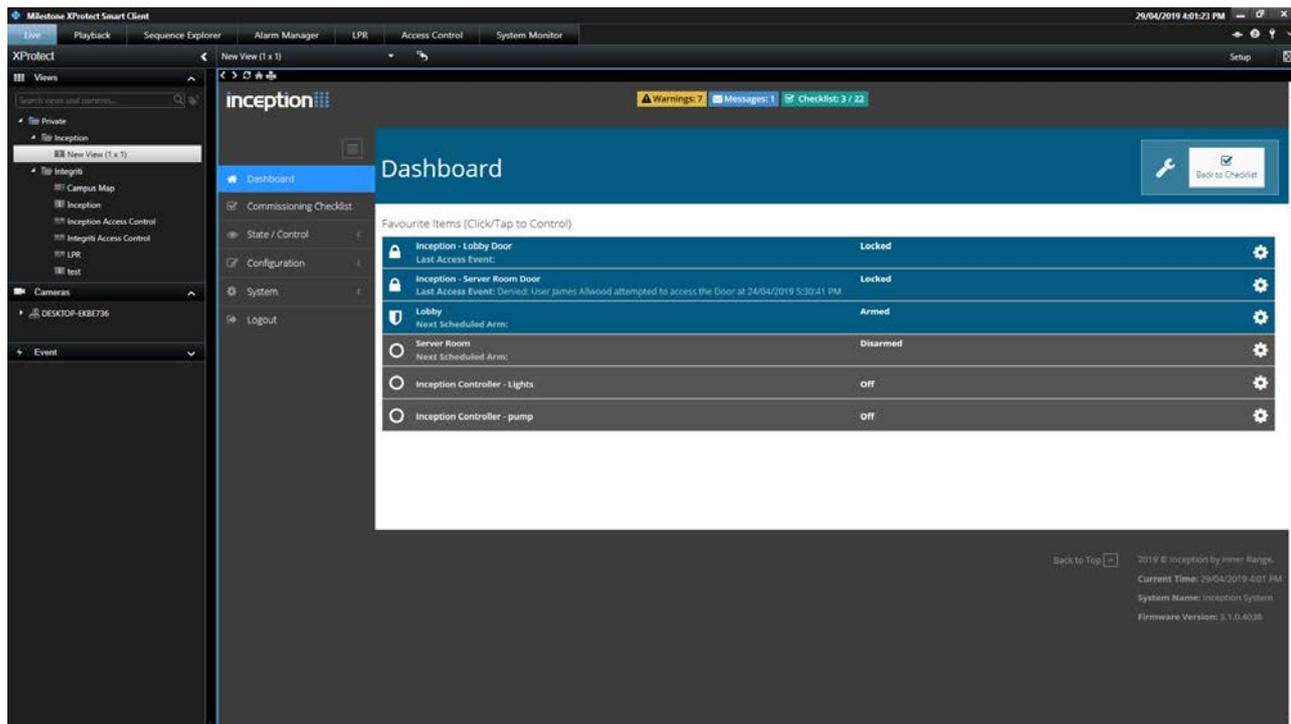
Access Request Notifications

- "User Access Denied" Inception events triggered by card access attempts will automatically trigger an Access Request dialog in Milestone if the event type is enabled in the Access plugin (it is by default). From here, an operator can view the live video from the associated Access Point's camera and compare with the user's image, choosing whether to let the requesting user through the door or not.
- If you plan to use this method of granting access, make sure that the Inception Milestone API User has permission to access the door(s), but not the users/cardholders. To exclude a cardholder from this process (e.g a manager), just give them permission to the door.

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Inception Interface within XProtect

The Inception web interface can be displayed directly inside XProtect Smart Client as a HTML page. This provides Milestone Operators full access to view, configure and monitor the Inception System directly from the Inception's Web Interface.



Limitations

Up to and including version 19 R1, Milestone uses an embedded Internet Explorer instance for its web browser. While most of the interface features work, there may be rare features that aren't supported. In these instances, open the Inception interface in a normal web browser instead.

Also, the embedded interface can severely limit the number of simultaneous connections to a page. This can cause the Inception interface to run slowly when interacting with the system or navigating to new pages. This can only be resolved with registry key changes on the smart client machine.

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Inception Interface within XProtect (cont.)

Limitations (cont.)

Open the registry editor and navigate to:

Computer\HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Internet Settings

Create a new key with the following details (or if already there, edit the existing one):

Name: MaxConnectionsPerServer

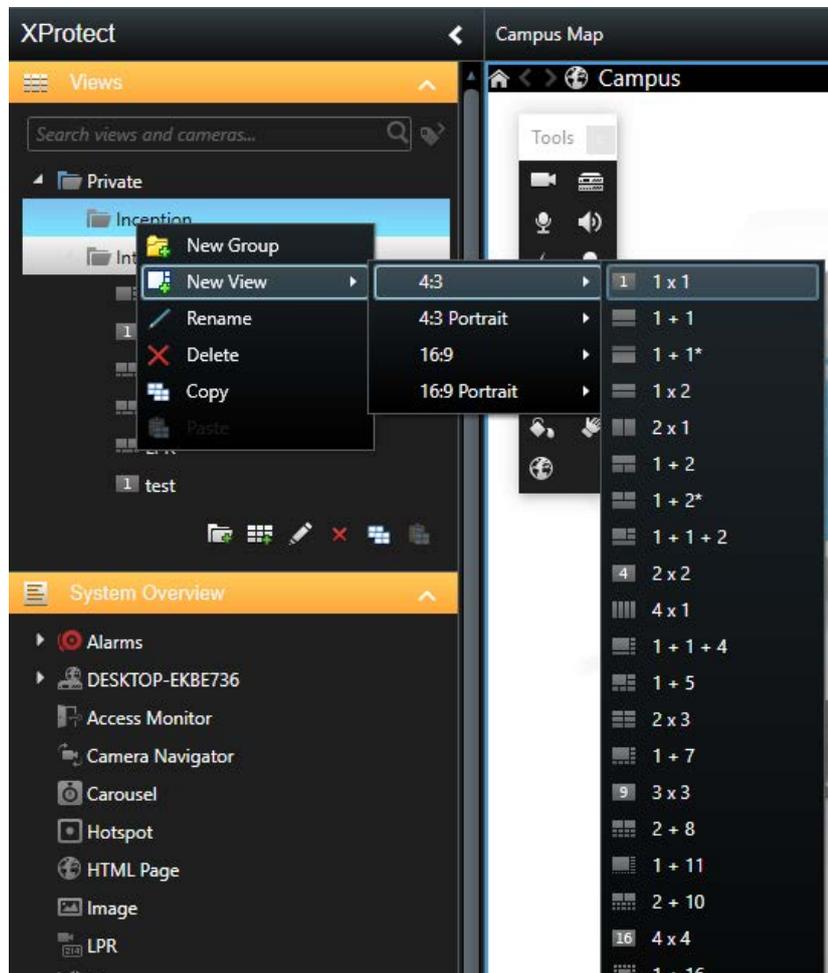
Type: REG_DWORD

Data: 10

Once done, close and re-open the XProtect Smart Client and the Inception interface should perform better.

Configuration

1. From the XProtect Smart Client toggle setup mode by clicking the setup button.
2. Right click on a View Group and select **New View>4:3>1x1**

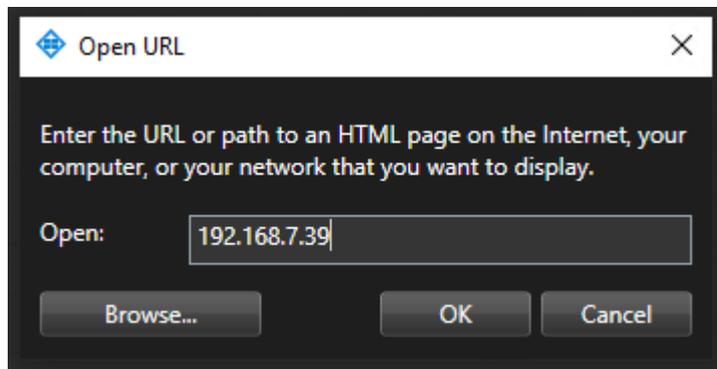


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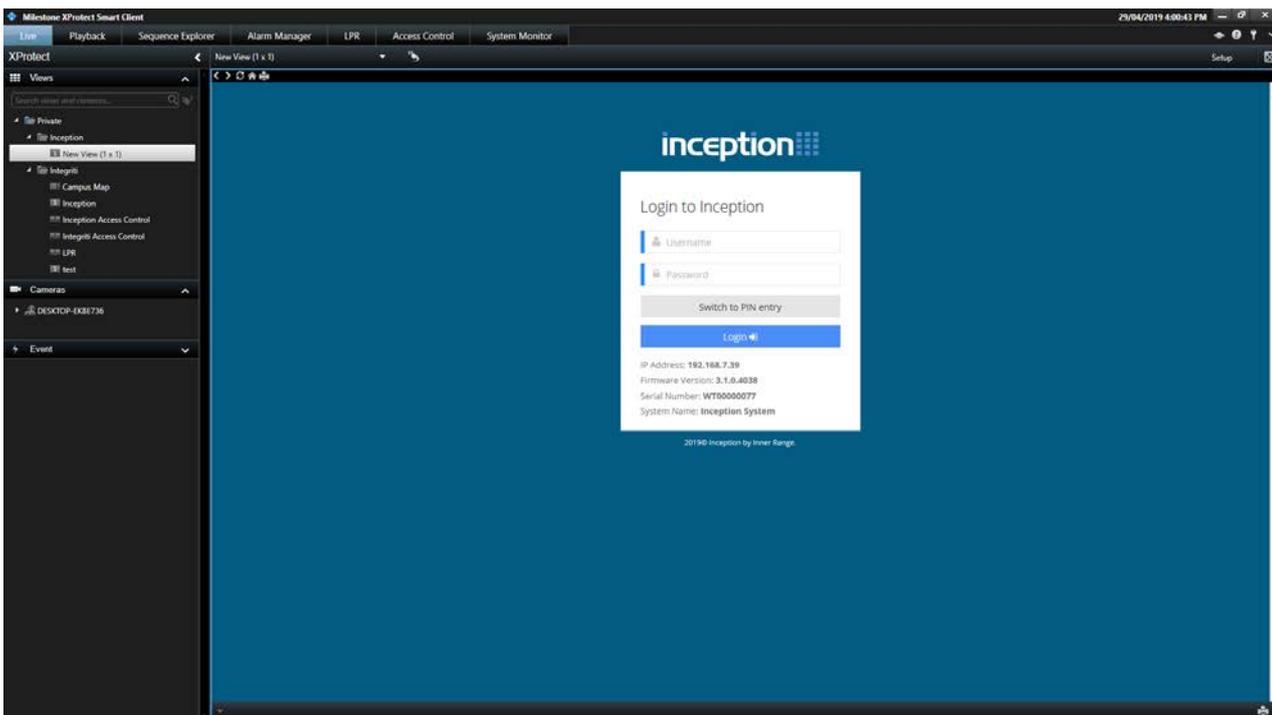
Inception Interface within XProtect (cont.)

Configuration (cont.)

3. Name the view.
4. Click and drag the **HTML Page** from the **System Overview** tab into the newly created view.
5. Enter the IP address or SkyTunnel address of the Inception Controller into the **Open URL Window**.



6. Click the **Setup** Button to exit Setup Mode.
7. If correctly configured the Login screen for the Inception Web Interface will be displayed.

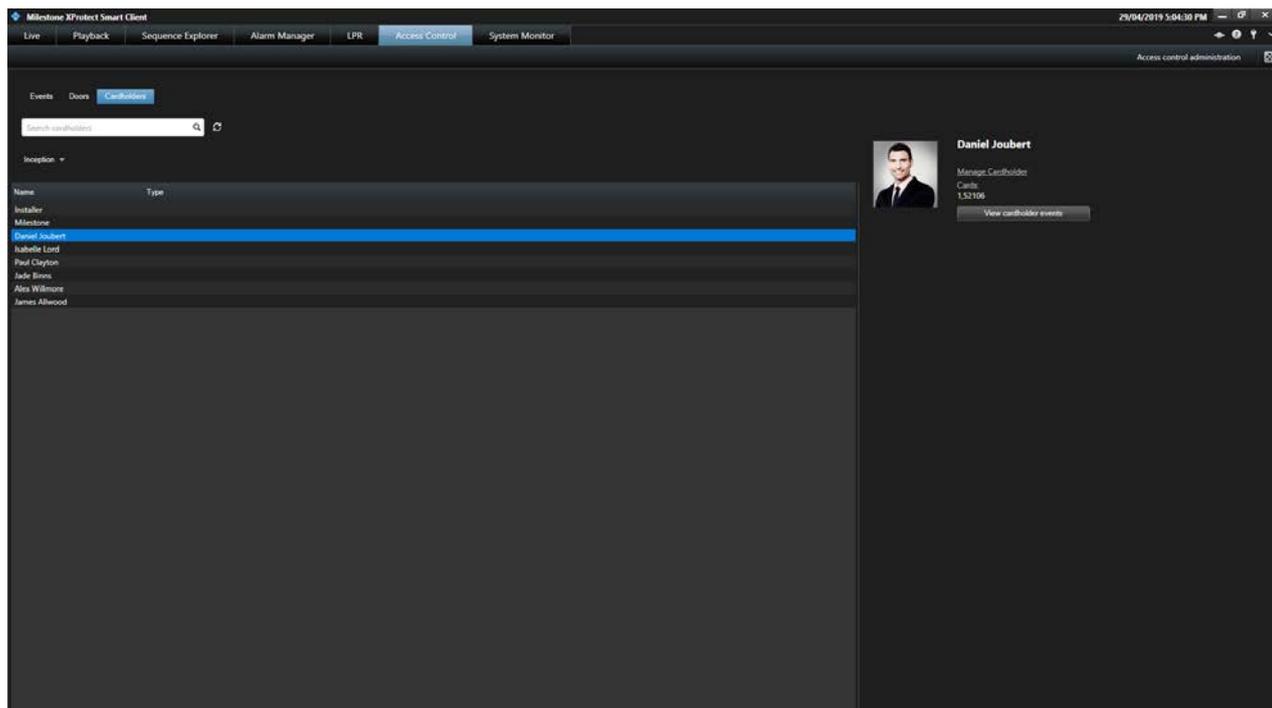


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Direct User Management Link

The Cardholders tab in the XProtect Smart Client provides a direct user link for cardholder management. The Manage Cardholder link opens the Inception Web Interface to the page of the selected user reducing the time it takes to navigate and find the user.

- From XProtect Smart Client, select the **Access Control > Card Holders**.
- Select a cardholder to edit.
- Click the Manage Cardholders link to launch the default internet browser.
- Login to the Inception web interface using User Name and Password or Username and PIN.



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Troubleshooting

Inception plugin does not appear in the list when creating a new access control system integration in the Milestone server management software

- Check that the Milestone plugins folder (default location is C:/Program Files/Milestone/MIPPlugins) contains a folder named "IR.Integration.InceptionMilestoneACMPlugin". If not, the Inception plugin is not installed on the system. Follow the steps in the Installation > Milestone section to install the plugin.
- The Milestone server may not have been restarted since the new plugin was installed. Right-click the Milestone XProtect Event Server icon in the Windows notification tray and click the "Restart Event Server service" icon to restart the service. The Inception plugin should now show up in the list of available integrations.

Milestone server fails to connect to Inception when retrieving initial configuration

- Make sure that the Inception device is connected to your local network and check that you can access the Inception web interface from the Milestone server PC. Open a web browser and navigate to the IP address of the Inception device or the hostname URL. If the web interface is inaccessible from the browser, there may be network problems or connection issues that need to be resolved.
- The Inception device may be running an older version of the firmware (the plugin requires at least Inception firmware version 3.1 in order to run). Follow the steps in the Installation > Inception section to update the firmware on your Inception device before configuring the plugin.

The Inception web interface is slow or unresponsive within the XProtect HTML Page View Item

- As of Milestone XProtect version 19, the XProtect Smart Client utilizes an instance of Internet Explorer for its HTML Page item. This instance limits the number of simultaneous connections to the page which Inception relies on, which causes the occasional slow usage. This can only be resolved with some registry key changes on the client machine. See the Additional XProtect Functionality section above for more details.



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