



Configuring Netcool For Cisco AMS 2.0

For Use by



Douglas Johnson



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DOCUMENT RELEASE HISTORY

“Configuring Netcool for AMS 2.0” By Douglas Johnson

Version	Date	Author	Comment
1.0	9/22/2007	Douglas Johnson	Initial Release – 1.0
1.1	10/25/2007	Douglas Johnson	Add alerts.status field changes Add NcKL rules file section Add ams_show_symptom_event.cgi section
1.2	11/28/2007	Douglas Johnson	Removed map section Added rules file text Added tool text Added section on creating trigger

DOCUMENT APPROVAL

This document and its content have been reviewed, and approved in its 1.0 version, by:

Name	Title	Comments

DOCUMENT OBJECTIVES

This document is intended to explain how to manually create the content that is present in the Netcool part of the Cisco AMS 2.0 solution. It does not address installation of the various components, nor does it touch any of the configurations required on the ANA part of the solution.

This document is a fairly long document. To save time it skips over explicitly telling the reader to “Save” or “Save and Apply”. It is assumed that the user will save their work as they progress.

UPDATING THE OBJECT SERVER ALERTS.STATUS SCHEMA

Launch nco_config and connect to the Object Server. Select the System tab -> Databases button -> alerts database -> status table. Add 5 ANA fields as described in the following picture.

Configuration of SEC-MON3 on jdp-sec-mon3:4100

Databases, Tables and Columns

alerts

- application_types
- backup_state
- col_visuals
- colors
- conversions
- details
- iduc_messages
- journal
- login_failures
- objclass
- objmenuitems
- objmenus
- problem_events
- resolutions
- status

Column Definitions

Name /	Data Type	Le...	Pri...	No ...	No ...	Sy...	Hid...	Ord...
ANAAlarmID	Integer	4	×	×	×	×	×	56
ANAParentID	Integer	4	×	×	×	×	×	57
ANAPredecessor	Integer	4	×	×	×	×	×	58
ANAServerIP	VarChar	32	×	×	×	×	×	60
ANASeverity	Integer	4	×	×	×	×	×	55
ANASeverityDesc	VarChar	15	×	×	×	×	×	54
ANATicket	VarChar	6	×	×	×	×	×	59
Acknowledged	Integer	4	×	×	×	×	×	24
Agent	VarChar	64	×	×	×	×	×	7
AlertGroup	VarChar	255	×	×	×	×	×	8
AlertKey	VarChar	255	×	×	×	×	×	9
Class	Integer	4	×	×	×	×	×	19
Customer	VarChar	64	×	×	×	×	×	30
EventId	VarChar	255	×	×	×	×	×	26
ExpireTime	Integer	4	×	×	×	×	×	27
FirstOccurrence	UTC	4	×	×	×	×	×	13
Flash	Integer	4	×	×	×	×	×	25
Grade	Integer	4	×	×	×	×	×	20
Identifier	VarChar	255	✓	✓	✓	×	×	2
InternalLast	UTC	4	×	×	×	×	×	15
LastOccurrence	UTC	4	×	×	×	×	×	14
LocalNodeAlias	VarChar	64	×	×	×	×	×	39
LocalPriObj	VarChar	255	×	×	×	×	×	40
LocalRootObj	VarChar	255	×	×	×	×	×	42
LocalSecObj	VarChar	255	×	×	×	×	×	41
Location	VarChar	64	×	×	×	×	×	21
Manager	VarChar	64	×	×	×	×	×	6
NmosCauseType	Integer	4	×	×	×	×	×	38
NmosObjInst	Integer	4	×	×	×	×	×	37
NmosSerial	VarChar	64	×	×	×	×	×	36
Node	VarChar	64	×	×	×	×	×	4
NodeAlias	VarChar	64	×	×	×	×	×	5
OwnerGID	Integer	4	×	×	×	×	×	23
OwnerUID	Integer	4	×	×	×	×	×	22
PhysicalCard	VarChar	64	×	×	×	×	×	34
PhysicalPort	Integer	4	×	×	×	×	×	33

Rows: 61

Session SEC-MON3 on jdp-sec-mon3:4100 as root

SETTING UP THE NcKL RULES FILES

Setting \$NC_RULES_HOME

By convention the NcKL is installed into \$NCHOME/probes/solaris2/rules. You do not have to use this path, but wherever you choose to install the rules you must point the \$NC_RULES_HOME environment variable to it.

```
[root@jdp-sec-mon3]C:\ echo $NC_RULES_HOME
/opt/ams2/omnibus/probes/solaris2/rules
[root@jdp-sec-mon3]C:\
```

Updating snmptrap.rules

The SNMP EMS probe uses the mtrapped_ems.rules file by default. In order to use the NcKL you need to configure the probe to use the \$NC_RULES_HOME/snmptrap.rules file. This will pick up all the standard MIB support that the NcKL offers.

It will not pick up the ANA specific trap logic. In order to do this you need to add the following lines to the relevant sections in the snmptrap.rules file:

```
include "$NC_RULES_HOME/include-snmptrap/cisco-CISCO-EPM-NOTIFICATION-
MIB.include.snmptrap.lookup"
```

```
include "$NC_RULES_HOME/include-snmptrap/cisco-CISCO-EPM-NOTIFICATION-
MIB.include.snmptrap.rules"
```

Adding the CISCO-EPM-NOTIFICATION files

Place the updated cisco-CISCO-EPM-NOTIFICATION-MIB.include.snmptrap.lookup and cisco-CISCO-EPM-NOTIFICATION-MIB.include.snmptrap.rules in the \$NC_RULES_HOME/include-snmptrap directory.

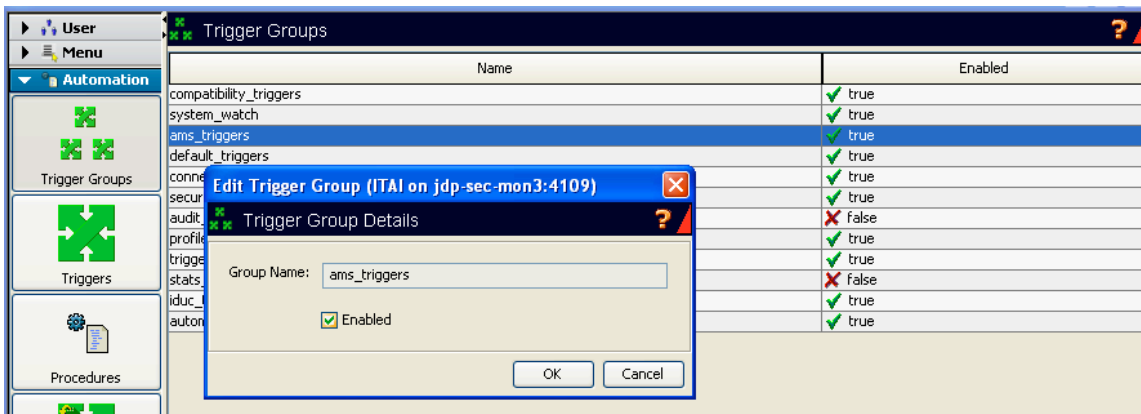
```
[root@jdp-sec-mon3]C:\ pwd
/opt/ams2/omnibus/probes/solaris2/rules/include-snmptrap
[root@jdp-sec-mon3]C:\ ls cisco-CISCO-EPM-NOTIFICATION-MIB.include.snmptrap.*
cisco-CISCO-EPM-NOTIFICATION-MIB.include.snmptrap.lookup
cisco-CISCO-EPM-NOTIFICATION-MIB.include.snmptrap.rules
[root@jdp-sec-mon3]C:\
```

SETTING UP THE OBJECT SERVER TRIGGERS

ANA's fault management technology is built on the notion of a predecessor event. Netcool does not share this architecture. The cisco-CISCO-EPM-NOTIFICATION-MIB.include.snmptrap.rules has been modified to allow the Generic Clear trigger to manage ANA events, but a new trigger is required to deal with the predecessor relationships.

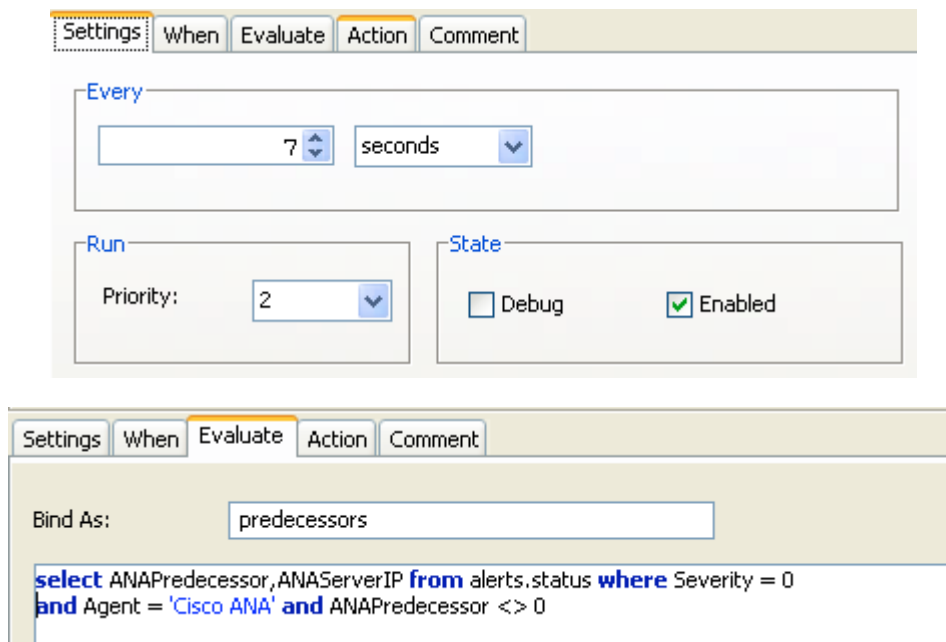
Create the Trigger Group

Create a trigger group called "ams_triggers". This will allow you to control all the AMS triggers at once.



Create the ams_clean_predecessor trigger

The ams_clean_predecessor trigger is defined as follows:



```
Settings When Evaluate Action Comment
begin
  for each row predecessor in predecessors
  begin
    update alerts.status set Severity = 0 where Severity <> 0
    and ANAAlarmID = predecessor.ANAPredecessor
    and ANAServerIP = predecessor.ANAServerIP;
  end;
end
```

Be sure to add the appropriate comments for your work.

UPDATING THE ADMIN USER ACCOUNT

Once installed the admin user must be given Webtop Admin privileges. From the Administration drop down menu select the Security tab, and then click on the pencil to edit the admin user.

The screenshot shows the Netcool Administration console interface. The top navigation bar includes 'System Information', 'Layout', 'Security', and 'Sessions'. The 'Security' tab is active. On the left, a sidebar menu lists 'Users', 'Roles', 'Groups', 'Domain Properties', and 'Security IDs'. The main content area displays a table of users with columns for 'Select', 'Username', 'First Name', 'Last Name', 'Active?', and 'Actions'. There are 'Add User' and 'Resync All' buttons above the table. The table lists five users: root, guest, admin, netcool, and anon.

Select:	Username	First Name	Last Name	Active?	Actions
<input type="checkbox"/>	root	Netcool	Administrator	yes	
<input type="checkbox"/>	guest	Netcool	Guest	yes	
<input type="checkbox"/>	admin	Netcool	Administrator	yes	
<input type="checkbox"/>	netcool	netcool	netcool	yes	
	anon	anon	anon	yes	

CREATING THE AMS_USER USER ACCOUNT

When logged in as admin add the user AMS_User. This user should have Webtop User role and be part of the System, Desktop, and Restricted groups. The password for AMS_User should be "cisco".

CREATING THE ENTITY VIEW

Select Webtop Admin from the drop down menu. Select Entity Views from the left menu. Create a new view named ANA_View as follows:

Event List View	Field Name	Justify	Column Title	Justify	Column Width
Agent	Agent	Center	Agent	Center	12
Node	Node	Center	Node	Center	12
AlertGroup	AlertGroup	Center	Alert Group	Center	12
Summary	Summary	Left	Summary	Center	40
ANASeverityDesc	ANASeverityDesc	Center	ANA Severity Desc	Center	12
ANAAAlarmID	ANAAAlarmID	Center	ANA Alarm ID	Center	12
ANAParentID	ANAParentID	Center	Parent ID	Center	10
LastOccurrence	LastOccurrence	Center	Last Occurrence	Center	12
Tally	Tally	Center	Count	Center	12

Sort by Node [asc] -> Severity [desc] -> FirstOccurrence [asc].

View Name ObjectServer Group

Display Columns

Available Fields

- ANAPredecessor
- ANASeverity
- ANATicket
- Acknowledged
- AlertGroup
- AlertKey
- Class
- Customer
- EventId
- ExpireTime
- FirstOccurrence
- Flash
- Grade
- Identifier
- InternalLast

Event List View

- Agent
- Node
- Summary
- ANASeverityDesc
- ANAAAlarmID
- ANAParentID
- Service
- LastOccurrence
- Tally

Field Name Justify

Column Title Justify

Column Width

Sort Columns

Available Sort Fields

- ANAAAlarmID
- ANAParentID
- ANAPredecessor
- ANASeverity
- ANASeverityDesc
- ANATicket
- Acknowledged
- Agent
- AlertGroup
- AlertKey

Sorted By

- Node [asc]
- Severity [desc]
- FirstOccurrence [asc]

Field Name Sort

Apply Back Help

CREATING THE ENTITIES

Select Webtop Admin from the drop down menu. Select Entities from the left menu. Create a new entity named ANA_Events as follows:

The screenshot shows the Netcool Webtop Admin interface. The top navigation bar includes the Tivoli logo, the user name 'logged in as: Netcool Administrator', and a dropdown menu set to 'Webtop Admin'. The left sidebar contains a menu with 'Entities' selected. The main content area is titled 'Entity Editor' and displays the 'Modify Entity Details' form for the entity 'ANA_Events'. The form fields are: Name: ANA_Events, Group: <default>, View: ANA_View, Type: Filtered, Filter: Agent = 'Cisco ANA', and Metric: Label, Function: Sum, Field: Tally. At the bottom of the form are buttons for 'Modify This Entity', 'Cancel', and 'Help'.

Create a new entity named AMS-ANA-Tickets as follows:

The screenshot shows the Netcool Webtop Admin interface. The top navigation bar includes the Tivoli logo, the user name 'logged in as: dj dj', a dropdown menu set to 'Webtop Admin', and a 'Logout' button. The left sidebar contains a menu with 'Entities' selected. The main content area is titled 'Entity Editor' and displays the 'Modify Entity Details' form for the entity 'AMS-ANA-Tickets'. The form fields are: Name: AMS-ANA-Tickets, Group: <default>, View: ANA_View, Type: Filtered, Filter: ANATicket = 'true', and Metric: Label, Function: Sum, Field: Tally. At the bottom of the form are buttons for 'Modify This Entity', 'Cancel', and 'Help'.

Create a new entity named ANA_Status as follows:

NETCOOL Suite™ | logged in as: Cisco AMS User | Webtop Admin

Entity Editor

Modify Entity Details

Name: ANA_Status_Events
 Group: <default>
 View: ANA_View
 Type: filtered
 Filter: Agenc = 'Cisco ANA' and (Type = 0 or Type = 1)
 Metric: Metric: (label) Sum of Tally

Buttons: Modify This Entity, Cancel, Help

Create a new entity named NetcoolStatus as follows:

Tivoli | logged in as: Netcool Administrator | Webtop Admin

Entity Editor

Modify Entity Details

Name: NetcoolStatus
 Group: <default>
 View: <default>
 Type: Filtered
 Filter: Manager like 'Watch'
 Metric: Label Function Field
 Metric: Sum Tally

Buttons: Modify This Entity, Cancel, Help



CREATING THE AMS-ANA-EVENTS MAP

Select Webtop Admin from the drop down menu. Select Maps from the left menu and create a map named AMS-ANA-Events. The background should be white, the height should be 198 and the width should be 230.

The map consists of a label, a line, and 3 monitor boxes.

The label is created as follows:

Name	Label	X	Y	Size	Bold
Map_Label	ANA Events	71	16	18	checked

The line is created as follows:

Name	X1	Y1	X2	Y2	Thickness
Line	10	18	220	18	2

The 3 monitor boxes are created as follows:

Name	Label	Entity	X	Y
All_ANA_Events	All Events	ANA_Events	10	28
AMS-ANA-Tickets	ANA Tickets	AMS-ANA-Tickets	120	28
ANA_Status_Events	Status Events	ANA_Status_Events	65	113

All have Show Label and Show Total selected on the Properties tab. All have the following configurations as well:

Action	Target	Data Source	Width	Height
Active Event List (AEL)	ANA_iframe	NCOMS	100	75

CREATING THE AMS-ALL-EVENTS MAP

Select Webtop Admin from the drop down menu. Select Maps from the left menu and create a map named AMS-All-Events. The background should be white, the height should be 198 and the width should be 230.

The map consists of a label, a line, and 3 monitor boxes.

The label is created as follows:

Name	Label	X	Y	Size	Bold
Map_Label	All Events	71	16	18	checked

The line is created as follows:

Name	X1	Y1	X2	Y2	Thickness
Line	10	18	220	18	2

The 4 monitor boxes are created as follows:

Name	Label	Entity	X	Y
All_Events	All Events	AllEvents	10	28
Critical_Events	Critical Events	Critical	120	28
Last_24_Hours	Last 24 Hours	LastDay	10	113
Netcool_Status_Events	Netcool Status	Netcool_Status	120	113

All have Show Label and Show Total selected on the Properties tab. All have the following configurations as well:

Action	Target	Data Source	Width	Height
Active Event List (AEL)	ANA_iframe	NCOMS	100	75

ADDING THE MAP GRAPHICS AS RESOURCES

Select Webtop Admin from the drop down menu. From the left menu select Map Resources, then the relevant map. Click on Add Map Resource, then browse to the location of the relevant graphic.

The screenshot shows the Netcool Webtop Admin interface. The header indicates the user is logged in as 'Netcool Administrator' and is currently viewing the 'Webtop Admin' page. The left navigation menu includes options like Home, My Filters, Filter Builder, View Builder, Maps, **Map Resources** (selected), Entities, Entity Views, Entity Generator, and Menus. The main content area is titled 'Add Map Resource' and displays the following information:

- Modify resource details below**
- Resource Map Name: Netcool-ANA-Integration
- Current Resources**
- Table with columns: **Filename** and **File Size**
- Table content: cisco_image.gif [47788]
- A text input field and a 'Browse...' button for file selection.
- Buttons: 'Add Resource', 'Resource Manager', and 'Help'.

CREATING THE CISCO AMS 2.0 PAGE

Select My Pages from the drop down menu. Create the Cisco AMS 2.0 page as follows:

Click on the pencil to modify the page. Select State Maintained Tab Pane. This will keep updating the AEL's even if you navigate away from the current tab.

Click on Add Pane to create the first pane. Create the Operations View pane as follows:

The screenshot shows the Tivoli Netcool console interface. At the top, it says "logged in as: AMS_User AMS_User" and "Cisco AMS 2.0". Below the header, the user category is "AMS_User", media type is "html", and the path is "user/AMS_User/media-type/html/page/Cisco_AMS_2.0.psm". The "Customize pane" dialog is open, showing "Media Type : html" and "Pane : Cisco AMS 2.0". A text input field contains "Operations View". Buttons for "Add Viewpoint", "Add View", "Add Pane", "Edit Properties", "Save and Apply", and "Cancel" are visible.

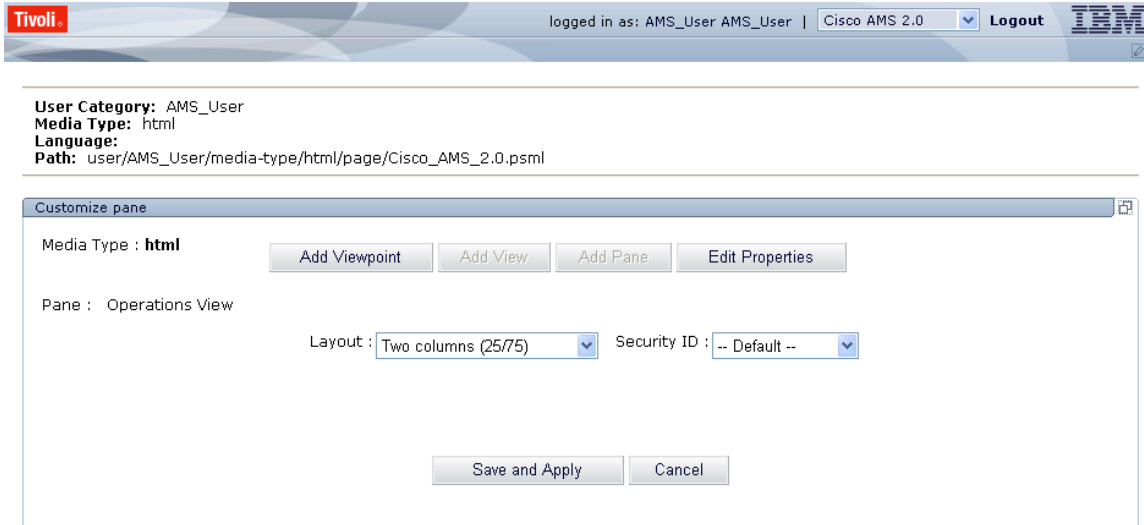
Create the Support pane as follows:

The screenshot shows the Tivoli Netcool console interface. At the top, it says "logged in as: AMS General User" and "Cisco AMS 2.0". Below the header, the role category is "AMS_User", media type is "html", and the path is "role/AMS_User/media-type/html/page/default.psm". The "Customize pane" dialog is open, showing "Media Type : html" and "Pane : Support". The "Layout" dropdown is set to "Menu pane" and the "Security ID" dropdown is set to "-- Default --". A table lists two items: "About Webtop" and "Technical Support", each with a delete icon and a lock icon. Buttons for "Add Viewpoint", "Add View", "Add Pane", "Edit Properties", "Save and Apply", and "Cancel" are visible.

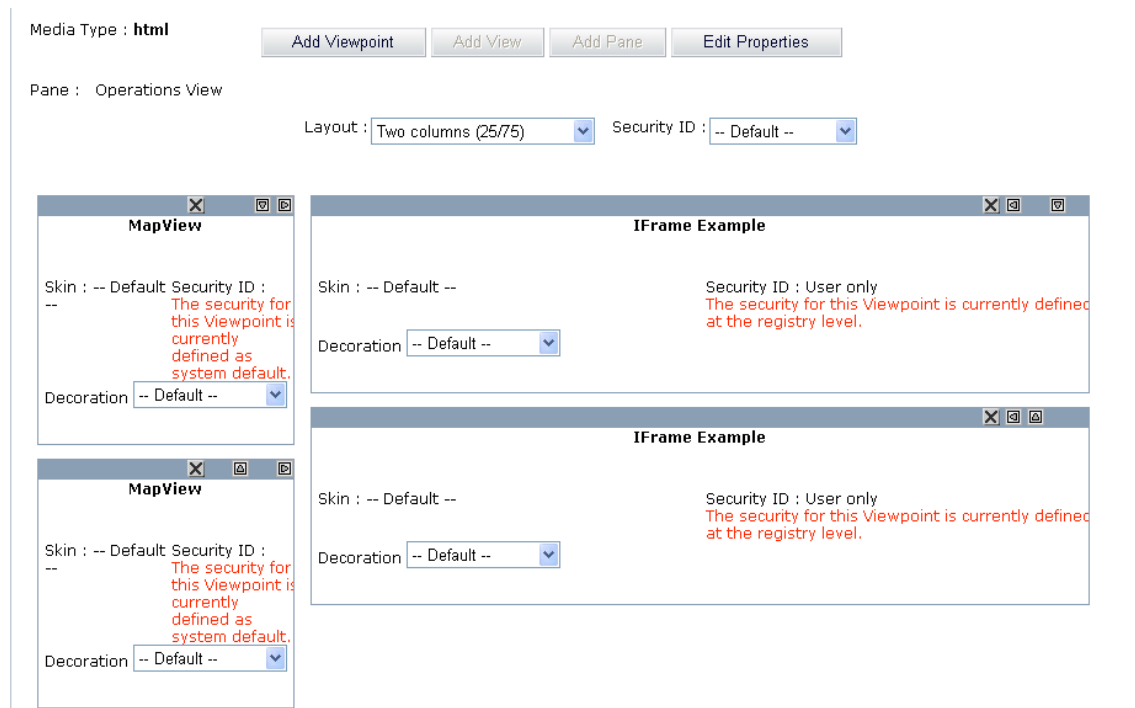
Name	Action
About Webtop	✕ 🔒
Technical Support	✕ 🔒

CREATING THE OPERATIONS VIEW PAGE

From the Cisco AMS 2.0 page select the Operations View tab. Click on the pencil to modify the page. Add 2 columns as follows:



Click on the “Add Viewpoint” button and add a Mapview and iFrame. Do this a second time. You should see a page like:



Edit the first MapView as follows:

The screenshot shows the Tivoli Netcool console interface. At the top, the user is logged in as 'AMS_User AMS_User' and the system is 'Cisco AMS 2.0'. Below the header, the user category is 'AMS_User', media type is 'html', and the path is 'user/AMS_User/media-type/html/page/Cisco_AMS_2.0.psml'. The main content area displays a 'MapView' configuration window with the following settings: Security ID is set to '-- Default--', Height is '285', Width is '100%', and Map is 'AMS-ANA-Events'. 'Done' and 'Cancel' buttons are visible at the bottom of the window.

Edit the second MapView as follows:

The screenshot shows the Tivoli Netcool console interface, identical to the first one. The user is logged in as 'AMS_User AMS_User' and the system is 'Cisco AMS 2.0'. The user category is 'AMS_User', media type is 'html', and the path is 'user/AMS_User/media-type/html/page/Cisco_AMS_2.0.psml'. The main content area displays a 'MapView' configuration window with the following settings: Security ID is set to '-- Default--', Height is '285', Width is '100%', and Map is 'AMS-AII-Events'. 'Done' and 'Cancel' buttons are visible at the bottom of the window.

Edit the first iFrame Example as follows:

Tivoli | logged in as: AMS_User AMS_User | Cisco AMS 2.0 | Logout | IBM

User Category: AMS_User
 Media Type: html
 Language:
 Path: user/AMS_User/media-type/html/page/Cisco_AMS_2.0.psm1

Customize Viewpoint

Title	ANA_iframe
Security ID	The security for this Viewpoint is currently defined at the registry level
Source	-- Default --
IFrame Name	/desktop/images/ngf/cisco_image.gif
Width	ANA_iframe
Margin Height	100%
Scroll Bar	0
Align	auto
Refresh Time	top
Frame Border	0
Height	0
Margin Width	300
	0

Update Cancel

Edit the second iFrame Example as follows:

Tivoli | logged in as: AMS_User AMS_User | Cisco AMS 2.0 | Logout | IBM

User Category: AMS_User
 Media Type: html
 Language:
 Path: user/AMS_User/media-type/html/page/Cisco_AMS_2.0.psm1

Customize Viewpoint

Title	All_iframe
Security ID	The security for this Viewpoint is currently defined at the registry level
Source	-- Default --
IFrame Name	/desktop/images/ngf/tivoli_netcool.gif
Width	All_iframe
Margin Height	100%
Scroll Bar	0
Align	auto
Refresh Time	top
Frame Border	0
Height	0
Margin Width	300
	0

Update Cancel

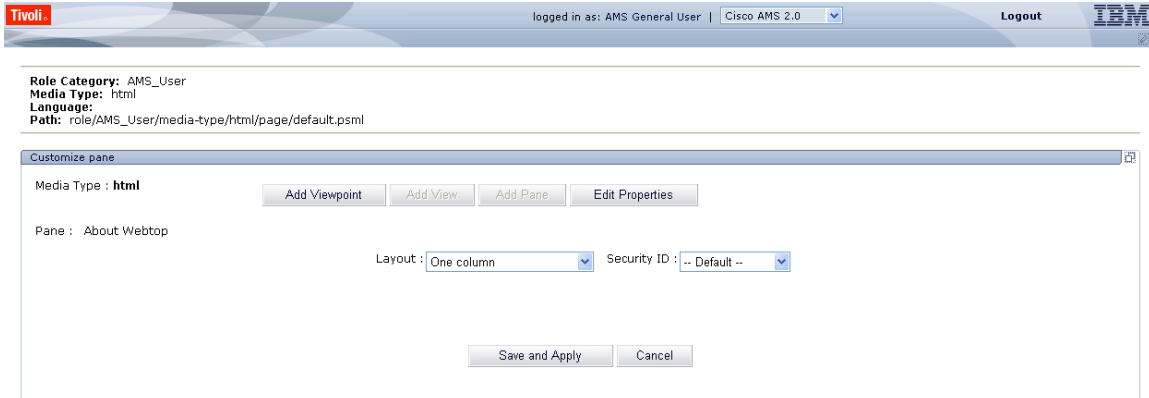
The final page should look like:

The screenshot displays the Tivoli Netcool web interface. At the top, the navigation bar includes the Tivoli logo, user information (logged in as: AMS_User AMS_User), the current system (Cisco AMS 2.0), and a Logout button. Below the navigation bar are tabs for Operations View, Maps View, and Support. The main content area is divided into four panes:

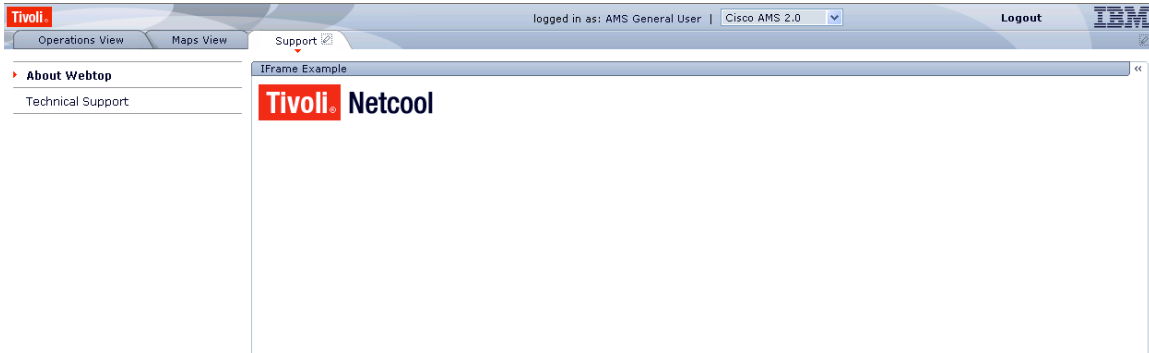
- Top Left Pane (MapView):** Titled "AMS-ANA-Events ANA Events". It contains three summary boxes:
 - All ANA Events: Total: 0
 - ANA Root Events: Total: 0
 - ANA Status Events: Total: 0
- Top Right Pane (ANA_iframe):** Contains an illustration of a globe with people working at computers, representing global operations.
- Bottom Left Pane (MapView):** Titled "AMS-All-Events All Events". It contains four summary boxes:
 - All Events: Total: 1
 - Critical Events: Total: 0
 - Last 24 Hours: Total: 1
 - Netcool Status: Total: 1
- Bottom Right Pane (All_iframe):** Displays the "Tivoli Netcool" logo.

CREATING THE SUPPORT PAGE

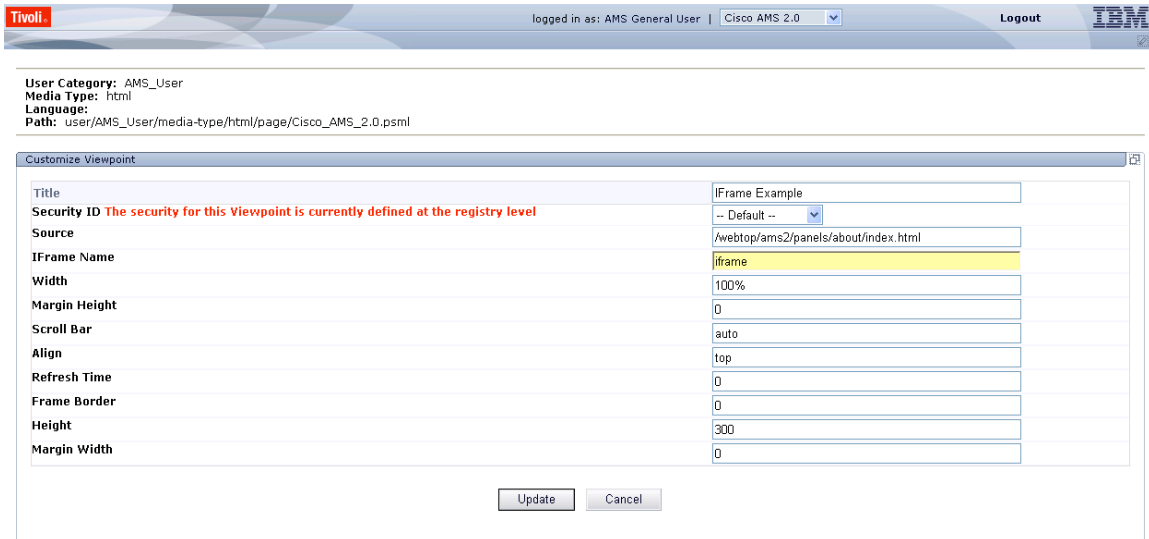
From the Cisco AMS 2.0 page select the Support tab. Click on the pencil to modify the page. Click on the About Webtop link and add a One column layout as follows:



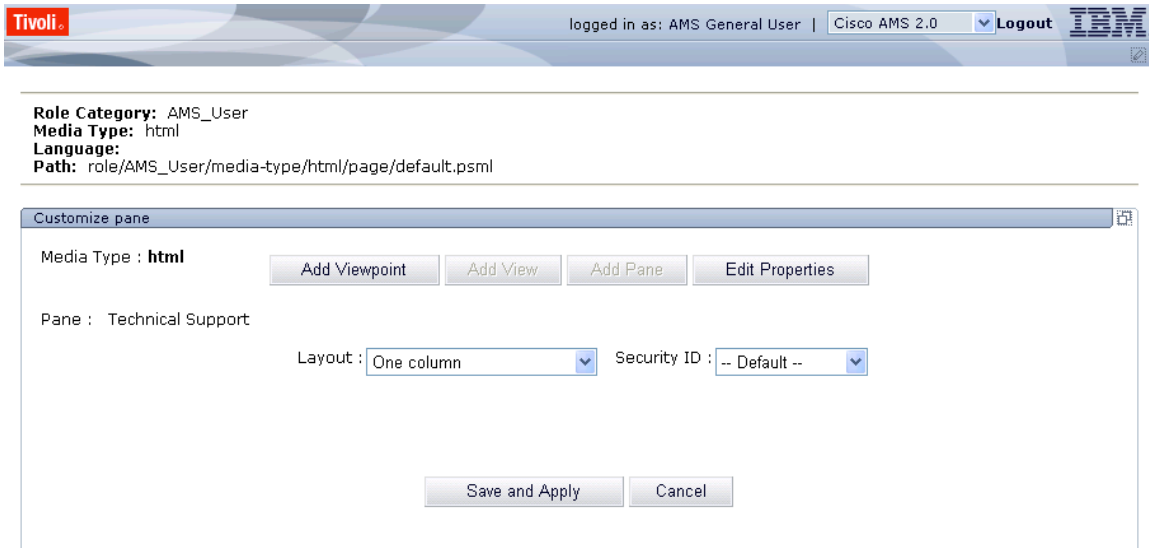
Add a single iFrame to this layout. The main page should now look like:



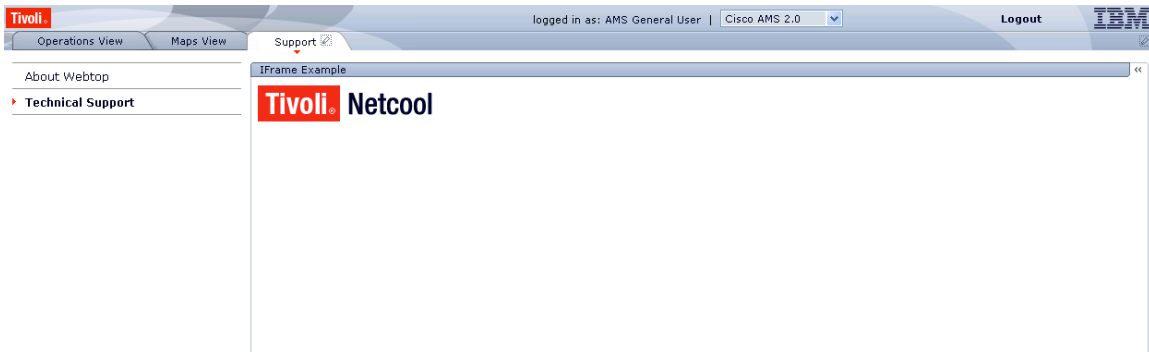
Edit the properties for this iFrame as follows:



From the Cisco AMS 2.0 page select the Support tab. Click on the pencil to modify the page. Click on the Technical Support tab and add a One column layout as follows:



Add a single iFrame to this layout. The main page should now look like:



Edit the properties for this iFrame as follows:

Tivoli: logged in as: AMS General User | Cisco AMS 2.0 | Logout

Role Category: AMS_User
Media Type: html
Language:
Path: role/AMS_User/media-type/html/page/default.psm

Customize Viewpoint

Title	Technical Support
Security ID	-- Default --
Source	/webtop/ams2/panels/support/index.html
Iframe Name	iframe
Width	100%
Margin Height	0
Scroll Bar	auto
Align	top
Refresh Time	0
Frame Border	0
Height	900
Margin Width	0

Update Cancel

CONFIGURING THE SHOW SYMPTON EVENTS TOOL

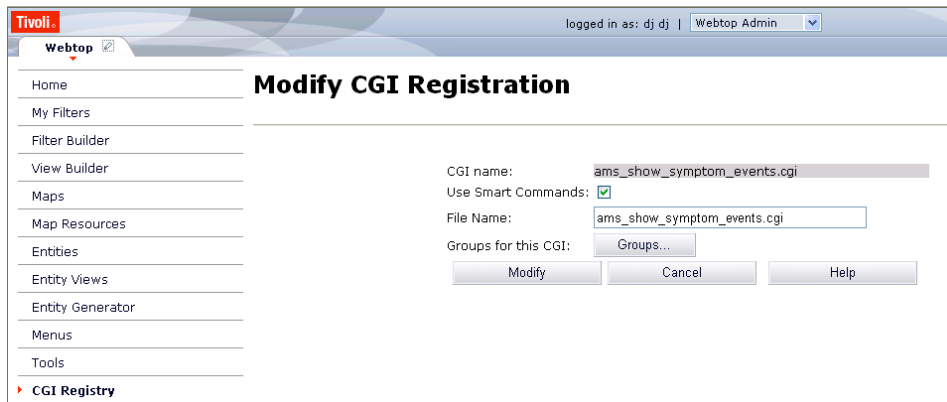
Adding the `ams_show_symptom_events.cgi` tool

Place the `ams_show_symptom_events.cgi` script in `$NCHOME/etc/webtop/cgi-bin`.

```
[root@jdp-sec-mon3]C:\ pwd
/opt/ams2/etc/webtop/cgi-bin
[root@jdp-sec-mon3]C:\ ls ams_show_symptom_events.cgi
ams_show_symptom_events.cgi
[root@jdp-sec-mon3]C:\ █
```

Register the `ams_show_symptom_events.cgi` tool in Webtop

Register the tool in webtop. Be sure to spell the cgi name and file name EXACTLY the same as the file name on disk. Be sure to check the “Use Smart Commands” box. In the Groups button be sure to add the * and Desktop groups.



Create the `ShowANASympatheticEvents` tool

Create a CGI tool in Webtop. The tool should be a GET tool.

Configuring Netcool for Cisco AMS 2.0

The screenshot shows the Tivoli Webtop interface. On the left is a navigation menu with options like Home, My Filters, Filter Builder, View Builder, Maps, Map Resources, Entities, Entity Views, Entity Generator, Menus, Tools, CGI Registry, User Preferences, File Manager, SQL Workbench, SmartPage Commands, and System Information. The 'Tools' section is active, showing a list of tools including 'ShowANASympatheticEvents'. The main area displays the configuration for this tool. The 'Name' is 'ShowANASympatheticEvents' and the 'Type' is 'CGI/URL'. The 'URL' field contains '\$(SERVER)/cgi-bin/ams_show_symptom_events.cgi'. The 'Fields' section has a 'Show...' button. The 'Method' is set to 'GET' and 'Open In' is 'New window'. There are checkboxes for 'Execute for each selected row' (checked) and 'Window for each selected row' (unchecked). The 'Access Criteria' section has two tabs: 'Group' and 'Class'. Under 'Class', there are two lists: 'Available' (containing 'restricted VIEWS') and 'Selected' (containing 'Desktop System'). Navigation buttons (>>, >, <, <<) are between the lists. 'Save' and 'Cancel' buttons are at the bottom right.

Click on the Show button next to the Fields label. Add the field ANAAAlarmID. This will pass the ANAAAlarmID field to the cgi script.

This is a close-up of the 'Tool Configuration' dialog box. The 'CGI/URL' tab is active. The 'URL' field contains '\$(SERVER)/cgi-bin/ams_show_symptom_events.cgi'. The 'Fields' section has a 'Hide...' button. Below it, there are two lists: 'Available' and 'Selected'. The 'Available' list contains 'Acknowledged', 'Agent', 'AlertGroup', 'AlertKey', 'ANAParentID', 'ANAPredecessor', and 'ANASeverity'. The 'Selected' list contains 'ANAAAlarmID'. Between the lists are navigation buttons: '>>', '>', '<', and '<<'. Below the lists, the 'Method' is set to 'GET' and 'Open In' is 'New window'. There are checkboxes for 'Execute for each selected row' (checked) and 'Window for each selected row' (unchecked).

Add the ShowANASymptomEvents Tool to the alerts Menu

Simply add the tool to the alerts menu so it will show up in an AEL.

Configuring Netcool for Cisco AMS 2.0

Name	alerts	Mnemonic	<none>
Label	Alerts		
Current Items	Type	Add Item	
Acknowledge		<-Add tool	
Deacknowledge	Rename	tool	
<separator>	Edit	<new tool>	
Prioritize	Remove	acknowledge	
Take Ownership		deacknowledge	
User Assign	Top	delete	
Group Assign	Up	DJTest	
Delete	Down	groupassign	
ShowANASympath	Bottom	LocalPing	
		Ping	
		prioritise	
		ShowANASymp:	
		ShowCritical	
		takeownership	
		Telnet	
		Tracepath	

Ok Cancel



APPENDIX A – RULES FILE

```
#####
# cisco-CISCO-EPM-NOTIFICATION-MIB
# Automatically created by mib2rules (http://gat.micromuse.com)
# Mon Feb 26 14:39:40 2007
#
# Customized by Netcool OEM Engineering Team for AMS 2.0
# Tue Nov 27 15:10:13 2007
# Contact - D. Johnson (johnsond@us.ibm.com)
#####
case ".1.3.6.1.4.1.9.9.311": ### - ciscoEpmNotificationMIB (from CISCO-EPM-NOTIFICATION-
MIB)

switch($specific-trap) {
  case "1": ### - ciscoEpmNotificationAlarm
    #####
    # Notification of the status of the managed object as
    # generated by the management server.
    #
    # New attributes are added to the ciscoEpmNotificationAlarmRev1.
    # Hence this notification is deprecated.
    #####
    $cenAlarmVersion = $1
    $cenAlarmTimestamp = $2
    $cenAlarmUpdatedTimestamp = $3
    $cenAlarmInstanceID = $4
    $cenAlarmStatus = $5
    $cenAlarmStatusDefinition = $6
    $cenAlarmType = lookup($7,cisco-CISCO-EPM-NOTIFICATION-MIB-
cenAlarmType)

    $cenAlarmCategory = $8
    $cenAlarmCategoryDefinition = $9
    $cenAlarmServerAddressType = $10
    $cenAlarmServerAddress = $11
    $cenAlarmManagedObjectClass = $12
    $cenAlarmManagedObjectAddressType = $13
    $cenAlarmManagedObjectAddress = $14
    $cenAlarmDescription = $15
    $cenAlarmSeverity = $16
    $cenAlarmSeverityDefinition = $17
    $cenAlarmTriageValue = $18
    $cenEventIDList = $19
    $cenUserMessage1 = $20
    $cenUserMessage2 = $21
    $cenUserMessage3 = $22

    $OS_EventId = "SNMPTRAP-cisco-CISCO-EPM-NOTIFICATION-MIB-
ciscoEpmNotificationAlarm"

    @Agent = "CISCO-EPM-NOTIFICATION-MIB"
    @AlertGroup = "ciscoEpmNotificationAlarm"
    @AlertKey =
$cenAlarmVersion+$cenAlarmTimestamp+$cenAlarmUpdatedTimestamp+$cenAlarmInstanceID+$cenAla
rmStatus+$cenAlarmStatusDefinition+$cenAlarmType+$cenAlarmCategory+$cenAlarmCategoryDefin
ition+$cenAlarmServerAddressType+$cenAlarmServerAddress+$cenAlarmManagedObjectClass+$cenA
larmManagedObjectAddressType+$cenAlarmManagedObjectAddress+$cenAlarmDescription+$cenAlar
mSeverity+$cenAlarmSeverityDefinition+$cenAlarmTriageValue+$cenEventIDList+$cenUserMessage
1+$cenUserMessage2+$cenUserMessage3
    @Summary = "ciscoEpmNotificationAlarm: Notification of the status
of the managed object as generated by the management server.

New attributes are added to the ciscoEpmNotificationAlarmRev1. Hence this notification is
deprecated."

    $DEFAULT_Severity = 1
    $DEFAULT_Type = 0
    $DEFAULT_ExpireTime = 0
    @Identifier = @Node + " " + @AlertKey + " " + @AlertGroup + " " +
$DEFAULT_Type + " " + @Agent + " " + @Manager + " " + $specific-trap

```



```

case "2": ### - ciscoEpmNotificationAlarmRev1
#####
# Notification of the status of the managed object as
# generated by the management server.
#####
$cenAlarmVersion = $1
$cenAlarmTimestamp = $2
$cenAlarmUpdatedTimestamp = $3
$cenAlarmInstanceID = $4
$cenAlarmStatus = $5
$cenAlarmStatusDefinition = $6
$cenAlarmType = lookup($7,cisco-CISCO-EPM-NOTIFICATION-MIB-
cenAlarmType)

$cenAlarmCategory = $8
$cenAlarmCategoryDefinition = $9
$cenAlarmServerAddressType = $10
$cenAlarmServerAddress = $11
$cenAlarmManagedObjectClass = $12
$cenAlarmManagedObjectAddressType = $13
$cenAlarmManagedObjectAddress = $14
$cenAlarmDescription = $15
$cenAlarmSeverity = $16
$cenAlarmSeverityDefinition = $17
$cenAlarmTriageValue = $18
$cenEventIDList = $19
$cenUserMessage1 = $20
$cenUserMessage2 = $21
$cenUserMessage3 = $22
$cenAlarmMode = lookup($23,cisco-CISCO-EPM-NOTIFICATION-MIB-
cenAlarmMode)

$cenPartitionNumber = $24
$cenPartitionName = $25
$cenCustomerIdentification = $26
$cenCustomerRevision = $27
$cenAlertID = $28

$OS_EventId = "SNMPTRAP-cisco-CISCO-EPM-NOTIFICATION-MIB-
ciscoEpmNotificationAlarmRev1"

@Agent = "CISCO-EPM-NOTIFICATION-MIB"
@AlertGroup = "ciscoEpmNotificationAlarmRev1"
@AlertKey =
$cenAlarmVersion+$cenAlarmTimestamp+$cenAlarmUpdatedTimestamp+$cenAlarmInstanceID+$cenAlarmStatus+$cenAlarmStatusDefinition+$cenAlarmType+$cenAlarmCategory+$cenAlarmCategoryDefinition+$cenAlarmServerAddressType+$cenAlarmServerAddress+$cenAlarmManagedObjectClass+$cenAlarmManagedObjectAddressType+$cenAlarmManagedObjectAddress+$cenAlarmDescription+$cenAlarmSeverity+$cenAlarmSeverityDefinition+$cenAlarmTriageValue+$cenEventIDList+$cenUserMessage1+$cenUserMessage2+$cenUserMessage3+$cenAlarmMode+$cenPartitionNumber+$cenPartitionName+$cenCustomerIdentification+$cenCustomerRevision+$cenAlertID
@Summary = "ciscoEpmNotificationAlarmRev1: Notification of the
status of the managed object as generated by the management server."
$DEFAULT_Severity = 1
$DEFAULT_Type = 0
$DEFAULT_ExpireTime = 0
@Identifier = @Node + " " + @AlertKey + " " + @AlertGroup + " " +
$DEFAULT_Type + " " + @Agent + " " + @Manager + " " + $specific-trap

default:
@Summary = "Unknown Specific Trap Number (" + $specific-trap + ")
Received for Enterprise " + $enterprise
@Severity = 1
@Identifier = @Node + " " + @Agent + " " + @Manager + " " +
$enterprise + " " + $generic-trap + " " + $specific-trap
details($*)
}

#####
# Handle Severity via Lookup.
#####

```



```
#if (exists($SEV_KEY))
#{
#   [$OS_Severity,$OS_Type,$OS_ExpireTime] = lookup($SEV_KEY, cisco-CISCO-EPM-
NOTIFICATION-MIB_sev)
#}
#else
#{
#   [$OS_Severity,$OS_Type,$OS_ExpireTime] = lookup($OS_EventId, cisco-CISCO-EPM-
NOTIFICATION-MIB_sev)
#}
#include "$OMNIHOME/etc/rules/include-common/AssignSev.include.common.rules"

#####
# End of Severity via Lookup.
#####

#####
# Beginning of ANA specific rules
#####

if (match($cenUserMessage2,"ANA") ) {

    @Agent = "Cisco ANA"
    @Identifier = @Identifier + $cenAlarmServerAddress + $cenAlarmInstanceID

    # Set ANAServerIP to the ANA Gateway
    @ANAServerIP = $cenAlarmServerAddress

    # Set Node the IP Address of the NE being managed
    # NOTE: This will be the gateway (ANA Server) IP Address for ANA events.
    @Node = $cenAlarmManagedObjectAddress

    # If the managed NE comes through as loopback change it to the gateway IP Address
    if (match($cenAlarmManagedObjectAddress,"127.0.0.1"))
    {
        @Node = $cenAlarmServerAddress
    }

    # Set AlertKey to the Source OID
    @AlertKey = $cenAlarmManagedObjectClass

    # Set AlertGroup to the Alarm Status
    @AlertGroup = extract($cenAlarmStatusDefinition,"[0-9]+,(.*)")

    # Set Summary to the alarm short description plus long description
    # depending on what information is available
    if (!match($cenUserMessage1,"") && !match($cenAlarmDescription,"")){
        @Summary = $cenUserMessage1 + " - " + $cenAlarmDescription
    }
    else if (!match($cenUserMessage1,"") && match($cenAlarmDescription,"")){
        @Summary = $cenUserMessage1
    }
    else if (match($cenUserMessage1,"") && !match($cenAlarmDescription,"")){
        @Summary = $cenAlarmDescription
    }
    }

    # Set ANASeverityDesc to the alarm severity description
    @ANASeverityDesc = extract($cenAlarmSeverityDefinition,"[0-6],([A-Za-z]+)")

    # Set ANASeverity equal to the Alarm severity in ANA
    @ANASeverity = $cenAlarmSeverity

    # Set Service to the Object Identifier in ANA
    @Service = $cenAlarmManagedObjectClass

    # Set ANAAlarmID the alarm id
    @ANAAlarmID = $cenAlarmInstanceID

    # Set ANAParentID the parent alarm id
    @ANAParentID = $cenAlertID
```



```
# Set ANATicket to true/false depending on whether an event
# is a ticket
@ANATicket = extract($22, ".*,([a-z]+),.*")

# Set ANAPredecessor to the Predecessor Alarm ID
@ANAPredecessor = extract($22, ".*,[a-z]+,([0-9]+)")

# Map the ANA severity values to Netcool values
switch(@ANASeverity) {
  case "0":
    @Severity = 1
  case "1":
    @Severity = 2
  case "2":
    @Severity = 2
    @Type = 2
  case "3":
    @Severity = 2
    @Type = 1
  case "4":
    @Severity = 3
    @Type = 1
  case "5":
    @Severity = 4
    @Type = 1
  case "6":
    @Severity = 5
    @Type = 1
  default:
    @Severity = 1
}

# Set Severity = 1 for events ANA has not seen before
switch($scenAlarmStatus)
{
  case "1000" | "1001":
    @Severity = 1
  default:
}

}

#####
# End of ANA specific rules
#####

#####
# Enter "Advanced" and "User" includes.
#####

#include "$NC_RULES_HOME/rules/include-snmpttrap/cisco-CISCO-EPM-NOTIFICATION-
MIB.adv.include.snmpttrap.rules"

#include "$NC_RULES_HOME/rules/include-snmpttrap/cisco-CISCO-EPM-NOTIFICATION-
MIB.user.include.snmpttrap.rules"

#####
# End of "Advanced" and "User" includes.
#####

log(DEBUG, "<<<<< Leaving... cisco-CISCO-EPM-NOTIFICATION-MIB.include.snmpttrap.rules
>>>>>")
```



Appendix B – Tool

```
#!/usr/bin/perl -wT
#####
##
## Title: show_sympathetic_events.cgi
## Author: Douglas Johnson (johnsond@us.ibm.com)
## Purpose: This utility takes in the ANA Alarm ID as input and
##          displays to the user every event in the system
##          that has this ID as its parent ID.
## Input: @ANA_AlarmID
##
## Assumptions: This tool assumes the Netcool/OMNIBus object server
##              has been modified to include the fields ANA_AlarmID
##              and ANA_ParentID. These fields are part of the
##              Cisco AMS 2.0 solution offering.
##
#####

use strict;
use CGI qw/:cgi/;
use CGI::Carp qw( fatalsToBrowser );

## process the parameter sent by Netcool/Webtop
my $AlarmID = param( '$selected_rows.ANA_AlarmID' ) || 0;

## Method #1
## build the smart page that will display the AEL

print <<__HTML__>

<!-- enable:SMARTPAGE -->
<!-- Validate: [*,redirect.html] -->
<html>
<head>
<title>SmartPage FilterPage Command</title>
</head>
<body>
<!--
insert:AEL[filter="ANA_ParentID=$AlarmID",view="basic",height=450,width=100%,showinframe=
"false"] -->
</body>
</html>

__HTML__

## End of method #1

## Method #2
## build the URL that can be used to display the AEL

my $URL = "http://jdp-sec-mon3:8080/AELView?" # need the IP of the server Netcool/Webtop
is running on
#       . "filter=ANA_ParentID=$AlarmID&"
#       . "view=basic&"
#       . "datasource=";

## construct HTML page to forward to browser

print qq{content-type: text/html

#<html>
#<head>
#<meta http-equiv="refresh" content="0;url=$URL">
#</head>
#</html>\n};

## End of method #2
```