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ServiceNow Management Connector Installation and Configuration Guide

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Oracle Enterprise Manager ServiceNow Management Connector Installation and Configuration Guide, 13c Release 4

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Preface

This *ServiceNow Management Connector Installation and Configuration Guide* provides the required information to install and configure the ServiceNow Connector that integrates Oracle Enterprise Manager with ServiceNow.

Audience

This guide is written for Oracle Enterprise Manager system administrators who want to install and configure Management Connectors to enable integration between Oracle Enterprise Manager and other systems.

You should already be familiar with Oracle Enterprise Manager.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc`.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info` or visit `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs` if you are hearing impaired.

Related Documents

For more information, see the following books in the Oracle Enterprise Manager documentation set:

- *Oracle Enterprise Manager Cloud Control Basic Installation Guide*
- *Oracle Enterprise Manager Cloud Control Advanced Installation and Configuration Guide*
- *Oracle Enterprise Manager Cloud Control Administrator's Guide*
- *Oracle Enterprise Manager Cloud Control Upgrade Guide*
- *Oracle Enterprise Manager Framework, Host, and Services Metric Reference Manual*
- *Oracle Enterprise Manager Command Line Interface*
- *Oracle Enterprise Manager Cloud Control Extensibility Programmer's Guide*

The latest versions of this and other Oracle Enterprise Manager documentation can be found at:

http://docs.oracle.com/en/enterprise-manager/

Oracle Enterprise Manager also provides extensive online help. Click **Help** on any Oracle Enterprise Manager page to display the online help system.

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1

Introduction to the ServiceNow Ticketing Connector

This chapter introduces you to the ServiceNow ticketing connector, including features of the connector, supported versions, and supported protocols.
This chapter covers the following topics:

- ServiceNow Ticketing Connector Overview
- Auto Ticketing
- Manual Ticketing
- Ticket Templates
- Grace Period Setting
- Retry
- Versions Supported
- Protocol Supported

ServiceNow Ticketing Connector Overview

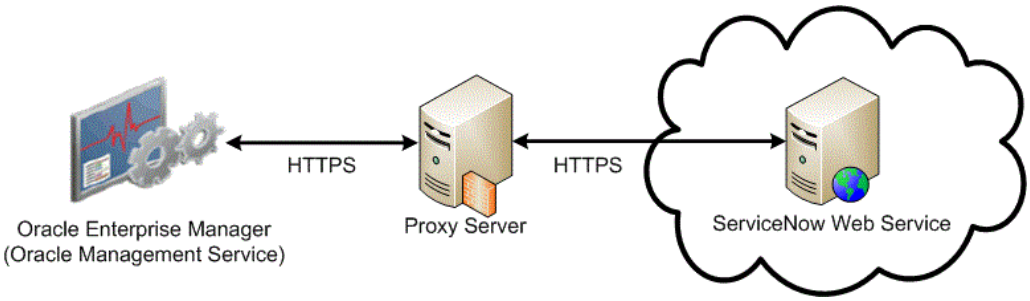
The ServiceNow ticketing connector integrates Oracle Enterprise Manager with ServiceNow through an HTTPS connection. Using this connector you can create, update, resolve, close, or reopen tickets (incident tickets) on the ServiceNow system for any incident generated in Enterprise Manager.

> **Note:**
>
> *Incident tickets* in ServiceNow are referred to as *tickets* in Enterprise Manager and the ServiceNow Connector.

The ticket generated by the connector contains the relevant information about the Enterprise Manager incident, including a link to the Enterprise Manager console to enable service desk analysts to leverage Enterprise Manager's diagnostic and resolution features to resolve the incident. In Enterprise Manager, the ticket ID and link to the ServiceNow console is shown in the context of the incident. This provides Enterprise Manager administrators with status information and an easy way to quickly access the ticket.

Figure 1-1 shows the communication between the various components of the ServiceNow connector:

Figure 1-1 ServiceNow Connector Communication Between Components



Auto Ticketing

Auto ticketing refers to creating or updating tickets automatically for any matching rule(s) in Enterprise Manager. You can define a set of event or incident rules for which tickets must be opened/updated for changes in underlying event or incident attributes. For example, changing event severity from Warning to Critical can update the associated ticket.

See the *Incident Management* chapter in the *Oracle Enterprise Manager Administrator's Guide* for more information.

After the ticket is opened, any subsequent update of the incident attributes or underlying event attributes, such as a change in underlying events severity, updates the ticket. After the incident is cleared in Enterprise Manager, the ticket is updated and you can optionally go to ServiceNow to close the ticket, or use a template that automatically closes/resolves the ticket in ServiceNow.

See Also: Automatically Creating a Ticket

Manual Ticketing

From the Enterprise Manager console, you can manually open a ServiceNow ticket based on an open incident in Enterprise Manager. The ServiceNow connector populates the ticket with details based on the incident and the ticket template selected.

See Also: Manually Creating a Ticket

Ticket Templates

Ticket templates are XML transformation style sheets that transform Enterprise Manager incident information to a ticket format before the requests are sent to ServiceNow. A ticket template specifies how an Enterprise Manager ticket and its associated event attributes can be mapped to the incident attributes of ServiceNow.

In Auto Ticketing, while setting up a rule, you select a configured connector and select the ticket template from the template list. The selected ticket template is used when a ticketing request is sent to ServiceNow. For manual ticketing, you must select a connector instance and ticket template before submitting a request for ticket creation.

The ServiceNow Connector includes three out-of-box default ticket templates. You can customize default templates according to your functional needs. Oracle recommends that you back up these factory-built templates before customizing them.

See Also: Working with Ticketing Templates .

Grace Period Setting

The Grace Period setting, available on the connector configuration page, enables you to prevent creating many tickets for frequently created incidents due to reoccurrence of the same event on which the incident was created.

For example, an event is raised and causes an incident to be created in Enterprise Manager. The rule defined to create the ticket enforces the ticket to be created on the ServiceNow system. If the grace period is one hour and the event is cleared at 10:00 a.m., this clears the incident and ticket. If the same event reoccurs before 11:00 a.m. and enforces creation of another incident, then the grace period functionality stops creation of a new ticket and reopens the same ticket instead.

If you want to reopen a ticket with the Create, Update, and Close template, then the associated user (that is, the account used when setting up the connector) must have the role `admin` in ServiceNow. If you want to reopen a ticket for incident occurrences that fall within the grace period without the ServiceNow `admin` role, set the ticket status to **Resolved** instead of **Closed** when the incident clears or use a different template. This setting enables the ServiceNow Connector to reopen the ticket if the same incident reoccurs within the grace period.

See Also: Configuring a Connector Instance

Retry

The Retry setting, available on the connector configuration page, enables you to specify whether a failed ticketing request needs to be retried within a configurable expiration time.

Enabling the Retry option gives you the option of specifying whether you want to resend a ticketing request if the request fails the first time, and specifying the time period after which you want to abandon the retry. Enterprise Manager retries every 2 minutes until the request is successful or the retry interval expires.

See Also: Configuring a Connector Instance

Versions Supported

The ServiceNow Connector supports the following versions of Oracle Enterprise Manager and ServiceNow:

- Oracle Enterprise Manager Cloud Control 13*c* Release 1 (13.1.0.1.0) and Release 2 (13.2.1.0) and later versions.
- Oracle Enterprise Manager Cloud Control 12*c* Release 4 (12.1.0.4.0) and later versions.
- Visit My Oracle Support for list of supported ServiceNow releases.

Protocol Supported

The ServiceNow Connector supports only the HTTPS protocol for communication between Enterprise Manager and ServiceNow. See Enabling SSL for HTTPS for instructions on importing the Server Certificate to Enterprise Manager.

2

Installing and Uninstalling the ServiceNow Ticketing Connector

This chapter provides the information for installing and uninstalling the ServiceNow Connector.
This chapter covers the following topics:

- ServiceNow Ticketing Connector Prerequisites
- Installing the ServiceNow Ticketing Connector
- Uninstalling the ServiceNow Connector

ServiceNow Ticketing Connector Prerequisites

Ensure that the following prerequisites have been met before continuing:

- ServiceNow SOAP Web Service must be accessible from Oracle Enterprise Manager.
- A ServiceNow account with appropriate permissions to manage incidents must exist. (See Table 5-1 for details on required permissions for each template.)
- Add the `BASICAuth` script to Script Includes in ServiceNow (see Configuring ServiceNow to Support the Enterprise Manager ServiceNow Connector).
- Add the "Root Certificate Authority - Entrust.net Certification Authority (2048)" certificate as described in Enabling SSL for HTTPS
- The latest version of the ServiceNow ticketing connector comes pre-installed for Enterprise Manager Cloud Control 13*c* and does not need to be downloaded through Self Update. If the connector you wish to install is not pre-installed, the My Oracle Support Preferred Credentials must be set to enable the download of connectors through self update. To determine whether the connector needs to be downloaded from self update, perform the following steps:
  1. From the **Setup** menu, select **Extensibility**, then select **Self Update**.
  2. On the Self Update page, select **Management Connector** to display a list of available connectors.
  3. If the ServiceNow connector that you need is not listed here, you will need to set up My Oracle Support (MOS) Preferred Credentials.
- To set the My Oracle Support Preferred Credentials, perform the following steps:
  1. From the Enterprise Manager **Setup** menu, select **My Oracle Support**, then select **Set Credentials**.
  2. Enter the user name and password information, then click **Apply**.

> **Note:**
>
> These My Oracle Support credentials are required when there is an internet connection between your Enterprise Manager installation and My Oracle Support. If there is no connection, see Installing the Connector if Enterprise Manager is in "Offline" Mode for details.

Installing the ServiceNow Ticketing Connector

This section describes how to download and install (apply) the connector. All connectors in the Enterprise Manager store are available on the Self Update page for downloading.

The ServiceNow connector is preloaded for Enterprise Manager Cloud Control 13*c*, so in most cases you will only need to apply the connector. If the connector is ever deleted, the connector will need to be downloaded from self update.

To determine whether you need to download the connector, perform the following steps:

1. From the Enterprise Manager **Setup** menu, select **Extensibility**, and then select **Self Update**.
2. From the Self Update page, select **Management Connector** to list the connectors that are available. Look for the ServiceNow connector in the table list. If it does not appear, then you will need to download the connector as specified in Downloading the Connector.

This section covers the following topics:

- Downloading the Connector
- Installing the Connector
- Installing the Connector if Enterprise Manager is in "Offline" Mode

Downloading the Connector

To download the ServiceNow connector:

1. From the Enterprise Manager **Setup** menu, select **Extensibility**, and then select **Self Update**.
2. Click **Check Updates** to schedule a job to collect the metadata for the connector.
3. From the Self Update page, select **Management Connector** to list the connectors that are available. The ServiceNow connector may not initially appear in the list.
4. The ServiceNow connector should appear in the list as **Available** after the job has completed. You might have to refresh the page a few times before it appears.
5. Click the appropriate ServiceNow connector to select it, and then click **Download**.

   The Schedule Download window appears, in which you can determine when the download should be performed.
6. Click **Select** to download immediately.

If you want to schedule the download for a later time, specify the date and time when the download should occur, and click **Select**. You will need to return and verify the download completed successfully after the scheduled download date and time.

7. If necessary, refresh the screen until the status of the connector changes to **Downloaded**.

Refer to the *Setting up Self Update* section in the *Oracle Enterprise Manager Cloud Control Administrator's Guide* for more details.

> **Note:**
>
> You can also set up Self Update in offline mode. See the *Applying an Update in Offline Mode* section from the *Oracle Enterprise Manager Cloud Control Administrator's Guide* for details.

Installing the Connector

To install the ServiceNow ticketing connector:

1. From the Enterprise Manager **Setup** menu, select **Extensibility**, and then select **Self Update**.
2. Get a list of available connectors. On the Self Update page, click **Management Connector** to get the list of available connectors.

   The ServiceNow connector should appear in the list with a status of **Downloaded**.
3. Click the **ServiceNow** connector to select it, and then click **Apply**.

   After you respond to the prompt to confirm the operation, a page appears that indicates the request has been submitted.
4. Refresh the screen until the status of the connector changes from **Apply Scheduled** to **Applied**.

Installing the Connector if Enterprise Manager is in "Offline" Mode

Under certain circumstances, such as in high security environments, an active internet connection between Enterprise Manager and the Enterprise Manager Update Store may not be available. In such situations, Enterprise Manager can be set to install the connector in an "offline" mode.

The installation process still requires that a computer exist at your site that has internet access, as a connection to the Enterprise Manager Update Store is still required to obtain the necessary files. The files that you download to this computer can then be transferred to a computer behind your firewall.

To install the connector if Enterprise Manager is in "offline" mode:

1. From the system that you will ultimately deploy the connector, set Enterprise Manage Cloud Control to **Offline Mode**:
   a. From the **Setup** menu, select **Provisioning and Patching**, then select **Offline Patching**.

b. In the Online and Offline Settings page, select **Offline**.

2. From the **Setup** menu, select **Extensibility**, and then select **Self Update**.
3. On the Self Update page, click **Check Updates**. A message appears with a URL to an Oracle site from where the updates catalog file can be downloaded.
4. From an internet-enabled computer, download the catalog file from the URL provided.
5. Copy the downloaded catalog file to the OMS host or the Management Agent host where you plan to import the connector.
6. Import the catalog file to Enterprise Manager:
   - If the catalog file is on the OMS host:

     ```
     emcli import_update_catalog -file="file" -omslocal
     ```

     Where:

     `-file`: is the direct path to the connector archive (`*.zip`)

     `-omslocal`: indicates that the path mentioned in the `-file` option is directly accessible to the Enterprise Manager server
   - If the catalog file is on a different host:

     ```
     emcli import_update_catalog -file="file" -host="hostname" [-
     credential_set_name="setname"] | -credential_name="name" -
     credential_owner="owner"
     ```

   Example 2-1 shows a sample for importing the catalog archive.
7. On the Self Update page, in the table, click **Management Connectors**.
8. On the Connector Updates page, select the imported update that is available for download. Click **Download**.

   A message appears with a URL to an Oracle site from where the update can be downloaded.
9. From a computer that is connected to the internet, download the update using the aforementioned URL.
10. Copy the downloaded file to the OMS host or the Management Agent host where you plan to deploy the connector.
11. To import the downloaded connector archive into Enterprise Manager, run the following command:

    ```
    emcli import_update -file="<path to *.zip file>" -omslocal
    ```

    Where:

    `-file`: is the direct path to the connector archive (`*.zip`).

    `-omslocal`: indicates that the path mentioned in the `-file` option is directly accessible to the Enterprise Manager server

Example 2-1 Sample for Importing Catalog Archive

```
emcli import_update_catalog -file="/u01/common/p9348486_112000_Generic.zip" -omslocal
```

Imports the master catalog file p9348486_112000_Generic.zip. The file must exist on the OMS host. In a multiple OMS setup, the request can be processed by any OMS, so the file should be accessible from the OMS processing the request. This means

that the file must be kept on a shared location that is accessible from all the OMS instances.

```
emcli import_update_catalog -file="/u01/common/p9348486_112000_Generic.zip" -
host="host1.example.com" -credential_set_name="HostCredsNormal"
```

Imports the master catalog file p9348486_112000_Generic.zip that is present on the host host1.example.com. The host must be a managed host target in Enterprise Manager, and the Management Agent on this host must be up and running. The preferred unprivileged credentials for host host1.example.com are used to retrieve the remote file.

Uninstalling the ServiceNow Connector

To uninstall the connector, you must first delete all defined instances of the connector, then delete the connector from the Self Update page.

1. From the **Setup** menu, select **Extensibility**, and then select **Management Connectors**.
2. Select an instance of the connector you want to delete, then click **Delete**.
3. On the Confirmation page, click **Yes**.
4. Repeat steps 2 and 3 until all instances of the connector have been deleted.
5. From the **Setup** menu, select **Extensibility**, and then select **Self Update**.
6. Click the **Management Connector** link in the Type column. A list of updates appears for Management Connectors.
7. Click the connector you want to delete, select **Actions**, then select **Delete**. The Delete Update window appears.
8. Click **Delete** to delete the connector. A pop-up confirmation window appears.
9. Click **OK** to confirm and delete the connector.

3

Configuring the ServiceNow Ticketing Connector

This chapter provides procedures to configure the two sub-pages of the main Configure Management Connector page, then explains how to perform other tasks to complete the configuration process.

This chapter covers the following topics:

- Configuring ServiceNow to Support the Enterprise Manager ServiceNow Connector
- Creating a Connector Instance
- Configuring a Connector Instance
- Enabling or Disabling the Connector
- Deleting the Connector

Configuring ServiceNow to Support the Enterprise Manager ServiceNow Connector

Important: The following procedure is required for ServiceNow releases prior to Madrid. Starting with the ServiceNow Madrid release, it is no longer required to create the BASICAuth script. The default BASICAuth script that comes with ServiceNow Madrid release supports the ServiceNow connector without any changes.

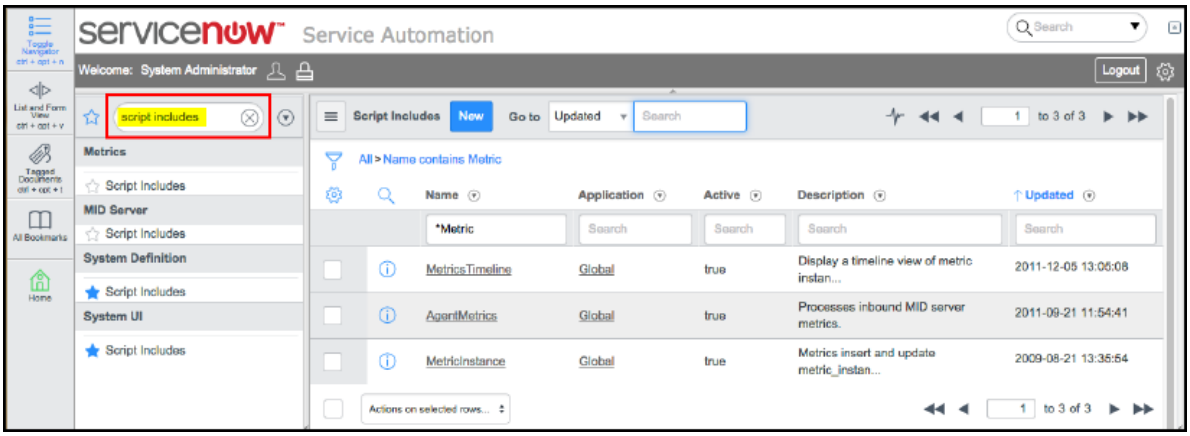
Existing ServiceNow connector users planning to upgrade to ServiceNow Madrid should replace their existing BASICAuth script with the default BASICAuth script on the ServiceNow node. Refer to Mos Doc ID 2575813.1 for more information.

ServiceNow Releases Prior to Madrid

In order for ServiceNow (pre-Madrid) to accept incoming messages from Oracle Enterprise Manager, you must add a script to enable basic authentication:

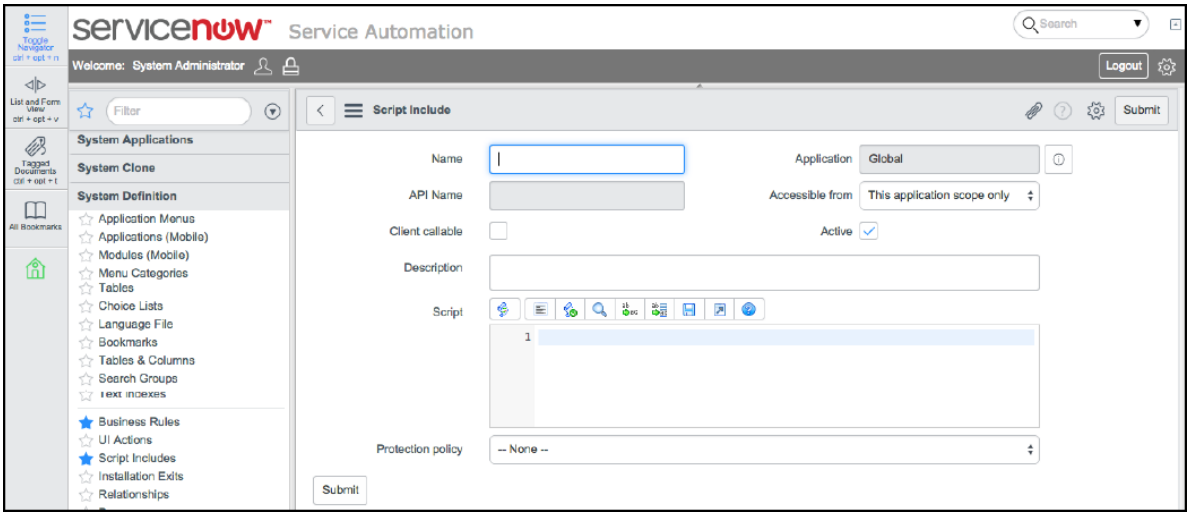
1. Log into your ServiceNow node.
2. In the Filter field, type **script includes**, then press **Enter** as shown in Figure 3-1:

Figure 3-1 "script includes" Filter



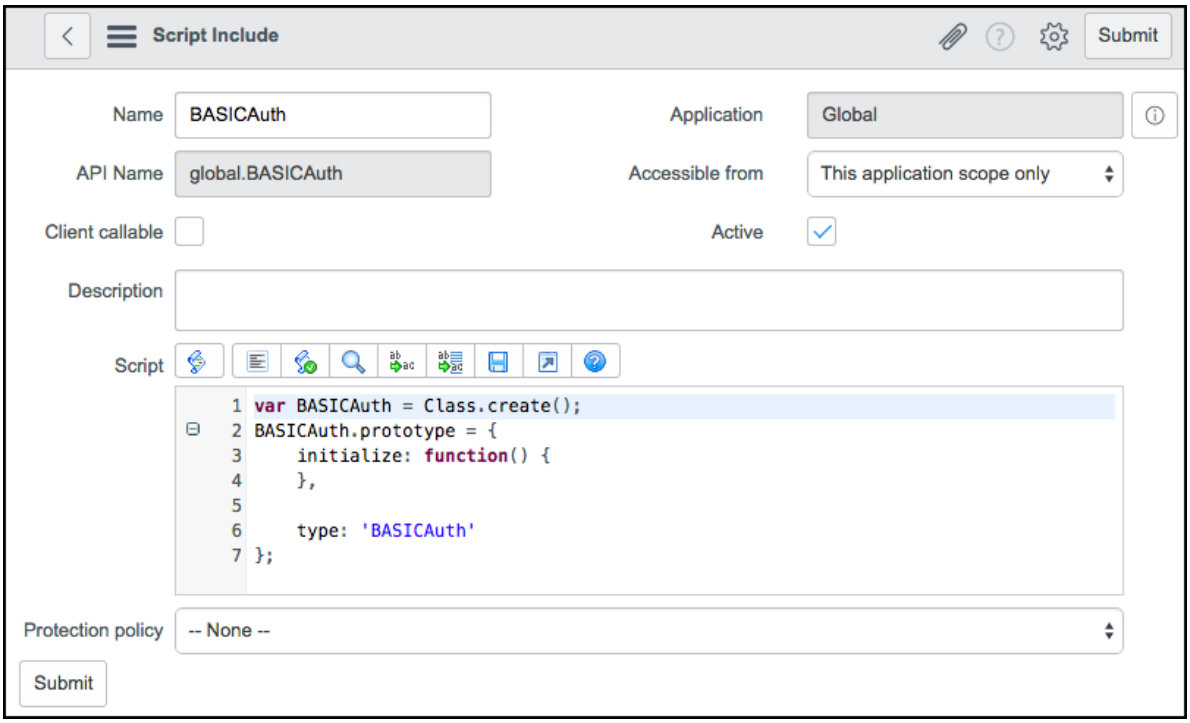
3. Click the blue **New** button on the Script Includes menu bar. The following window will appear (Figure 3-2):

Figure 3-2 ServiceNow "Script Include" Window



4. In the Name field, enter **BASICAuth** as the Name (using exact capitalization as shown in Figure 3-3):

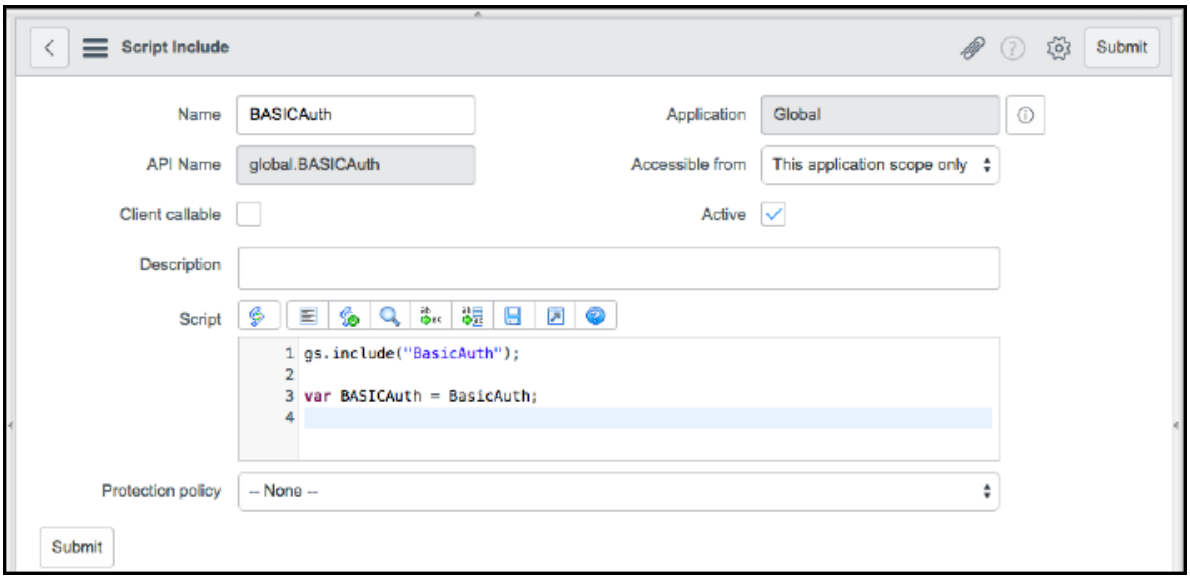
Figure 3-3 ServiceNow "BASICAuth" Default Script



5. Replace the contents of the Script field with the following as shown in Figure 3-4:

```
gs.include("BasicAuth");
var BASICAuth = BasicAuth;
```

Figure 3-4 ServiceNow BASICAuth Replacement Script



6. Click **Submit**.

Creating a Connector Instance

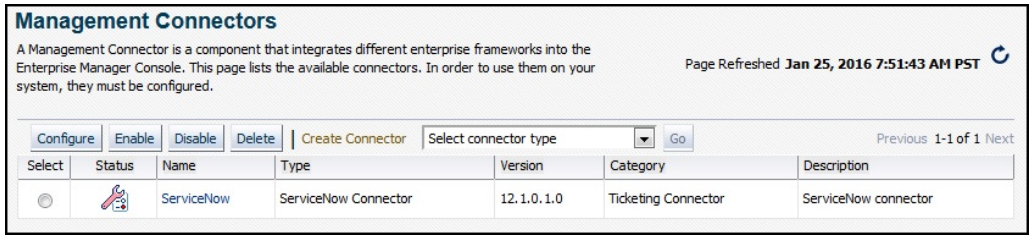
Once the ServiceNow connector is installed in Enterprise Manager, you must create one or more instances of this connector type. A connector instance refers to the configured instance of the connector with specific details, such as connector name, web-service end-points, username/password, and so forth of the ServiceNow system.

Follow the steps below to create a connector instance:

1. From the Enterprise Manager **Setup** menu, select **Extensibility**, and then select **Management Connectors**.
2. Select the ServiceNow connector type from the Create Connector drop-down list, then click **Go**.
3. Enter the connector name and description on the next screen, then click **OK**.

   The connector instance appears as unconfigured in the Connector Setup page as shown in Figure 3-5:

Figure 3-5 Unconfigured ServiceNow Ticketing Connector



Configuring a Connector Instance

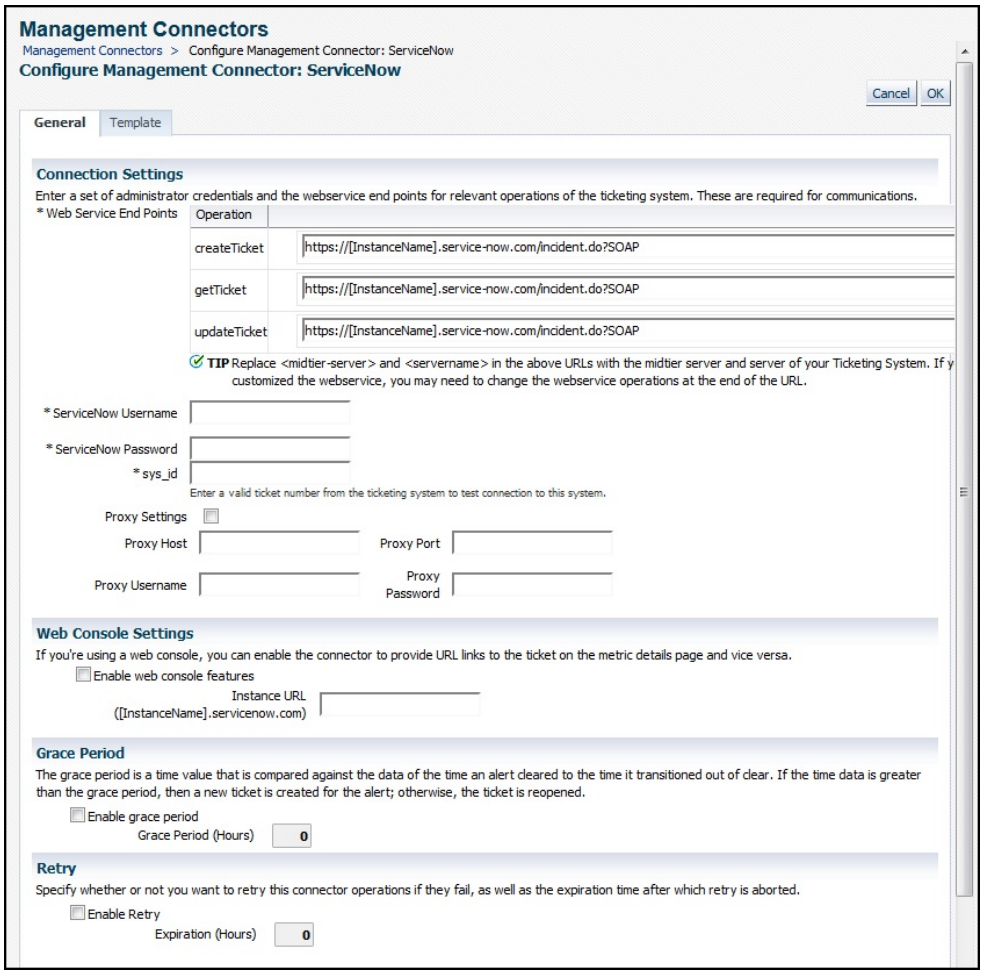
To configure the connector, follow these steps:

1. As Super Administrator from the Enterprise Manager **Setup** menu, select **Extensibility**, and then select **Management Connectors**. The Management Connectors page appears and lists all created connector instances.

   > **Note:**
   >
   > The status column with a green check mark indicates that the connector is already configured. The pink wrench icon indicates that the connector is not yet configured.

2. Click the name of the connector you want to configure. The General tab of the Configure Management Connector page appears as shown in Figure 3-6:

Figure 3-6 Configure ServiceNow Connector



3. Provide the required settings as described below, then click **OK**:

   - **Connection Settings**

     Web Service End Points - URL of the web service end-point to call for the `createTicket`, `updateTicket`, and `getTicket` operations. The ServiceNow web service URL is formatted as shown below:

     ```
     https://[InstanceName].service-now.com
     ```

     In most cases, you will just need to replace `[InstanceName]` with the host name or IP address of the server where the web service is located.

     ServiceNow Username - Specify the user name supported by the ServiceNow web services. This user name must have the appropriate privileges/roles in ServiceNow (see Table 5-1 for details) to create, update, and query tickets in ServiceNow. All tickets created through the connector are generated with this user account.

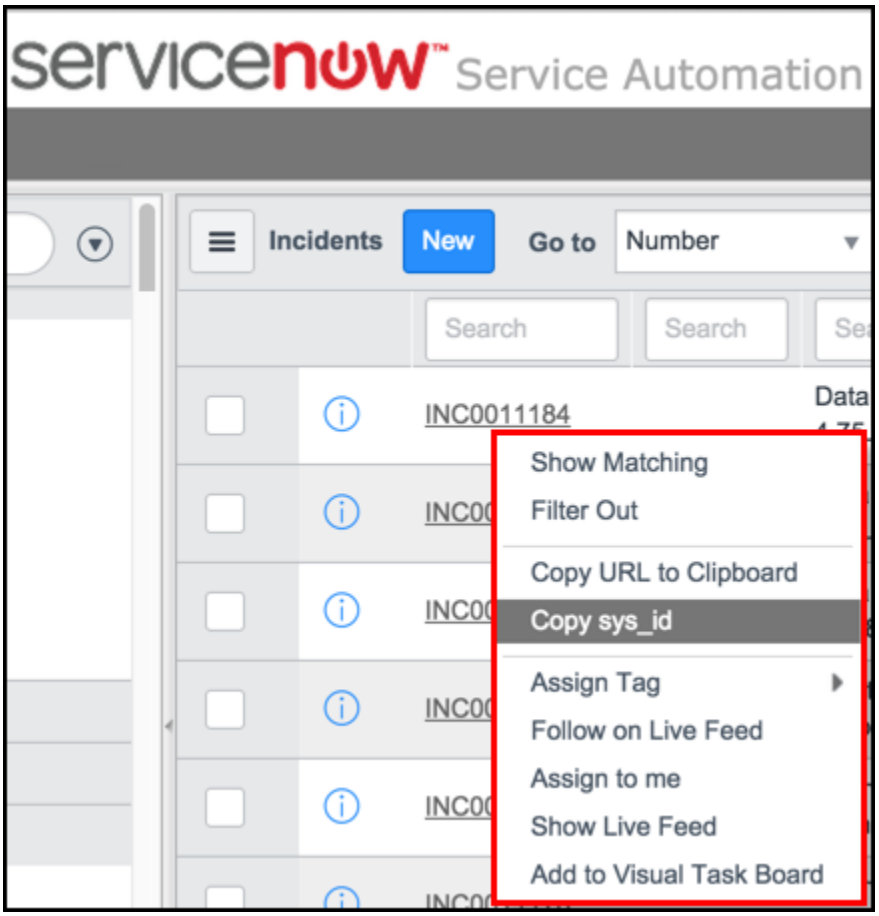
> **Note:**
>
> It is recommended to use a service account for the ServiceNow Connector operations.

ServiceNow Password - Specify the password associated with the user specified in the ServiceNow Username field.

sys_id - Enter a `sys_id` number to test the connection when you save the configuration. A valid `sys_id` can be obtained by right clicking on any open ServiceNow incident and selecting **Copy sys_id**, as shown in Figure 3-7:

> **Note:**
>
> The `sys_id` is the unique record identifier in ServiceNow. More information about the `sys_id` can be found at:
>
> `http://wiki.servicenow.com/index.php?title=Unique_Record_Identifier#gsc.tab=0`

Figure 3-7 Select "Copy sys_id"



- **Proxy Settings**

  If your enterprise requires a proxy server for all communication between Enterprise Manager and ServiceNow, check the Proxy Settings check box to enable the proxy fields and specify the following proxy server settings:

  Proxy Host - The host name of the proxy server.

  Proxy Port - The port number of the proxy server.

  Specify the following proxy credential fields if required by your proxy server.

  Proxy Name - The user name to specify when calling the proxy server.

  Proxy Password - The password to specify when calling the proxy server.

- **Web Console Settings**

  > **Note:**
  >
  > Web Console settings are required if you want the Connector to provide links to ServiceNow tickets created by Enterprise Manager in the context of an incident.

  To enable this functionality, provide the following Web console settings:

  Enable web console - Check this box to enable launching of the ServiceNow ticket page within context from Enterprise Manager.

  Instance URL - Specifies Web server information the connector uses to connect to the ServiceNow web service when accessing incidents in ServiceNow. Use the format shown in the example URL in Web Console Settings and replace `[InstanceName]` with the name of your instance. If your ServiceNow instance is configured with a web proxy, then enter the proxy URL.

- **Grace Period**

  You can enable and disable the grace period and configure its value. By default, the grace period is disabled.

  This setting applies to all incidents the ServiceNow processes. The grace period interval accepts the number of hours as any integer value. For example, **1** or **2**.

  For more information on this setting, see Grace Period Setting.

- **Retry**

  You can enable and disable the Retry option and configure its interval value. By default, the Retry is **disabled**.

  This setting applies to all incidents the ServiceNow Connector processes. The retry period interval accepts the number of hours as any integer value. For example, **1** or **2**.

  For more information on this setting, see Retry.

After entering the settings and clicking **OK**, the Management Connectors page reappears. The row for the ServiceNow Connector should have a check mark in the Configured column.

- If you specify the correct web service end-points and enter a valid `sys_id`, the following message appears on the Management Connectors page after you click **OK**:

  Connection test succeeded. The configuration was saved.

- If you have not previously saved the connector configuration and enter incorrect web service endpoints or an invalid `sys_id`, the following message appears on the Management Connectors page after you click **OK**:

  Connection test failed. The configuration was saved.

- If you have previously saved the connector configuration and enter incorrect Web service endpoints or an invalid `sys_id`, the following message appears on the Management Connectors page after you click **OK**:

  Connection test failed. The configuration was not saved.

> **Note:**
>
> Refer to Troubleshooting the ServiceNow Connector for details on troubleshooting connection test failures.

4. Optionally, to verify that all three ticket templates are present, click the configure icon again to check for the available ticket templates. Click the **Ticket Templates** tab. All out-of-box ticket templates should appear in the table.

Enabling or Disabling the Connector

You can enable or disable a connector from the Management Connectors page by selecting the connector and clicking either **Enable** or **Disable**. After a connector is disabled, a red cross icon appears under the status column. By default, the connector instance is enabled as soon as it is configured.

> **Note:**
>
> Only enabled connectors are available for ticketing operations.

Deleting the Connector

You can delete a connector from the Management Connector page by selecting the connector and clicking **Delete**. After a connector is deleted, all associated events rules are no longer configured to forward the event. Also, references to the event connector are removed from the event rules.

Additionally, if the connector deleted is the only connector instance of that connector type, the corresponding connector type is also deleted.

4

Creating ServiceNow Tickets

This chapter described how to create tickets - both automatically and manually. This chapter covers the following topics:

- Automatically Creating a Ticket
- Manually Creating a Ticket
- Postcreation Advisory Information

Automatically Creating a Ticket

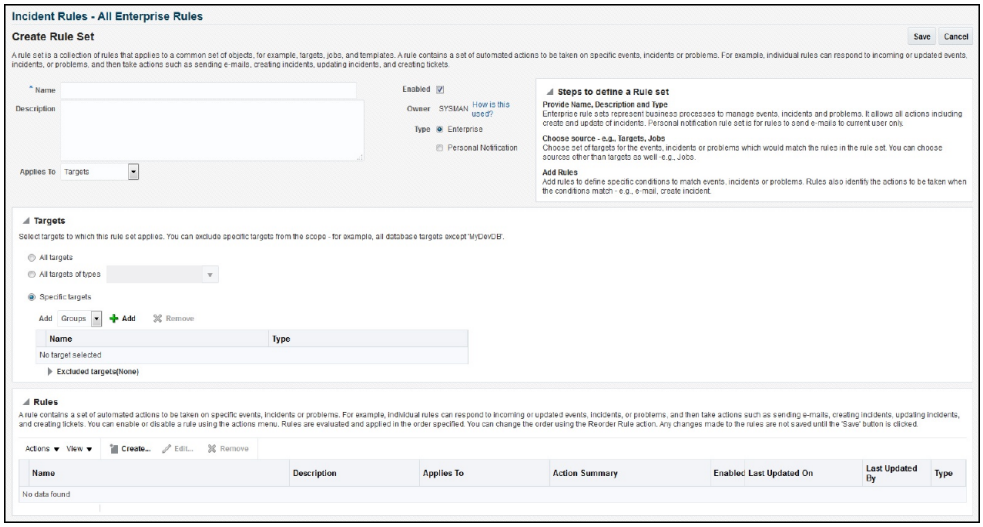
To automatically create a ticket in ServiceNow, you need to create a rule that specifies the event or incident condition on which the ticket should be created. In this rule, you also specify the ticket template to be used with ServiceNow connector.

To create a rule to automatically create a ticket in ServiceNow:

1. From the Enterprise Manager **Setup** menu, select **Incidents**, and then select **Incident Rules**.
2. Click **Create Rule Set**.

   The Create Rule Set page appears, as shown in Figure 4-1:

Figure 4-1 Create Rule Set



3. Enter a Name and Description.
4. In the Targets tab, specify the targets for which you want tickets to be generated for events/incidents that Enterprise Manager detects.
5. Click the **Rules** tab.

- **For events** - Click **Create** and select Incoming events or updates to events as a type of rule to create from the pop-up window, then click **Continue**.

  The Create New Rule wizard appears. Follow the steps to create a rule. See the following documents for additional information:

  – *Setting Up Rule Sets* section in the *Oracle Enterprise Manager Cloud Control Administrator's Guide 13c*.

  – *Oracle Enterprise Manager Cloud Control Administrator's Guide 12c:*

  `http://docs.oracle.com/cd/E24628_01/doc.121/e24473/incident_mgmt.htm#EMADM12081`

- **For incidents** - Click **Create** and select **Newly created incidents or updates to incidents** as a type of rule to create from the pop-up window, then click **Continue**.

  The Create New Rule wizard appears. Follow the steps to create a rule. See the following documents for additional information:

  – *Setting Up Rule Sets* section in the *Oracle Enterprise Manager Cloud Control Administrator's Guide 13c*.

  – *Oracle Enterprise Manager Cloud Control Administrator's Guide 12c:*

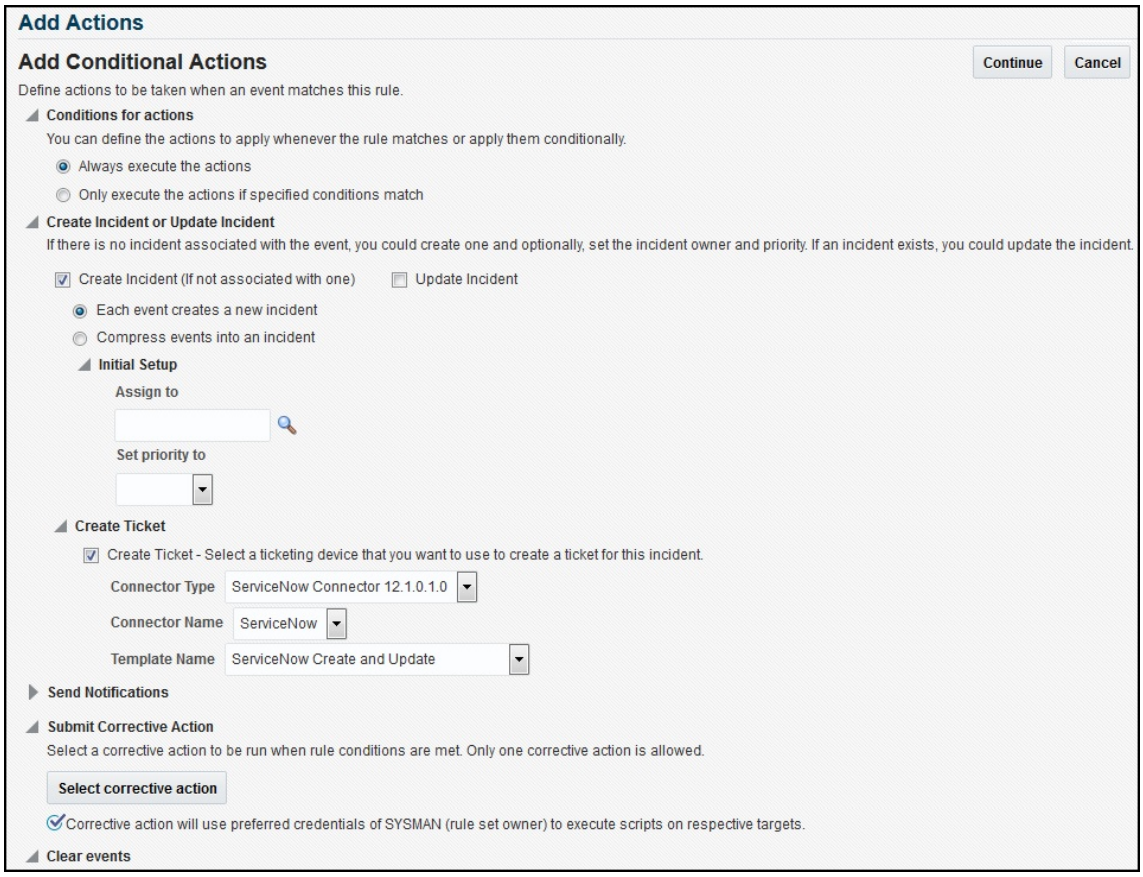
  `http://docs.oracle.com/cd/E24628_01/doc.121/e24473/incident_mgmt.htm#EMADM12081`

6. While configuring the above rule in the Add Actions page:

   - **For events:**

     Enable the Create Incident check box. This makes the Create Ticket option visible. Now enable the Create Ticket check box, which displays lists to select the Connector Type, Connector Name, and Template Name as shown in Figure 4-2:

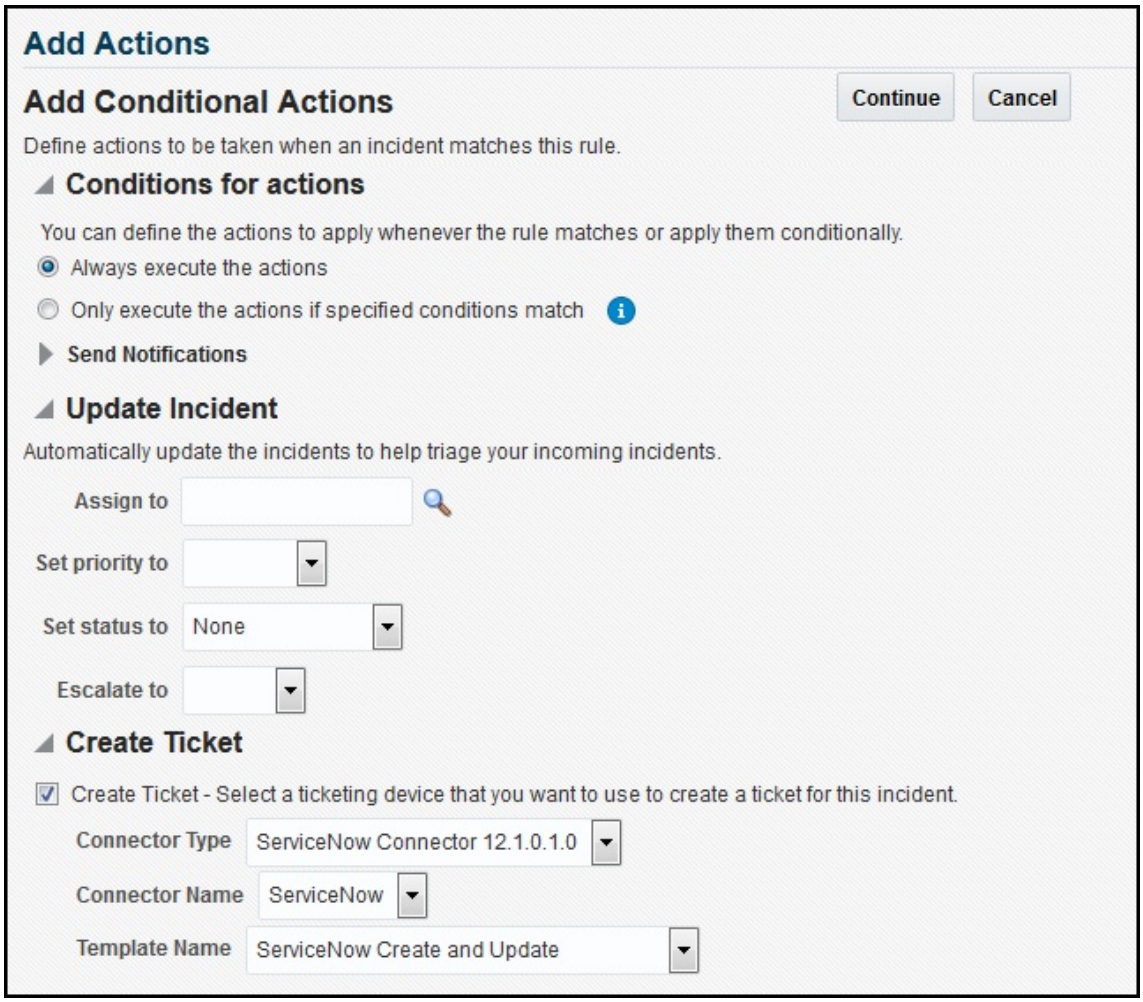
Figure 4-2 Add Actions for Events



- **For incidents:**

  Enable the Create Ticket check box, which displays lists to select the Connector Type, Connector Name, and Template Name as shown in Figure 4-3:

Figure 4-3 Add Actions for Incidents



7. The following process occurs after you create the rule for your incidents:
   - A request is sent to the ServiceNow Ticketing Connector when an incident is created due to an event that matches your rule.
   - The ticket is created in ServiceNow as an incident.
   - In Enterprise Manager, the incident annotation is updated. A comment is added to the Incident Details page of the incident to indicate that a ticket was created or updated, along with the ticket ID, status, and ticket URL.

   A ticket is updated if there is an existing active ticket for an incident.

After the incident has been sent to ServiceNow, you can view it in the ServiceNow console, as shown in Figure 4-4 and Figure 4-5:

Figure 4-4 Incident Details in ServiceNow

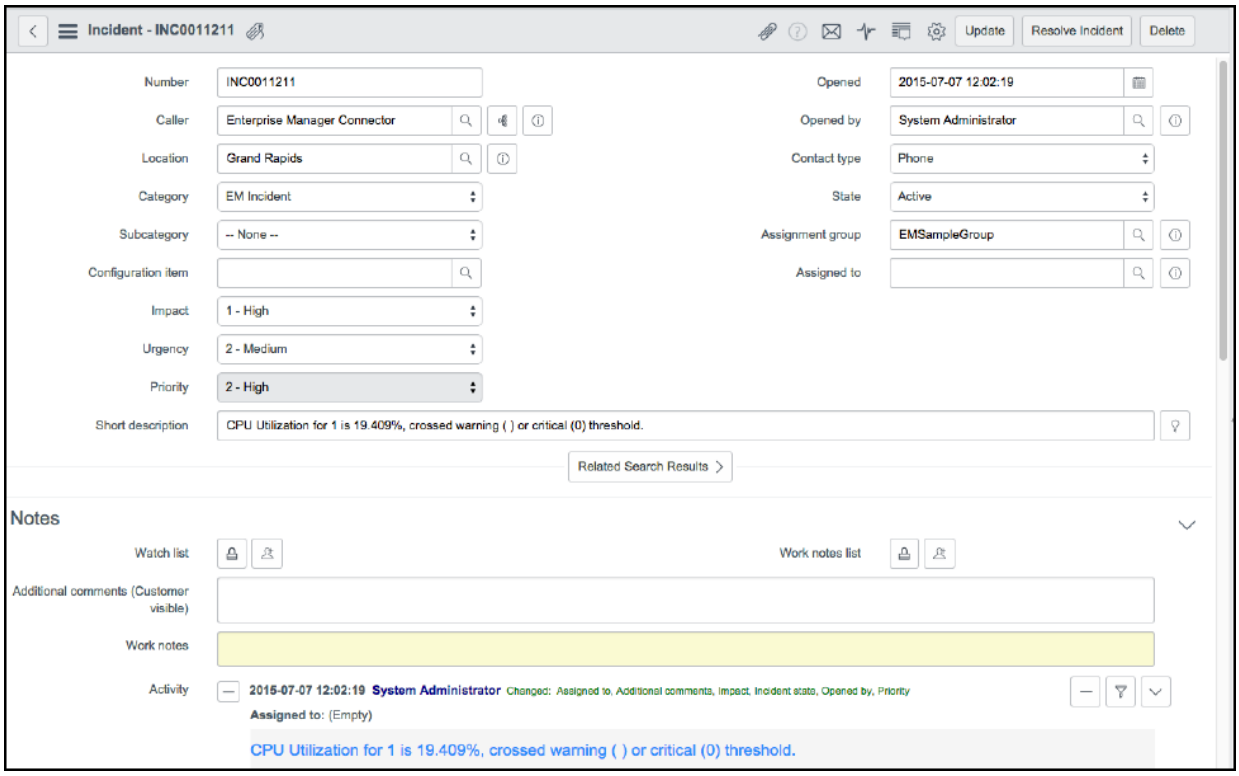
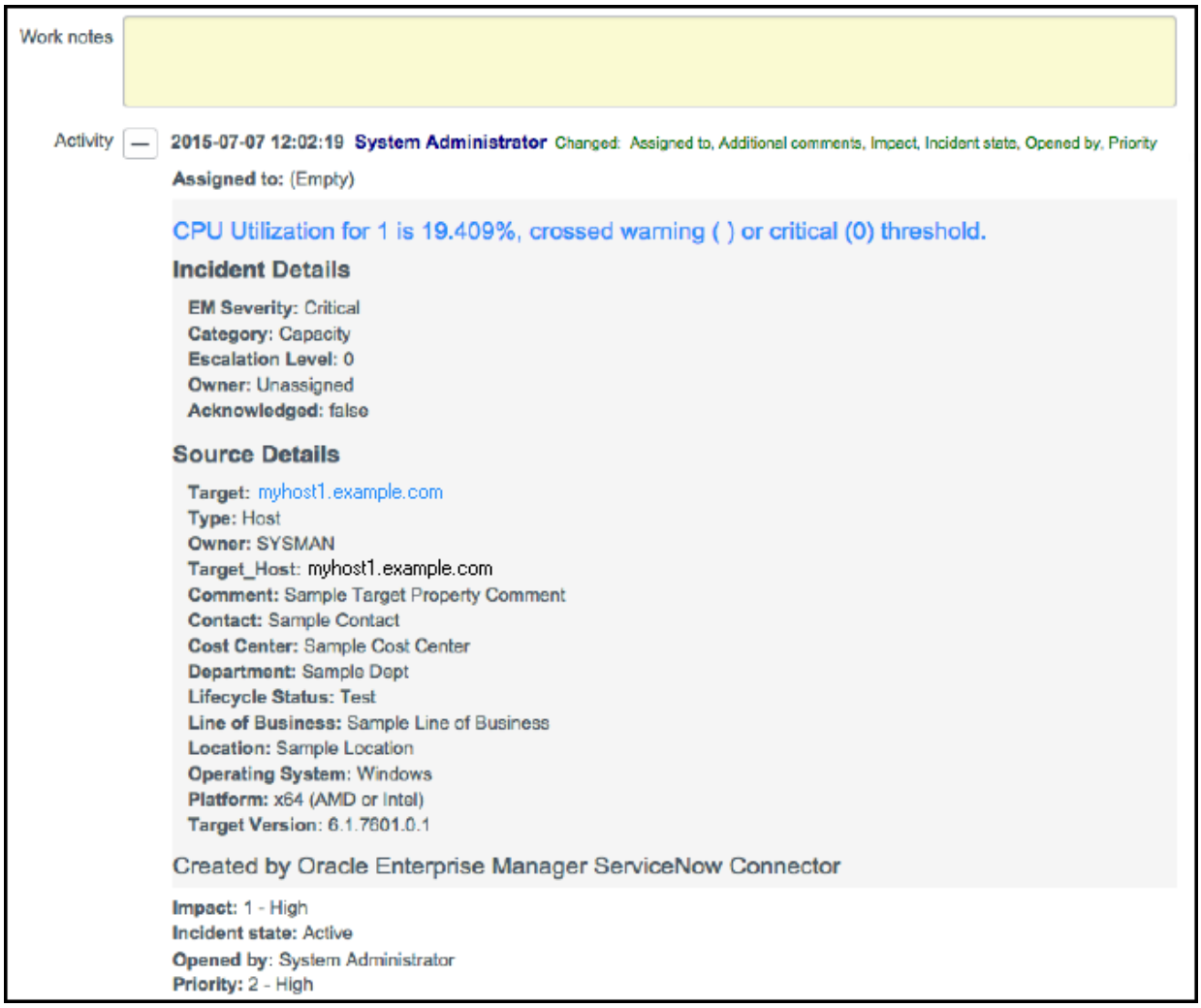
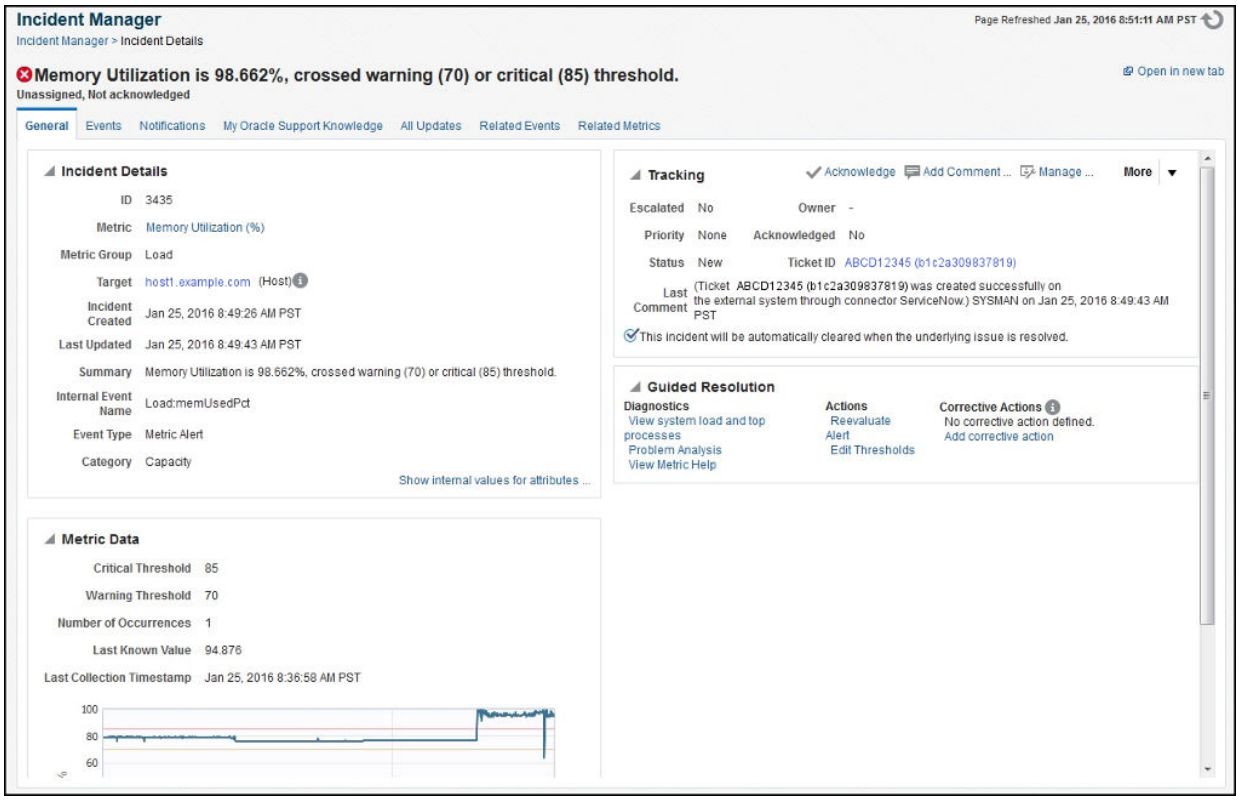


Figure 4-5 ServiceNow Activity



To view the incident in Enterprise Manager, click the link in the Comments section. You will be asked to log in to Oracle Enterprise Manager. After logging in, the Oracle Enterprise Manager event information is displayed (Figure 4-6):

Figure 4-6 Enterprise Manager Event Information



You can change the incident information sent to ServiceNow, or you can change the mappings between the Enterprise Manager incident and the ServiceNow incident by modifying the ticketing templates.

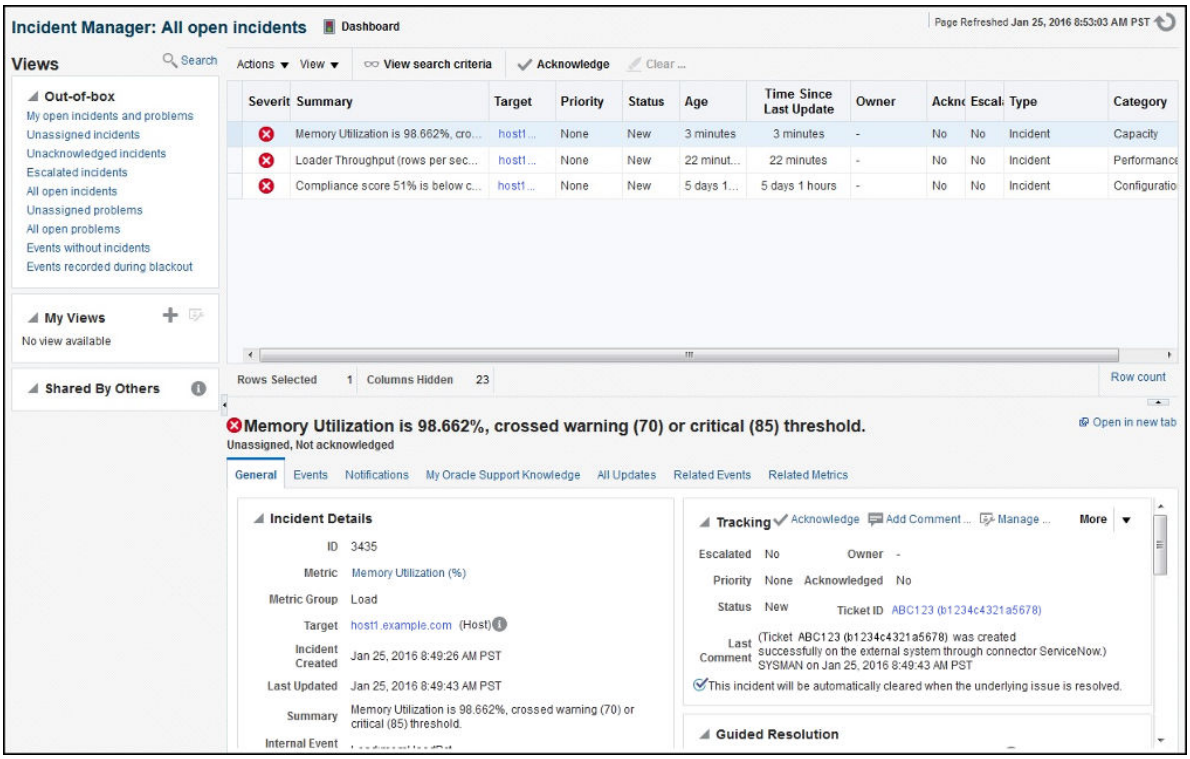
Manually Creating a Ticket

Perform the following steps to manually create a ticket:

1. From the **Enterprise** menu, select **Monitoring**, then select **Incident Manager**.

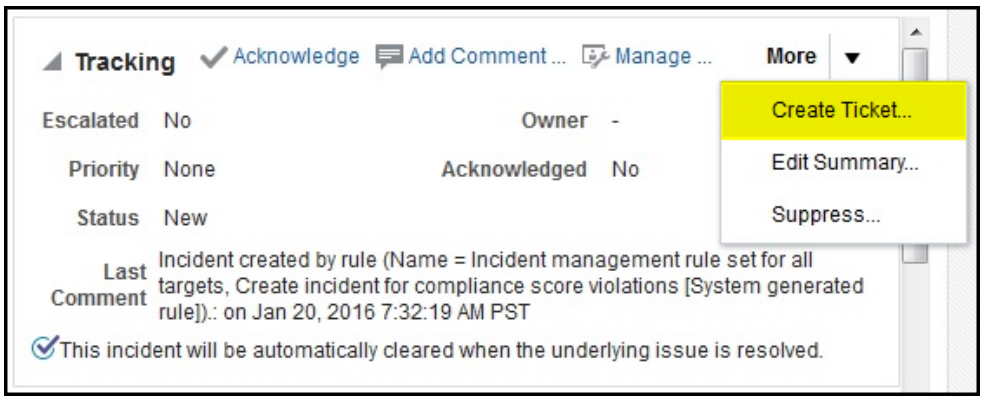
   The Incident Manager page appears, showing all open incidents (Figure 4-7):

Figure 4-7 Incident Manager: All Open Incidents



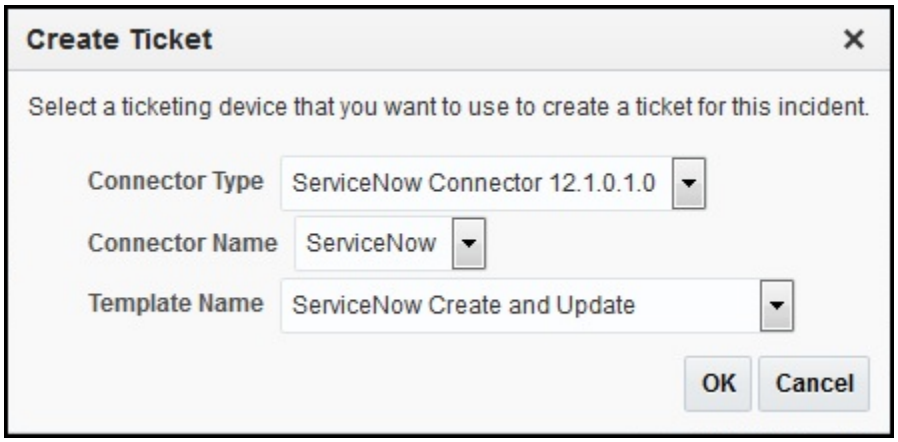
2. Select an incident for which you would like to create a ServiceNow ticket.
3. In the Tracking section, click **More**, then select **Create Ticket** (Figure 4-8):

Figure 4-8 Create Ticket



4. In the Create Ticket pop-up window, select the **ServiceNow Ticketing Connector** and a ticket template from the Template Name drop-down menu, then click **OK**.

Figure 4-9 Create Ticket Pop-up Window

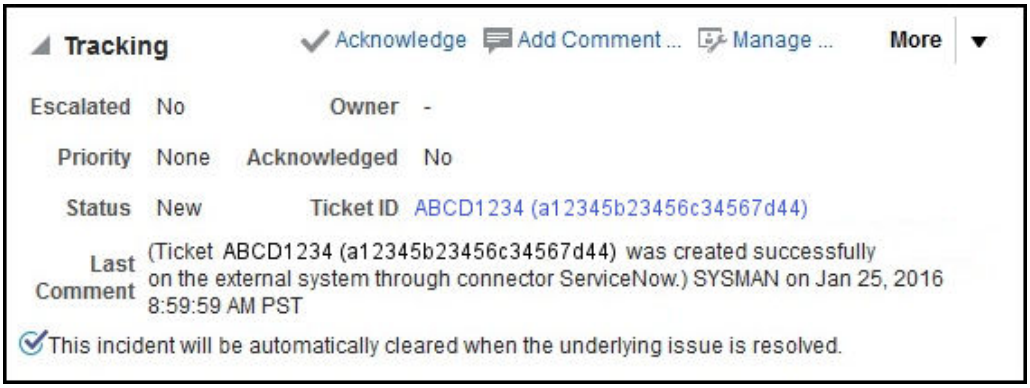


> **Note:**
>
> If you do not see the desired template, you can add one using the `emctl register_template connector` command. See Creating a New Custom Template for details.

Postcreation Advisory Information

If you have successfully created the ticket, the ticket ID appears in the Last Comment column in the Event Details for the incident and in the Ticket ID column. If the Web Console Settings are configured and enabled, the ticket ID appears as a link to the ticket page in ServiceNow (Figure 4-10):

Figure 4-10 Ticket ID Link



Tickets that were created manually are automatically updated whenever a status change occurs in Enterprise Manager.

5
Working with Ticketing Templates

This chapter provides details on the default ticketing templates shipped along with the ServiceNow connector. The ticketing templates specify the mappings between Enterprise Manager ticket attributes and ServiceNow incident attributes.
This chapter covers the following topics:

- Default Ticketing Templates
- Standard Fields Mapping
- Priority and Severity Mapping
- State Mapping
- Customizable Fields
- Creating a New Custom Template
- Customizing an Existing Template
- Exporting a Template File
- Restoring Templates

Default Ticketing Templates

When a connector instance is created in Enterprise Manager, all associated templates are available for ticket create/update operations. This section describes the default mappings between the Enterprise Manager ticket data fields and the ServiceNow incident data fields.

The ticketing templates XML Style Sheet (XSL) files contains mappings between the two systems. These files are located in the Self Update archive. To extract the installation file, perform the steps described in the Exporting a Template File section.

There are three default ServiceNow templates, as described in Table 5-1:

Table 5-1 Default ServiceNow Templates

XSL File Name	Enterprise Manager User Interface	Description	Required ServiceNow User Permissions (Roles)
`ServiceNow_CreateAndUpdate_Default.xsl`	ServiceNow Create and Update	• Creates new incident in ServiceNow • Updates existing incident in ServiceNow	• itil • soap_create • soap_update • soap_query

Table 5-1 (Cont.) Default ServiceNow Templates

XSL File Name	Enterprise Manager User Interface	Description	Required ServiceNow User Permissions (Roles)
`ServiceNow_CreateAndUpdate_AutoClose.xsl`	ServiceNow Create, Update, and Close	• Creates new incident in ServiceNow • Updates existing incident in ServiceNow • Closes incident in ServiceNow (if created using a rule, not manually) • Reopens incident in ServiceNow	• itil • soap_create • soap_update • soap_query • admin
`ServiceNow_CreateAndUpdate_AutoResolve.xsl`	ServiceNow Create, Update, and Resolve	• Creates new incident in ServiceNow • Updates existing incident in ServiceNow • Resolves incident in ServiceNow (if created using a rule, not manually) • Reopens incident in ServiceNow	• itil • soap_create • soap_update • soap_query

Note:

For more information on ServiceNow system roles, see the Base System Roles section of the ServiceNow Product Documentation Wiki:

`http://wiki.servicenow.com/index.php?title=Base_System_Roles#gsc.tab=0`

Standard Fields Mapping

Table 5-2 shows the standard fields provided by Enterprise Manager and how they are mapped to equivalent fields within ServiceNow:

Table 5-2 Enterprise Manager-to-ServiceNow Standard Fields Mapping

Enterprise Manager UI Field	Enterprise Manager Backend Field	ServiceNow Field	Notes
Priority	SystemAttributes/Priority	Priority	See Table 5-3
Severity	SystemAttributes/SeverityCode	Priority	See Table 5-3
Resolution State	SystemAttributes/ ResolutionState	State	See Table 5-5
Summary	SystemAttributes/Summary	Short description	
Description	SystemAttributes/Description	Description at the top of comments	Links directly to Enterprise Manager ticket

Table 5-2 (Cont.) Enterprise Manager-to-ServiceNow Standard Fields Mapping

Enterprise Manager UI Field	Enterprise Manager Backend Field	ServiceNow Field	Notes
Event Class	EMEvent/SystemAttributes/EventClass	Incident Details > Event Type	Displayed if defined for Enterprise Manager ticket
Category	SystemAttributes/Category	Incident Details > Category	Category of the Enterprise Manager Event
Escalation	SystemAttributes/EscalationLevel	Incident Details > Escalation Level	
Owner	SystemAttributes/Owner	Incident Details > Owner	
Acknowledge	SystemAttributes/Acknowledge	Incident Details > Acknowledged	
Target Name	SystemAttributes/SourceInfo/TargetInfo/TargetName	Source Details > Target	
Target Type	SystemAttributes/SourceInfo/TargetInfo/TargetTypeLabel	Source Details > Type	Links directly to the Enterprise Manager target
Owner	SystemAttributes/SourceInfo/SourceObjInfo/ObjOwner	Source Details > Owner	
Target Host	.../TargetProperty/Name=Target_Host -> Value	Source Details > Target_Host	Displayed if defined for Enterprise Manager target
Comment	.../TargetProperty/Name=Comment -> Value	Source Details > Comment	Displayed if defined for Enterprise Manager target
Contact	.../TargetProperty/Name=Contact -> Value	Source Details > Contact	Displayed if defined for Enterprise Manager target
Cost Center	.../TargetProperty/Name=Cost Center -> Value	Source Details > Cost Center	Displayed if defined for Enterprise Manager target
Department	.../TargetProperty/Name=Department -> Value	Source Details > Department	Displayed if defined for Enterprise Manager target
Lifecycle Status	.../TargetProperty/Name=Lifecycle Status -> Value	Source Details > Lifecycle Status	Displayed if defined for Enterprise Manager target
Line of Business	.../TargetProperty/Name=Line of Business -> Value	Source Details > Line of Business	Displayed if defined for Enterprise Manager target
Location	.../TargetProperty/Name=Location -> Value	Source Details > Target Location	Displayed if defined for Enterprise Manager target
Operating System	.../TargetProperty/Name=Operating System -> Value	Source Details > Operating System	Displayed if defined for Enterprise Manager target
Platform	.../TargetProperty/Name=Platform -> Value	Source Details > Platform	Displayed if defined for Enterprise Manager target
Target Version	.../TargetProperty/Name=Target Version -> Value	Source Details > Target Version	Displayed if defined for Enterprise Manager target
Rule Name	NotificationRuleName	Source Details > Rule Name	Displayed if Incident was created by a Rule
Rule Owner	NotificationRuleOwner	Source Details > Rule Owner	Displayed if Incident was created by a Rule

Priority and Severity Mapping

Table 5-3 and Table 5-4 show the mapping between the Enterprise Manager ticket priority/severity values and how the corresponding values are set in ServiceNow based on those incidents.

> **Note:**
>
> ServiceNow Incident Priority is calculated from Impact and Priority as described in the Incident Management section of the ServiceNow Product Documentation Wiki:
>
> `http://wiki.servicenow.com/index.php?title=Incident_Management#gsc.tab=0`

Table 5-3 Enterprise Manager-to-ServiceNow Priority Mapping

Enterprise Manager Priority	ServiceNow Impact	ServiceNow Urgency	ServiceNow Priority
Urgent	1	1	1
Very High	1	2	2
High	2	2	3
Medium	2	3	4
Low	3	3	5

> **Note:**
>
> The Enterprise Manager priority is used whenever it is set (that is, overrides severity code setting). Otherwise, the Enterprise Manager severity code is used.

Table 5-4 Enterprise Manager-to-ServiceNow Severity Mapping

Enterprise Manager Severity Code	ServiceNow Impact	ServiceNow Urgency	ServiceNow Priority
FATAL	1	1	1
CRITICAL	1	2	2
WARNING	2	2	3
ADVISORY	2	3	4
Anything else but CLEAR	3	3	5

> **Note:**
>
> ServiceNow Incident is Closed/Resolved when the Enterprise Manager severity code becomes CLEAR.

State Mapping

As shown in Table 5-5, the mapping between states within Oracle Enterprise Manager and ServiceNow are quite similar:

Table 5-5 Enterprise Manager-to-ServiceNow State Mapping

Enterprise Manager Resolution State	ServiceNow State
New	New
Resolved	Resolved
Closed	Closed
Any Other State	Active

Customizable Fields

Table 5-6 shows fields that exist in ServiceNow that are not provided by Enterprise Manager, but can be customized as needed:

Table 5-6 Customizable ServiceNow Fields

ServiceNow Field	Default Value	Notes
Caller	sample.user	Requires ServiceNow configuration
Location	Sample Location	Requires ServiceNow configuration
Category	EM Incident	Requires ServiceNow configuration
Assignment group	EMSampleGroup	Requires ServiceNow configuration
Assigned to	sample.user	Requires ServiceNow configuration
Close code	Solved (Work Around)	
Closed by	sample.user	Requires ServiceNow configuration
Close notes	Enterprise Manager Resolution	

Customizing an Existing Template

Although default mappings are sufficient for most implementations, if the out-of-box ticketing templates do not satisfy your requirements, you can modify them.

Oracle recommends that only users with advanced knowledge of XSLT make complex changes. If necessary, you can revert the templates to the original.

To edit an existing ticketing template:

1. Select the connector instance and go to the Configure Management Connector page.
2. Select the **Template** tab.
3. Select the desired template and click **Edit**.
4. Edit the Description and Template Contents fields as needed, then click **Save**.

The ticket template is automatically registered. Saving the registered template updates it in the repository.

Creating a New Custom Template

If you want to create a custom template, you need to install a new template before it is recognized in Enterprise Manager.

To create a new a template, Oracle recommends that you use one of the existing templates as the baseline. Copy this ticket template to a file, modify, test and then register the file as a new ticketing template.

For each new custom template, run the following `emctl register_template connector` command as a user with execute privilege on `emctl` and the ability to read the template:

```
$ORACLE_HOME/bin/emctl register_template connector -t <template.xsl> -repos_pwd
<reposPassword> -cname <connectorName> -iname <internalName> -tname <templateName> -
ttype 2 [-d <description>]
```

Where:

- `<template.xsl>` is the full path name of the template file.
- `<reposPassword>` is the Enterprise Manager root (SYSMAN) password.
- `<connectorName>` is the name of the connector instance installed in Configuring a Connector Instance.
- `<internalName>` is the internal name to use for the template.
- `<templateName>` is the name to display for the template.
- `<description>` is the description of the template.

For example, the following command adds a new outbound template (`newTemplate.xsl`) for the connector instance:

```
ctl register_template connector -t /home/oracle/custom_templates/newTemplate.xsl -
repos_pwd sysmanpass -cname "ServiceNow Connector Instance" -iname "newTemplate" -
tname "New Template" -ttype 2 -d "Demo template"
```

Exporting a Template File

Out-of-the-box ServiceNow customized template files are included in the Self Update archive that was installed in Installing the ServiceNow Ticketing Connector.

To extract a template file to use as a base for customization:

1. Export the installation files to a managed host machine or to your workstation:
   - To export to a managed host, refer to Exporting Installation Files to a Managed Host.

- To export to your workstation, refer to Exporting Installation Files to Your Workstation.

2. Open a command window on the host where the export file was copied and navigate to the directory where the file was copied.
3. Extract the ServiceNow template file from the .zip file using the following command:

```
unzip *.zip archives/service_now_connector.jar
```

4. Extract the templates from the jar file using the following command:

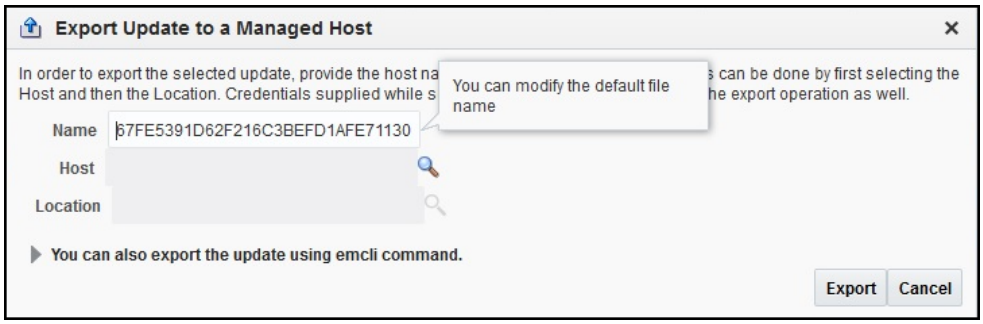
```
$JAVA_HOME/bin/jar xf archives/*.jar templates
```

Exporting Installation Files to a Managed Host

To export to a managed host machine, perform the following steps::

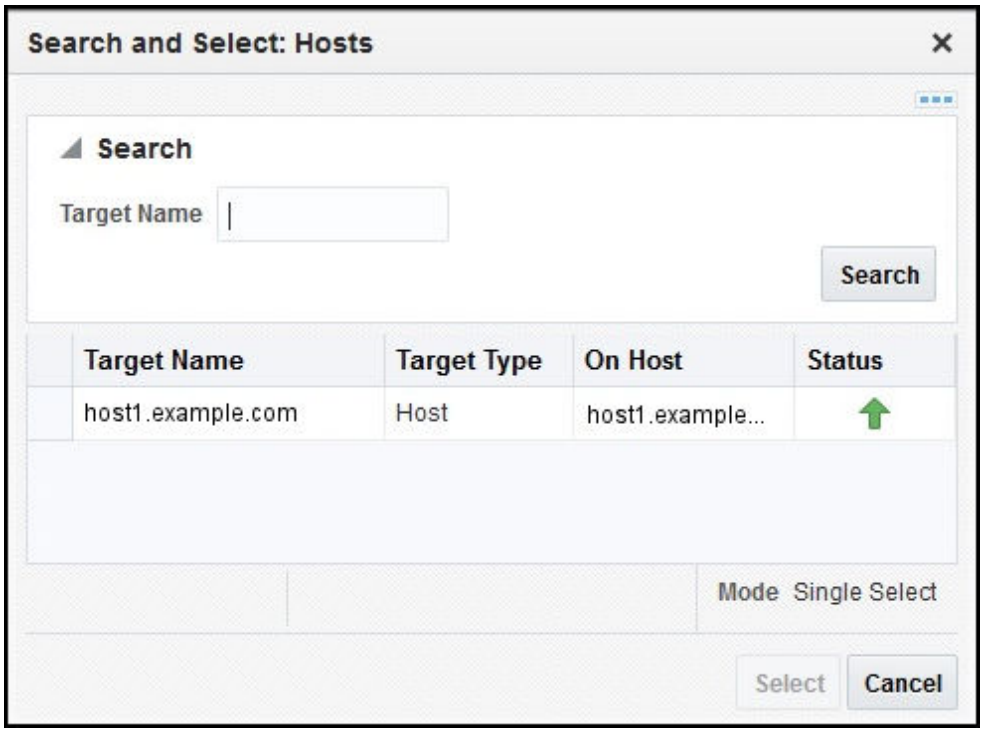
1. From the **Setup** menu, select **Extensibility**, then select **Self Update**.
2. On the Self Update page, select **Management Connector** to display a list of all available connectors.
3. Click the appropriate ServiceNow connector name, then select **Export to->Managed Host** from the **Actions** list. A pop-up window similar to Figure 5-1 will be displayed:

Figure 5-1 Export Update to a Managed Host



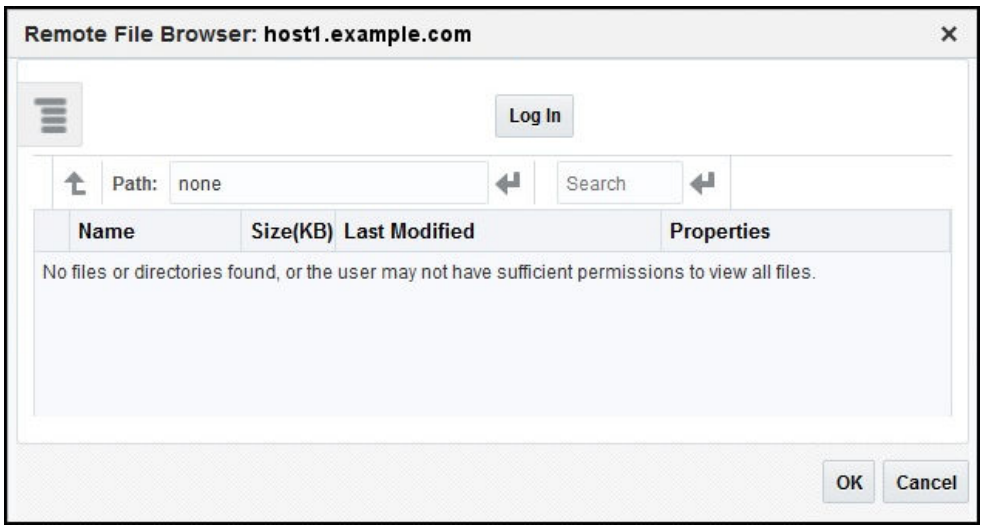
4. Enter the name of the export file or accept the default name.
5. Click on the search icon for the Host field. A pop-up window similar to Figure 5-2 is displayed.

Figure 5-2 Search Hosts



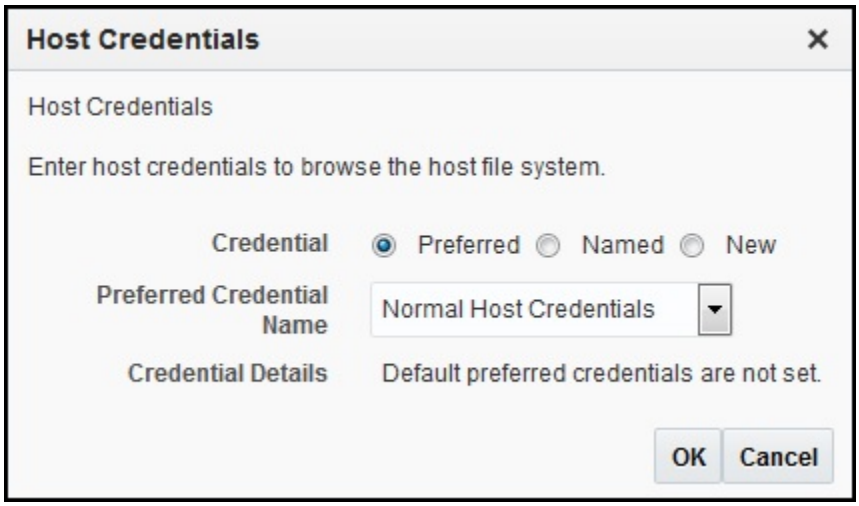
6. Select a host and click **Select**. You might need to enter a search string to narrow the results.
7. On the Export Update to a Managed Host window, click the search icon for the Location field. A pop-up similar to Figure 5-3 is displayed:

Figure 5-3 Search Location



8. Click **Log In**. A popup similar to Figure 5-4 is displayed:

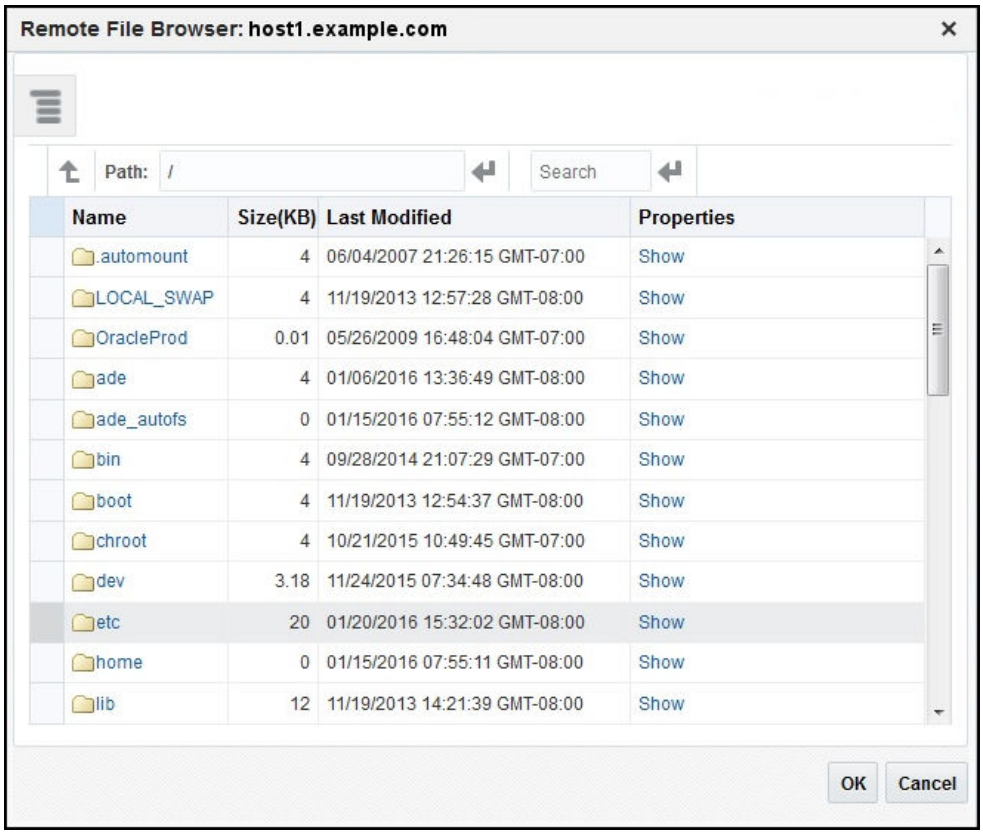
Figure 5-4 Host Credentials



Select existing **Preferred** or **Named** credentials or enter a **New** set of named credentials and click **OK**.

9. A pop-up window similar to Figure 5-5 is displayed:

Figure 5-5 Select Path



10. Select the path where you want to place the export file and click **OK**.

11. The Export Update to a Managed Host window will be displayed with the selections listed. Click **Export**.

Exporting Installation Files to Your Workstation

To export the installation files to your workstation, perform the following steps:

1. From the **Setup** menu, select **Extensibility**, then select **Self Update**.
2. On the Self Update page, select **Management Connector** and select the appropriate ServiceNow connector name from the list, then select **Export to->Your Workstation** from the **Actions** list.
3. A pop-up window will be displayed that prompts whether to open or save the file. Select **Save File** and click **OK**.
4. A pop-up window may be displayed that allows you to select the location where the file will be saved. Select the location and click **Save**.

Restoring Templates

After you edit or customize a template, you can restore it to its previous default contents if needed by performing the following steps.

> **WARNING:**
>
> You can restore out-of-box templates that you have may edited or customized to their default values. You cannot restore new templates that you have created (using the `emctl register_template` command).

1. From the **Setup** menu, select **Extensibility**, and then select **Management Connectors**.
2. On the Management Connectors page, select the connector instance and go to the Configure Management Connector page.
3. Select the **Template** tab.
4. Select the template and click **Restore**.
5. Click **Yes** in the confirmation page that appears to restore.

6
Enabling SSL for HTTPS

The ServiceNow Connector supports only the HTTPS protocol. This chapter describes how to establish a connection between the external ticketing system and Enterprise Manager.
This chapter covers the following topics:

- Importing the Server Certificate on Enterprise Manager

Importing the Server Certificate on Enterprise Manager

1. Obtain the root certificate listed under *Root Certificate Authority - Entrust Root Certification Authority - G2*, as shown in the following ServiceNow article:

   https://hi.service-now.com/kb_view.do?sysparm_article=KB0563633

2. Append the external Certificate Authority's certificate to:

   ```
   $INSTANCE_HOME/sysman/config/b64LocalCertificate.txt
   ```

3. Ensure that only the following is appended to the `b64LocalCertificate.txt` file (that is, do not include blank lines or comments or any other special characters):

   ```
   -----BEGIN CERTIFICATE----- <<<Certificate in Base64 format>>> -----END
   CERTIFICATE-----
   ```

4. Restart the OMS. Run the following commands:

   ```
   emctl stop oms
   emctl start oms
   ```

> **Note:**
>
> Do not run the `emctl secure oms/agent` command after adding the external certificate to the `b64LocalCertificate.txt` file. If you run the `emctl secure` command later, then repeat the steps 1 through 3 to make sure the external certificate exists on the `b64certificate.txt` file.

7

Troubleshooting the ServiceNow Connector

This chapter provides information to assist you in troubleshooting integration issues with the ServiceNow Connector. The connector cannot function unless the appropriate components have been installed and configured.

> **Note:**
>
> Refer to the OMS logs to identify the exact error ID, if needed.

Before you start the troubleshooting process, ensure that you have done the following:

- Installed the ServiceNow Connector as specified in Installing the ServiceNow Ticketing Connector.
- Configured the ServiceNow Connector as specified in Configuring the ServiceNow Ticketing Connector
- Set up one or more notification rules as specified in Automatically Creating a Ticket.

This chapter covers the following common problems:

- ServiceNow BasicAuth Script Not Configured Correctly
- Insufficient User Permissions
- SSL Not Enabled for HTTPS
- Errors from Oracle Enterprise Manager

ServiceNow BasicAuth Script Not Configured Correctly

If you do not include the `BASICAuth` script described in Configuring ServiceNow to Support the Enterprise Manager ServiceNow Connector, the following error will occur:

- **In Enterprise Manager:** Connection test failed, check `oms` log file for details. The configuration was saved.
- **In ServiceNow:** No messages are displayed in the logs. It does not accept the SOAP message because it lacks the `BASICAuth` and thus, no record of it exists.

Solution: Add the `BASICAuth` script to Script Includes in ServiceNow as described in Configuring ServiceNow to Support the Enterprise Manager ServiceNow Connector

Insufficient User Permissions

If your ServiceNow user account does not have the correct permissions for the out-of-the-box templates, the following error will occur:

- **In Enterprise Manager:** Failed to create a ticket on the external system through connector ServiceNow Connector.
- **In ServiceNow:** Insufficient rights for creating new records: `com.glide.processors.soap.SOAPProcessingException`: Insufficient rights for creating new records

Solution: Ensure that the ServiceNow account you are using to integrate with Enterprise Manager has the appropriate permissions as mentioned in Table 5-1.

SSL Not Enabled for HTTPS

If SSL was not enabled for your ServiceNow Connector instance, the following error will occur:

- **In Enterprise Manager:** Connection test failed, check the OMS log files for details. The configuration was saved. The entry in the OMS log should look like this:

  ```
  oracle.sysman.emSDK.webservices.outbound.WSInvokeException: caught
  WebServiceException : javax.xml.soap.SOAPException:
  javax.xml.soap.SOAPException: Message send failed:
  sun.security.validator.ValidatorException: PKIX path building failed:
  sun.security.provider.certpath.SunCertPathBuilderException: unable to find valid
  certification path to requested target
  ```

- **In ServiceNow:** No error is displayed.

Solution: Add the Root Certificate as describe in Enabling SSL for HTTPS .

Errors from Oracle Enterprise Manager

This section provides cause and solution information on troubleshooting common error messages. Find the error message in Table 7-1 that matches your error message, then refer to the corresponding section(s) indicated under Possible Cause for instructions to diagnose and correct the problem.

There are two different OMS log files that could contain the error information. If the test fails when configuring the connector, then the error will be in the `emoms.trc` file. For errors attempting to create/update a ticket in ServiceNow, the error information will be located in the `emoms_pbs.trc` file.

Table 7-1 Enterprise Manager Error Messages

Error Message	Possible Cause

`javax.xml.soap.SOAPException:`
`javax.xml.soap.SOAPException:`
`Bad response: 403 Forbidden from url …`
	Invalid Web Service Credentials

Table 7-1 (Cont.) Enterprise Manager Error Messages

Error Message	Possible Cause

`javax.xml.soap.SOAPException:`
`javax.xml.soap.SOAPException:`
`Message send failed: sun.security.validator.ValidatorException:`
`PKIX path building failed:`
`sun.security.provider.certpath.SunCertPathBuilderException:`
`unable to find valid certification path to requested target`
	SSL Not Enabled for HTTPS

`javax.xml.soap.SOAPException:`
`javax.xml.soap.SOAPException:`
`Message send failed: No route to host`
	Invalid IP Address

`javax.xml.soap.SOAPException:`
`javax.xml.soap.SOAPException:`
`Bad response: 404 Not Found from url …`
	Invalid Port Number

`javax.xml.soap.SOAPException:`
`javax.xml.soap.SOAPException:`
`Message send failed: Connection timed out`
	Firewall Blocking Access

`javax.xml.soap.SOAPException:`
`javax.xml.soap.SOAPException:`
`Message send failed: hostname`
	Unknown Host

`javax.xml.transform.TransformerConfigurationException:` `Could not compile stylesheet`	Invalid XML Format

The following errors are described:

- Invalid Web Service Credentials
- Invalid IP Address
- Invalid Port Number
- Firewall Blocking Access
- Unknown Host
- Invalid XML Format

Invalid Web Service Credentials

Cause: The user name or password for accessing the ServiceNow web service is incorrect.

Solution

1. Log in to the Oracle Enterprise Manager console with an account that has Super Administrator privileges.
2. From the Enterprise Manager console, click **Setup** menu, then select **Extensibility**, and finally select **Self Update**.

3. On the Self Update page, select **Management Connectors** from the menu. This will display the Management Connectors page.
4. Click the name of the appropriate ServiceNow connector.

   This invokes edit mode, enabling you to configure the connector.
5. Correct the ServiceNow Web Service Username and ServiceNow Web Service Password fields, then click **OK**.

Invalid IP Address

Cause: The IP address specified in the URL is invalid or the network is down.

Solution: Verify that the hostname/IP address configured for the connector is correct:

1. Log in to the Oracle Enterprise Manager console with an account that has Super Administrator privileges.
2. From the Enterprise Manager console, click the **Setup** menu, then select **Extensibility**, and finally select **Management Connectors**.
3. Click the name of the appropriate ServiceNow connector.

   This invokes edit mode, enabling you to configure the connector.
4. Verify that the hostname/IP address specified in the URL for the `createEvent` and `updateEvent` operations are correct.
5. If the hostname/IP address is incorrect, provide the correct value, then click **OK**.

If the URLs specify a host name, make sure that the host name resolves to the correct IP address. To determine the IP address of the host name, issue the `ping <hostname>` command, where `<hostname>` is the actual host name. This lists the IP address that was resolved for the host name. If this is incorrect, the system administrator needs to investigate why it is incorrect.

If the hostname/IP address appears to be correct, try to ping the system where the SCOM web service is installed using the hostname/IP address. If the ping fails, the system administrator needs to investigate why there is no connectivity.

Invalid Port Number

Cause: The port number specified in the URL is invalid.

Solution: Verify that the port number configured for the connector is correct:

1. Log in to the Oracle Enterprise Manager console with an account that has Super Administrator privileges.
2. From the Enterprise Manager console, click the **Setup** menu, select **Extensibility**, and finally select **Management Connectors**.
3. Click the name of the ServiceNow connector.

   This invokes edit mode, enabling you to configure the connector.
4. Verify that the port number specified in the URL for the `createEvent`, `updateEvent`, setup, initialize, and uninitialize operations are correct.
5. If the port number is incorrect, provide the correct value and click **OK**.

Firewall Blocking Access

Cause: A firewall is blocking access to the system where the ServiceNow web service is installed.

Solution: Contact your IT department to give Enterprise Manager access to the port used by the ServiceNow web service.

Unknown Host

Cause: The system does not recognize the host name specified in the URL.

Solution: You can use the following options to address this issue:

- Coordinate with the system administrator to change the system configuration to recognize the host name.
- Specify the IP address in the URL instead of the host name. To do this, perform the following steps:
  1. Determine the IP address of the system where the ServiceNow web service is installed.
  2. Log in to the Oracle Enterprise Manager console by entering a user name with a Super Administrator role, entering the appropriate password, then click **Login**.
  3. From the Enterprise Manager console, click **Setup**, then **Extensibility**, and finally **Management Connectors**. The Management Connectors page appears, which shows the installed connectors.
  4. Click on the **Configure** icon associated with the ServiceNow connector. This invokes edit mode, enabling you to configure the connector.
  5. Change the host name to the IP address in the URL specified for the `createEvent`, initialize, setup, uninitialize, and `updateEvent` operations.
  6. Click **OK**.

Invalid XML Format

Cause: The connector framework could not process the request because the XSL file was formatted incorrectly. This problem should not occur unless the connector has been customized.

Solution: Examine any changes made to the XSL template files for mistakes that could have caused the problem. If you cannot find the problem manually, load the XSL in a utility that performs XML validation.

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