

# SyAM Software™

## SyAM Software Tool Tip: Integration into HP Network Node Manager

### Overview:

This document provides an overview on integration of SyAM Server Monitor with Network Node Manager, combining NNM's automatic discovery and inventory of your physical network devices with SyAM's real-time monitoring and pro-active alerting of your systems and storage resources.

### Requirements:

Network Node Manager version 6.31 or greater

TCP/IP Networking

Syam.mib loaded on system running NNM

SNMP services installed on Servers and Desktops running the SyAM Agent

### Benefits:

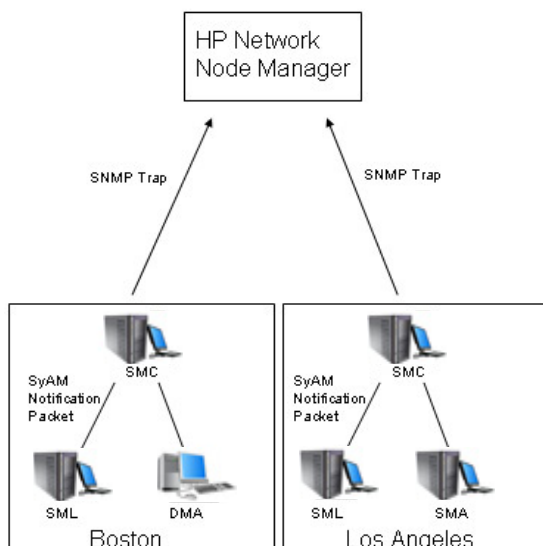
**System Level Alerting-** Ability to view the status of all monitored components at a system level

Physical Sensors (Fans, Voltages, Temperature) Logical Sensors (Network Adapters, Physical Disks, Logical Disks, Managed RAID Controllers, CPU Utilization, Memory Utilization)

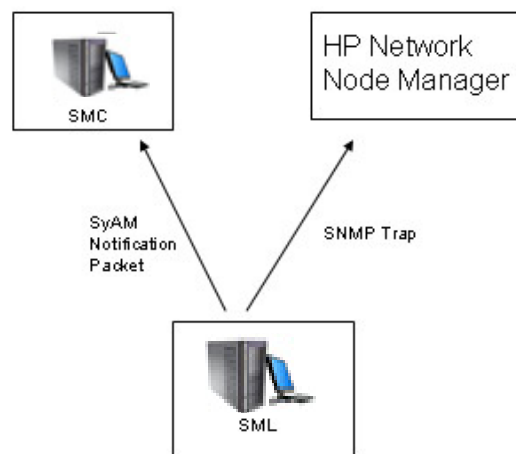
**Central Level Alerting-** Ability to configure event notifications for all systems managed by the central server.

Platform Event Traps, Hardware Events, Storage Events, Performance Utilization Events, Asset Monitoring Events

SNMP traps containing notification events are sent to the NNM station, once the administrator is alerted upon a system issue, they have the ability to browse to the SyAM user interface to take the necessary actions.



**Central Level Alerting**



**System Level Alerting**

### Notification Configuration

These screen shots show how to configure the SyAM Server Monitor to send SNMP traps to HP NNM. Simply add in the IP address of the NNM as the SNMP Trap Receiver, as well as check which events should be reported to the NNM.

#### Configure from System Alert Matrix.

Physical Sensors	Lower Threshold		Upper Threshold			No Alerts							Warning Alerts						Critical Alerts					
	Description	Critical	Warning	Current	Warning	Critical	No Monitoring	Email	SMS /Pager	SMC	Network Message	SNMP Trap	System Event Log	Email	SMS /Pager	SMC	Network Message	SNMP Trap	System Event Log					
	Physical Security						<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>										
Fans (RPM)						<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Temperature (°C)						<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Voltages (v)						<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Power Unit						<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>											

[Restore Physical Sensor Thresholds](#)

Logical Sensors	Description	Current	Threshold	No Alerts							Alerts						Intervals	
				No Monitoring	Email	SMS /Pager	SMC	Network Message	SNMP Trap	System Event Log	Sample Period	Reset Period						
Network Adapters				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>							
Physical Disks				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>							
Logical Disks			90	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8	Hr	168	Hr			
CPU Utilization (%)			90	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	Min	15	Min			
Memory Utilization (%)			90	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	Min	15	Min			
Memory Error Rate			2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24	Hr	24	Hr			

#### Notification Settings

<b>Email Address</b>	<input type="text" value="admin@company.com"/>	Example: admin@company.com
<b>SMS/Pager Address</b>	<input type="text"/>	
<b>Network Message Machine Name</b>	<input type="text" value="192.168.1.1"/>	Example: 192.168.1.1
<b>SMC System</b>	<input type="text" value="192.168.100.104"/>	Example: 192.168.1.1
<b>Username</b>	<input type="text" value="admin1234"/>	Example: Username
<b>Sender's Email Address</b>	<input type="text" value="Local.Admin@company.com"/>	Example: Local.Admin@company.com
<b>Sender's Email Password</b>	<input type="text"/>	
<b>Mail Server</b>	<input type="text" value="smtp.company.com"/>	Example: smtp.company.com
<b>SNMP Trap Receiver</b>	<input type="text" value="snmp.company.com"/>	Example: snmp.company.com

### Configure from Central Alert Matrix

Event Category	Email #1	SMS/Pager #1	Email #2	SMS/Pager #2	SNMP Trap
Platform Event Traps	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hardware Events	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Network Events	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Storage Events	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Performance Utilization Events	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Asset Monitoring Events	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
System Absent	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<b>Email Address #1 for Alerts</b>	<input type="text" value="admin@company.com"/>	<b>Example</b>	admin@company.com
<b>SMS/Pager Address #1 for Alerts</b>	<input type="text"/>		
<b>Email Address #2 for Alerts</b>	<input type="text" value="admin2@company.com"/>		admin2@company.com
<b>SMS/Pager Address #2 for Alerts</b>	<input type="text" value="admin1234"/>		
<b>Username</b>	<input type="text"/>		Username
<b>Sender's Email Address</b>	<input type="text" value="Central.Admin@company.com"/>		Central.Admin@company.com
<b>Sender's Email Password</b>	<input type="text"/>		
<b>Mail Server</b>	<input type="text" value="smtp.company.com"/>		smtp.company.com
<b>SNMP Trap Receiver</b>	<input type="text" value="snmp.company.com"/>		
	<input type="button" value="Test Notifications"/>	<input type="button" value="Apply"/>	

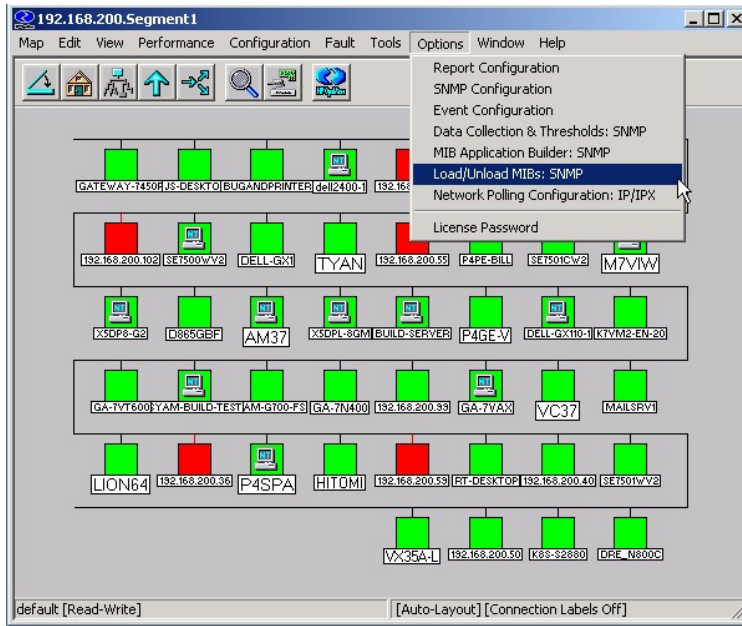
### Installation

Please note that the screen shots used in this document are from NNM version 6.31

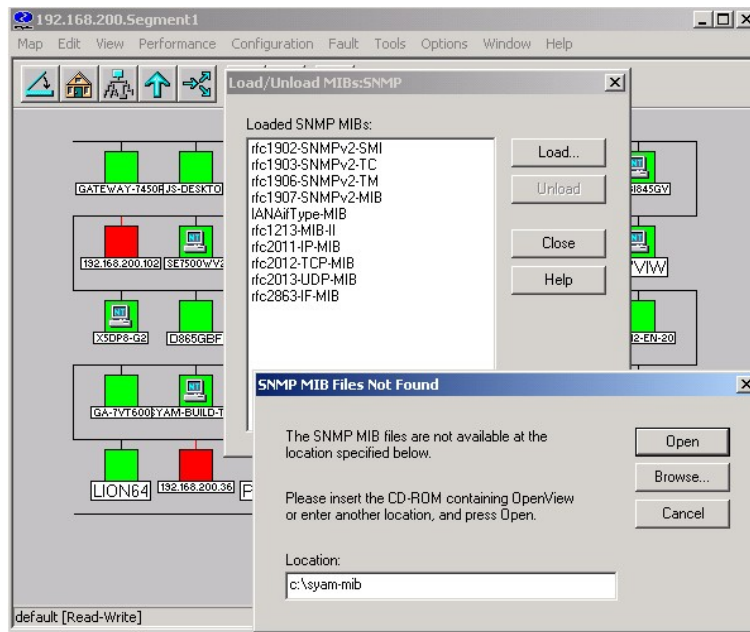
### Load the MIB

The SyAM MIB defines a set of notifications only; it does not define any managed objects as an SNMP management application, such as the MIB Browser Tool in NNM, can Get or Set.

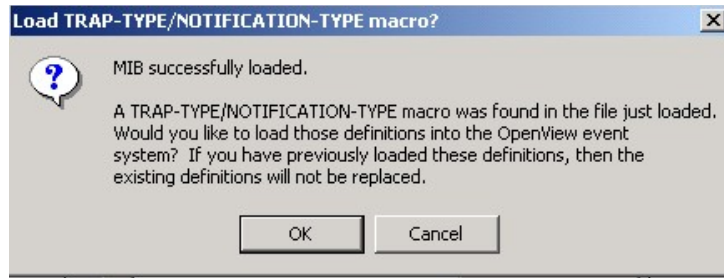
- 1.) Go to <Options><Load/Unload MIBs:SNMP>



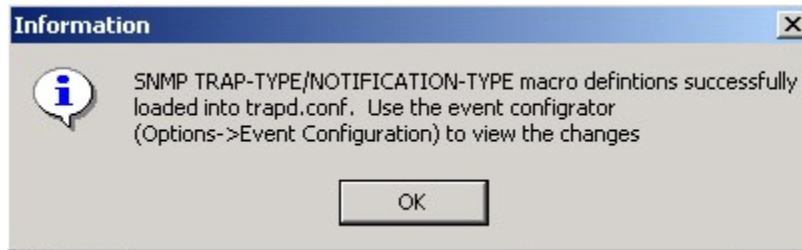
2.) Enter location or browse to SyAM.mib file. Select Open to load the MIB.



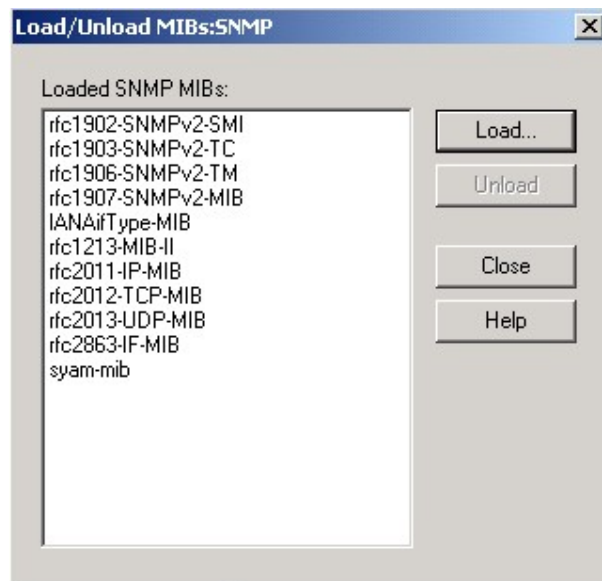
3.) This screen will come up to verify that the MIB has been successfully loaded. Click OK to load the new definitions into the OpenView event system.



4.) After the MIB has been loaded, use the Event Configuration Tool to define the handling of the received traps.



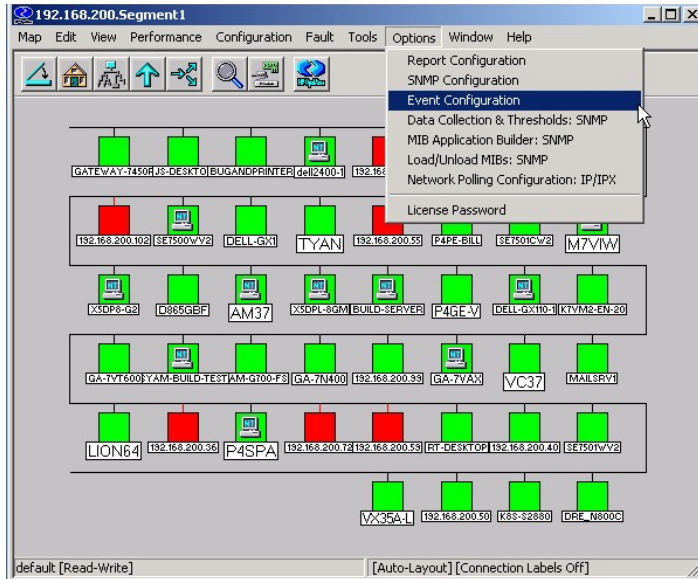
5.) This window shows that the MIB has been loaded.



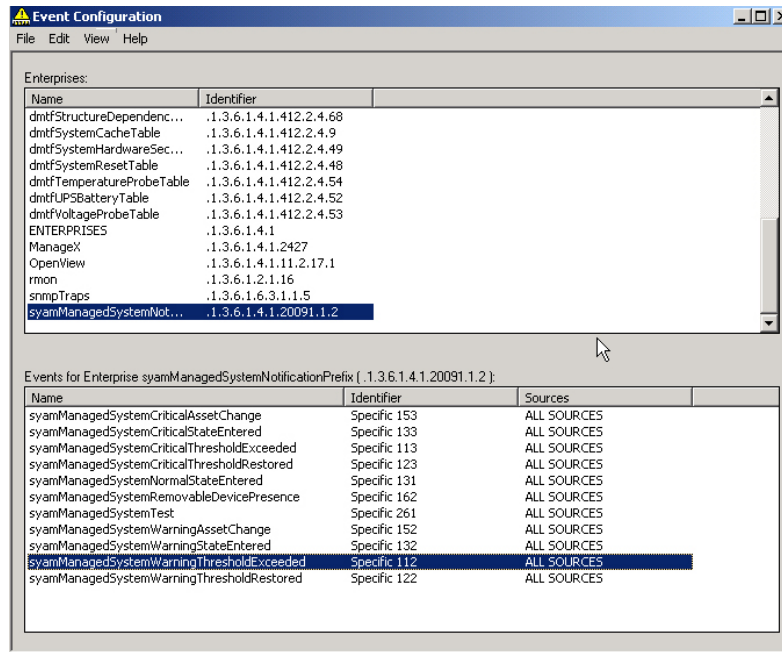
### Event Configuration

*NNM's Event Configuration tool generates the information needed to translate the trap data into meaningful text for the alarm browser to display, and also allows the administrator to configure an automated action when a trap is received.*

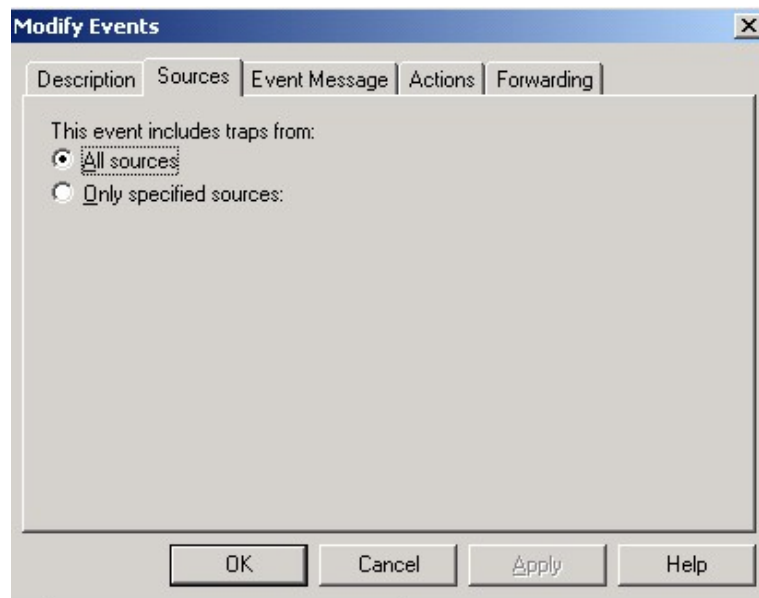
1.) To configure the events, go to <Options><Event Configuration>



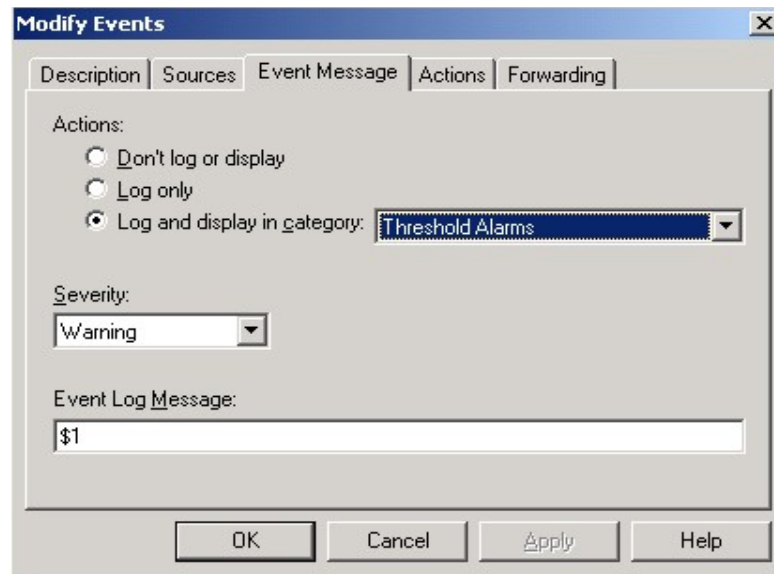
- 2.) Select syamManagedSystemNotificationPrefix from the Enterprise MIBs listed. Each notification event can now be configured to the desired reporting level within NNM.



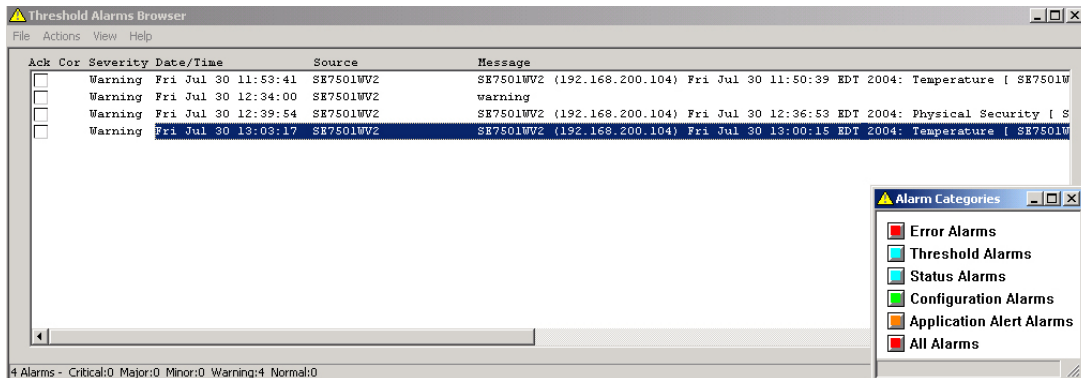
- 3.) The administrator can specify whether the notification event will include traps received from all sources or specified sources.



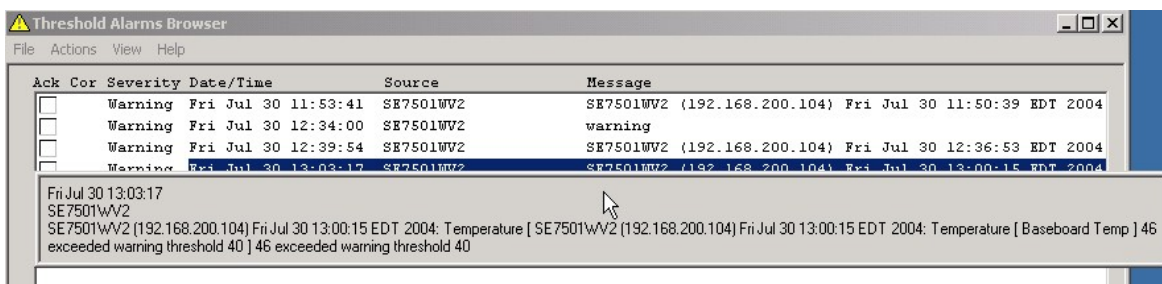
- Select desired logging method and alarm category as well as the severity level for the event. Entering "\$1" as the parameter for the Event Log Message will display detailed information about the event in the Alarm Browser Tool. Alarm actions may also be configured when a trap is received. When event configuration is completed, click OK, and then click OK to save the trapd.conf file.



- The Alarm Browser displays SNMP traps that are coming from the sources NNM approved to receive.



- This example shows an event that has been configured to display detailed event information.



## Contact SyAM Software

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