



# Module 6: Configuring and Administering Alerts



# Goals

The screenshot displays the MuleSoft Mule ESB Enterprise interface, specifically the Alerts section. The top navigation bar includes links for Dashboard, Servers, Deployments, Applications, Flows, Flow Analyzer, Business Events, and Alerts. The left sidebar lists Alerts, View Raised Alerts, Alert Definitions, Alert Destinations, and Alert Notifications.

**Add Alert**

A Server Down Alert type allows you to detect when a server has been shutdown or restarted

Type:

Name:

Description:

Severity:

Server or Group:

Active: ☒

**View Alerts**

Alerts let you see a summary list of SLA notifications and details about each SLA. Alerts not yet read are flagged for your attention.

	Severity	Server or Group	Name	Description	Date
<input type="checkbox"/>	Critical	Max	Server Down	Server Max went offline.	Sun Aug 02 23:1
<input type="checkbox"/>	Critical	Apollo	Server Down	Server Apollo went offline.	Sun Aug 02 23:1

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Displaying 1 - 2 of 2

# Objectives

- Configure alerts in MMC.
- Configure email alert destinations in MMC.
- Configure SNMP alert destinations in MMC.

The screenshot displays the MuleSoft Mule ESB Enterprise Alerts configuration and view interface. The top navigation bar includes tabs for Dashboard, Servers, Deployments, Applications, Flows, Flow Analyzer, Business Events, and Alerts. The left sidebar shows a tree view with Alerts, View Raised Alerts, Alert Definitions, Alert Destinations, and Alert Notifications.

**Add Alert**

A Server Down Alert type allows you to detect when a server has been shutdown or restarted

Type: Server Down  
Name: Max Server Down  
Description:  
Severity: Major  
Server or Group: Max  
Active: ☒

Save Cancel

**View Alerts**

Alerts let you see a summary list of SLA notifications and details about each SLA. Alerts not yet read are flagged for your attention.

Marks selected alerts as read and removes the alert flag. Deletes selected alerts

	Severity	Server or Group	Name	Description	Date
<input type="checkbox"/>	Critical	Max	Server Down	Server Max went offline.	Sun Aug 02 23:1
<input type="checkbox"/>	Critical	Apollo	Server Down	Server Apollo went offline.	Sun Aug 02 23:1

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# Topics

- Alerts:
  - Creating alerts
  - Sending alerts to email
- Administration:
  - Creating users
  - Creating groups
- Lab 5.0 - Alerts and Administration:
  - Define alerts
  - Restrict access to alerts

# Alerts



# Alerts

- How do we detect an application failure? Define your notifications in the Alerts tab:

The screenshot shows the MuleSoft Alerts tab interface. At the top, there is a navigation bar with tabs: Deployments, Applications, Flows, Flow Analyzer, Business Events, Alerts (selected), and Administration. Below the navigation bar, the main content area is titled "View Alerts". A blue information icon is followed by the text: "Alerts let you see a summary list of SLA notifications and details about each SLA. Alerts not yet read are flagged for your attention." Below this text is a table with the following columns: Severity, Server or Group, Name, and Description. The table is currently empty. At the bottom of the interface, there is a pagination bar showing "Page 1 of 1" and navigation icons.

Severity	Server or Group	Name	Description
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# Parts of an Alert


- An alert is composed of:
  - A definition; which event am I interested in?
    - Defines a trigger for the event
  - A destination (OPTIONAL); where do I receive the alert?
  - A notification (OPTIONAL); glues the definition to the destination and you may add extra filters according to the properties of the alert

The screenshot shows the MuleSoft Mule ESB Enterprise interface. The top navigation bar includes links for Dashboard, Servers, Deployments, Applications, Flows, Flow Analyzer, Business Events, and Alerts. The Alerts section is active, showing a sidebar with options: Alerts, View Raised Alerts, Alert Definitions, Alert Destinations, and Alert Notifications. The main content area is titled 'View Alerts' and contains an information icon and text: 'Alerts let you see a summary list of SLA notifications and details about each SLA. Alerts not yet read are flagged'. Below this is a table with columns: Severity, Server or Group, Name, and Description. The table is currently empty. At the bottom, there is a pagination bar showing 'Page 1 of 1' and navigation icons.

# Alert definition

- Example:
  - Check if we receive any response from a URL
  - E.g. “is an application alive?”

**Add Alert**

 A URL Health Alert type allows you to specify a URL and associated status

Type:

Name:

Description:

Severity:

Active: ☒

URL:

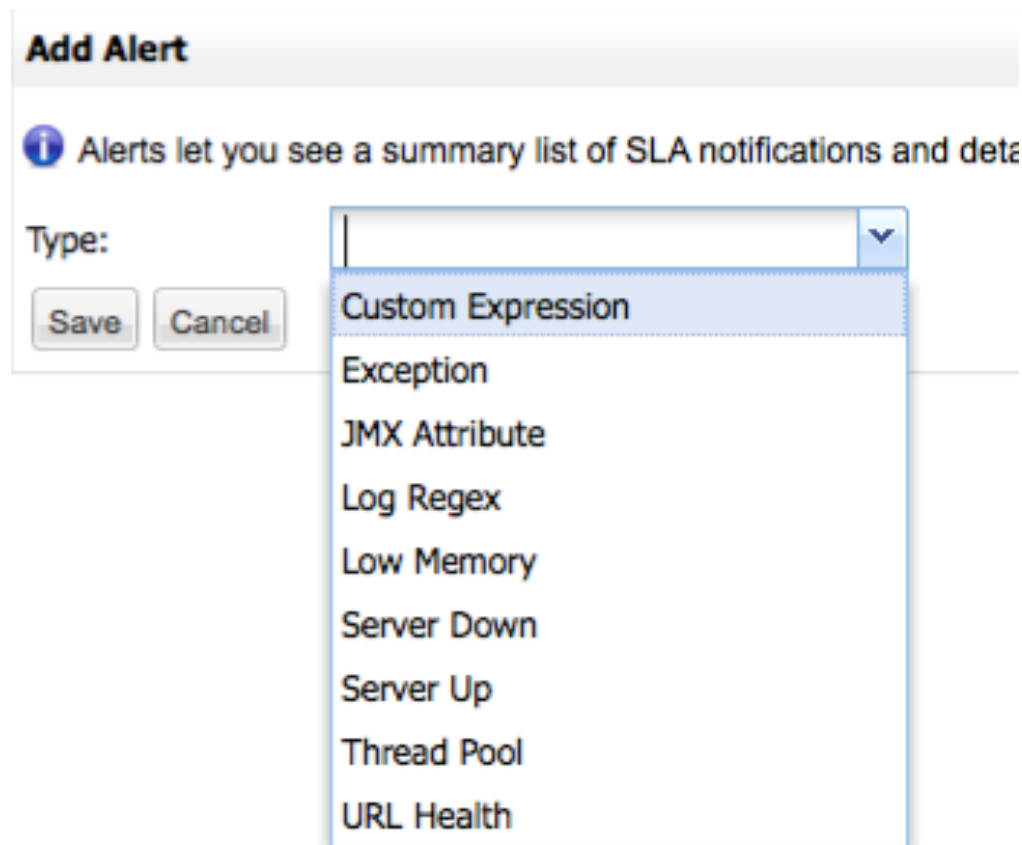
Expected Status Code:

Period (seconds):



# Alert definition types

- A complete list of definition types is the following:



The screenshot shows a dialog box titled "Add Alert". Below the title is an information icon and the text "Alerts let you see a summary list of SLA notifications and data". There is a "Type:" label followed by a dropdown menu. The dropdown menu is open, showing a list of alert types: "Custom Expression", "Exception", "JMX Attribute", "Log Regex", "Low Memory", "Server Down", "Server Up", "Thread Pool", and "URL Health". The "Custom Expression" option is highlighted. Below the dropdown menu are "Save" and "Cancel" buttons.

**Add Alert**

Alerts let you see a summary list of SLA notifications and data

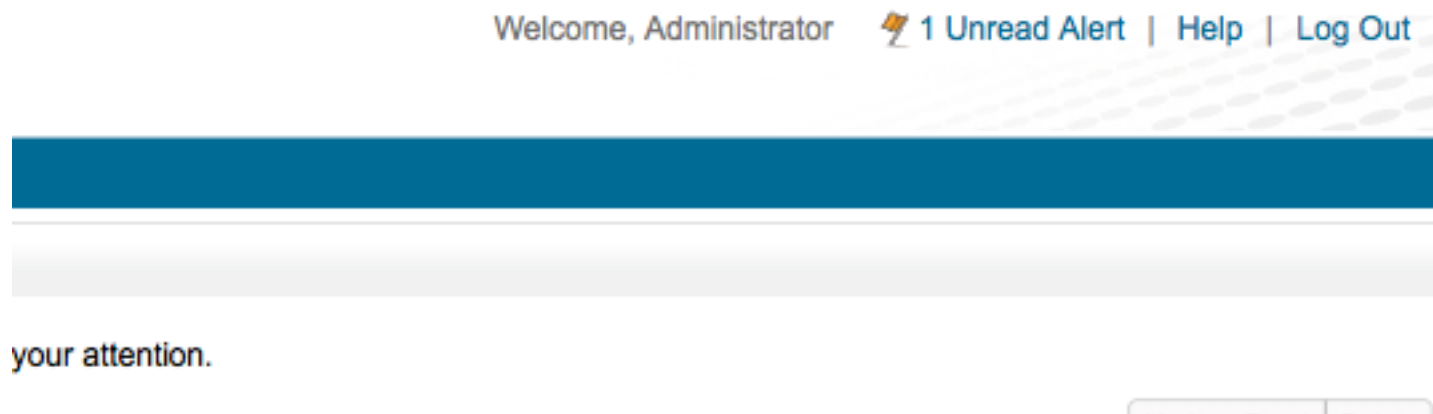
Type:

Save Cancel

- Custom Expression
- Exception
- JMX Attribute
- Log Regex
- Low Memory
- Server Down
- Server Up
- Thread Pool
- URL Health

# Default behavior of an Alert

- If the application goes down the default behavior is to receive alerts in the UI of MMC:



# Alert Notification

- And then combine the definition with the destination adding extra filters like severity:

**Add Alert Notification**

Name:

Filter:

Field	Value	
Severity	Critical	✗
Alert	Check Echo	✗

Destination:

To:

From:

Subject:

Body:

# Result of alert notification

- Result (in both):



Alerts let you see a summary list of SLA notifications and details about each SLA. Alerts

<input type="checkbox"/>		Severity	Server or Group	Name	Description
<input type="checkbox"/>		Critical		Check echo	
		<b>URL:</b> http://localhost:65082/services/EchoUMO			
		<b>Message:</b> Connection refused			

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# Walkthrough 6-1: Define Alerts

- Define 2 alerts:
  - Server Down and Server Up
  - Set them up to send you an email
  - Test it by stopping and restarting your Mule server

# Alert Destination

- If you want to send alerts to different destinations you need to configure one
- For example:

**Add Alert Destination**

Name:	<input type="text" value="Gmail"/>
Type:	<input type="text" value="Email"/> ▼
SMTP Server:	<input type="text" value="smtp.gmail.com"/>
SMTP Port:	<input type="text" value="465"/>
Secured:	<input checked="" type="checkbox"/>
Username:	<input type="text" value="eee@e.com"/>
Password:	<input type="password" value="..."/>
Use TLS/SSL:	<input checked="" type="checkbox"/>
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

# SNMP destination

- SNMP-type destinations have different fields than email-type destination:

The screenshot shows the 'Add Alert Destination' form in the MuleSoft interface. The form is for adding an SNMP destination. The 'Type' dropdown is set to 'SNMP'. The 'Name' is 'i-support', 'OID' is '1.3.7', 'Local Address' is '127.0.0.1/40162', 'Target Address' is '127.0.0.1/40166', 'Version' is '2c', 'Username' is 'i-support', 'Password' and 'Passphrase' are masked with dots. The 'Save' button is circled in red.

Dashboard	Servers	Applications	Flows	Flow Analyzer	Alerts
<b>Add Alert Destination</b>					
Name: i-support					
Type: SNMP					
OID: 1.3.7					
Local Address: 127.0.0.1/40162					
Target Address: 127.0.0.1/40166					
Version: 2c					
Username: i-support					
Password: .....					
Passphrase: .....					
<b>Save</b> Cancel					

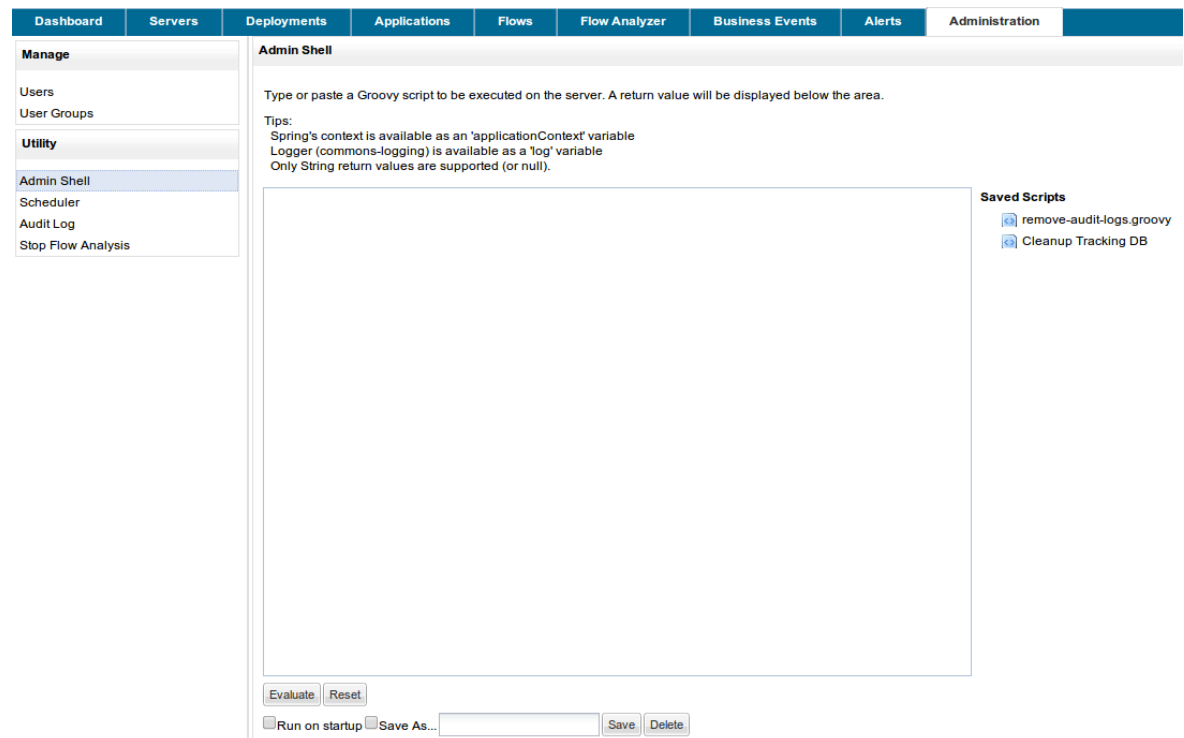
# Alerting Custom Scripts

- You can create custom alert handlers (scripts, etc.)
- Coded as Java classes



# Utility

- The Utility tab in Administration for creating and scheduling scripts, managing logs and stopping the Flow Analyzer if it was left running indefinitely
- These utilities can be found under the **Utility** section on the left panel



# Utility

- The **Admin Shell** allows you to write your own scripts and save them
- You can then set the **Scheduler** to run your scripts automatically on a scheduled basis

The screenshot displays the MuleSoft Administration console interface. The top navigation bar includes tabs for Dashboard, Servers, Deployments, Applications, Flows, Flow Analyzer, Business Events, Alerts, and Administration. The left sidebar contains a 'Manage' section with 'Users' and 'User Groups', and a 'Utility' section with 'Admin Shell', 'Scheduler' (highlighted), 'Audit Log', and 'Stop Flow Analysis'. The main content area is titled 'Scheduled Jobs' and features an information message: 'You use the scheduler to run scripts automatically on a scheduled basis... [more]'. Below this is a search bar and a table listing scheduled jobs.

	Name	Script	Cron Expression	Description
1	Cleanup Tracking Job	Cleanup Tracking DB	0 0 0 * * ?	Cleanup Tracking DB

## Walkthrough 6-2: Define Alert Destinations

- Configure email alerts in MMC
- Configure SNMP alerts in MMC
- Define 2 alerts:
  - Server Down and Server Up
  - Set them up to send you an email
  - Test it by stopping and restarting your Mule server

# Summary

- Various alert sources are available
- Alert targets
  - MMC Console
  - Email
  - SNMP
- JMX communication also supported

