

Operating Manual barox DMS & SNMP Milestone MIP Plug-in



Integrated with Milestone Solution Partner

milestone



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1 General behavior of this Document

This document is targeting integrators and users of the barox DMS & SNMP integration for the Milestone XProtect VMS.

The Plug-in is deeply integrated into the Milestone XProtect VMS Platform and don't need any additional Software. MIP (Milestone Integration Platform) Plug-ins are dynamically loaded from the Milestone Applications and Services, which allows a simple installation and configuration. This document describes how to setup and configure your System to enable the barox DMS & SNMP Plug-in in your Milestone VMS.



The Architecture of the MIP Plug-in is as follows:

The integration consists of a MIP Plug-in for the Milestone VMS. It is installed on the Server side for the configuration and retrieval of events and is running inside the Milestone Event Server.

The Installer includes all the necessary Files and installers for the Plug-in.

2 barox DMS & SNMP MIP Plug-in for the XProtect Event Server

The following chapters describes how to install, configure and use the Server side XProtect Event Server Plug-in, which gets you access to the DMS of the barox Switch. It also receives the configured SNMP Traps and converts them into a Milestone XProtect format. Furthermore, it can send SNMP Requests for PoE functions and Switch restart based on a Milestone user-defined Event.

2.1 Installation of the Plug-in for the XProtect Event Server

The installation of the Plug-in is packed into a Setup Wizard, which will setup everything needed in your Environment. The Setup Wizard will do the following job:

- Then Installer must been run on the XProtect Management Client PC as well as on the XProtect Event Server.
- It will Stop and Restart the Event Server Service to activate the Plug-in in the Event Server

The installer will copy the Plug-in files into the following Directory:

Name	Änderungsdatum	Тур	Größe
) Installation	06.02.2013 21:04	Dateiordner	
퉬 Milestone Surveillance	06.02.2013 21:04	Dateiordner	
퉬 Milestone XProtect Event Server	06.02.2013 21:04	Dateiordner	
J MIPPlugins	06.02.2013 21:04	Dateiordner	
📗 XProtect Download Manager	06.02.2013 21:04	Dateiordner	
) XProtect Mobile Server	06.02.2013 21:05	Dateiordner	
l XProtect Smart Client	06.02.2013 21:05	Dateiordner	

• %ProgramFiles%\Milestone\MIPPlugins\ER.EventServer.SmartBarox

The Event Server MIP Plug-in is dynamically loaded and used by the following XProtect Applications:

XProtect Application:	Description:	XProtect Version:
Event Server	The Event Server will load the Plug-in which is fetching the SNMP Events and triggers then an Event in the XProtect Server. It will also send the SNMP Traps triggered by user-defined Event based on your configuration.	All
Management Application	The Management Application loads the Plug-in to provide the configuration GUI.	Express, Professional, Enterprise
Management Client	The Management Application loads the Plug-in to provide the configuration GUI.	Advanced VMS



2.2 Configuration of the barox DMS & SNMP Plug-in



After the installation you can start your XProtect Management Application. After the first start you will find a new Entry under "Devices" called "barox DMS & SNMP".



2.2.1 Prepare your Milestone XProtect System

First of all, you need to prepare the Events and Alarm definition to receive SNMP Events.

- Create a *Manual Event (User-defined Events)* This Event will be our Source for the Analytics Event triggered by the received SNMP Trap
- Create the Analytics Event which is triggered
 This will allow detailed information about your Alarm including the Meta data (SNMP Message) in the Alarm Manager of your Smart Client.

2.2.2 barox DMS access configuration

Configuration					
barox master DMS:	SNMP / Event Configuration				
-barox DMS acc	ess configuration:				
Address:	http://192.168.11.22/				
Usemame:	admin				
Password:	•••••				

If you select the Plug-in item, you will be able to switch to the SNMP/ Event Configuration tab. Enter the Address and Credentials for the Main Switch to get direct access to the DMS Topology View when you open the barox master DMS tab.



2.2.3 barox SNMP Receiver Configuration

		Save and load	
barox SNMP Recevier Config	uration:		
Enable SNMP Manage	er SNMP Trap listening Port: Analytics Event Name:	20162 TechnicalWarning	→ Enter t
Check SNMP	User defined Event as Source:	SNMPReceiver ~	

- → Enable SNMP Manager
- \rightarrow Enter the SNMP Trap listening Port.

SNMP Trap listening Port: To avoid Socket conflicts by other running SNMP Trap Server Sockets

selected Port:

you can change this port to another. Use for example 20162 which is unassigned by IANA but don't forget to create an incoming Firewall rule. You will have an entry in the Logfile after the startup of the Event Server, if there is a conflict on the

		-
14.03.2019 10:10:52	SNMP Server Configuration dirty initialize restart	
14.03.2019 10:10:52	SNMP Server stopped	
14.03.2019 10:10:52	SNMP Server started and listening on port: 162	
14.03.2019 10:10:52	SNMP Server starting failed with error: An attempt was made to access a socket in a way forbidden by its access permissions	
14.03.2019 10:19:06	SNMP Server Configuration dirty initialize restart	
14.03.2019 10:19:06	SNMP Server started and listening on port: 20162	
		\sim
<		▶
Ready		

Analytics Event Name:	Use the Analytics Event you generated before ensure you enter the
	name in case sensitive.

User defined Event as Source: Select the source event you generated before.

After that press save and load and the Event Server Plug-in will reload the new configuration within the next 10 seconds.



2.2.3.1 barox SNMP Configuration on the Switch

If you Change to the barox master DMS tab, you can directly access the configuration of your main switch.

Enable SNMP v2c and set Read and Write Community. The Write Community name (default: private) will later be used for SNMP set requests.

nfiguration		•	. 4
barox master DMS: SNMP / Event Configure	ation	Save and load Discard and reload	
X barox		₿₿₿₽₽₽	î
RY-LGSP23-10G	SNMP System Config	uration @Home > Configuration > Security > Switch > SNMP > System	
Switch DMS			
Configuration	Mode	Enabled Y	
» System	Version	SNMP v2c ~	
» Green Ethernet	Read Community	public	
 » Ports Configuration » DHCP 	Write Community	private	
» Security	Engine ID	800007e5017f000001	
» Switch	×		
> Users	Apply Reset		
> Privilege Levels			
> HTTPS			
> Access Management			
» SNMP	v .		
> System			
			~



- #

Create a new Trap Destination with the IP Address of your Event Server and the port you configured before.

barox master DMS: SNMP / Event Configuration		Save and load Discard and reload
X barox		HØG
RY-LGSP23-10G	SNMP Trap Configuration	Home > Configuration > Security > Switch > SNMP > Trap
Switch DMS		
Configuration ~	Trap Config Name	VMS
» System <	Trap Mode	UDP Y
» Green Ethernet <	Trap Version	SNMP v2c V
» Ports Configuration <		
» DHCP <	Trap Community	milestone
» Security ~	Trap Destination Address	192.168.11.10
» Switch ~	Tran Destination Port	
> Users	hap bestination Fort	20162
> Auth Method	Trap Inform Mode	Disabled v
> HTTPS	Trap Inform Timeout (seconds)	3
> Access Management	Tran Inform Bothy Timos	
» SNMP 🗸 🗸	hap morn kery mies	5
> System	Trap Probe Security Engine ID	Enabled ~
> Trap	Trap Security Engine ID	
> Communities		
> Users	Trap Security Name	None ~
> Groups		
> Views	Apply Reset	
> Access		v

Now you can setup the traps to be sent under the Trap Event Severity Configuration. You can see the supported Traps in on following images:

x master DMS: SNMP / Event Configurati	Tran Event S	Severity Configura	ation Allows	Configuration	Security > Swith	b > SNMD > Trap Event Source
Switch DMS				Configuration	 security > switt 	n > SNMP > Trap Event Seven
Configuration	Group Name	Severity Level	Syslog	Trap	SMTP	Switch2go
» System	ACL	Info 🗸	~			
» Green Ethernet	ACL-Log	Info				
» Ports Configuration	Access-Mgmt	Info 🗸				
» Security	Auth-Failed	Warning ~				
≫ Switch	Cold-Start	Warning ~		~		
 Privilege Levels 	Config-Info	Info 🗸	~			
> Auth Method	DMS	Info 🗸	✓			
 Access Management SNMP 	Firmware- Upgrade	Info ~				
> System	Import-Export	Info 🗸				
Communities	LACP	Info 🗸				
> Users	Link-Status	Warning ~	~			
> Views	Login	Info ~		~		
 Access Trap Event Severity 	Logout	Info 🗸		~		
» RMON	Loop-Protect	Info 🗸				







2.2.4 barox SNMP Event configuration

In order to send SNMP Requests to your switch which are triggered by a user-defined Event, you need to configure it as follows:

Sv	witch 1 Restart V	192.168	3.11.22 private	7 Switch Res	start V 5 🖨 Sec.	Add	Delete
	Trigger Manual Event:		IP Address	Community:	Function	Switch Port	Timer (sec.):
•	POE_7_Restart	~	192.168.11.22	private	RestartPoE	✓ 7	5
	Switch 1 Restart	~	192.168.11.22	private	Restart_Switch	~ 7	5

Trigger Manual Event:	The user defined Event which triggers the SNMP Request		
Address:	The Address of the Switch on which you want to send this Request		
Community:	The community name used for write permissions		
Function:	 Select the function you want to be executed: → Restart PoE – Needs the Switch Port value and Timer between ON and OFF → Enable PoE – Needs the Switch Port value → Disable PoE – Needs the Switch Port value → Restart Switch – No values needed 		
Switch Port:	Select the Port on which one of the PoE function is executed		
Timer:	Timer between PoE OFF and ON used by the PoE Restart function		

After that press save and load and the Event Server Plug-in will reload the new configuration within the next 10 seconds.



2.2.5 Create an alarm definition

If everything is done, you can go ahead to create an alarm definition to receive the Alarms into the Alarm Manager or any other Alarm receivers.

In our case the Alarm definition looks like this:

Properties			_Ø
Alam definition			
Enable:			
Name:	TechnicalWarning		
Instructions:		*	
Trigger			
Triggering event:	Analytics Events		=
	TechnicalWarning	•	-
Sources:	SNMPReceiver	Select	
Activation period			
Time profile:	Always		
Event based:	Start:	Select	
	Stop:	Select	
Operator action required			
Time limit:	1 minute	•	
Events triggered:		Select	
Other			
Related cameras:		Select	Ŧ
			.::