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InovaLink Introduction

InovaLink is a plug-in with the objective of linking Eden Innovations OPTIMA Box access control software, with Milestone XProtect VMS, in order to connect the alarm functions within XProtect with the alarms generated in the OPTIMA Box.

The plug-in is configured by a system administrator in the XProtect Management Client. The administrator establishes the connection with the related OPTIMA Box. With a valid connection, the OPTIMA Box elements are added to the Milestone XProtect System. The system administrator can then create a new alarm in the Alarm Definitions based on any of the events that are launched by the OPTIMA Box.

In the Smart Client, users are notified of any alarms (created by the system administrator). They can get more information using the Alarm Manager plug-in and by enabling the "Tag" column in the Alarm Data Settings.



Installation and Deployment

Prerequisites

The InovaLink plug-in must be installed on the machines running Milestone Systems XProtect Management Client and Milestone Systems XProtect Event Server.

This product only works with Eden Innovations OPTIMA Box.

The InovaLink plug-in requires a valid XProtect Software License Code.

Please note that the product will not work until a Product license is activated.



Installation Procedure

Install the Management Client Plug-in

1. Double-click the executable program file of *InovaLinkFEA-mngt-plugin* to enter the welcome page of the Setup Wizard.



2. Click **Next** to start the setup wizard.



3. The plug-in must be installed in the corresponding Milestone MIPPlugins folder. The default path is "C:\Program Files\Milestone\MIPPlugins". Click **Change** to select a proper directory as the installation location.

🕼 InovaLinkFEA		- 🗆 X
Select Installation Folder		Nova
The installer will install InovaLinkFEA to th	ne following folder.	
To install in this folder, click "Next". To ins	tall to a different folder, enter it be	low or click "Browse".
Eolder: C:\Program Files\Milestone\MIPPlugir	ns\InovaLinkFEA\	Browse
,		Disk Cost
	< Back Next >	> Cancel

4. Optional: Click **Back** to review or change any of the installation settings.



5. Click **Next** to start the installation. After starting installation, a progress bar will appear to show the installation status. Click **Cancel** to interrupt the installation process if needed.

🕼 InovaLinkFEA		_		×
Installation Complete			No	Va
InovaLinkFEA has been successfully inst	talled.			
Click "Close" to exit.				
Please use Windows Update to check fo	or any critical update	es to the .NET Fram	ework.	
	< Back	Close	Cance	el

6. Click **Finish** to complete the installation after the progress is ended.



Install the Service Plug-in in the Event Server

1. Double-click the executable program file of *InovaLinkFEA-server-plugin* to enter the welcome page of the Setup Wizard.



2. Click **Next** to start the setup wizard.



3. The plug-in must be installed in the corresponding Milestone MIPPlugins folder. The default path is "C:\Program Files\Milestone\XProtect Event Server\MIPPlugins". Click **Change** to select a proper directory as the installation location.

🕼 InovaLinkFEA	– 🗆 X
Select Installation Folder	Nova
The installer will install InovaLinkFEA to the following folder.	
To install in this folder, click "Next". To install to a different folder, enter it belo	ow or click "Browse".
Eolder: C:\Program Files\Milestone\XProtect Event Server\MIPPlugins\InovaL	Browse
	Disk Cost
<back next=""></back>	Cancel

4. Optional: Click **Back** to review or change any of the installation settings.



5. Click **Next** to start the installation. After starting installation, a progress bar will appear to show the installation status. Click **Cancel** to interrupt the installation process if needed.

🕼 InovaLinkFEA		_		×
Installation Complete			No	Va
InovaLinkFEA has been successfully installed.				
Click "Close" to exit.				
Please use Windows Update to check for any c	critical updates	to the .NET Frame	ework.	
	< Back	Close	Cance	el

6. Click **Finish** to complete the installation after the progress is ended.



Configuration

OPTIMA Box Token

Accessing the OPTIMA Box with a valid account, enables the user to generate a third-party system connection. In this case, the program will be accessing the OPTIMA Box via the API.



Figure 1 - Third-Party Configuration for OPTIMA Box



Clicking in *Save* shows another menu, where the user obtains information about the security token. There is no need to generate multiple tokens for an OPTIMA Box, although the communication between XProtect and the OPTIMA Box will work with any of the security tokens generated.

SECURITY TOKEN
Make sure you copy the token now. We don't store it and you won't be able to see it again.
This third party system Token
CLOSE

Figure 2 - OPTIMA Box Security Token Generation

Every time any changes are made to the configuration in the XProtect System, the administrator must copy and paste the token in the User Control, in order to update the information between the program and the OPTIMA Box.



Management Client

In the Management Client the system administrator establishes a connection with an OPTIMA Box. Upon successful connection, the elements managed by the OPTIMA Box are added to the Milestone Systems VMS. The system administrator creates a new OPTIMA Box connection by creating a new OPTIMA Box Item in the InovaLink FEA plug-in node in the MIP Plug-ins.

The system administrator is only able to create and edit OPTIMA Box Items, as the hability to create new Items is not enabled for the Liguard and Reader elements. The system administrator can, however, delete Liguard and Reader Items that should not figure in the Milestone XProtect VMS.

Once an OPTIMA Box Item is created, a user control menu appears, where the administrator fills in the **OPTIMA Box IP address**, the **third-party connection token** issued by the OPTIMA Box to validate the connection and selects **if HTTPS protocol is enabled**, as well as the **communication port**.



Name:				
Generate O	PTIMA Box Elements aBox IP Address:	HTTP(s) P	ort:	
Conne	ction Token:		Connect to OPTIMA Box	ed
			Reset Configuration	

Figure 3 - InovaLink FEA User Control Menu



User control functions

There are two buttons: Connect to OPTIMA Box and Reset Configuration.

By clicking *Connect to OPTIMA Box*, if all the information previously specified is correctly inserted, it connects to the OPTIMA Box and fetches the elements in it to make them available in the Milestone XProtect VMS. This button can also be used to update any changes done in the OPTIMA Box after having already created elements in the Milestone XProtect VMS.

The button *Reset Configuration* is to be used strictly in the case that a malfunction happens creating the elements, or there is no longer need to connect to the OPTIMA Box, and the system administrator needs to delete the Item from the database. Any alarm definition will in turn cease to have the associated elements and instead will show *Unknown Item*.

Every time a system administrator proceeds to make a change in the configuration of the OPTIMA Box connection in the Management Client, it needs to insert the OPTIMA Box third-party connection token to validate the action completely.

After any changes are made to the plug-in configuration in the Management Client, please restart the Event Server for it to take into account the changes made.



Alarm Definitions

In the *Alarm Definitions* the system administrator is able to select in the *Trigger* menu the Events that cause the alarm. There are three different elements that produce events: the OPTIMA Box, connected Liguards and connected Readers. As it will be further explained, the system administrator can define what degree of specificity the alarms hold by selecting which events will be launched.

OPTIMA Box Events

The system administrator can select a triggering event for when the connection is lost to the OPTIMA Box. The "Source" can be any of the existing and valid OPTIMA Box connections. This is the only event associated with the OPTIMA Box element.

Trigger	
Triggering event	InovaLink OptimaBox Connection Events
	Connection Leaths Ontime Bay
Sources:	

Figure 4 - Selection of triggering event for the OPTIMA Box



Liguard Events

Liguard Events have two different types of events: "Single" and "All". The system administrator can therefore select to only launch alarms for a specific event launched by a Liguard or to launch alarms for any event produced by a certain Liguard. In the Sources menu the administrator selects which elements from the OPTIMA Box are responsible for the selected event.

Selecting a specific alarm means that only that alarm from the Liguard will be notified in the Smart Client.

Trigger	
Triggering event	InovaLink FEA Liguard Single Events
	Alert Level Change
Sources:	Box Broken Bus Extension Connected
Activation period	Bus Extension Disconnected
Time profile:	Connection of Central Unit Disconnection of Central Unit
O Eventhened	End Box Broken End of on-line Auto
U Event based:	End Power Supply Shutdown
	Liguard Tear Off
Man	Power Supply Shutdown
Map	Start of OfFinite Auto

Figure 5 - Liguard Single Events Menu

Otherwise, selecting all events will notify the Smart Client user of any event produced by the Liguard.

Trigger	
Triggering event:	InovaLink Liguard All Events
	Liguard Event
Sources:	





Reader Events

As with the Liguard Events, Reader Events also have the "Single" and "All" events. As there is a large quantity of Events associated with the Readers, it is recommended to select specific events for the alarms including Readers.

Selecting a specific alarm means that only that alarm from the Reader will be notified in the Smart Client.

Trigger		
Triggering event	InovaLink FEA Reader Single Events	\sim
		~
	Accepted Code	~
Sources:	Accepted Handling	
	Alarm Not Working (flip-flop mode)	
Activation period	Alarm Working (flip-flop mode)	
	Auto Mode using GTC	
Time profile:	Badge Accepted	
	Badge Accepted + Waiting for a code entry	
Event based:	Badge Already Entered	
Ũ	Badge Already Out	
	Badge Expired	
	Badge Off Site	
	Badge Out of its Time Zone	
мар	Badge Suspended	
	Badge Without a Code	
Alarm manager view.	Badge whiting Effor	
	Change Bettery LL & Z	
Related man:	Closing Maintained using GTC	
Related map.	Companian Time Exceeded	
Operator action required	Door Blocked	
	DoorLocked	
Time limit:	End of Blocked Door	
	End of Forced Entry BioFx	
Events triggered:	End of Forced Entry Door	
	End of Free Access Time Zone	
Other	Fingerprint Alarm Used	
	Fingerprint Coding Successful	
Related cameras:	Forced Entry Door	
	Forced Entry Switch BioFx	
Initial alarm owner:	Group Forbidden	\sim

Figure 7 - Reader Single Events Menu



Otherwise, selecting all events will notify the Smart Client user of any event produced by the Reader.

Trigger	
Triggering event	InovaLink FEA Reader All Events
	Reader Event
Sources:	
	Figure 8 - Reader All Events Menu

Smart Client Alarm View

Using the Alarm Manager plug-in from Milestone Systems a user can check the alarm notifications. Here the user can handle the alarms that the system administrator has defined.



Figure 9 - Alarm Manager User Interface, an event is selected and the corresponding map and camera are displayed



In the Alarm Manager, when double-clicking in an alarm, a new window pops up with more information about the alarm.

🧔 3743 Door Blocked - Reader 1 - Door		1 <u></u>	
Camera 1 - (10.0.30.106)	Camera 1 - (10.0.30.106) - 9/29/2022 4	\$24:31.974 PM	
	4:00 PIv ◀I ◀ 9/29/2022	4:24:32.000 P	M N
Camera: Camera 1 - (10.0.30.106)		Go t	o Alarm Time
Instructions	Assigned to:		•
	State:	1: New	•
	Priority:	1: High	•
	Category:		
	ID:	3743	
	Source:	Reader 1 - Door	
	Alarm:	Door Blocked - Read	ler 1
	Message:	Door Blocked	
Activities	Туре:	ReaderState	
Time Activity Owner	Rule:	Alarm Definition	
4:24 PM Initial state: 1: New	Location:		
	Tag:	Door Blocked	
	Vendor:		
	Object:		
	Add		
Help Print			ОК





It is advised that the system administrator add the "Tag" column to the *Selected Columns* in the Alarm List Configuration found in the Alarm Data Settings in the Management Client. This gives more information about the alarm, especially when capturing all events occurring in a given Reader or Liguard.

I.	Time 🔻	Priority Level	State Level	State Name	Message	Source	Owner	ID (Tag
Tag									
				Figure 1	1 - Tag Column in the Alar	m Manager Menu			



Appendix A. Reader Events Table 1 - Reader Events Table

READER EVENTS				
Accepted Code	Left key press SOWIT			
Accepted handling	License plate recognized, awaiting for a badge			
Alarm not working (flip-flop mode)	Maximum number of allowed passages reached			
Alarm working (flip-flop mode)	Mistake in badge format			
Auto mode using GTC	No Battery			
Badge accepted	No condition			
Badge accepted + Waiting for a code entry	No vehicle was detected			
Badge already entered	Opening maintained using GTC			
Badge already out	Opening using GTC			
Badge expired	Prohibited			
Badge off site	Push button opening			
Badge out of its time zone	Right key press SOWIT			
Badge suspended	Sensor obstructed			
Badge without a code	Setting alarm on/off			
Badge writing error	Stolen badge			
Beginning of the free access time zone	Time out for code entry			
Change battery U & Z	Transit time exceeded			
Closing maintained using GTC	Unknown plate			
Companion time exceeded	Unrecognized badge			
Door blocked	User without fingerprint			
Door locked	Waiting for a fingerprint			
End of blocked door	Waiting for a handling			
End of forced entry BioFx	Weak battery			
End of forced entry Door	Wrong code			
End of free access time zone	Wrong fingerprint			
Fingerprint alarm used	Wrong handling			
Fingerprint coding successful	Wrong reseller badge			
Forced entry Door				
Forced entry switch BioFx				
Group forbidden				
Incorrect badge				
Invalid door for this badge				
Keypad locked				
Keypad no longer locked				



Appendix B. Liguard Events

Table 2 - Liguard Events Table

LIGUARD EVENTS				
Alert level change	End of on-line Auto			
Box Broken	End power supply shut down			
Bus extension connected	Liguard End Tear-Off			
Bus extension disconnected	Liguard Tear-Off			
Connection of Central Unit	Power supply shut down			
Disconnection of Central Unit	Start of on-line Auto			
End Box Broken				





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