Operating Manual

barox DMS & SNMP MOBOTIXHUB Plug-in

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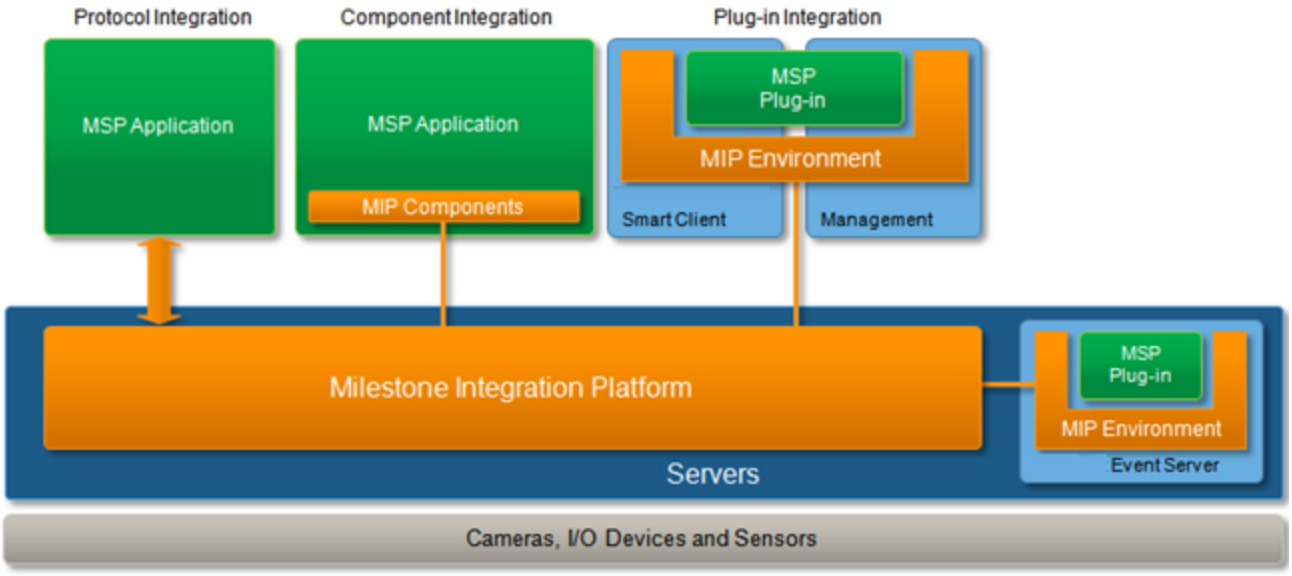
1 General behavior of this Document

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

The Plug-in is deeply integrated into the MOBOTIXHUB VMS Platform and don't need any additional Software. MIP (MOBOTIXHUB Integration Platform) Plug-ins are dynamically loaded from the MOBOTIXHUB 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 MOBOTIXHUB VMS.

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



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

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

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

The following chapters describes how to install, configure and use the Server side 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 MOBOTIXHUB format. Furthermore, it can send SNMP Requests for PoE functions and Switch restart based on a MOBOTIXHUB user-defined Event.

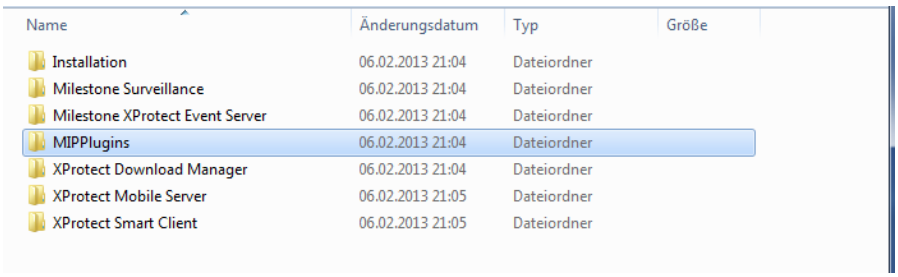
2.1 Installation of the Plug-in for the Event Server

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 Management Client PC as well as on the 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:

- %ProgramFiles%\MOBOTIXHUB\MIPPlugins\ER.EventServer.SmartBarox



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

Application:	Description:	Version:
Event Server	The Event Server will load the Plug-in which is fetching the SNMP Events and triggers then an Event in the 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

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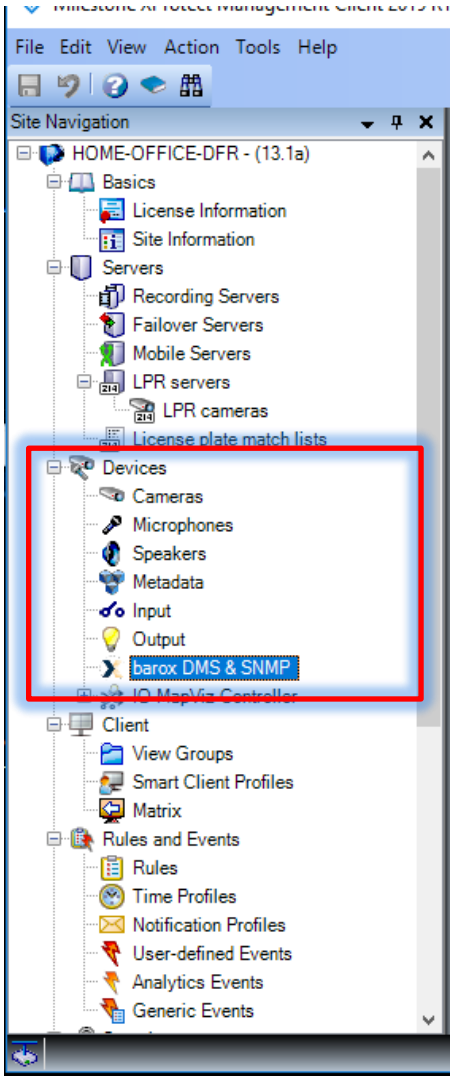
2.2 Configuration of the barox DMS & SNMP Plug-in



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

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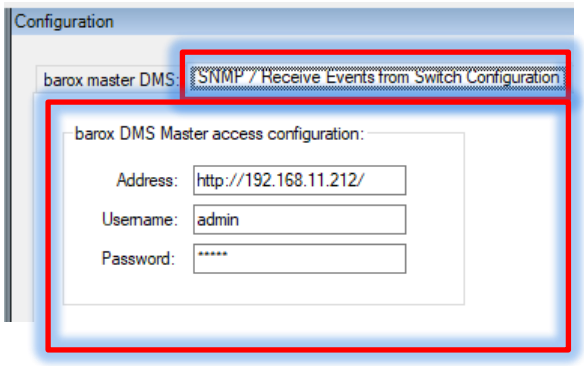
2.2.1 Prepare your MOBOTIXHUB System

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



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.

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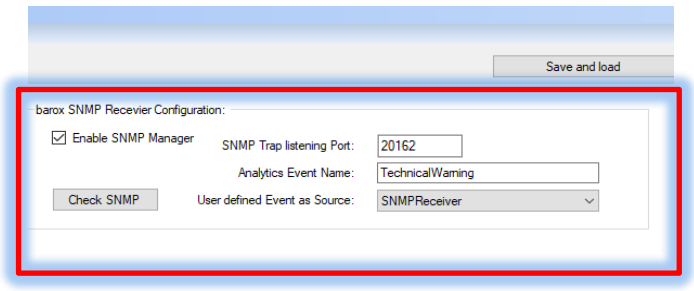
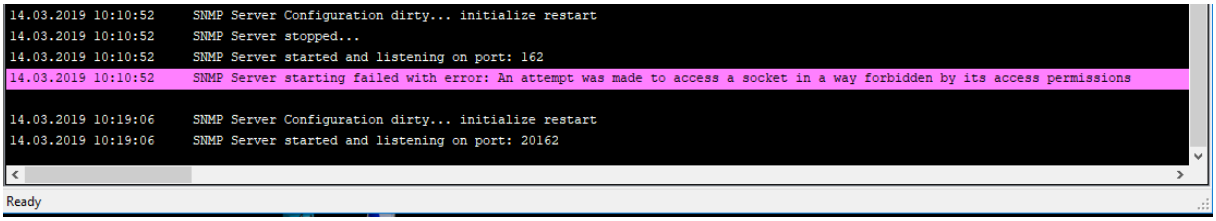
2.2.3 barox SNMP Receiver Configuration



→ Enable SNMP Manager
→ Enter the SNMP Trap listening Port.

SNMP Trap listening Port: To avoid Socket conflicts by other running SNMP Trap Server Sockets 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 Log-file after the startup of the Event Server, if there is a conflict on the selected Port:



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.

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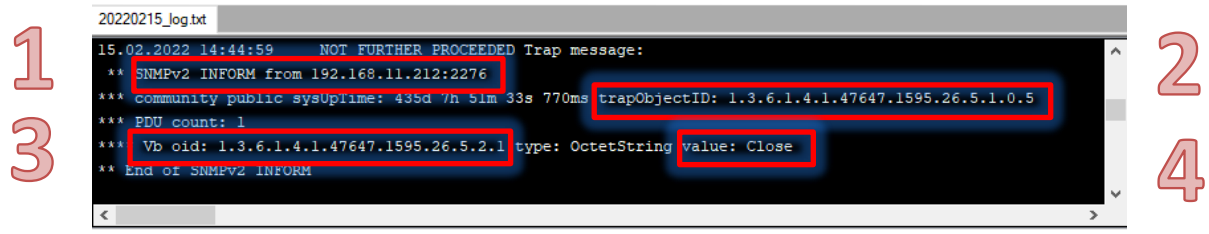
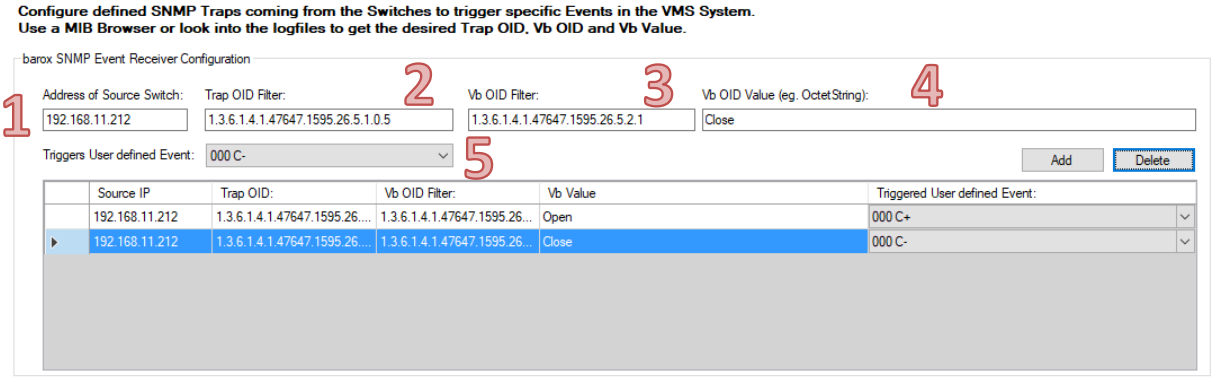
2.2.3.1 Configuration of SNMP Receiver Trap Filter for dedicated Events

The SNMP Event Receiver Configuration is used to have a user defined Event triggered in the VMS when a specific SNMP Trap was received.
Therefor the specific Trap OID, Vb OID and Vb Value must be known and the user defined Event which should be triggered must be created in the VMS first. You also need to activate the desired Trap in the Switch. See Chapter 2.2.3.2 barox SNMP Configuration on the Switch.
To get the correct Trap OID and Information, you can use any MIB Browser to search for the related traps.
Another way is to look into the log files of the Event Server Plugin (see chapter 3.1 Logfiles).
After a trap was received, the Log File contains all detailed information about the Trap. The following Example shows the configuration for the Input Close / Open on an Industrial 8-P GbE - RY-804GBTME Switch:





After Pressing Save and load, the assigned user defined event [5] is triggered in the VMS when this trap is received. Use the rule System or Alarm Definitions to create further Actions.

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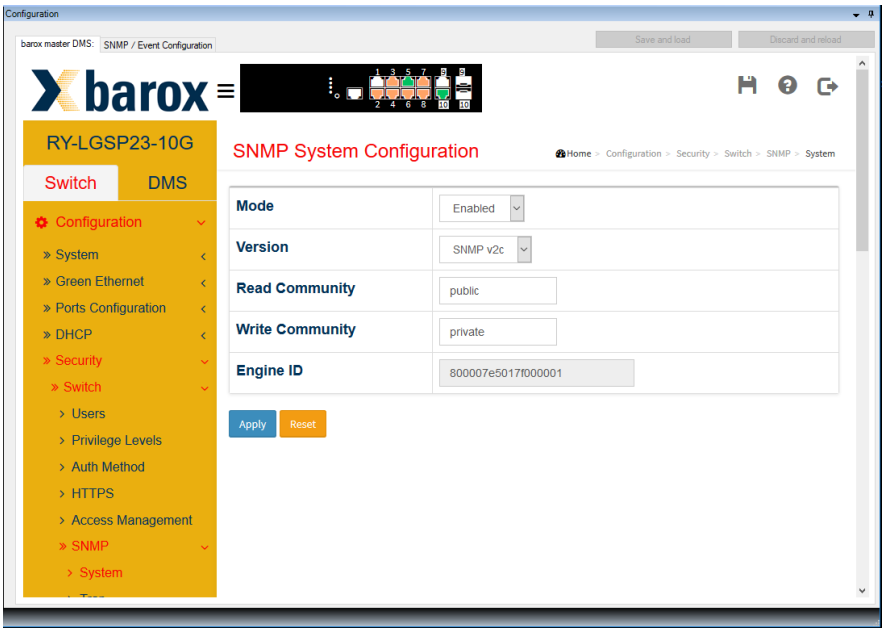
2.2.3.2 barox SNMP Configuration on the Switch

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.



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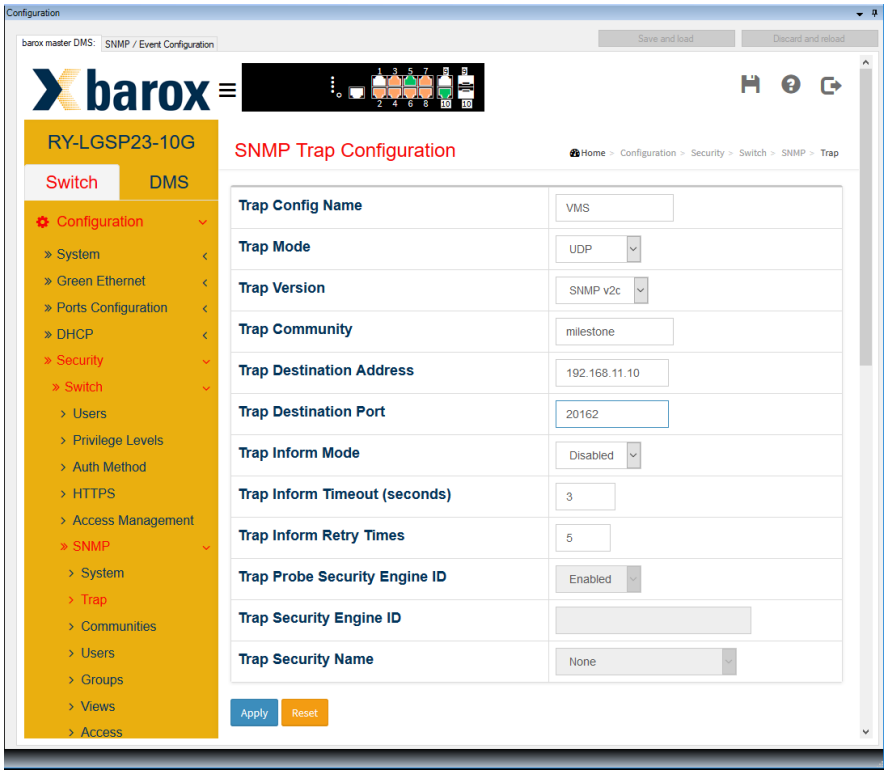
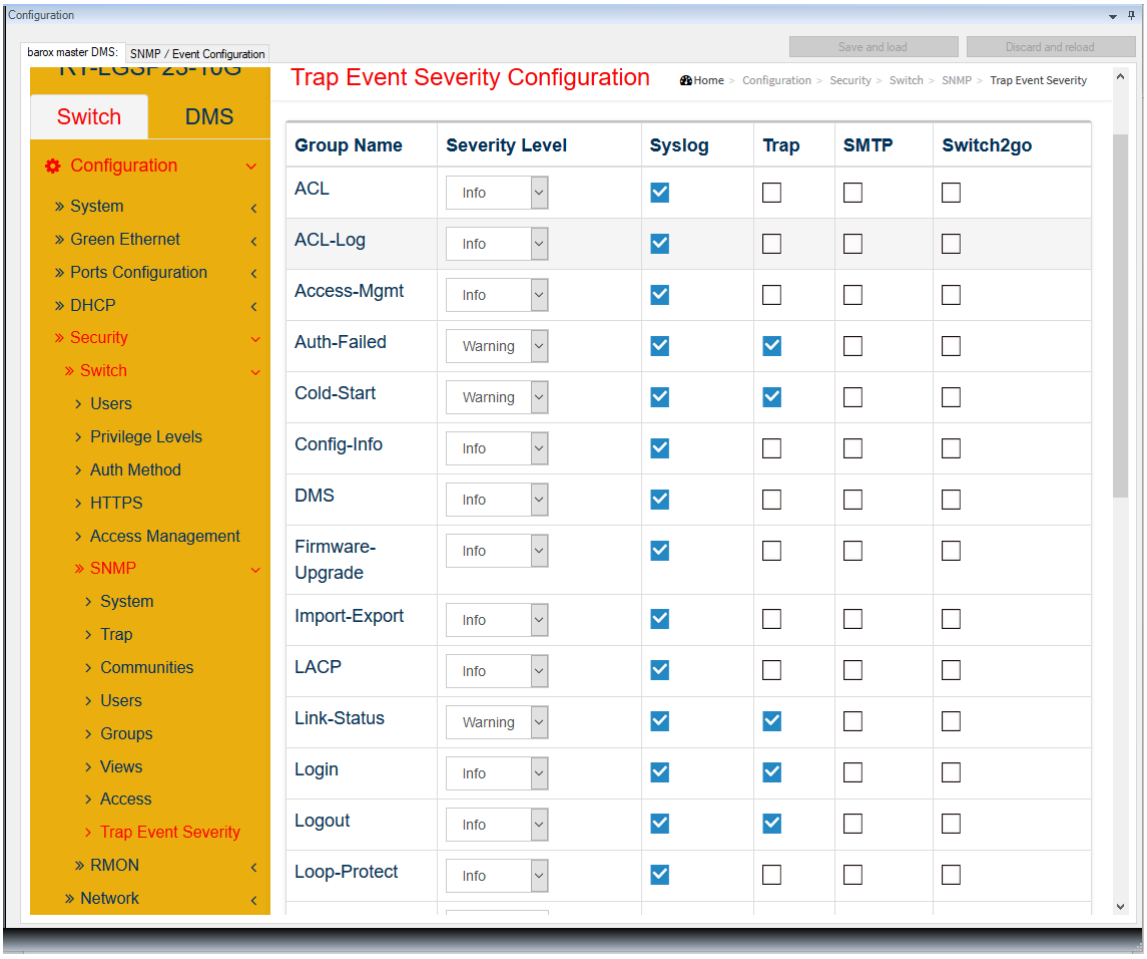
Create a new Trap Destination with the IP Address of your Event Server and the port you configured before.



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:



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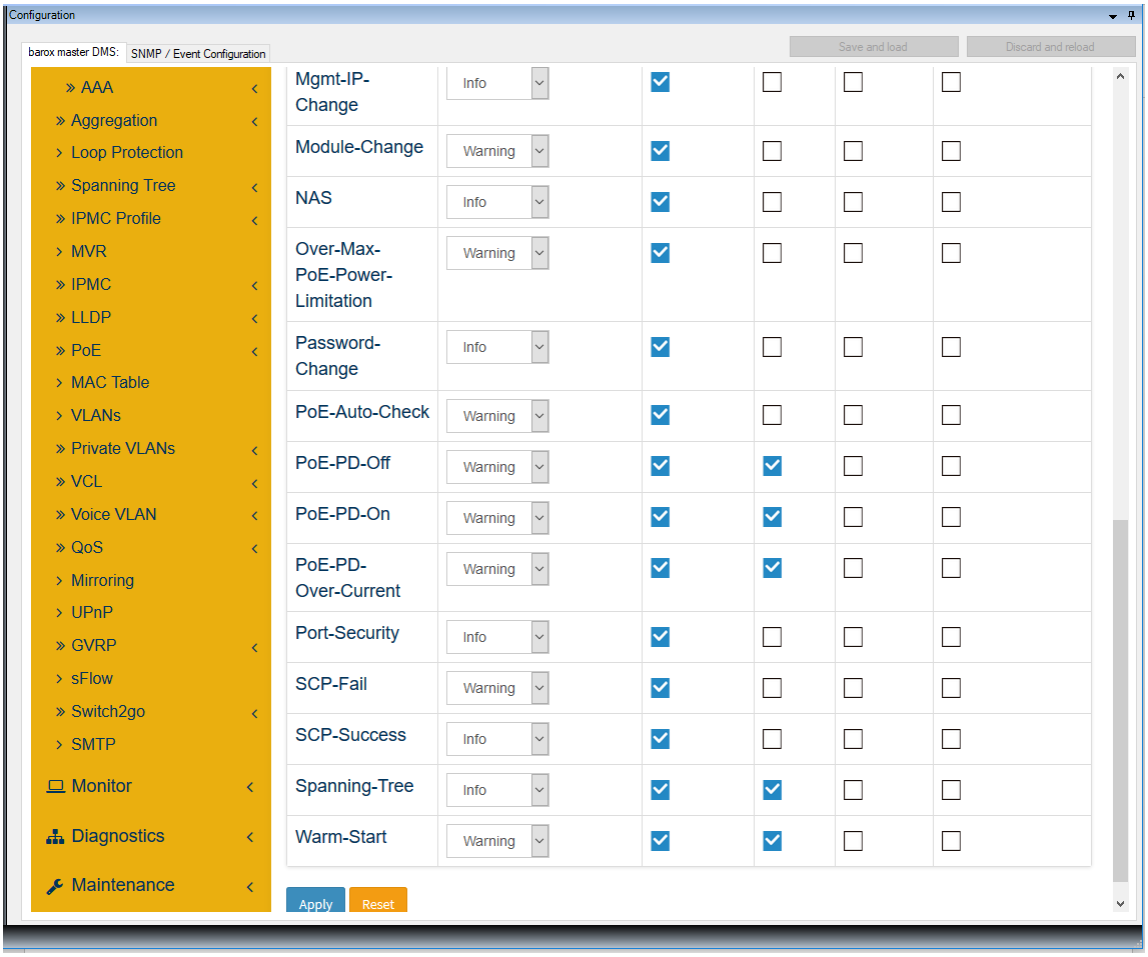

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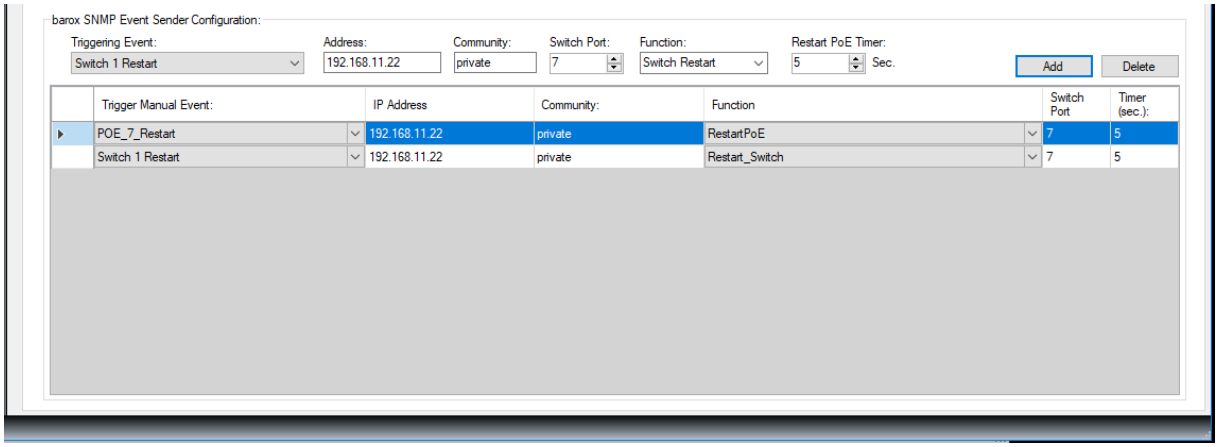
2.2.4 barox SNMP Send Event to Switch configuration

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



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.

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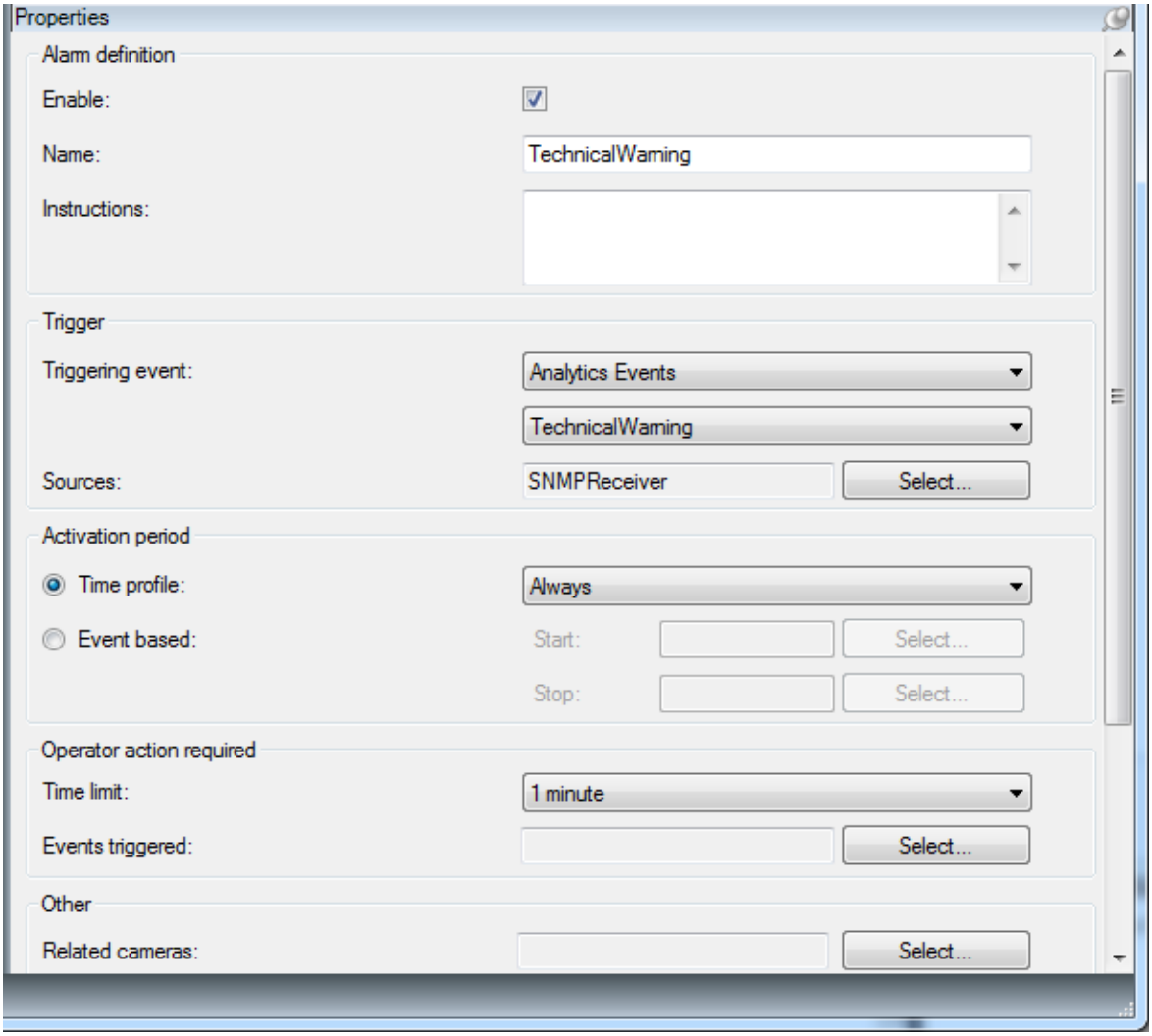
2.2.5 Create an alarm definition

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:



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3 Additional Information

3.1 Logfiles

The barox Event Server Plugin is logging all actions into a file. The directory of the log files can be found on the Server running the Event Server Service:

C:\ProgramData\ER.EventServer.SmartBarox\DebugLogs

Please note, that this is a hidden System Directory.

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