

Dell OpenManage Connection
1.0 for IBM Tivoli Netcool/
OMNibus
Installation Guide



Notes



NOTE: A NOTE indicates important information that helps you make better use of your computer.

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Introduction

This guide provides information on software prerequisites and requirements to setup Dell OpenManage Connection for IBM Tivoli Netcool/OMNIBus (Netcool/OMNIBus). This guide lists the steps to manually install the Dell OpenManage Connection integration components on the Netcool/OMNIBus components.

Prerequisites

Complete the following prerequisites.

Managing System Requirements

Table 1-1 lists the requirements for integrating the Dell OpenManage Connection on the systems where the Netcool/OMNIBus components are installed.

Table 1-1. IBM Netcool/OMNIBus Component Requirements

Component	Requirement	Purpose
Probe	Configure the MTTTrap Simple Network Management Protocol (SNMP) probe and the OMNIBus NCKL.	To receive and process the SNMP traps sent by Dell devices.
ObjectServer	Install and configure the confpack utility.	To import Dell integration Automation Triggers, Tools, Menus, and Conversion Classes.
Desktop	Make sure that the SNMP Communication between the Desktop and Dell devices is established.	To retrieve the OpenManage Server Administrator (OMSA) URL in the OMSA launch tool.
Web GUI	Install and configure the OMNIBus Web GUI and WAAPI. Make sure that the SNMP communication channel between the Web GUI server and the managed Dell systems is established.	To support the Dell OpenManage Connection. To retrieve the OMSA URL in the OMSA launch tool.

Managed System Requirements

Table 1-2 lists the requirements of the systems that are managed by Dell OpenManage Connection.

Table 1-2. Managed System Requirements

Dell Device	Requirement
Dell Windows Systems	<ul style="list-style-type: none">• OMSA versions 6.1 to 6.5.• SNMP Service
Dell Linux Systems	<ul style="list-style-type: none">• OMSA versions 6.1 to 6.5.• SNMP Service
Dell ESXi Systems	<ul style="list-style-type: none">• ESXi version 4.0 U1 and later.• OMSA versions 6.1 to 6.5• SNMP Service
Dell EqualLogic Storage Arrays	Firmware versions 5.0 and 5.1

Dell OpenManage Connection for Netcool/OMNIBus File and Folder Details

The Dell OpenManage Connection for Netcool/OMNIBus is packaged as a zip file. You can download this zip file from support.dell.com. When you extract the zip file, the following files are extracted:

- Dell_Server_Integration_v1_0.zip
- Dell_EqualLogic_Integration_v1_0.zip
- Dell_OMC_1_0_For_IBM_OMNIBus_IG.pdf
- Dell_OMC_1_0_ReadMe.txt
- license_en.txt

You must deploy the contents of the zip files on the corresponding Netcool/OMNIBus components to monitor the Dell servers and Dell EqualLogic Storage Arrays respectively.

Integration Details for Netcool/OMNIBus Components

Extract the contents of `Dell_Server_Integration_v1_0.zip` and `Dell_EqualLogic_Integration_v1_0.zip`.

Table 1-3 below lists the Netcool/OMNIBus components and the Integration folders for Dell OpenManage Connection. Deploy the integration files of Dell OpenManage Connection from the corresponding folder to the Netcool/OMNIBus components folder.

Table 1-3. Netcool/OMNIBus Components

Component	Integration folders
Probe	<code>probe_integration</code> — contains the rules and lookup table files for Dell servers and Dell EqualLogic storage arrays.
ObjectServer	<code>objectserver_integration</code> — contains the exported Dell integration Automation Triggers, Tools, Menus, and Conversion Classes.
Desktop	<code>desktop_integration</code> — contains utilities or tools that you require for the following tasks: <ul style="list-style-type: none">• Configure the SNMP community name string• Launch the Server Administrator console from the Netcool/OMNIBus desktop• Launch the Server Administrator Web Server console from Netcool/OMNIBus desktop NOTE: This integration is not available in <code>Dell_EqualLogic_Integration_v1_0.zip</code>
Web GUI	<code>webgui_integration</code> — contains the Dell integration tools, menus, and applications that you require for the following task: <ul style="list-style-type: none">• Configure the SNMP community name string• Launch the Server Administrator console from the Netcool/OMNIBus Web GUI• Launch the Server Administrator Web Server console from Netcool/OMNIBus Web GUI• Launch the EqualLogic Group Manager console from Netcool/OMNIBus Web GUI

Installing Dell OpenManage Connection for Netcool/OMNIBus

To install Dell OpenManage Connection for Netcool/OMNIBus you must extract the component specific files as mentioned under [Integration Details for Netcool/OMNIBus Components](#) on the systems where you have installed the Netcool/OMNIBus components, and deploy them.

Before you begin deploying the files:

- 1 Download the `Dell_OpenManage_Connection_for_OMNIBus_v1_0.zip` file from support.dell.com and extract the contents to any folder.

The following files are extracted:

- `Dell_Server_Integration_v1_0.zip`
 - `Dell_EqualLogic_Integration_v1_0.zip`
 - `Dell_OMC_1_0_For_IBM_OMNIBus_IG.pdf`
 - `Dell_OMC_1_0_ReadMe.txt`
 - `license_en.txt`
- 2 Ensure that the folder contains the following files:
 - `Dell_Server_Integration_v1_0.zip`
 - `Dell_EqualLogic_Integration_v1_0.zip`
 - 3 Extract the contents of `Dell_Server_Integration_v1_0.zip` to a separate folder. This includes the following folders:
 - `probe_integration`
 - `webgui_integration`
 - `desktop_integration`
 - `objectserver_integration`
 - 4 Extract the contents of `Dell_EqualLogic_Integration_v1_0.zip` to a separate folder. This includes the following folders:
 - `probe_integration`
 - `webgui_integration`

- `objectserver_integration`
- 5 Log in as Netcool Administrator on any system where you have installed any of the Netcool/OMNIbus components.

Installing Probe Integration

The `probe_integration` folder present under `Dell_Server_Integration_v1_0.zip` contains the rules and lookup files for the Dell Server traps. This will also contain the version file `dellserver_int_mttrapdprobe.ver` for server integration. The `probe_integration` folder present under `Dell_EqualLogic_Integration_v1_0.zip` contains the rules and lookup files for the Dell EqualLogic traps. This will also contain the version file `delleql_int_mttrapdprobe.ver` for EQL integration. These files integrate with SNMP MTTrapd probe.

To deploy the integration of Dell server and Dell EqualLogic traps:

- 1 Copy the `dell` folder under `probe_integration` and place it under the `%NC_RULES_HOME%/include-snmpttrap` folder on the system where you have installed the Probe component.
- 2 Open the master probe rules file and perform the following steps:
 - a Append the following line in the `include rules` section:
`include "$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.rules"`
 - b Append the following line in the `include lookup table` section:
`include "$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.lookup"`
- 3 Ensure that the copied `dell` folder and the files under it have the proper permissions for the probe rules, per IBM guidelines, refer to IBM Netcool/OMNIBus documentation.
- 4 Perform the followings steps that are specific to Dell Server traps:
 - a Uncomment the `dell-StorageManagement-MIB.include.snmpttrap.lookup` file include statement in the `dell.master.include.lookup` file.
 - b Uncomment the `dell-MIB-Dell-10892.include.snmpttrap.lookup` file include statement in the `dell.master.include.lookup` file.
 - c Uncomment the `dell-StorageManagement-MIB.include.snmpttrap.rules` file include statement in the `dell.master.include.rules` file.

- d Uncomment the `dell-MIB-Dell-10892.include.snmptrap.rules` file include statement in the `dell.master.include.rules` file.
- 5 Perform the following steps that are specific to Dell EqualLogic traps:
- a Uncomment the `equalLogic-EQLMEMBER-MIB.include.snmptrap.lookup` file include statement in the `dell.master.include.lookup` file.
 - b Uncomment the `equalLogic-EQLDISK-MIB.include.snmptrap.lookup` file include statement in the `dell.master.include.lookup` file.
 - c Uncomment the `equalLogic-EQLMEMBER-MIB.include.snmptrap.rules` file include statement in the `dell.master.include.rules` file.
 - d Uncomment the `equalLogic-EQLDISK-MIB.include.snmptrap.rules` file include statement in the `dell.master.include.rules` file.
- 6 Restart the OMNIbus MTTrapd SNMP Probe server.

Installing ObjectServer Integration

The `objectserver_integration` folder contains the `dell_server_confpack_v_1_0.jar` file for Dell servers and the `dell_equallogic_confpack_v_1_0.jar` file for Dell EqualLogic storage arrays. These jar files contain the exported Dell integration automation triggers, tools, menus, and conversion classes.

The `objectserver_integration` folder also contains the version file `dellserver_int_objectserver.ver` for server integration and the version file `delleql_int_objectserver.ver` for EQL integration.

To deploy the Dell integration components on the system that hosts the ObjectServer:

- 1 Run the following command with the required security credentials to access the OMNIbus ObjectServer:

For Windows:

```
%OMNIHOME%\bin\nco_confpack.bat -import -server
<ObjectServer> -user <username> -package <copied
```

folder>\dell_server_confpack_v_1_0.jar for Dell servers
or

```
%OMNIHOME%\bin\ncfpack.bat -import -server  
<ObjectServer> -user <username> -package <copied  
folder>\dell_equallogic_confpack_v_1_0.jar for Dell  
EqualLogic storage arrays.
```

For Linux:

```
$OMNIHOME/bin/ncfpack -import -server  
<ObjectServer> -user <username> -package <copied  
folder>/dell_server_confpack_v_1_0.jar for Dell  
servers or
```

```
$OMNIHOME/bin/ncfpack -import -server  
<ObjectServer> -user <username> -package <copied  
folder>/dell_equallogic_confpack_v_1_0.jar for Dell  
EqualLogic storage arrays.
```

- 2 In the Event List on the Desktop, click **File** → **Resync** → **All**. This synchronizes the newly added menu items for the Dell tools and conversion classes that are updated from the jar files.



NOTE: Resync can be performed only for ObjectServer integration.

- 3 On the system where the ObjectServer is installed, in the %OMNIHOME% directory, copy the file **delleql_int_objectserver.ver** for Dell EqualLogic Integration and **dellserver_int_objectserver.ver** for Dell Server Integration.

Configuring Dell Server Administrator Web Server Console on the ObjectServer

The Dell Server Administrator Web Server Console uses the configured URL to launch its console in the default browser.

To configure the Web Server Console URL for Windows systems:

- 1 Provide the required security credentials to access the OMNIbus ObjectServer and log in to the NCOMS ObjectServer.
- 2 In the **Configuration** window, select **Menu** → **Tools**.
- 3 Double-click on **Dell Server Administrator Web Server Console** on the right pane to launch the **Tool Details** window.

- 4 Click the executable tab and edit the following command:

```
<Server Administrator Web Server Host/IP>:<Server  
Administrator Web Server  
PORT>/omalogin.html?managedws=false &mnip=@Node
```

You must provide the IP address and the port of the Server Administrator Web Server. For example: 10.95.145.156:1311. See Server Administrator documentation for more information.

To configure the Web Server Console URL for Linux systems:

- 1 Repeat the preceding steps 1 and 2.
- 2 Double-click on **Dell Server Administrator Web Server Console (Linux)** on the right pane to launch the **Tool Details** window.
- 3 Click the executable tab and edit the following command: <Server

```
Administrator Web Server Host/IP>:<Server  
Administrator Web Server  
PORT>/omalogin.html?managedws=false &mnip=@Node
```

You must provide the IP address and the port of the Server Administrator Web Server. For example: 10.95.145.156:1311. See Server Administrator documentation for more information.

Installing Desktop Integration for Dell Servers

The `desktop_integration` folder for Dell servers contains the following files:

- `dell_OMNibus_Connection_SNMP_Configurator_v_1_0.jar` — this is used to configure the SNMP community name string.
- `dell_OMNibus_Connection_SNMP_Helper_v_1_0.jar` — this is used to launch the OpenManage Server Administrator (OMSA) URL.
- `snmp4j-2.0.0.jar` — this is used to configure the SNMP Community, using the Dell Server Configurator utility.
- `dell_config.properties` — this contains the encrypted SNMP community string.
- `dellserver_int_desktop.ver` — this is the version file for server integration.

To deploy the Dell integration components on the system that hosts the desktop client:

- 1 Copy the `dell_OMNIBus_Connection_SNMP_Configurator_v_1_0.jar`, `dell_OMNIBus_Connection_SNMP_Helper_v_1_0.jar`, `snmp4j-2.0.0.jar`, `dellserver_int_desktop.ver`, and the `dell_config.properties` files in the `%OMNIHOME%` directory on the system where you have installed the desktop client.
- 2 Configure the SNMP Community using the `DellServerConfigurator` java utility. For more information, see [Using the Dell Server Configurator Utility](#).

Installing Web GUI Integration

The `webgui_integration\import` folder for Dell servers contains the following folders and files:

- `dell_OMNIBus_Connection_SNMP_Configurator_v_1_0.jar` — this is used to configure the SNMP community name string.
- `dell_OMNIBus_Connection_SNMP_Helper_v_1_0.jar` — this is used to launch the OpenManage Server Administrator (OMSA) URL.
- `snmp4j-2.0.0.jar` — this is used to configure the SNMP Community, using the Dell Server Configurator utility.
- `dell_config.properties` — this contains the encrypted SNMP community string.
- `export.xml` — this contains the exported tools and menu items for the Web GUI integration of Dell servers.
- `dellserver_int_webgui.ver` — this is the version file for server integration.

The `webgui_integration\import\config\cgi-bin` folder contains the following:

- `omsalauncher_linux.cgi` — this is the cgi script for launching the Server Administrator Console in Web GUI installed in Linux systems.
- `omsalauncher_nt.cgi` — this is the cgi script for launching the Server Administrator Console in Web GUI installed in Windows systems.

The `webgui_integration\import` folder for Dell EqualLogic storage arrays contains the following files:

- `export.xml` — this contains the exported tools and menu items for the Web GUI integration of Dell EqualLogic storage arrays.
- `delleql_int_webgui.ver` — this is the version file for EQL integration.



NOTE: The `.cgi` script files are not present in the `import` folder.


To deploy the Dell integration components on the system that hosts the Web GUI:

- 1 Copy the `dell_OMNIBus_Connection_SNMP_Configurator_v_1_0.jar`, `dell_OMNIBus_Connection_SNMP_Helper_v_1_0.jar`, `snmp4j-2.0.0.jar`, and `dell_config.properties` files in the `<Web GUI Install directory>` on the system where you have installed the Web GUI component.

- 2 Configure the SNMP Community using the **Dell Server Configurator** java utility. For more information, see [Using the Dell Server Configurator Utility](#).
- 3 On the system where the Web GUI component is installed, in the **<Web GUI Install directory>**, copy the file **delleql_int_webgui.ver** for Dell EqualLogic Integration and **dellserver_int_webgui.ver** for Dell Server Integration.
- 4 Restart the Web GUI.
- 5 Navigate to the import folder in the location where you have extracted webgui_integration folder and run the following command:


```
<Web GUI InstallLocation>\waapi\bin\runwaapi -host
<hostname> -user <Web GUI username> -password <Web
GUI password> -file export.xml.
```

If you are installing both Dell Server and Dell EqualLogic component files, you must run the runwaapi command twice to ensure that all the relevant files are copied.

 **NOTE:** Steps 1 and 2 are applicable only to Dell servers.

Using the Dell Server Configurator Utility

Dell Server Configurator Utility for Desktop

To use the Dell Server Configurator Utility to set the SNMP Community string:

- 1 Navigate to the OMNIHOME directory on the system where the Desktop component is installed.
- 2 Run the following command for Desktop:

For Windows:

```
%NCHOME%\platform\<specificplatform>\jre_1.6.7\jre\bin\java -Ddell.config.path=desktop -classpath
%NCHOME%\omnibus\dell_OMNIbus_Connection_SNMP_Configurator_v_1_0.jar;%NCHOME%\omnibus\snmp4j-2.0.0.jar
com.dell.openmanage.connections.SnmpConfigurator
```

For Linux:


```
$NCHOME/platform/<specificplatform>/jre_1.6.7/jre
/bin/java -Ddell.config.path=desktop -classpath
$NCHOME/omnibus/dell_OMNIBus_Connection_SNMP_Conf
igurator_v_1_0.jar:$NCHOME/omnibus/snmp4j-
2.0.0.jar
com.dell.openmanage.connections.SnmpConfigurator
```

Dell Server Configurator Utility for Web GUI

To use the Dell Server Configurator Utility to set the SNMP Community string:

- 1 Navigate to the Web GUI Installation directory on the system where the Web GUI component is installed.
- 2 Run the following command for Web GUI:

For Windows:

```
<Web GUI Installation Dir>\java\jre\bin\java -
Ddell.config.path=webgui -classpath
%NCHOME%\omnibus_webgui\dell_OMNIBus_Connection_S
NMP_Configurator_v_1_0.jar;%NCHOME%\omnibus_webgui
i\snmp4j-2.0.0.jar
com.dell.openmanage.connections.SnmpConfigurator
```

For Linux:

```
<Web GUI Installation Dir>/java/jre/bin/java -
Ddell.config.path=webgui -classpath
$NCHOME/omnibus_webgui/dell_OMNIBus_Connection_SN
MP_Configurator_v_1_0.jar:$NCHOME/omnibus_webgui/
snmp4j-2.0.0.jar
com.dell.openmanage.connections.SnmpConfigurator
```

Updating the Dell Tools Menu on the Web GUI Server

To update the Dell Tools menu on the Alerts menu of the Web GUI component:

- 1 Edit the Alert menu on the Web GUI to update the Dell Tools menu. To edit the Alert menu:
 - a Click Administration→ Event Management Tools.

- b** Navigate to **Menu Configuration**.
 - c** Select **Alerts** under **Available Menus** on the right pane.
 - d** Click **Modify**.
 - e** Select **Menu** from the **Available items** drop-down list.
 - f** Add **Dell Tools** to the **Current items**.
 - g** Click **Save**.
- 2** Refresh the **Active Event List** to synchronize the newly added menu items.
 - 3** Verify that the **Dell Tools**→ **Launch Dell Server Administrator Console**, **Launch Dell Server Administrator Web Server Console**, and the **Launch Dell EqualLogic Group Manager Console** menu options are available for the events received from Dell devices.

Configuring Dell Tools Menu

When you import the Web GUI Integration, and both EqualLogic and Dell Server integration co-exists, the associations are lost between Dell tools and the Dell Tools menu.

To configure the menu for Dell Tools:

- 1** Log in to the **Web GUI**.
- 2** Click **Administration**→ **Event Management Tools**.
- 3** Select **Menu Configuration**.
- 4** In **Available menus**, select **DellTools**, and click **Modify**.
- 5** From the **Available items** drop-down menu, click **tool**.
- 6** Select the required tool to associate with the **Dell Tools Menu** and move the tool to the **Current items**.
- 7** Select the tool from the **Current items** and click **Rename**.
The **Rename Menu Item Window** is displayed.
- 8** Change the **Label name** to the corresponding **Dell Tool** name.
- 9** Click **Save** and close the window.
- 10** **Save** and close the **Menu Editor** window.
- 11** Follow the preceding steps to configure the **Dell Tools** with the **Alert** menu.

- 12 In the Web GUI's left panel, select **Availability**→ **Events**.
- 13 Click **Active Event List (AEL)**.
- 14 Click **Refresh event data** to synchronize the menus with the AEL.
Verify the newly associated tools are shown in the **Dell Tools** menu.

Configuring Server Administrator Launch Tool on the Web GUI Server for Linux Systems

To configure the Launch Dell Server Administrator tool on Linux systems:

- 1 Log in to the Web GUI running on a Linux system.
- 2 Click **Administration**→ **Tool Configuration**.
- 3 Double-click on **LaunchDellServerAdministratorConsole**.
- 4 Modify the name of the CGI Script in URL section to `omsalauncher_linux.cgi`.

Uninstalling Dell OpenManage Connection

To uninstall Dell OpenManage Connection for Netcool/OMNIBus you must uninstall or remove the component specific files.

Uninstalling the Probe Integration

To uninstall the Probe integration:

- 1 Navigate to the `%NC_RULES_HOME%/include-snmpttrap` folder on the system where you have installed the Probe component.
- 2 Open the master probe rules file and perform the following steps:
 - a Remove or comment the following line in the **include rules** section:
`include "$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.rules"`
 - b Remove or comment the following line in the **include lookup table** section:
`include "$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.lookup"`
- 3 Delete the **dell** folder under `%NC_RULES_HOME%/include-snmpttrap`.
- 4 Restart the probe server.

Uninstalling ObjectServer Integration

To uninstall the ObjectServer integration:

- 1** Provide the required security credentials to access the OMNIbus ObjectServer and log in to the NCOMS ObjectServer.
- 2** In the **Configuration** window, select **Menu**→**Tools**.
- 3** Right-click on **Launch Dell Server Administrator Console**, **Launch Dell Server Administrator Web Server Console**, and **Launch Dell EqualLogic Group Manager Console** and select **Delete**.
- 4** Navigate to **Menu Configuration**.
- 5** Select **Alerts Menus** under **Available Menus** on the right pane.
- 6** Right-click on **Dell Tools** and select **Delete**.
- 7** Navigate to **Automation**→**Triggers** and delete the following triggers:
 - `dell_omsa_clear`
 - `dell_omsa_deduplicate_clear`
 - `dell_equallogic_clear`
 - `dell_equallogic_deduplicate_clear`
- 8** Navigate to **Visual**→**Conversions** and expand on **Class**.
- 9** Right-click on **Dell Server (2080)** and **Dell EqualLogic (2085)** and delete them.
- 10** Open **Event List** and select **File**→**Resync**→**All**.
- 11** On the system where the ObjectServer is installed, in the `%OMNIHOME%` directory, remove the file `delleql_int_objectserver.ver` for Dell EqualLogic Integration and `dellserver_int_objectserver.ver` for Dell Server Integration.
- 12** Restart the Web GUI.

Uninstalling Desktop Integration

To uninstall the Desktop integration:

Delete the `dell_OMNIBus_Connection_SNMP_Configurator_v_1_0.jar`, `dell_OMNIBus_Connection_SNMP_Helper_v_1_0.jar`, `snmp4j-2.0.0.jar`, `dellserver_int_desktop.ver`, and the `dell_config.properties` files from the `%OMNIHOME%` directory on the system where you have installed the desktop client.

Uninstalling Web GUI Integration

To uninstall the Web GUI integration:

- 1 Log in to the Web GUI.
- 2 On the system where the Web GUI component is installed, in the `<WebGUI Install directory>`, delete the file `delleql_int_webgui.ver` for Dell EqualLogic Integration and `dellserver_int_webgui.ver` for Dell Server Integration.
- 3 Delete `dell_OMNIBus_Connection_SNMP_Configurator_v_1_0.jar`, `dell_OMNIBus_Connection_SNMP_Helper_v_1_0.jar`, `snmp4j-2.0.0.jar`, and `dell_config.properties` files from the `<Web GUI Install directory>` on the system where you have installed the Web GUI component.
- 4 Navigate to **Administration** → **Event Management** → **Tool Creation**.
- 5 Select **Launch Dell Server Administrator Console**, **Launch Dell Server Administrator Web Server Console** and **Launch Dell EqualLogicGroup Manager Console** and click **Delete**.
- 6 Navigate to **Administration** → **Event Management** → **Menu Configuration**.
- 7 Navigate to **Administration** → **Event Management Tools** → **CGI Registry**. Select `omsalauncher_linux.cgi` on the right pane and click **Unregister**.
- 8 Navigate to **Administration** → **Event Management Tools** → **CGI Registry**. Select `omsalauncher_nt.cgi` on the right pane and click **Unregister**.
- 9 Select **Dell Tools** on the right pane and click **Delete**.
- 10 Verify that Dell Tools is removed from the **Alert** menu.
- 11 Restart the Web GUI.

