




**Dell OpenManage Connection Version 3.0 for
IBM Tivoli Netcool/OMNibus
User's Guide**



Notes, cautions, and warnings

-  **NOTE:** A NOTE indicates important information that helps you make better use of your computer.
-  **CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.
-  **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

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Overview

This guide provides the information required to monitor and troubleshoot the Dell OpenManage Connection Version 3.0 for Tivoli Netcool/OMNIBus.

Dell OpenManage Connection for IBM Tivoli Netcool/OMNIBus provides event-monitoring capabilities to monitor Original Equipment Manufacturing (OEM) Servers, Dell Datacenter Scalable Solutions (DSS), Dell PowerEdge Servers, Dell Remote Access Controllers (DRACs), Integrated Dell Remote Access Controllers (iDRACs), Dell Workstations, Dell Chassis, Dell Storage, and Dell Network devices. The Dell OpenManage Connection monitors Dell devices by receiving alerts on the IBM Tivoli Netcool/OMNIBus console. It also supports one-to-one console launches following Dell device alerts and other Dell tools launches from the IBM Tivoli Netcool/OMNIBus console in order to perform troubleshooting, configuration, and management activities.

**NOTE:**

This guide is intended for system administrators familiar with IBM Tivoli Netcool/OMNIBus 7.3.1, 7.4, or 8.1

Dell Precision Rack Workstations mentioned throughout this guide refers to Dell Precision R7910 Rack Workstations.

For more information about the supported Dell devices, see [Dell OpenManage Connection support matrix](#). For more information on accessing documents, see [Accessing documents from the Dell support site](#).

What is new in this release

The Dell OpenManage Connection version 3.0 for IBM Tivoli Netcool/OMNIBus has the following new features and support:


- Support for IBM Tivoli Netcool/OMNIBus version 8.1
- Simple Network Management Protocol version 3 (SNMPv3) support for iDRAC7, iDRAC8, Dell Enterprise Switches (M-Series, C-Series, S-Series, and Z-Series), and N-Series switches.
- Monitor alerts from the following Dell devices:
 - Support for Dell Original Equipment Manufacturing (OEM) servers
 - Support for Dell Datacenter Scalable Solutions (DSS)
 - Support for the latest Dell 13th Generation of PowerEdge servers
- Trap correlation support for the following Dell devices:
 - Dell OEM servers
 - Dell DSS
 - Integrated Dell Remote Access Controller 8 (iDRAC8)

- Dell PowerEdge FX2
- Dell PowerEdge VRTX
- Support for additional traps for the following Dell devices:
 - Dell OpenManage Server Administrator (OMSA) and Dell OpenManage Storage Management (OMSS) for OpenManage release 8.3, 8.2, and 8.1
 - Dell OEM servers
 - Dell DSS
 - Integrated Dell Remote Access Controller 8 (iDRAC8) with firmware versions 2.30.30.30 and 2.20.20.20
 - Integrated Dell Remote Access Controller 7 (iDRAC7) with firmware versions 2.30.30.30 and 2.20.20.20
 - Dell N-Series switches
- Support to view Dell Warranty information of the Dell devices from the event context.

Key features

The following table lists the key features of Dell OpenManage Connection for IBM Tivoli Netcool/OMNIBus version 3.0

Table 1. Features and Functionalities

Feature	Functionality
Event monitoring	Monitors the events from the supported Dell devices on the Netcool/OMNIBus console. For more information, see Event Monitoring Using SNMP Traps .
Event auto correlation	Correlates events for the supported Dell devices automatically to focus on the current outstanding problems. For more information, see Event Auto Correlation .
Launching Dell consoles	<p>Launches the Dell consoles and other Dell tools for the supported Dell devices that you are monitoring to perform troubleshooting, configuration, or management activities. For more information, see Dell Devices and their Console Launch Tools.</p> <p> NOTE: For launching Dell one-to-one consoles from the events generated from a supported and SNMP enabled Dell device, the default SNMP port is used.</p>
Launching Warranty report information	Launches the Warranty report informations for the supported Dell devices.
Launching the 12th generation of Dell PowerEdge server or later server Trap Configuration Information	The Dell OpenManage connection enables you to launch the Dell Server Trap Configuration Information tool to get more information about how to configure SNMP trap information on the supported Dell Servers you are monitoring. For more information about the supported Dell devices that facilitate the launching of this tool, see Dell Devices and their Console Launch Tools .

Dell OpenManage Connection Support Matrix

Dell OpenManage Connection Version 3.0 for IBM Tivoli Netcool/OMNIBus supports the Dell devices, firmware versions, OMSA versions, and operating systems as listed in the following sections:

- Supported operating systems for Managing Systems
- Supported operating systems for Managed Systems
- Supported Dell devices and their OMSA and firmware versions
- Supported Dell Platforms

Supported operating systems for Managing Systems

The following tables lists the operating systems and requirements for integrating the Dell OpenManage Connection on the systems where the Netcool/OMNIBus 8.1, 7.4, or 7.3.1 components are installed:

Table 2. Supported operating systems for Dell OpenManage Connection for IBM Tivoli Netcool/OMNIBus 8.1

VMware vSphere ESXi	Windows Server	SUSE Linux Enterprise Server (SLES)	Red Hat Enterprise Linux Server (RHEL)
ESXi 5.5	Windows Server 2012 R2 64-bit (Standard, Datacenter)	SLES 12 64-bit	RHEL 7.0-1 64-bit (Server)
ESXi 5.0	Windows Server 2012 64-bit (Standard, Datacenter)	SLES 11.0-4 64-bit	RHEL 6.0-7 64-bit (Client, Server, Workstation)
ESXi 4.1			RHEL 5.7-11 64-bit (Advanced, Desktop)
ESXi 4.0			RHEL 5.7-10 64-bit (Server)
ESXi 3.5			
ESX 3.5			

Table 3. Supported operating systems for Dell OpenManage Connection for IBM Tivoli Netcool/OMNIBus 7.4

VMware vSphere ESXi	Windows Server	Windows Client	SUSE Linux Enterprise Server (SLES)	Red Hat Enterprise Linux Server (RHEL)	SUSE Linux for Desktop (SLED)
ESXi 5.5	Windows Server 2008 R2 64-bit SP1 (Enterprise,	Windows 8.1 64-bit (Enterprise,	SLES 11.0-3 64-bit	RHEL 6.0-5 64-bit (Server, Workstation)	SLED 11.0-3 64-bit

VMware vSphere ESXi	Windows Server	Windows Client	SUSE Linux Enterprise Server (SLES)	Red Hat Enterprise Linux Server (RHEL)	SUSE Linux for Desktop (SLED)
	Datacenter, Standard)	Professional, Standard)			
ESXi 5.0	Windows Server 2008 R2 32-bit SP2 (Enterprise, Standard)	Windows 8 64-bit (Enterprise, Professional, Standard)	SLES 10.0-4 64-bit	RHEL 6.0-10 64-bit (Advanced, Desktop, Server)	SLED 10.0-3 64-bit
ESXi 4.1	Windows Server 2008 64-bit SP2 (Enterprise, Standard)	Windows 7 64-bit SP1 (Enterprise, Professional)			
ESXi 4.0	Windows Server 2012 R2 64-bit (Datacenter, Essentials, Standard)	Windows 7 32-bit SP1 (Enterprise, Professional)			
ESXi 3.5	Windows Server 2012 64-bit (Datacenter, Essentials, Standard)				
ESX 3.5					

Table 4. Supported operating systems for Dell OpenManage Connection for IBM Tivoli Netcool/OMNIBus 7.3.1

VMware vSphere ESXi	Windows Server	Windows Client	SUSE Linux Enterprise Server (SLES)	Red Hat Enterprise Linux Server (RHEL)	SUSE Linux for Desktop (SLED)
ESXi 5.5	Windows Server 2008 R2 64-bit SP1 (Enterprise, Datacenter, Standard)	Windows Vista Enterprise 64-bit SP2	SLES 11.0-3 64-bit	RHEL 6.0-5 64-bit (Client, Server, Workstation)	SLED 11.0-3 64-bit
ESXi 5.0	Windows Server 2008 R2 32-bit SP2 (Enterprise, Standard)	Windows Vista Enterprise 32-bit SP2	SLES 11.0-3 32-bit	RHEL 6.0-5 32-bit (Server, Workstation)	SLED 10.0-4 64-bit
ESXi 4.1	Windows Server 2008 64-bit SP2 (Enterprise, Standard)	Windows Vista Ultimate 64-bit SP2	SLES 10.0-4 64-bit	RHEL 6.0-4 32-bit (Client)	SLED 10.0-4 32-bit

VMware vSphere ESXi	Windows Server	Windows Client	SUSE Linux Enterprise Server (SLES)	Red Hat Enterprise Linux Server (RHEL)	SUSE Linux for Desktop (SLED)
ESXi 4.0	Windows Server 2008 32-bit SP2 (Enterprise, Standard)	Windows Vista Ultimate 32-bit SP2	SLES 10.0-4 32-bit	RHEL 5.0-10 64-bit (Advanced, Desktop, Server)	
ESXi 3.5		Windows XP Professional 32-bit SP3		RHEL 5.0-10 32-bit (Advanced, Desktop, Server)	
ESX 3.5		Windows 7 64-bit SP1 (Professional, Enterprise) Windows 7 32-bit SP1 (Professional, Enterprise)			

Supported operating systems for Managed Systems

The following table lists the operating systems supported on the supported Dell devices:

Table 5. Supported operating systems for Dell Workstations


VMware vSphere ESXi	Windows Server	SUSE Linux Enterprise Server (SLES)	Red Hat Enterprise Linux Server (RHEL)
ESXi 6.0 U1	Windows Server 2012 R2 (Datacenter, Foundation, Essentials, and Standard editions)	SLES 12 64-bit	RHEL 7.2 64-bit
ESXi 5.5 U3	Windows 8.1 Professional 64 bit	SLES 11 SP4 64-bit	RHEL 7.1 64-bit
ESXi 5.5 U2	Windows 7 Professional 32-bit and 64-bit Microsoft Windows Server 2008 SP1 Microsoft Windows Server 2008 R2		RHEL 7.0 64-bit RHEL 6.7 64-bit

Table 6. Supported operating systems for Dell Servers

VMware vSphere ESXi	Windows Server	SUSE Linux Enterprise Server (SLES)	Red Hat Enterprise Linux Server (RHEL)
ESXi 6.0 U1	Windows Server 2012 R2 (Datacenter, Foundation,	SLES 12 64-bit	RHEL 7.2 64-bit

VMware vSphere ESXi	Windows Server	SUSE Linux Enterprise Server (SLES)	Red Hat Enterprise Linux Server (RHEL)
	Essentials, and Standard editions)		
ESXi 6.0	Microsoft Windows Server 2012 Essentials	SLES 11 SP4 64-bit)	RHEL 7.1 64-bit
ESXi 5.5 U3	Windows Essential Business Server 2008 SP1		RHEL 7.0 64-bit
ESXi 5.5 U2	Windows Essential Business Server 2008 SP1		RHEL 6.7 64-bit
ESXi 5.5	Windows Server 2008 SP2 32-bit and 64-bit		RHEL 6.5 64-bit
ESXi 5.1 U3	Windows Server 2008 R2 64-bit		RHEL 6.2 64-bit
ESXi 5.1 U2	Windows Server 2008 R2 SP1 64-bit		RHEL 6.0 64-bit
ESXi 5.1 U1	Windows Server 2008 R1 and R2 (HPC Edition)		RHEL 5.9 64-bit and 32-bit
ESXi 5.1	Windows Storage Server 2008 SP2		RHEL 5.5 64-bit and 32-bit
ESXi 5.0 U3	Windows Small Business Server 2008 SP2		RHEL 5.3 64-bit and 32-bit
ESXi 5.0 U2	Windows Small Business Server 2008 R2		RHEL 5.0 64-bit and 32-bit
ESXi 5.0 U1	Microsoft Windows Small Business Server 2011		
	Microsoft Windows Server 2012		
	Windows Small Business Server 2003 R2 SP2		
	Windows Server 2003 R2 32-bit and 64-bit		
	Windows Storage Server 2003 R2		
	Windows Server 2003 (Compute Cluster Edition)		

VMware vSphere ESXi	Windows Server	SUSE Linux Enterprise Server (SLES)	Red Hat Enterprise Linux Server (RHEL)
	Windows Unified DataStorage Server 64-bit		

 **NOTE:** For any communication with servers running VMware ESXi, certificate check is ignored.

Supported Dell devices and their OMSA and firmware versions

The following table lists the Dell Devices and their supported firmware versions for Dell OpenManage Connection.

Table 7. Dell devices and firmware

Dell Devices	Supported OMSA Versions	Supported Firmware Versions
Dell OEM Servers	<ul style="list-style-type: none"> 8.3 8.2 8.1 	NA
Dell PowerEdge servers	<ul style="list-style-type: none"> 8.3 8.2 8.1 	NA
Dell Workstations	<ul style="list-style-type: none"> 8.3 8.2 8.1 	NA
Dell Datacenter Scalable Solutions (DSS 1500 and DSS 2500)	NA	<ul style="list-style-type: none"> 2.30.30.30 2.16.16.12
Dell Datacenter Scalable Solutions (DSS 1510)	NA	<ul style="list-style-type: none"> 2.30.30.30 2.17.17.13
iDRAC8	NA	<ul style="list-style-type: none"> 2.30.30.30 2.20.20.20
iDRAC7	NA	<ul style="list-style-type: none"> 2.30.30.30 2.20.20.20
iDRAC6 Modular	NA	<ul style="list-style-type: none"> 3.6 3.5
iDRAC6 Monolithic	NA	<ul style="list-style-type: none"> 1.97 1.96
DRAC5	NA	<ul style="list-style-type: none"> 1.6

Dell Devices	Supported OMSA Versions	Supported Firmware Versions
		<ul style="list-style-type: none"> 1.5
FX2 CMC	NA	<ul style="list-style-type: none"> 1.4 1.3
VRTX CMC	NA	<ul style="list-style-type: none"> 2.2 2.1
CMC	NA	<ul style="list-style-type: none"> 5.2 5.1
Dell PowerVault NX Storage Arrays	<ul style="list-style-type: none"> 8.3 8.2 8.1 	NA
Dell Compellent Storage Arrays	NA	6.6.2
Dell EqualLogic PS-Series Storage Arrays	NA	<ul style="list-style-type: none"> 8.1 8.0
Dell PowerVault MD Storage Arrays	NA	<ul style="list-style-type: none"> 08.20.09.60 08.10.05.60
Dell Network Switches	NA	<p>S-Series</p> <ul style="list-style-type: none"> S55 (8.3.5.5 and 8.3.5.3) S60 (8.3.3.9 and 8.3.3.8) S4810 (9.6 and 9.5) S4820T (9.5 and 9.4) S5000 (9.1 and 9.0) S6000 (9.5 and 9.4) <p>M-Series</p> <ul style="list-style-type: none"> MXL (9.6 and 9.5) MIOA (9.5 and 9.4) <p>Z-Series</p> <ul style="list-style-type: none"> Z9500 (9.2) Z9000 (9.5 and 9.4) <p>C-Series</p> <ul style="list-style-type: none"> C150 (8.4.6.0) C300 (8.4.5.0) <p>N-Series</p> <ul style="list-style-type: none"> 6.1.2 and 6.1 <p>W-Series</p> <ul style="list-style-type: none"> W-Series Mobility Controllers (6.4)

 **NOTE:** Dell Workstations refers to Dell Precision R7910 Rack Workstations.

Supported Dell platforms

Dell Datacenter Scalable Solutions

Table 8. Supported Dell Datacenter Scalable Solutions

Dell Datacenter Scalable Solutions (DSS)
DSS 1500
DSS 1510
DSS 2500

Dell PowerEdge servers


 **NOTE:** In the PowerEdge server name format yxxx; y denotes alphabets, for example M,R, or T and x denotes numbers.

Table 9. Supported Dell PowerEdge servers

yx0x Systems	yx1x Systems	yx2x Systems	yx3x Systems
PowerEdge M605	PowerEdge R210	PowerEdge FM120x4	C4130
PowerEdge M905	PowerEdge R210 II	PowerEdge M420	C6320
PowerEdge R200	PowerEdge R410	PowerEdge M520	FC230
PowerEdge R805	PowerEdge R415	PowerEdge M620	FC430
PowerEdge R905	PowerEdge R510	PowerEdge M820	FC630
PowerEdge T100	PowerEdge R515	PowerEdge R320	FC830
PowerEdge T105	PowerEdge R610	PowerEdge R420	M630
	PowerEdge R710	PowerEdge R520	M830
	PowerEdge R715	PowerEdge R620	R230
	PowerEdge R810	PowerEdge R820	R330
	PowerEdge R815	PowerEdge R920	R430
	PowerEdge R910	PowerEdge S420	R530
	PowerEdge T110	PowerEdge S620	R530xd
	PowerEdge T110 II	PowerEdge T320	R630
	PowerEdge T310	PowerEdge T420	R730
	PowerEdge T410	PowerEdge T620	R730xd
	PowerEdge T610		R930

yx0x Systems	yx1x Systems	yx2x Systems	yx3x Systems
	PowerEdge T710		T130
	PowerEdge M610		T330
	PowerEdge M610x		T430
	PowerEdge M710		T630
	PowerEdge M710HD		
	PowerEdge M910		
	PowerEdge M915		

 **NOTE:** The corresponding Dell Remote Access Controllers (DRAC5, iDRAC6, iDRAC7 and iDRAC8) are included as part of their respective generation of Dell PowerEdge servers in the preceding table.

Dell Workstations

Table 10. Supported Dell Workstations

Dell Precision R7910

Dell Chassis

Table 11. Supported Dell Chassis

Dell PowerEdge FX2

Dell PowerEdge FX2s

Dell PowerEdge VRTX

Dell PowerEdge M1000e

Dell Compellent storage arrays

Table 12. Supported Dell Compellent storage arrays

Compellent Series 40

Compellent SC4020

Compellent SC8000

Dell PowerVault NX storage arrays

Table 13. Supported Dell PowerVault NX storage arrays

PowerVault NX200

PowerVault NX300

PowerVault NX400

PowerVault NX3000
PowerVault NX3100
PowerVault NX3200
PowerVault NX3300

Dell EqualLogic PS-Series storage arrays

Table 14. Supported Dell EqualLogic PS-Series storage arrays

EqualLogic PS4000	EqualLogic PS5000	EqualLogic PS6000
EqualLogic PS4100	EqualLogic PS5500	EqualLogic PS6010
EqualLogic PS4110		EqualLogic PS6100
EqualLogic PSM4110		EqualLogic PS6110
		EqualLogic PS6210
		EqualLogic PS6500
		EqualLogic PS6510

Dell PowerVault MD storage arrays

Table 15. Supported Dell PowerVault MD storage arrays

PowerVault MD3200	PowerVault MD3400
PowerVault MD3220i	PowerVault MD3420
PowerVault MD3220	PowerVault MD3460
PowerVault MD3200i	PowerVault MD3800f
PowerVault MD3260	PowerVault MD3800i
PowerVault MD3260i	PowerVault MD3820f
PowerVault MD3600f	PowerVault MD3820i
PowerVault MD3600i	PowerVault MD3860f
PowerVault MD3620f	PowerVault MD3860i
PowerVault MD3620i	
PowerVault MD3660f	

Dell network switches

Table 16. Supported Dell network switches

S-Series	M-Series	Z-Series	C-Series	N-Series	W-Series (Mobility Controllers)
S55	MXL	Z9500	C150	N2024	W-3200
S60	MIOA	Z9000	C300	N2024P	W-3400
S4810				N2048	W-3600
S4820T				N2048P	W-620
S5000				N3024	W-650
S6000				N3024F	W-651
				N3024P	W-7200
				N3048	
				N3048P	
				N4032	
				N4032F	
				N4064	
				N4064F	

Using the Dell OpenManage Connection for IBM Tivoli Netcool/OMNIBus

Dell OpenManage Connection for IBM Tivoli Netcool/OMNIBus allows event monitoring, automatic event correlation, and launching device consoles on the Netcool/OMNIBus console. These features are supported on different components of Netcool/OMNIBus such as Probe, ObjectServer, Web GUI, and Desktop appropriately.

Event monitoring using SNMP traps

The Dell OpenManage Connection monitors the supported Dell devices that receive SNMP traps from Dell devices. You can use both Desktop and Web GUI client to monitor the systems. To distinguish among the various devices on the Netcool/OMNIBus console, a class value is assigned to the Dell devices as listed in the following table.

Table 17. Dell device class ID

Dell Device	Class ID
10th generation to 13th generation of Dell PowerEdge servers	2080
Dell OEM servers	2080
Dell Workstation	2080
Dell OEM iDRAC	2088
iDRAC8	2088
iDRAC7	2088
DRAC	2087
Dell Chassis	2086
PowerVault NX Storage Arrays	2080
Compellent Storage Arrays	2090
EqualLogic Storage Arrays	2085
Dell PowerVault MD Storage Arrays	2809
C- Series Switches	2091
M-Series Switches	2091
N-Series Switches	2092
S-Series Switches	2091
W-Series Switches	2093

Dell Device	Class ID
Z-Series Switches	2091
Dell Connections License Manager (Application)	2081

The event monitoring process is as follows:

1. The MTTrapd probe receives the SNMP traps from the supported Dell devices.
2. The MTTrapd probe converts the trap into an event using the respective rules, which then filters the traps from the Dell devices and populates the event fields with the appropriate value.
3. The MTTrapd probe forwards the events to the ObjectServer.
4. The Desktop and Web GUI consoles display the events by communicating with the ObjectServer.

Understanding Event Severity

The events forwarded to the ObjectServer are displayed on the Netcool/OMNIbus console with one of the following severities:

- Normal—Event with successful operation of a component, such as a power supply turning on, or a sensor reading returning to normal.
- Warning—Event that is not necessarily significant, but may indicate a possible future problem, such as crossing a warning threshold.
- Critical—Event that indicates actual or imminent loss of data or loss of function, such as crossing a failure threshold, or a hardware failure.
- Indeterminate—Event with unknown severity. Also, a resolution event that clears the problem event is initially displayed as indeterminate and then changed to normal, when the alert type of the event is **Resolution**.

Event Auto Correlation

The Dell OpenManage Connection for IBM Tivoli Netcool/OMNIbus supports auto correlation of events on Dell OEM servers, PowerEdge Servers, iDRAC7, iDRAC8, Dell PowerEdge FX2 CMC, Dell PowerEdge VRTX CMC, Compellent Storage Arrays, EqualLogic PS-Series Storage Arrays, Enterprise Series Switches (S-Series, M-Series, Z-Series, and C-Series), and N-Series Switches.

When the ObjectServer receives events, the appropriate triggers are automatically invoked to correlate the events.

The Dell OpenManage Connection automatically correlates the following events:

- Problem event with its corresponding clear event — OMSA, OMSS, iDRAC7, iDRAC8, Dell PowerEdge FX2 CMC, Dell PowerEdge VRTX CMC, Compellent Storage Arrays, EqualLogic Storage Arrays, Enterprise Series Switches, and N-Series Switch events support this event correlation.

The `IBM_generic_clear` trigger correlates these problem events with its corresponding clear event when the problem is rectified.

- Problem event with another problem event — OMSA, iDRAC7, iDRAC8, Dell PowerEdge FX2 CMC, Dell PowerEdge VRTX CMC, Compellent Storage Arrays, EqualLogic Storage Arrays, Enterprise Series Switches, and N-Series Switch events support this event correlation.

The `dell_omsa_clear` trigger correlates the OMSA problem event by another problem event.

The `dell_equallogic_clear` trigger correlates the EqualLogic storage array problem events.

The `dell_dclm_clear` trigger correlates the DCLM problem polled events.

 **NOTE:** This trigger is applicable only if IBM Tivoli Netcool/Omnibus is integrated with ITNM and the Dell OpenManage Connection for IBM Tivoli Network Manager is installed.

The `dell_mdarray_clear` trigger correlates the PowerVault MD Storage Array problem polled events.

The `dell_idrac_clear` trigger correlates the iDRAC7 or iDRAC8 problem events.

The `dell_compellent_clear` trigger correlates the Compellent problem events.

The `dell_enterprise_switch_clear` trigger correlates the S-Series, M-Series, Z-Series, and C-Series switch problem events.

The `dell_nseries_clear` trigger correlates the N-Series switch problem events.

- Duplicated problem event with another problem event — OMSA, Compellent storage arrays, EqualLogic storage arrays, PowerVault MD storage arrays, Enterprise Series Switches, N-Series Switch, and DCLM events support this event correlation.

The `dell_omsa_deduplicate_clear` trigger correlates the OMSA problem events.

The `dell_equallogic_deduplicate_clear` trigger correlates the EqualLogic storage array problem events.

The `dell_dclm_deduplicate_clear` trigger correlates the DCLM problem polled events.

 **NOTE:** This trigger is applicable only if IBM Tivoli Netcool/Omnibus is integrated with ITNM and the Dell OpenManage Connection for IBM Tivoli Network Manager is installed.

The `dell_mdarray_deduplicate_clear` trigger correlates the PowerVault MD Storage Array problem polled events.

The `dell_idrac_deduplicate_clear` trigger correlates the iDRAC7 or iDRAC8 problem events.

The `dell_compellent_deduplicate_clear` trigger correlates the Compellent storage array problem events.

The `dell_enterprise_switch_deduplicate_clear` trigger correlates the S-Series, M-Series, Z-Series, and C-Series switch problem events.

The `dell_nseries_deduplicate_clear` trigger correlates the N-Series switch problem events.

Event auto correlation support is not available between legacy and enhanced event message format traps for in-band Dell servers.

The normal-to-normal event correlation is not supported as Netcool/OMNibus periodically clears the normal events.

For more information on OMSA and OMSS event correlation, see *Dell OpenManage Server Administrator Messages Reference Guide* at dell.com/support/home.

Dell OMSA Alert Groups

The OpenManage Server Administrator (OMSA) alerts are the events generated by OMSA and displayed on the Netcool/OMNibus console. The following table lists the OMSA alerts.

Table 18. Dell OMSA Alert Groups

Alert Group	Description
ACPowerCord	Provides status information for power cords of an AC power switch on systems that support AC switching.
AmperageProbe	Provides status information for current sensors in a particular chassis.
Battery	Provides status information for batteries in a particular chassis.
ChassisIntrusion	Provides notification when a chassis is intruded.
CoolingDevice	Provides status information for fans in a particular chassis.
Device	Provides status and error information when some devices, such as memory cards are added or removed.
FanEnclosure	Monitors if foreign objects are present in an enclosure and the duration a fan enclosure is missing from a chassis.
HardwareLog	Provides status and warning information about the non-circular logs that may fill up, resulting in lost status messages.
IDSDModuleMedia	Provides the status information about the Internal Dual SD Module.
MemoryDevice	Provides status and warning information for memory modules present in a particular system.
Miscellaneous-AutomaticSystemRecovery	Provides information when an automatic system recovery action is performed when the operating system stops responding.
Miscellaneous-SystemPeakPowerNewPeak	Provides information when the system peak power sensor detects a new peak value.
Miscellaneous-SystemSoftwareEvent	Provides information when OMSA detects a critical system software generated event in the IPMI System Event Log (SEL), which could have been resolved.
Miscellaneous-SystemUp	Provides information when OMSA completes initialization.
Miscellaneous-ThermalShutdown	Provides information when a system shuts down as the temperature exceeds the maximum threshold.
Miscellaneous-UserHostSystemReset	Provides information when user requests a host system control action to reboot, power off, or power cycle the system.
PowerSupply	Provides status and warning information for power supplies present in a particular chassis.
ProcessorDeviceStatus	Provides status and warning information for processors in a particular chassis.

Alert Group	Description
Redundancy	Provides the redundancy unit information.
SDCardDevice	Provides status and error information for Secure Digital (SD) card devices present in a chassis.
TemperatureProbe	Provides help to protect critical components when temperatures exceed in a chassis.
VoltageProbe	Provides status and warning information for voltage sensors in a particular chassis.

Dell OMSS Alert Groups

The OpenManage Storage Management (OMSS) alerts are the events generated by OMSS and displayed on the Netcool/OMNIBus console. The following table lists the OMSS alert groups.

Table 19. Dell OMSS Alert Groups

Alert Group	Description
Battery	Provides status information of the batteries in the controller. Battery alerts provide information about battery reconditioning, charging, temperature, replacement, learn cycle, learn mode, operation, and so on.
Channel	Provides the addition and removal status, configuration errors, and status for pluggable devices, such as memory cards.
Controller	Provides status of the storage controller tasks. Controller alerts provide information about rebuild rate, alarm status, configuration status, background initialization rate, patrol read rate, check consistency rate, redundant path, foreign configuration, disk status, bad blocks, ECC errors, DKM certificate upload, self-signed certificate creation and upload, and so on.
EMM	Provides status of the Enclosure Management Module (EMM) of the controllers.
Enclosure	Provides status of the components in the enclosures. Enclosure alerts provide the status information of enclosure, alarm, asset tag, service tag, and so on.
Fan	Provides information on how well a fan is functioning. Fan alerts provide status information of fans in a particular enclosure.
FluidCache	Provides the validity information for the fluid cache license. Fluid Cache alerts provide information about the storage device installation with license, license removal, expired/invalid license, memory availability, CFM connection, journal mirrors, cluster ID matching, journal read/write, missing cache device and so on.
FluidCacheDisk	Provides information about the LUN status of the fluid cache disk.
PhysicalDisk	Provides information about the operations on the physical disks such as rebuild, hot spare, blink, clear operation, replace member operation, state change, drive write cache, drive log export, drive prepared for removal, and full initialization.
PowerSupply	Provides status information of the power supplies in an enclosure.

Alert Group	Description
Redundancy	Provides status of the redundancy device.
SystemLevel	Provides status of the controllers in the system.
TemperatureProbe	Provides temperature status of the probes in the enclosure. The temperature probe alerts help protect critical components by alerting when temperatures become too high inside an enclosure.
VirtualDisk	Provides status information of the virtual disk tasks. Virtual disk alerts provide information about initialization, formatting, configuration, rebuild, background initialization, redundancy, and so on.
VirtualDiskPartition	Provides information about the caching status of the virtual disk. Virtual disk partition alerts provide information about inaccessible storage device, transient failure, enabled cache , disabled cache, cache removal and so on.

Dell EqualLogic Alert Groups

The EqualLogic alerts are the events generated by Dell EqualLogic Storage Arrays and displayed on the Netcool/OMNIBus console. The following table lists the EqualLogic alert groups.

Table 20. Dell EqualLogic Alert Groups

Alert Group	Description
BatteryLessThan72Hours	Provides information that the battery has insufficient charge to survive a 72-hour power outage.
BothFanTraysRemoved	Provides information that both fan trays of the member have been removed from the chassis.
ChannelBothFailed	Provides information that both the channel cards have failed.
ChannelBothMissing	Provides information that both the channel cards are missing.
EIPFailureCondition	Provides information that EIP is failed in the channel card.
EmmLinkFailure	Provides information that link to the EMM has failed.
EnclosureOpenPerm	Provides information that enclosure is open for a long time.
FanSpeedThreshold	Provides information that fan speed has exceeded the minimum or maximum threshold.
FanTrayRemoved	Provides information that one of the fan trays has been removed from the chassis.
HighBatteryTemperature	Provides information that battery temperature is high.
HwComponentFailedCrit	Provides information that a critical hardware component of the member has failed.
IncompatControlModule	Provides information that an incompatible control module is inserted into the chassis.
LowAmbientTemp	Provides information that one or more sensors are within the critical temperature range.

Alert Group	Description
MultipleRAIDSets	Provides information that multiple valid RAID sets are found.
NVRAMBatteryFailed	Provides information that NVRAM battery has failed and the battery is not usable.
OpsPanelFailure	Provides information that operations panel is missing or damaged.
PowerSupply	Provides information that power supply module has detected a failure.
PowerSupplyFan	Provides information that power supply module fan has failed.
RAIDLostCache	Provides information that RAID driver is unable to recover the battery-backed cache.
RAIDOrphanCache	Provides information that RAID driver found data in the battery-backed cache and does not have a matching disk array.
RAIDSetDoubleFaulted	Provides information that a double fault is detected in the RAID set.
RAIDSetLostBlkTableFull	Provides information that RAID lost block table is full.
TempSensorThreshold	Provides information that temperature sensor has exceeded the threshold.
DiskStatus	Provides information that status of the EqualLogic disk has changed.
SCSITgtDevice	Provides information that status of the EqualLogic SCSI target device has changed.
SCSILuStatus	Provides information that status of the EqualLogic Logical Unit Number (LUN) has changed.
iSCSITgtLogin	Provides information that the EqualLogic iSCSI target device's login attempt failed.
iSCSIIntrLogin	Provides information that the initiator's login attempt failed.
iSCSIInstSession	Provides information that the active session for a target system or an initiator failed.

Dell iDRAC7 and iDRAC8 Alert Groups

These alerts are the events generated by Integrated Dell Remote Access Controller 7 (iDRAC7) and Integrated Dell Remote Access Controller 8 (iDRAC8) devices and displayed on the Netcool/OMNIBus console. The following table lists the iDRAC7 and iDRAC8 alert groups.

Table 21. iDRAC7 and iDRAC8 Alert Groups

Alert Group	Description
AmperageProbe	Provides the amperage details of the system board, disk-drive bay, and the system level.
AutoDiscovery	Provides information about the auto discovery configuration execution status.
AutomaticSystemRecovery	Provides the OS watchdog timer details of the system.

Alert Group	Description
Battery	Provides the details of the system-board battery.
BIOSPOST	Provides information about the memory performance during system BIOS Power-On Self Test (POST).
CPUUsage	Provides information about the CPU usage.
Debug	Provides the debug authorization details of the system.
Fan	Provides the fan details of the system.
FiberChannel	Provides information about the status of the fiber channel port.
HardwareConfiguration	Provides the hardware configuration information for a device, storage adapter, backplane, USB cable, mezzanine card, storage cable, and system-board cable.
IDSDModuleMedia	Provides information about the status and performance of the internal dual SD module.
IDSDModuleAbsent	Indicates that the internal dual SD module is absent.
IDSDModuleRedundancy	Provides information about the internal SD module redundancy.
JOB	Provides information on the schedules jobs in system repository.
Licensing	Provides the licensing details of the system.
MemoryDevice	Provides the memory details of the system.
Network	Provides the information when network link is down.
NICConfiguration	Provides information about the NIC configuration of the system.
OperatingSystem	Provides the details of system halt.
PCIDevice	Provides the PCI device details of the system.
PhysicalDisk	Provides the physical disk details of the system.
PowerSupply	Provides the power supply information of the system.
PowerSupplyAbsent	Indicates the absence of power supply for the system.
PowerUsage	Provides the details of power usage by the system.
ProcessorDevice	Provides the processor details of the system.
ProcessorDeviceAbsent	Provides the information that the processor is absent.
RACSoftware	Provides information about the iDRAC - CMC communication software.
Redundancy	Provides information about fan and power supply redundancy.
SoftwareCompatibility	Provides information on any firmware or software incompatibility.
SoftwareUpdate	Provides information on any firmware or software update.
Security	Provides information about the chassis, operating system, and Intel Trusted Execution Technology (TXT) performance.
StorageBattery	Provides the details of the storage battery on controllers.

Alert Group	Description
StorageController	Provides details of the storage controller.
StorageEnclosure	Provides information about the performance of the storage enclosure.
StorageFan	Provides the fan details of the storage device.
StorageManagementStatus	Indicates that the storage device status is not determined.
StoragePowerSupply	Provides the power supply information of the storage device.
StorageTemperatureProbe	Provides temperature information of an enclosure.
SystemEventLog	Provides information about the event logs of the system.
SystemInfo	Provides the details of the host system.
StoragePhysicalDisk	Provides the physical disk details of the storage device.
StorageVirtualDisk	Provides the details of the storage virtual disk.
TemperatureProbe	Provides temperature information of a system board, memory module, fan failure, and inlet of a system.
TemperatureStatistics	Provides temperature statistics information of the system inlet.
UserActions	Provides information about all user action required for certain events.
vFlash	Provides details of removable flash media and storage device.
vFlashAbsent	Provides information if removable flash media is absent.
VirtualDisk	Provides information on the Virtual Disk updates.
VoltageProbe	Provides the voltage details of the processor module and system board.
Updates	Provides information on the Job Status.

Dell DRAC5 and iDRAC6 Alert Groups

The Dell DRAC5 and iDRAC6 alerts are the events generated by Dell DRAC5 or iDRAC6 devices and are displayed on the Netcool/OMNIBus console. The following table lists the Dell DRAC5 and iDRAC6 alert groups.

Table 22. Dell DRAC5 and iDRAC6 Alert Groups

Alert Group	Description
Authentication	Provides status of the RAC Authentication failures and the threshold limit.
Battery	Provides status information for batteries.
ESMCommunication	Provides the status of the RAC communication with the Baseboard Management Controller.
Power	Provides the information of the system power supply.
SELThreshold	Provides the status information of the System Event Logs capacity.
SystemEventLog	Provides the status of a new event arrival in the System Event Logs.

Alert Group	Description
TemperatureProbe	Provides temperature information of a system board, memory module, fan failure, and inlet of a system.
TestTrap	Test trap.
VoltageProbe	Provides the voltage details of the processor module and the system board.
WatchDog	Provides the status information of the System Watchdog.

Dell Chassis Alert Groups

The Dell PowerEdge FX2 CMC, PowerEdge VRTX CMC, and M1000e devices generate the Chassis alerts and these alerts are displayed on the Netcool/OMNIBus console. The following table lists the Dell Chassis alert groups.

Table 23. Dell Chassis Alert Groups

Alert Group	Description
AmperageProbe	Provides status information for current sensors.
Battery	Provides status information for batteries.
Cable	Indicates if cable is detected.
DellChassis (M1000e alerts)	Status of various components such as fan, battery, power supply, temperature probe, hardware log, redundancy, presence or absence of server, keyboard/video/ mouse (KVM) switch, input output module (IOM), SD card, mismatch of fabric, and mismatch of firmware version.
CMC	Provides the information about the CMC slot.
CMCAudit	Provides information about the status of data synchronization, extended storage feature activation, and cell battery.
Fan	Provides the fan details of the system.
HardwareConfiguration	Provides the hardware configuration information for a device and its storage adapter.
IOVConfiguration	Provides information about the PCIe card module configuration.
IOVirtualization	Provides information about the PCIe card module.
License	Provides the licensing details of the system.
LinkStatus	Provides information about the Network link status.
PowerSupply	Provides the information of the system power supply.
PowerSupplyAbsent	Indicates the absence of power supply for the system.
PowerUsageAudit	Provides the details of power usage by the system.
Redundancy	Provides information about fan and power supply redundancy.
Security	Provides information about the chassis, operating system, and the Intel Trusted Execution Technology (TXT) performance.

Alert Group	Description
SoftwareConfiguration	Provides information about software incompatibility.
StorageBattery	Provides the details of the storage battery on controllers.
StorageController	Provides details of the storage controller.
StorageEnclosure	Provides information about the performance of the storage enclosure.
StorageFan	Provides the fan details of the storage device.
StorageManagement	Provides information about communication loss with controller, shared storage availability, and RAID Status.
StoragePhysicalDisk	Provides the physical disk details of the storage device.
StoragePowerSupply	Provides the power supply information of the storage device.
StorageTemperatureProbe	Provides temperature information of an enclosure.
StorageVirtualDisk	Provides the details of the storage virtual disk.
SystemEventLog	Provides information about the event logs of the system.
TemperatureProbe	Provides temperature information of a system board, memory module, fan failure, and inlet of a system.
TestTrap	Test Trap.
VoltageProbe	Provides the voltage details of the processor module and the system board.

Dell Compellent Alert Groups

The Compellent alerts are the events generated by Dell Compellent Storage Arrays and displayed on the Netcool/OMNIBUS console. The following table lists the Compellent alert groups.

Table 24. Dell Compellent Alert Groups

Alert Group	Description
ControllerStatus	Provides status of the controllers in case of any change in its current status.
ControllerComponentStatus	Provides status of the controller component in case of any change in its current status.
CacheStatus	Provides status of the cache in case of any change in its current status.
DiskFolderStatus	Provides status of the disk folders in case of any change in its current status.
DiskStatus	Provides status of the Compellent disks in case of any change in its current status.
EnclosureComponentStatus	Provides status of the components in the enclosures. Enclosure alerts provide the status information of enclosure, alarm, asset tag, service tag, and so on.
EnclosureStatus	Provides status of the Compellent enclosures in case of any change in its current status.

Alert Group	Description
LocalPortConditionStatus	Provides status of the local front-end Port Condition in case of any change in its current status.
Miscellaneous	This alert group is used for all the Compellent alerts that have no other specific trap definition associated with them.
MonitoredUPSStatus	Provides status of the monitored UPS in case of any change in its current status.
ServerStatus	Provides status of the managed servers in case of any change in its current status.
SIDeviceStatus	Provides status of the SCSI Initiator device in case of any change in its current status.
Test	Test trap.
VolumeStatus	Provides status of the disk volumes in case of any change in its current status.

Dell PowerVault MD Array Alert Groups

The PowerVault MD Array alerts are the events generated by Dell PowerVault MD Storage Arrays and displayed on the Netcool/OMNibus console. The following table lists the PowerVault MD Array alert groups.

Table 25. Dell PowerVault MD Array Alert Groups

Alert Group	Description
AsyncReplication	Provides repository status information for the async replication group member. Async replication alerts provide information about repository status, security incompatibility, and so on.
Battery	Provides battery status in the MD Array. Battery alerts provide information about battery configuration, backup capacity, temperature, and expiration.
Cache	Provides status information for the cache backup device.
Canister	Provides status information for the interconnect-battery.
Channel	Provides status of the Enclosure Management Module (EMM) of the controllers.
Configuration	Provides status information for the gold key setting configuration.
Controller	Provides diagnostic status information for the RAID controller module.
DataAssurance	Provides information for the data assurance support.
DiscreteLines	Provides status information for Discrete Lines diagnostics.
DiskGroup	Provides status information for disk groups. DiskGroup alerts provide information about the removal or incompleteness of the disk groups.
DiskPool	Provides status information for the disk pool. DiskPool alerts provide information about the incompleteness, failure or removal of the disk pool.
Drawer	Provides status information for the drawer. The alerts provide information if the drawer is open, removed, failed, not supported, or degraded.

Alert Group	Description
EMM	Provides status of the Enclosure Management Module (EMM) of the controllers.
Enclosure	Provides status of the components in the enclosures. Enclosure alerts provide the status information of enclosure, alarm, asset tag, service tag, and so on.
Fan	Provides information on how well a fan is functioning. Fan alerts provide status information of fans in a particular enclosure.
Feature	Provides status information for the premium feature. The alerts provide information if the premium feature is out of compliance or has exceeded the limit.
FibreTrunk	Provides information for the fibre channel trunk. The alerts provide information about the improper cabling configuration for fibre-channel trunking.
HostOS	Provides information for the validity of the host operating system index.
IndividualDrive	Provides status information of the path for the individual drive.
InterfaceCard	Provides status information for the host interface card. The alerts provide information if the host interface input/output card or the host interface card failed.
InterposerFW	Provides information if the Interposer FW version is supported.
LinkSpeed	Provides status information for the Link Speed (data rate) switch position.
OpticalLink	Provides information about the optical link speed. The alerts provide information if the optical link speed has failed.
PhysicalDisk	Provides information about the physical disk read status.
PowerSupply	Provides status information for power supply. The alerts provide information if the power supply is missing or removed, failed or needs attention.
Processor	Provides information about the processor memory for cache.
RedundantCanister	Provides information about the redundant canister. The alerts provide information if the power supply or cooling fan module is missing.
RemoteReplication	Provides status information for the remote replication communication between the storage array and the fabric with which it is connected.
ReservedBlock	Provides status information for the discovery of the reserved blocks on SATA drives.
SAS	Provides status information for the SAS host. SAS alerts provide information for the miswire, degradation, overflow detection, or invalid topology of the SAS host port, degradation or miswire of the SAS-wide port, and so on.
SBB	Provides validation information for the StorageWorks Building Block (SBB). The alerts provide information for SBB validation for enclosure expansion, SIM/ESM canister, power supply, midplane communication.

Alert Group	Description
Security	Provides information about the repository security compatibility.
SFP	Provides information about the status of the GBIC/SFP.
SMARTCommandTransfer	Provides information for the SMART Command Transfer support.
Snapshot	Provides information for the snapshot group. Snapshot alerts provide status information of the snapshot repository capacity, snapshot virtual disk repository, creation of the snapshot image, and rollback of the snapshot.
StorageArray	Provides information of the storage array security key.
SystemConfiguration	Provides validity information of the storage array system configuration.
Temperature	Provides threshold status information of the temperature sensor.
UnreadableSector	Provides information about the unreadable sector database.
VirtualDisk	Provides information about the virtual disk tasks. Virtual disk alerts provide information about the virtual disk capacity, status, reconfiguration, write back caching force status, data/parity status, and path.

Dell Enterprise Switches (S-Series, Z-Series, M-Series, and C-Series) Alert Groups

The Dell Enterprise Switches alerts are the events generated by Dell S-Series, Z-Series, M-Series, and C-Series and displayed on the Netcool/OMNIbus console. The following table lists the Dell Enterprise Switches alert groups.

Table 26. Dell S-Series, Z-Series, M-Series, and C-Series Switch Groups

Alert Group	Description
AccessControlLists	Provides status information arising from problems during installation of the Access Control Lists entries due to a hardware failure or a lack of storage space.
Adjacency	Provides information due to Adjacency related changes.
BGPTask	Provides information about the status of the Border Gateway Protocol.
Card	Provides information about the Card operation status.
Controller	Provides information about the Controller operation status.
CopyConfig	Provides information when a Copy operation is completed.
ETSModule	Provides any change in the ETS Module status.
ETSStatus	Provides the Enhanced Transmission Selection operation status.
Fan	Provides information about how well a fan is functioning.
FanTray	Provides information about the status of the fan tray.
FCOENodes	Provides information about the threshold status of the FCOE Nodes.
FiberChannelForwarders	Provides information about the threshold status of the fiber channel forwarders.

Alert Group	Description
FlowTable	Provides information about the flow table status.
LACPState	Provides a change in the LCAP state for one of the member ports of the aggregation link detected by an agent.
MAC	Provides status information about a MAC address.
Memory	Provides Memory Utilization status.
PFCStatus	Provides information about Priority-based Flow Control operation.
PowerSupply	Provides the power supply information of the system.
Processor	Provides information about the processor details of the system.
RBridge	Provides the RBridge operational status information.
RPM	Provides the RPM operational status information.
Session	Indicates the threshold status of the number of sessions.
SFM	Indicates the Switch Fabric Module operational status.
SNMPAgent	Indicates that an SNMP Agent has denied an SNMP request based on the IP ACL rules and is generated by the agent.
SpanningTree	Indicates the spanning tree status in the CIST or in any MSTI.
SRAM	Provides the Operational status of the SRAM.
StackPort	Indicates the stack port operational status.
StackUnitRole	Indicates the stack unit role change and is generated by the driver or agent.
StackUnitStatus	Indicates the stack unit operational status.
Task	Indicates the system task status.
Temperature	Indicates the chassis's temperature status.
Traffic	Indicates the traffic status of link bundle.
VirtualLinkTrunk	Indicates the virtual link trunk status.
VRRP	Indicates the operational status of the VRRP.

Dell N-Series Switch Alert Groups

The N-Series Switch alert groups are the events generated by the Dell N-Series Switches and displayed on the Netcool/OMNIBus console. The following table lists the N-Series alert groups.

Table 27. Dell N-Series Switch Alert Groups

Alert Group	Description
ACL	Provides status information for the Network access control list.
AgentInventory	Provides status information for the Agent Inventory.
AgentLog	Provides status information for the Agent Log state.

Alert Group	Description
AgentNSF	Provides information about the Agent Network File System status.
AgentPortSecurity	Provides status information for the Agent Port Security state.
AgentSwitchCPU	Provides information about the Agent Switch CPU status.
AgentSwitchIP	Provides information about the Agent Switch IP status.
Authentication	Provides information on Authentication Manager when the client is in the authorized/un-authorized state.
Broadcast	Provides information about the Broadcast stormstatus.
Configuration	Provides information about the switch configuration.
Copy	Provides information about the status of the copy operation with a Success or Failure message.
CPClient	Provides information about the Captive Portal Client state.
DAI	Provides status information about the Dynamic ARP Inspection.
DHCP	Provides status information about the Dynamic Host Configuration Protocol (DHCP) operation state while assigning IP addresses.
DVMRP	This signifies the loss of a 2-way adjacency with a neighbor.
Fan	Provides information on how well a fan is functioning. Fan alerts provide status information of fans.
Ifstate	This signifies that there has been a change in the state of an IPv6 interface.
IGMP	Provides information about the Internet Group Management Protocol (IGMP).
Initialization	Provides information about the initialization phase of the switch.
Link	Provides the link related information.
LLDP	Provides information on controlling the transmission of LLDP notifications.
LockedPort	Provides information about blocked switches.
MAU	Provides information whenever a managed repeater MAU enters the Jabber state.
OSPF	This signifies that an OSPF packet has been received on a non-virtual interface that cannot be parsed.
PacketPolicy	Provides status information when packets have been forwarded or dropped.
PortState	Provides the Port State change information.
PortStatus	Provides status information for the ports with either an Authorized or Unauthorized message.
PowerSupply	Provides status information of the power supplies.

Alert Group	Description
Repeater	Provides information whenever a managed interface MAU enters the Jabber state.
ResourceOverflow	Provides status information for switch hardware or software resource overflow.
Stacking	Provides information about the stack status.
STP	Provides information about any changes in the Spanning Tree Protocol.
SFP	Provides information about any changes in the Small Form Pluggable (SFP) Protocol.
Temperature	Provides temperature statistics information of the switch.
TFTP	Provides information about the status of the Trivial File Transfer Protocol.
Threshold	Provides Information when an alarm entry crosses its rising threshold and generates an event that is configured for sending SNMP Traps. This notification is generated when the value of entLastChangeTime changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.
TrunkPort	Provides status information when a port has been added or deleted.
UserLogin	Provides information about the users logged in.
VLAN	Provides information about the switch Virtual Local Area Network.
VRRP	Provides information about any changes in the Virtual Router Redundancy Protocol entries.
XFP	Provides information about the operational status of the Small Form Factor Pluggable Transceiver.
ZeroHopEdgeRouting	Provides routing related information about the Zero-Hop Edges.

W-Series Switch Alert Groups

The W-Series Switch alert groups are the events generated by the Dell W-Series Switches and displayed on the Netcool/OMNIbus console. The following table lists the W-Series alert groups.

Table 28. Dell W-Series Switch Groups

Alert Group	Description
AccessPoint	Indicates changes in Access point status.
ACL	Indicates that the Access Control List Entries table is full and cannot add any more entries.
AdhocNetwork	Provides the Adhoc Network information.
AM	Provides AM information.

Alert Group	Description
Authentication	Provides user related operation's information.
AuthenticationServer	Indicates Authentication server related information.
BandWidth	Indicates that the controller reached the maximum number of configurable Bandwidth contracts.
CDR	Indicates that the CDR buffer threshold has been reached.
Certificate	Indicates the certificate expiry information.
Channel	It indicates changes in Channel configuration.
ChannelFrame	Indicates data packet information of a channel frame.
ChannelRate	Indicates that an AP/AM at wlsrLocation detected frames of type wlsrFrameType on wlsrCurrentChannel which exceeds the configured IDS rate threshold.
ClockSync	Indicates the total number of clock sync errors between the switch and access points.
Configuration	Indicates configuration information.
Controller	Indicates the controller detected IP Spoofing.
ControllerIP	Indicates that the controller IP information.
CoverageHole	Indicates that a coverage hole information.
CRL	Indicates that the Certificate Revocation List associated with the particular Trustpoint is expired.
DBCommunication	Indicates communication with Database.
ESIServer	Indicates that a ESI server status.
Fan	Indicates fan status.
FanTray	Indicates fan tray information.
FlashMemory	Indicates that the switch is running low on flash space.
Frame	Indicates data packet information of a frame.
FrameTypeThreshold	Indicates the threshold information of a Frame Type.
GBIC	Indicates that a GigaBit Interface Converter is inserted in a line card.
IAPConfig	Indicates that config apply has failed on the Instant Access Point.

Alert Group	Description
Interface	Indicates the change in the state of interface
License	Indicates one or more licenses on the controller expiry information.
LineCard	Indicates line card information.
Loadbalancing	Indicates load balancing status.
Memory	Indicates that the available system memory is low.
Network	Indicates Adhoc network information.
NetworkBridge	Indicates that an AM has detected an Adhoc network that is bridging to a wired network
NodeRate	Indicates that an AP/AM at wlsrLocation detected frames of type wlsrFrameType transmitted by node wlsrNodeMac which exceeds the configured IDS rate threshold.
OUI	Indicates changes in Organizationally Unique Identifier (OUI) configuration.
PhysicalPort	Indicates physical port information.
PowerSupply	Indicates power supply status.
Preamble	Indicates changes in preamble configuration.
Process	Indicates process information.
QueueOverflow	Indicates that an Inform queue overflow condition occurred.
Radio	Indicates changes in the Radio attributes of an access point.
RAP	Indicates the Remote Access Point information.
Resource	Indicates a particular resource under monitoring status.
ShortPreable	Indicates that an access point has bad Short preamble configuration.
Signature	Indicates that it detected a signature match.
SignStation	Indicates that an AP detected a signature match.
SSID	Indicates changes in Service Set Identifier configuration.
StackElement	Indicates change happens in any topology of the stack element in the stack.
Station	Indicates changes in station status.

Alert Group	Description
SupervisoryCard	Indicates supervisory card information.
SwitchLIC	Indicates license expiry information.
Temperature	Indicates temperature information.
TunnelInterface	Indicates tunnel interface information.
UserAttributes	Indicates user related attribute information.
UserAuthentication	Indicates user related authentication information.
UserEntry	Indicates user related log-in information.
VLAN	Indicates that a Virtual Local Area Network interface status.
VoiceClient	Indicates that the location of voice client has been changed.
Voltage	Indicates voltage information.
VPN	Indicates that the Virtual Private Network session limit is reached.
VRRP	Indicates that Virtual Router Redundancy Protocol State has changed on the switch.
WEP	Indicates changes in Wired Equivalent Privacy configuration.
WirelessBridge	Indicates that an AP/AM detected a station Disconnect attack.
WMS	Indicates that current state in the Wireless Management Suite module shows that the Wireless Management Suite is reaching capacity, and so it is recommended to enable WMS-Offload.
WPA	Indicates changes in Wi-Fi Protected Access configuration.

Dell Devices and their console launch tools


The Dell OpenManage Connection enables you to launch various Dell one-to-one, one-to-many consoles and other Dell tools to get more information about the Dell devices that you want to monitor, troubleshoot, configure, or manage.

You can launch the consoles from the respective polled events or SNMP alerts from the Desktop Event List or from the Active Event List (AEL) of the Web GUI.

For more information, see [Launching Dell consoles from the Web GUI](#) and [Launching Dell consoles from Desktop Event List](#).

The following table lists the supported Dell devices and the consoles and tools that can be launched from them.

Table 29. Dell One-to-One console launches

Dell Device	Console launch tools
Dell Servers/OEM Servers	OpenManage Server Administrator Console OpenManage Server Administrator Web Server Console Dell Remote Access Controller Console
Dell Workstations	OpenManage Server Administrator Console OpenManage Server Administrator Web Server Console Dell Remote Access Controller Console
Dell DRACs	Dell Remote Access Controller Console OpenManage Server Administrator Console  NOTE: The OpenManage Server Administrator Console is launched from iDRAC7 or iDRAC8 devices only.
Dell Chassis	CMC Console
Dell PowerVault NX Storage Arrays:	OpenManage Server Administrator Console OpenManage Server Administrator Web Server Console Dell Remote Access Controller Console
Dell Compellent Storage Arrays:	Dell Compellent Storage Manager Console


Dell Device	Console launch tools
Dell EqualLogic PS-Series Storage Arrays:	EqualLogic Group Manager Console
Dell N-Series switches	Dell OpenManage Switch Administrator Console
Supported Dell devices (Except W-Series mobility controllers)	Warranty Report Information
	 NOTE: An active Internet connection is required to retrieve the warranty report information for a Dell device.

Table 30. Dell One-to-Many console launches

Dell Device	Console launch tools
Supported Dell devices	OpenManage Essentials (OME) Console
Dell PowerVault MD Storage Arrays	MD Storage Manager Console
Supported Dell Switches	Dell OpenManage Network Manager Console
Dell W-Series Switches	Dell AirWave Management Platform Console

Table 31. Dell tools

Dell Device	Console launch tools
iDRAC 7 and iDRAC 8	Dell Connections License Manager Console Launch Tool Dell Server Trap Configuration Information Console

Launching Dell consoles from the Web GUI

You can launch the supported console launch tools from the respective Dell devices from the events generated by those devices from the Active Event List (AEL) of the Web GUI.

1. Log in to the web GUI.
2. On the left panel, click **Availability** → **Events** → **Active Event List (AEL)**.
The list of active events is displayed on the right panel.
3. Right-click on any event generated by a Dell device on the **Active Event List**.
4. From the options, click **Dell Tools** → **<Dell Console Launch Tool>**.
The respective **<Dell Console Launch Tool>** is launched in the default browser.
For Example:

To launch the **Compellent Storage Manager Console** from the Web GUI, Right-click the Dell Compellent event on the **Active Event List**, from the options displayed, click **Dell Tools** → **Launch Dell Compellent Storage Manager Console**.

The Compellent Storage Manager Console is launched in a default browser.

Launching Dell consoles from the Desktop Event List

You can launch the supported console launch tools from the respective Dell devices from the **Desktop Event List**.

1. Click **Start** → **Program** → **NETCOOL Suite** → **Event List**.



NOTE: On systems running Linux operating system, run `nco_event`, in the terminal.

2. Log in to the **Netcool/OMNIBus Event List**.
3. On the **Event list** window, double-click **Show Sub-Event List** on the **All Events** tab.
The **Event list** is displayed in a new window.

4. Right-click on any event generated by a supported Dell device on the **Event List**.

5. From the options, click **Dell Tools** → **<Dell Console Launch Tool>**.

On systems running the Windows operating system, the **<Dell Console Launch Tool>** is launched in the default browser.

On systems running the Linux operating system, the **<Dell Console Launch Tool>** is launched in the browser application set in the **\$OMNIBROWSER** environment variable.

For Example:

To launch the **Compellent Storage Manager Console** from the **Desktop Event List**, right-click the Dell Compellent event on the **Event List**, from the options displayed, click **Dell Tools** → **Launch Dell Compellent Storage Manager Console**.

The Compellent Storage Manager Console is launched in a default browser.

Troubleshooting

This section lists the problems that you may encounter while using the Dell OpenManage Connection for IBM Tivoli Netcool/OMNIbus and their solutions or workaround.

iDRAC7/iDRAC8 SNMPv3 traps are not received in the IBM Tivoli Netcool/OMNIbus console

1. Capture the SNMPv3 trap with a Trap Capture tool such as Wireshark.
2. Retrieve the `Engine ID` from the captured trap.
3. Configure this Engine ID in your IBM Tivoli Netcool/OMNIbus setup.
4. Restart the `Mtttrapd` probe service.

You will now be able to receive the SNMPv3 traps successfully.

Error while launching the OMSA console from iDRAC7/iDRAC8 polled events or SNMP traps

1. Ensure that the `$OMNIBROWSER` environment variable has been configured.
2. Ensure that the SNMP is responding correctly.
3. Verify that the Dell iDRAC7/iDRAC8 device has a valid SYSTEM FQDN (server host name) and is resolvable in both the Desktop and the WEB GUI servers.
4. Verify that the server OMSA console is configured with the default port number 1311.

Error while launching the Warranty Report Information console from events generated by servers or workstations running ESXi version 5.5 or later

You must reconfigure the `LaunchDellWarrantyReport` tool by performing the following steps:

1. In the Netcool/OMNIbus Desktop component **Configuration** window, double click **Menu** → **Tools** → **LaunchDellWarrantyReport**.

The **Edit Tool** window is opened for `LaunchDellWarrantyReport`.

2. Click the **Executable** tab and edit the string in the **Executable Commands** field as given in the example.

For Example:

Systems running Windows:

```
$(NCHOME)\platform\win32\jre_1.6.7\jre\bin\java
```

to

```
<installed custom Java path>\jre1.6.0_18\bin\java
```

For Example:

Systems running Linux:

```
$(NCHOME)/platform/linux2x86/jre_1.6.7/jre/bin/java
```

to

```
<installed custom Java path>/jre1.6.0_18/bin/java
```

3. To reconfigure the Netcool/OMNIBus Web GUI component, install Oracle Java version 1.6.0_18 or later and then configure the **TIPJAVAHOME** variable by providing the complete installed Java path.

Dell PowerEdge server, PowerVault NX Storage Arrays, and Workstation events are not received at the Netcool/OMNIBus console

1. Verify that the following entries are included in the SNMP probe rules file:
 - include "\$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.rules"
 - include "\$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.lookup"
2. Verify that the following entries are included in the **dell.master.include.lookup** file:
 - include "\$NC_RULES_HOME/include-snmpttrap/dell/dell-MIB-Dell-10892.include.snmpttrap.lookup"
 - include "\$NC_RULES_HOME/include-snmpttrap/dell/dell-StorageManagement-MIB.include.snmpttrap.lookup"
3. Verify that the following entries are included in the **dell.master.include.rules** file:
 - include "\$NC_RULES_HOME/include-snmpttrap/dell/dell-MIB-Dell-10892.include.snmpttrap.rules"
 - include "\$NC_RULES_HOME/include-snmpttrap/dell/dell-StorageManagement-MIB.include.snmpttrap.rules"

Dell iDRAC7 And iDRAC8 Server events are not received at the Netcool/OMNIBus console

1. Verify that the following entries are included in the SNMP probe rules file:
 - include "\$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.rules"
 - include "\$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.lookup"
2. Verify that the following entry is included in the **dell.master.include.lookup** file:

```
include "$NC_RULES_HOME/include-snmpttrap/dell/dell-IDRAC-MIB.include.snmpttrap.lookup"
```
3. Verify that the following entry is included in the **dell.master.include.rules** file:

```
include "$NC_RULES_HOME/include-snmpttrap/dell/dell-IDRAC-MIB.include.snmpttrap.rules"
```

Dell FX2 CMC, VRTX CMC, CMC and DRAC events are not received at the Netcool/OMNIbus console

1. Verify that the following entries are included in the SNMP probe rules file:
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.rules"`
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.lookup"`
2. Verify that the following entry is included in the **dell.master.include.lookup** file:
`include "$NC_RULES_HOME/include-snmpttrap/dell/dell-RAC-MIB.include.snmpttrap.lookup"`
3. Verify that the following entry is included in the **dell.master.include.rules** file:
`include "$NC_RULES_HOME/include-snmpttrap/dell/dell-RAC-MIB.include.snmpttrap.rules"`

Dell Compellent Storage Array events are not received at the Netcool/OMNIbus console

1. Verify that the following entries are included in the SNMP probe rules file:
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.rules"`
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.lookup"`
2. Verify that the following entry is included in the **dell.master.include.lookup** file:
`include "$NC_RULES_HOME/include-snmpttrap/dell/dell-STORAGE-SC-MIB.include.snmpttrap.lookup"`
3. Verify that the following entry is included in the **dell.master.include.rules** file:
`#include "$NC_RULES_HOME/include-snmpttrap/dell/dell-STORAGE-SC-MIB.include.snmpttrap.rules"`

Dell EqualLogic PS-Series Storage Array events are not received at the Netcool/OMNIbus console

1. Verify that the following entries are included in the SNMP probe rules file:
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.rules"`
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.lookup"`
2. Verify that the following entries are included in the **dell.master.include.lookup** file:
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/equalLogic-EQLMEMBERMIB.include.snmpttrap.lookup"`
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/equalLogic-EQLDISKMIB.include.snmpttrap.lookup"`
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/equalLogic-SCSI-MIB.include.snmpttrap.lookup"`
3. Verify that the following entries are included in the **dell.master.include.rules** file:
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/equalLogic-EQLMEMBERMIB.include.snmpttrap.rules"`
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/equalLogic-EQLDISKMIB.include.snmpttrap.rules"`

- `include "$NC_RULES_HOME/include-snmptrap/dell/equalLogic-SCSI-MIB.include.snmptrap.rules"`
- `include "$NC_RULES_HOME/include-snmptrap/dell/equalLogic-ISCSI-MIB.include.snmptrap.rules"`

Dell PowerVault Modular Disk Storage Array events are not received at the Netcool/OMNIBus console

1. Verify that the following entries are included in the SNMP probe rules file:
 - `include "$NC_RULES_HOME/include-snmptrap/dell/dell.master.include.rules"`
 - `include "$NC_RULES_HOME/include-snmptrap/dell/dell.master.include.lookup"`
2. Verify that the following entry is included in the **dell.master.include.lookup** file:


```
include "$NC_RULES_HOME/include-snmptrap/dell/dell-MDStorageArray-MIB.include.snmptrap.lookup"
```
3. Verify that the following entry is included in the **dell.master.include.rules** file:


```
#include "$NC_RULES_HOME/include-snmptrap/dell/dell-MDStorageArray-MIB.include.snmptrap.rules"
```

Dell Enterprise switch events are not received at the Netcool/OMNIBus console

For S-Series, M-Series, Z-Series, and C-Series Switches

1. Verify that the following entries are included in the SNMP probe rules file:
 - `include "$NC_RULES_HOME/include-snmptrap/dell/dell.master.include.rules"`
 - `include "$NC_RULES_HOME/include-snmptrap/dell/dell.master.include.lookup"`
2. Verify that the following entries are included in the **dell.master.include.lookup** file:
 - `include "$NC_RULES_HOME/include-snmptrap/dell/dell.switch.master.include.snmptrap.lookup"`
3. Verify that the following entries are included in the **dell.master.include.rules** file:
 - `include "$NC_RULES_HOME/include-snmptrap/dell/dell.switch.master.include.snmptrap.rules"`

Dell N-Series switch events are not received at the Netcool/OMNIBus console

1. Verify that the following entries are included in the SNMP probe rules file:
 - `include "$NC_RULES_HOME/include-snmptrap/dell/dell.master.include.rules"`
 - `include "$NC_RULES_HOME/include-snmptrap/dell/dell.master.include.lookup"`
2. Verify that the following entries are included in the **dell.master.include.lookup** file:
 - `include "$NC_RULES_HOME/include-snmptrap/dell/dell.Nseriesswitch.master.include.snmptrap.lookup"`
3. Verify that the following entries are included in the **dell.master.include.rules** file:
 - `include "$NC_RULES_HOME/include-snmptrap/dell/dell.Nseriesswitch.master.include.snmptrap.rules"`

Dell W-Series switch events are not received at the Netcool/OMNIbus console

1. Verify that the following entries are included in the SNMP probe rules file:
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.rules"`
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.lookup"`
2. Verify that the following entries are included in the `dell.master.include.lookup` file:
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/dell.Wserieswitch.master.include.snmpttrap.lookup"`
3. Verify that the following entries are included in the `dell.master.include.rules` file:
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/dell.Wserieswitch.master.include.snmpttrap.rules"`

Dell OpenManage Server Administrator events are not correlated

Verify that the following triggers are enabled in Netcool/OMNIbus ObjectServer:

- `dell_omsa_clear`
- `dell_omsa_deduplicate_clear`

iDRAC7/iDRAC8 events are not correlated

Verify that the following triggers are enabled in Netcool/OMNIbus ObjectServer:

- `dell_idrac_clear`
- `dell_idrac_deduplicate_clear`

Dell FX2 CMC or VRTX CMC events are not correlated

Verify that the following triggers are enabled on Netcool/OMNIbus ObjectServer:

- `dell_cmc_clear`
- `dell_cmc_deduplicate_clear`

Compellent events are not correlated

Verify that the following triggers are enabled in Netcool/OMNIbus ObjectServer:

- `dell_compellent_clear`
- `dell_compellent_deduplicate_clear`

Dell EqualLogic events are not correlated

Verify that the following triggers are enabled on Netcool/OMNIbus ObjectServer:

- `dell_equallogic_clear`

- `dell_equallogic_deduplicate_clear`

Dell Enterprise (S-Series, M-Series, Z-Series, and C-Series) events are not correlated

Verify that the following triggers are enabled on Netcool/OMNIbus ObjectServer:

- `dell_enterprise_switch_clear`
- `dell_enterprise_switch_deduplicate_clear`

Dell N-Series events are not correlated

Verify that the following triggers are enabled on Netcool/OMNIbus ObjectServer:

- `dell_nseries_clear`
- `dell_nseries_deduplicate_clear`

Error while importing the Web GUI Integrations

Restart the Web GUI server after importing the Dell OpenManage Connection to the ObjectServer.

Error while launching the Dell consoles using Web GUI

- Verify that Perl is properly installed on the Web GUI server.
- For the prerequisites for enabling the CGI scripts functionality, see the IBM Tivoli Netcool/OMNIbus CGI script documents.

Error while launching the Dell PowerVault MD Storage Array console using Web GUI

- Make sure that Dell PowerVault Modular Disk Storage Array is installed.
- Make sure that the path of the Dell PowerVault Modular Disk Storage Array Installer is specified in the Dell PowerVault Modular Disk Storage Array console launch tool.

Error in restarting the MTTTrapd probe in Windows

Ensure that the commented text (if it exists) is not at the end in the following files:

- `dell.master.include.lookup`
- `dell.master.include.rules`

Related documents and resources

This chapter gives you the details of other documents and resources to help you work with the Dell OpenManage Connection for IBM Tivoli Netcool/OMNIBus.

Other documents you may need


In addition to this guide, you can access the following guides available at dell.com/support/manuals. Under **Do you have your Service Tag or Express Service Code?** click **Choose from a list of all Dell products** → **Continue** → **Software & Security** → **Enterprise Systems Management** Under **General Support**, click the appropriate product category to access the documents.

- *Dell OpenManage With VMware ESX/ESXi Systems Management Guide*. To access this guide at dell.com/support/manuals, click **Software** → **Virtualization Solutions** → **VMware Software** → **Dell Systems Management for VMware**.

For information on terms used in this document, see the Glossary at dell.com/support/manuals.

Whitepapers, blogs, wiki-articles, product communities, and forums are available at en.community.dell.com/techcenter/systems-management/w/wiki/4115.dell-openmanage-connections-and-integrations.aspx.

Contacting Dell

 **NOTE:** If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

1. Go to Dell.com/support.
2. Select your support category.
3. Verify your country or region in the **Choose a Country/Region** drop-down list at the bottom of the page.
4. Select the appropriate service or support link based on your need.

Accessing documents from Dell support site

You can access the required documents in one of the following ways:

- Using the following links:
 - For all Enterprise Systems Management documents — Dell.com/SoftwareSecurityManuals

- For OpenManage documents – Dell.com/OpenManageManuals
- For Remote Enterprise Systems Management documents – Dell.com/esmmanuals
- For OpenManage Connections Enterprise Systems Management documents – Dell.com/OMConnectionsEnterpriseSystemsManagement
- For Serviceability Tools documents – Dell.com/ServiceabilityTools
- For OpenManage Connections Client Systems Management documents – Dell.com/DellClientCommandSuiteManuals
- From the Dell Support site:
 - a. Go to Dell.com/Support/Home.
 - b. Under **Select a product** section, click **Software & Security**.
 - c. In the **Software & Security** group box, click the required link from the following:
 - **Enterprise Systems Management**
 - **Remote Enterprise Systems Management**
 - **Serviceability Tools**
 - **Dell Client Command Suite**
 - **Connections Client Systems Management**
 - d. To view a document, click the required product version.
- Using search engines:
 - Type the name and version of the document in the search box.

Appendix

Configuring SNMP Trap Destination for 12G or Later Generation of PowerEdge Servers, PowerVault NX Storage Arrays, and Dell Workstations

You must configure the SNMP Trap destination in the PowerEdge Servers, PowerVault NX Storage Arrays, or Dell Workstations for forwarding the SNMP traps to a particular management station IP (that is, the MTrapd Probe Server IP address). As you can monitor these devices through in-band (using Server Administrator in the server host) or by using iDRAC7/iDRAC8, the administrator must configure the trap destination in the device host or iDRAC7/iDRAC8 devices respectively. The device monitoring status remains same irrespective of the monitoring mode. The administrator must ensure that the trap destination is not configured in both modes, else redundant SNMP traps are sent to the OMNIbus console. Therefore, it is recommended that the administrator configures the SNMP trap destination for only one mode – either in-band or out-of-band.

To monitor these devices through in-band mode:

1. Administrators must set the SNMP trap destination as the Management Station IP/host in the in-band device host.
2. Administrators must ensure that the Management Station IP/host does not exist in the SNMP trap destination list of iDRAC7/iDRAC8 devices.

To monitor these devices through OOB mode:

1. Administrators must set the SNMP trap destination as the Management Station IP/host in iDRAC7/iDRAC8 devices.

For information on configuring the trap destinations for in-band and OOB devices, see the section *Configuring Your System To Send Traps To A Management Station* in the *Dell OpenManage Server Administrator Version User's Guide* and the section *Configuring IP Alert Destinations Using RACADM* in the *Integrated Dell Remote Access Controller 7 (iDRAC7) User's Guide*, *Integrated Dell Remote Access Controller (iDRAC) User's Guide* respectively.