Setting up Event Forwarding

PureApplication System has in-built monitoring that tracks the health of all system components and raises notifications for events of significance. You can see the list of events in the **System Console** by navigating to **System-->Events.** A rich set of filters are available on the page to obtain a subset of interest.

PureApplication System allows you to forward system events as SNMP traps to an SNMP Manager. The following sections of this document are step-by-step instructions for configuring this in **PureApplication v1.1.0.4**.

A. PureApplication System Information

Collect the following information in advance before you configure Event Forwarding.

PureApplication System Name
Specifies the name that is used to identify the system. This information is included with SNMP alert notifications to identify the source of the alert

PureApplication System Contact
Specifies the name and phone number of the customer-contact for this system if there are problems.

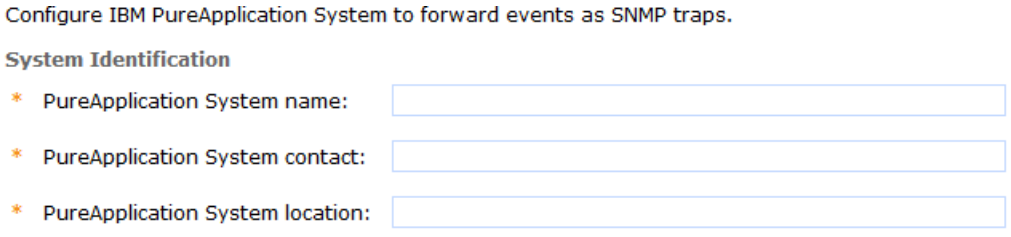
PureApplication System location
Specifies the physical location of the system so that it can be quickly located for maintenance.

Also collect the information about the SNMP Manager that will receive the SNMP traps:

IP address	SNMP Trap Destination IP Address
Port number	Port at which the destination is listening, default is 162
Community	SNMP Community string
SNMP version	'1' or '2c' are the only supported versions
Minimum event severity	A value from the drop-down list, it is recommended to select 'Warning' as the minimum severity.

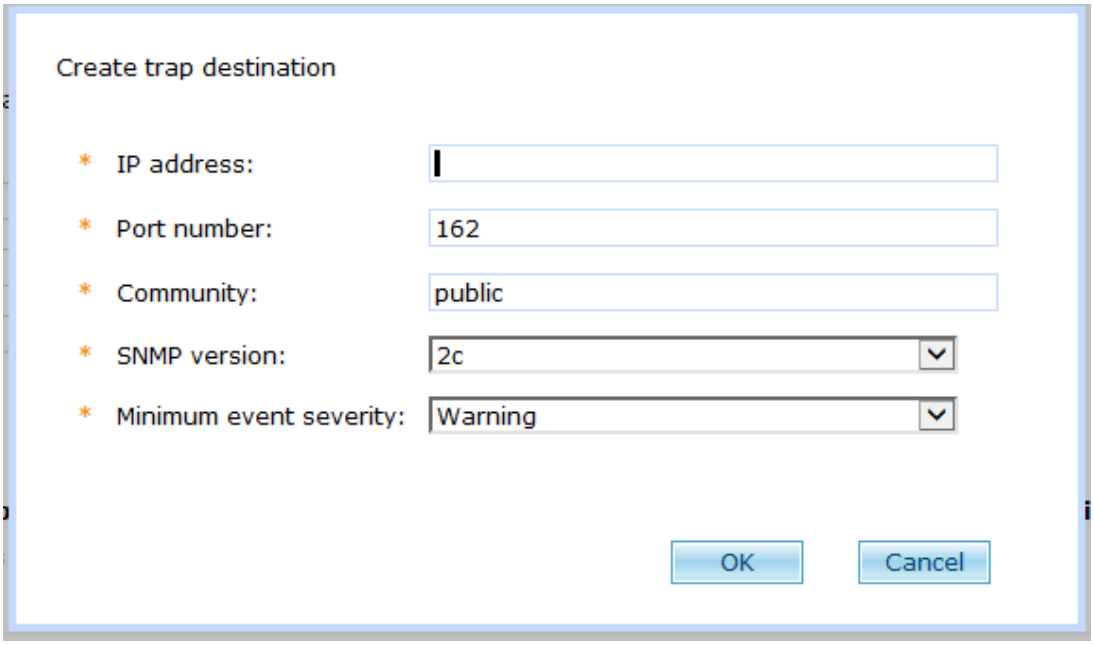
B. Configure these parameters in the System Console as follows

1. Click **System** > **Settings**.
2. Expand **Event Forwarding**.
3. In the **System Identification** table, complete the following fields:



4. Click **Save**.

5. Click on **Create Trap Destination**, fill in the values in the pop-up window.



6. Click **OK** on the pop-up window, then click **Save**

C. Configuration on SNMP Trap Destination

The destination for SNMP traps from PureApp will be an SNMP Manager application or service such as IBM Tivoli OMNIbus. (There a a number and variety of SNMP Manager. You need to compile the PureApplication System MIB on the SNMP Manager that is configured as the SNMP trap destination. Download the 'PureApplication MIB' and the 'OMNIbus Rules' zip files as follows.

1. Click **System** > **Settings**.
2. Expand **Event Forwarding**.
3. Click on '**Download MIB**' and download the MIB to your local system.
4. Click on '**Download OMNIbus Rules**' and dowload the OMNIbus Rules file.
5. Import/compile the MIB file on the SNMP trap destination.
6. Event-handling rules have to be configured on the SNMP Manager to examine events and take appropriate action. In the case of OMNIbus, the rules-set downloaded in (4) above can be imported in. In the case of other SNMP Manager applications, such rules have to created and activated by the administrator of the SNMP Manager. See the section "General Process for Event-Processing Rules" below.
7. Any set of events that indicate a call to IBM Support should result in an action to generate an email to "**pureappl@us.ibm.com**" with the details of the event. This e-mail is monitored by the Call-Home support-team, who will take appropriate action.

General Process for Event-Processing Rules

Generally, the following process needs to be followed.

A. The Administrator for the SNMP Manager has to gain an understanding of the events that PureApplication System generates/forwards.

B. The 'OMNIbus Rules' provided by IBM PureApplication System may be used as an information source for creating event-processing rules for other SNMP Managers.

C. For the specific SNMP Manager, the Administrator has to formulate rules which will aggregate events and also correlate between different events. Some knowledge of related components within the PureApplication System is required (eg. Chassis SAN switch is related to V7000 Storage).

D. There will be a number of days of testing whether the rules work properly, and ensuring that events of interest are not getting dropped.

E. High-severity alerts will be the exception and will occur quite sparsely. Continuous validation of rules will be necessary in the initial period until such time there is confidence that event-forwarding and monitoring are working as desired.

NOTE on PureApplication v2.0

The PureApplication MIB set has changed in PureApplication v2.0. The steps listed in Section C above will have to be essentially undone and redone on the SNMP Manager.
In PureApplication v2.0, all events have four new fields that improve aggregation and correlation capabilities:

- Identifier - a string that uniquely identifies an IPAS event.
- AlertGroup - a string that can be used to group events that may potentially correlate. This provides a type or family or events to group them together.
- AlertKey - a string that can be used in conjunction with the AlertGroup to determine if the events are related. This provides more instance information for a specific alert.
- ExpireTime - a timer (in milliseconds) that should be used to determine when to close an event if another instance is not received.