

Dell EMC OpenManage Connection Version 4.0 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 product.

 **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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Contents

1 Overview	5
What is new in this release	5
Key features	6
2 Dell EMC OpenManage Connection Support Matrix	7
Supported operating systems for Managing Systems	7
Supported operating systems for Managed Systems	8
Supported Dell EMC devices and their OMSA and firmware versions	8
Supported Dell EMC platforms	11
Datacenter Scalable Solutions	11
PowerEdge servers	11
Dell EMC Workstations	12
Dell EMC Chassis	12
Dell EMC SC-Series Storage arrays	12
PowerVault NX Storage arrays	12
Dell EMC PS-Series Storage arrays	13
Dell EMC Modular Disk Storage arrays	13
Dell EMC Network switches	13
Dell EMC Hyper-converged Infrastructure (HCI) Platforms	14
3 Using the Dell EMC OpenManage Connection for IBM Tivoli Netcool/OMNIBus	16
Event monitoring using SNMP traps	16
Understanding Event Severity	17
Event Auto Correlation	17
Dell EMC OMSA Alert Groups	18
Dell EMC OMSS Alert Groups	19
Dell EMC PS-Series Alert Groups	20
iDRAC7, iDRAC8 and iDRAC9 Alert Groups	21
Dell EMC DRAC5 and iDRAC6 Alert Groups	23
Dell EMC Chassis Alert Groups	24
Dell EMC SC-Series Alert Groups	25
Dell EMC Modular Disk Storage Array Alert Groups	26
Dell EMC Enterprise Switches (S-Series, Z-Series, M-Series, and C-Series) Alert Groups	27
Dell EMC N-Series Switch Alert Groups	29
W-Series Switch Alert Groups	31
4 Dell EMC Devices and their console launch tools	34
Launching Dell EMC consoles from the Web GUI	35
Launching Dell EMC consoles from the Desktop Event List	36
5 Troubleshooting	37

Console Tool Launch from ITNO WEB GUI is opening with additional content in the URL specific to IE Browser.....	37
Warning messages are displayed while configuring parameters using Dell EMC Config Utility.....	38
Dell EMC MX7000 events are not received at the Netcool/OMNIbus console.....	38
Error while launching the Warranty Report Information console from events generated by servers or workstations running ESXi Operating System.....	38
Error while launching the Dell EMC Remote Access controller Information Console from events generated by Servers or Workstations running ESXi Operating System.....	39
Launching Console from SNMPv3 traps received from supported Dell EMC Devices.....	39
SNMPv3 traps are not received in the IBM Tivoli Netcool/OMNIbus console.....	39
Error while launching the OMSA console from iDRAC7/iDRAC8/iDRAC9 events or SNMP traps.....	39
PowerEdge server, PowerVault NX Storage Arrays, and Workstation events are not received at the Netcool/OMNIbus console.....	40
iDRAC7, iDRAC8 and iDRAC9 Server events are not received at the Netcool/OMNIbus console.....	40
Dell EMC FX2 CMC, Dell EMC VRTX CMC, Dell EMC CMC and Dell EMC DRAC events are not received at the Netcool/OMNIbus console.....	40
Dell EMC SC-Series Storage Array events are not received at the Netcool/OMNIbus console.....	41
Dell EMC PS-Series Storage Array events are not received at the Netcool/OMNIbus console.....	41
Dell EMC Modular Disk Storage Array events are not received at the Netcool/OMNIbus console.....	41
Dell EMC Enterprise switch events are not received at the Netcool/OMNIbus console.....	42
Dell EMC N-Series switch events are not received at the Netcool/OMNIbus console.....	42
Dell EMC W-Series switch events are not received at the Netcool/OMNIbus console.....	42
Dell EMC OpenManage Server Administrator events are not correlated.....	42
iDRAC7/iDRAC8/iDRAC9 events are not correlated.....	43
Dell EMC FX2 CMC or Dell EMC VRTX CMC events are not correlated.....	43
Dell EMC SC-Series events are not correlated.....	43
Dell EMC PS-Series events are not correlated.....	43
Dell EMC Enterprise (S-Series, M-Series, Z-Series, and C-Series) events are not correlated.....	43
Dell EMC N-Series events are not correlated.....	43
Error while importing the Web GUI Integrations.....	43
Error while launching the Dell EMC consoles using Web GUI.....	44
Error while launching the Dell EMC Modular Disk Storage Array console using Web GUI.....	44
Error in restarting the MTTTrapd probe in Windows.....	44
6 Related documents and resources.....	45
Other documents you may need.....	45
Contacting Dell.....	45
Accessing documents from the Dell EMC support site.....	45
A Appendix.....	47
Configuring SNMP Trap Destination for 12G or Later Generation of PowerEdge Servers, PowerVault NX Storage Arrays, and Dell Workstations.....	47

Overview

This guide provides the information required to monitor and troubleshoot the Dell EMC OpenManage Connection Version 4.0 for Tivoli Netcool/OMNIBus.

Dell EMC OpenManage Connection for IBM Tivoli Netcool/OMNIBus provides event-monitoring capabilities to monitor Dell EMC PowerEdge Servers, Dell EMC HCI(Hyper Converged Infrastructure) Servers, Dell Remote Access Controllers (DRACs), Integrated Dell Remote Access Controllers (iDRACs), Dell EMC Workstations, Dell EMC Chassis, Datacenter Scalable Solutions (DSS), Original Equipment Manufacturing (OEM) Servers, Dell EMC Storage and Dell EMC Network devices. The Dell EMC OpenManage Connection monitors Dell EMC devices by receiving alerts on the IBM Tivoli Netcool/OMNIBus console. It also supports one-to-one console launches following Dell EMC device alerts and other Dell EMC 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 8.1 and 7.4.

Dell EMC Precision Rack Workstations mentioned throughout this guide refers to Dell EMC Precision R7910 and R7920 Rack Workstations.

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

Topics:

- [What is new in this release](#)
- [Key features](#)

What is new in this release

The Dell EMC OpenManage Connection version 4.0 for IBM Tivoli Netcool/OMNIBus has the following new features and support:

- Support for IBM Tivoli Netcool/OMNIBus version 8.1 for Windows Server 2012 R2 and Windows Server 2016.
- Monitor alerts from the following Dell EMC devices:
 - Support for Dell EMC HCI Servers (VxRail, Nutanix XC-Series)
 - Support for PowerEdge MX7000
- Trap correlation support for the following Dell EMC devices:
 - Dell EMC 14th Generation Servers
 - Dell EMC Integrated Dell Remote Access Controller 9 (iDRAC9)
 - Dell EMC HCI Servers (VxRail, Nutanix XC-Series) using Out of band (iDRAC8/iDRAC9)
- "Dell EMC" branding changes for Class, Agent and Tool names for all supported Dell EMC devices.
- SNMPv3 support for iDRAC9 and Dell EMC SC-Series Storage Array.
- Support for the Dell EMC Modular Infrastructure MX7000 Chassis specific to console launch from the generated alerts:
 - Dell EMC OpenManage Enterprise Modular (OME-M)(Dell EMC Chassis Management Controller Console)
 - Dell EMC OpenManage Enterprise Console
- Support for the following Dell EMC HCI Servers specific to console launch from the generated alerts:
 - Dell EMC Server Administrator Console
 - Dell EMC iDRAC Console

- Dell EMC Server Trap Configuration Information Console
- Support to view Dell EMC Warranty information of the Dell EMC devices from the event context.

Key features

The following table lists the key features of Dell EMC OpenManage Connection for IBM Tivoli Netcool/OMNIBus version 4.0

Table 1. Features and Functionalities

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

Dell EMC OpenManage Connection Support Matrix

Dell EMC OpenManage Connection Version 4.0 for IBM Tivoli Netcool/OMNIBus supports the Dell EMC 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 EMC devices and their OMSA and firmware versions
- Supported Dell EMC Platforms

Supported operating systems for Managing Systems

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

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

Windows Server	SUSE Linux Enterprise Server (SLES)	Red Hat Enterprise Linux Server (RHEL)
Windows Server 2012 R2 64-bit (Standard, Datacenter)	SLES 12 64-bit	RHEL 7.5 64-bit (Server)
Windows Server 2016 (Standard)		RHEL 7.4 64-bit (Server)
		RHEL 7.3 64-bit (Server)

 **NOTE: Only for Desktop Support**

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

Windows Client	SUSE Linux Enterprise Server (SLES)	Red Hat Enterprise Linux Server (RHEL)
Windows 10 64-bit	SLES 11 SP4	RHEL 6.9 64-bit (Server, Workstation)
Windows 8.1 64-bit (Enterprise, Professional, Standard)		
Windows 8 64-bit (Enterprise, Professional, Standard)		
Windows 7 64-bit SP1 (Enterprise, Professional)		
Windows 7 32-bit SP1 (Enterprise, Professional)		

Supported operating systems for Managed Systems

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

Table 4. Supported operating systems for Dell EMC Workstations

Windows Server	SUSE Linux Enterprise Server (SLES)	Red Hat Enterprise Linux Server (RHEL)
Windows Server 2012 R2 (Datacenter, Foundation, Essentials, and Standard editions)	SLES 12 SP3 64-bit	RHEL 7.5 64-bit
Windows 8.1 Professional 64 bit	SLES 11 SP4	RHEL 7.4 64-bit
Windows 7 Professional 32-bit and 64-bit		RHEL 6.10 64-bit RHEL 6.9 64-bit

Table 5. Supported operating systems for Dell EMC Servers

VMware vSphere ESXi	Windows Server	SUSE Linux Enterprise Server (SLES)	Red Hat Enterprise Linux Server (RHEL)
ESXi 6.7	Windows 2019	SLES 15 64-bit	RHEL 7.5 64-bit
ESXi 6.5 U1	Windows 2016	SLES 12 SP3 64-bit	RHEL 7.4 64-bit
ESXi 6.0 U3	Windows Server 2012 R2 (Datacenter, Foundation, Essentials, and Standard editions)	SLES 11 SP4	RHEL 6.10 64-bit RHEL 6.9 64-bit

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

Supported Dell EMC devices and their OMSA and firmware versions

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

Table 6. Dell EMC devices and firmware

Dell EMC Devices	Supported OMSA Versions	Supported Firmware Versions
iDRAC9	NA	<ul style="list-style-type: none"> • 3.21.23.22 • 3.21.21.21
iDRAC8	NA	<ul style="list-style-type: none"> • 2.60.60.60 • 2.52.52.52
iDRAC7	NA	<ul style="list-style-type: none"> • 2.60.60.60 • 2.52.52.52
iDRAC6 Modular	NA	<ul style="list-style-type: none"> • 3.85

Dell EMC Devices	Supported OMSA Versions	Supported Firmware Versions
		<ul style="list-style-type: none"> 3.80
iDRAC6 Monolithic	NA	<ul style="list-style-type: none"> 2.91 2.90
DRAC5	NA	<ul style="list-style-type: none"> 1.6 1.5
PowerEdge servers	<ul style="list-style-type: none"> 9.2.1 9.2 9.1 	NA
Hyper-Converged Platforms(HCI) Devices VxRail, Nutanix XC-Series		14G <ul style="list-style-type: none"> 3.21.23.22 3.21.21.21 13G <ul style="list-style-type: none"> 2.60.60.60 2.52.52.52
OEM Servers	<ul style="list-style-type: none"> 9.2.1 9.2 9.1 	NA
Dell EMC MX7000	NA	OpenManage Enterprise Modular (OME-M) <ul style="list-style-type: none"> 1.0.1 1.0.0
Dell EMC FX2 CMC	NA	<ul style="list-style-type: none"> 2.1 2.0
Dell EMC VRTX CMC	NA	<ul style="list-style-type: none"> 3.1 3.0
Dell EMC M1000e	NA	<ul style="list-style-type: none"> 6.1 6.0
Dell EMC Workstations	<ul style="list-style-type: none"> 9.2.1 9.2 9.1 	NA
Datacenter Scalable Solutions (DSS 1500 and DSS 2500)	NA	<ul style="list-style-type: none"> 2.60.60.60 2.52.52.52
Datacenter Scalable Solutions (DSS 1510)	NA	<ul style="list-style-type: none"> 2.60.60.60 2.52.52.52

Dell EMC Devices	Supported OMSA Versions	Supported Firmware Versions
Datacenter Scalable Solutions (DSS 9620, DSS 9600 and DSS 9630)	NA	<ul style="list-style-type: none"> 3.21.23.22 3.21.21.21
PowerVault NX Storage Arrays	<ul style="list-style-type: none"> 9.2.1 9.2 9.1 	NA
SC-Series Storage Arrays	NA	<ul style="list-style-type: none"> 7.2.40.36 7.2.31.3
PS-Series Storage Arrays	NA	<ul style="list-style-type: none"> 10.0.1 9.1.7
Modular Disk Storage Arrays	NA	<ul style="list-style-type: none"> 08.25.14 08.25.13
Dell EMC Network Switches	NA	<p>S-Series</p> <ul style="list-style-type: none"> 9.14 9.13 <p>M-Series</p> <ul style="list-style-type: none"> 9.14 9.13 <p>Z-Series</p> <ul style="list-style-type: none"> 9.14 9.13 <p>C-Series</p> <ul style="list-style-type: none"> 9.14 9.13 <p>N-Series</p> <ul style="list-style-type: none"> 6.5.2.5 6.3.3.14 <p>W-Series</p> <ul style="list-style-type: none"> W-Series Mobility Controllers (6.4)
Dell EMC Precision Workstation	<ul style="list-style-type: none"> 9.2.1 9.2 9.1 	<ul style="list-style-type: none"> NA

NOTE: Dell EMC Workstations refers to Precision R7910 and R7920 Rack Workstations.

Supported Dell EMC platforms

Datacenter Scalable Solutions

Table 7. Supported Datacenter Scalable Solutions

Datacenter Scalable Solutions (DSS)	
DSS 1500	DSS 9620
DSS 1510	DSS 9600
DSS 2500	DSS 9630

PowerEdge servers

Table 8. Supported PowerEdge servers

12th generation of PowerEdge Servers	13th generation of PowerEdge Servers	14th generation of PowerEdge Servers
PowerEdge FM120x4	PowerEdge C4130	PowerEdge R640
PowerEdge M420	PowerEdge C6320	PowerEdge R740
PowerEdge M520	PowerEdge C6320p	PowerEdge R740xd
PowerEdge M620	PowerEdge FC430	PowerEdge R840
PowerEdge M820	PowerEdge FC630	PowerEdge R940
PowerEdge R220	PowerEdge FC830	PowerEdge R940xa
PowerEdge R320	PowerEdge M630	PowerEdge M640 (For PE VRTX)
PowerEdge R420	PowerEdge M830	PowerEdge FC640
PowerEdge R520	PowerEdge R230	PowerEdge C6420
PowerEdge R620	PowerEdge R330	PowerEdge R440
PowerEdge R720xd	PowerEdge R430	PowerEdge R540
PowerEdge R820	PowerEdge R530	PowerEdge T440
PowerEdge R920	PowerEdge R530xd	PowerEdge T640
PowerEdge T320	PowerEdge R630	PowerEdge R6415
PowerEdge T420	PowerEdge R730	PowerEdge R7415
PowerEdge T620	PowerEdge R730xd	PowerEdge R7425
	PowerEdge R830	
	PowerEdge R930	
	PowerEdge T130	
	PowerEdge T330	
	PowerEdge T430	
	PowerEdge T630	

NOTE: The corresponding Dell EMC Remote Access Controllers (DRAC5, iDRAC6, iDRAC7, iDRAC8 and iDRAC9) are included as part of their respective generation of PowerEdge servers in the preceding table.

Dell EMC Workstations

Table 9. Supported Dell EMC Workstations

Precision R7910

Precision R7920

Dell EMC Chassis

Table 10. Supported Dell EMC Chassis

PowerEdge FX2

PowerEdge FX2s

PowerEdge VRTX

PowerEdge M1000e

PowerEdge MX7000

Dell EMC SC-Series Storage arrays

Table 11. Supported Dell EMC SC-series Storage arrays

Compellent Series 40

Compellent SC4020

Compellent SC5020

Compellent SC7020

Compellent SC8000

PowerVault NX Storage arrays

Table 12. Supported PowerVault NX Storage arrays

PowerVault NX200

PowerVault NX300

PowerVault NX400

PowerVault NX3000

PowerVault NX3100

PowerVault NX3200

PowerVault NX3300

Dell EMC PS-Series Storage arrays

Table 13. Supported Dell EMC PS-Series Storage arrays

EqualLogic PS4000	EqualLogic PS6000
EqualLogic PS4100	EqualLogic PS6010
EqualLogic PS4110	EqualLogic PS6100
EqualLogic PS4210	EqualLogic PS6110
EqualLogic PS-M4110	EqualLogic PS6210
	EqualLogic PS6500
	EqualLogic PS6510
	EqualLogic PS6610

Dell EMC Modular Disk Storage arrays

Table 14. Supported Dell EMC Modular Disk 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 EMC Network switches

Table 15. Supported Dell EMC Network switches

S-Series	M-Series	Z-Series	C-Series	N-Series		W-Series (Mobility Controllers)
S3124	PowerEdge M I/O Aggregator	Z9100-ON	C9010	N1124T	N4064F	W-3200
S3124P	Power Edge MXL 10/40GbE		C1048P	N1124P	N4064	W-3400

S-Series	M-Series	Z-Series	C-Series	N-Series		W-Series (Mobility Controllers)
S3124F				N1148T	N3024	W-3600
S3148				N1148P	N3024F	W-620
S3148F				N1108T	N3024P	W-650
S3048				N1108P	N3048	W-651
S4048				N1524	N3048P	W-7200
S4048-ON				N1524P	N4032	
S5000				N1548	N4032F	
S6000				N1548P		
S6000-ON				N2024		
S6010-ON				N2024P		
S6100-ON				N2048		
S5048F				N2048PNOT E:		

Dell EMC Hyper-converged Infrastructure (HCI) Platforms

Table 16. Supported Dell EMC Hyper-converged Infrastructure (HCI) Platforms

VxRail Devices	Nutanix XC Servers
VxRail E460	XC6320-6
VxRail E460F	XC430-4 Xpress
VxRail P470	XC430-4
VxRail P470F	XC630-10
VxRail V470	XC730xd-24
VxRail V470F	XC640-10
VxRail S470	XC740-12
VxRail 7920 XL Rack	XC740-12C
	XC740-12R
	XC740-24
	XC640-4
	XC-940-24
	XC6420-6
	XC640-4 Xpress
	XC730-16G
	XC730xd-12
	XC730xd-12C

VxRail Devices**Nutanix XC Servers**

XC730xd-12R

XC740xd

XC640

XC6420

XC940

Using the Dell EMC OpenManage Connection for IBM Tivoli Netcool/OMNIBus

Dell EMC 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 EMC OpenManage Connection monitors the supported Dell EMC devices that receive SNMP traps from Dell EMC 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 EMC devices as listed in the following table.

Table 17. Dell EMC device class ID

Dell EMC Device	Class ID
10th generation to 14th generation of PowerEdge Servers	2080
Dell EMC Hyper Converged Infrastructure (HCI) Servers (iDRAC8 / iDRAC9)	2088
OEM servers	2080
Dell EMC Workstation	2080
OEM iDRAC	2088
iDRAC9	2088
iDRAC8	2088
iDRAC7	2088
DRAC	2087
Dell EMC M1000e Chassis	2086
Dell EMC MX7000 Chassis	2094
Dell EMC VRTX	2094
Dell EMC FX2 / FX2s	2094
PowerVault NX Storage Arrays	2080
Dell EMC SC-Series Storage Arrays	2090
Dell EMC PS-Series Storage Arrays	2085
Dell EMC MD Storage Arrays	2809
C- Series Switches	2091
M-Series Switches	2091
N-Series Switches	2092
S-Series Switches	2091

Dell EMC Device	Class ID
W-Series Switches	2093
Z-Series Switches	2091

The event monitoring process is as follows:

- 1 The MTTtrapd probe receives the SNMP traps from the supported Dell EMC devices.
- 2 The MTTtrapd probe converts the trap into an event using the respective rules, which then filters the traps from the Dell EMC devices and populates the event fields with the appropriate value.
- 3 The MTTtrapd 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 EMC OpenManage Connection for IBM Tivoli Netcool/OMNIbus supports auto correlation of events on PowerEdge Servers, Dell EMC HCI Servers, OEM servers, iDRAC7, iDRAC8, iDRAC9, PowerEdge FX2, PowerEdge VRTX, PowerEdge M1000e, Dell EMC SC-Series Storage Arrays, Dell EMC 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 EMC OpenManage Connection automatically correlates the following events:

- Problem event with its corresponding clear event — OMSA, OMSS, iDRAC7, iDRAC8, iDRAC9, PowerEdge FX2, PowerEdge VRTX, PowerEdge M1000e, Dell EMC SC-Series Storage Arrays, Dell EMC PS-Series 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, iDRAC9, PowerEdge FX2, PowerEdge VRTX, PowerEdge M1000e, Dell EMC SC-Series Storage Arrays, Dell EMC PS-Series 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_cmc_clear` trigger correlates the VRTX and FX2 Chassis problem event by another problem event.

The `dell_equallogic_clear` trigger correlates the Dell EMC PS-Series storage array problem events.

The `dell_idrac_clear` trigger correlates the iDRAC7, iDRAC8 or iDRAC9 problem events.

The `dell_compellent_clear` trigger correlates the Dell EMC SC-Series Storage Arrays 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, Dell EMC SC-Series storage arrays, Dell EMC PS-Series storage arrays, Dell EMC Modular Disk storage arrays, Enterprise Series Switches, and N-Series Switch events support this event correlation.

The `dell_omsa_deduplicate_clear` trigger correlates the OMSA problem events.

The `dell_cmc_deduplicate_clear` trigger correlates the VRTX and FX2 Chassis problem events.

The `dell_equallogic_deduplicate_clear` trigger correlates the Dell EMC PS-Series storage array problem events.

The `dell_mdarray_deduplicate_clear` trigger correlates the Dell EMC Modular Disk Storage Array problem events.

The `dell_idrac_deduplicate_clear` trigger correlates the iDRAC7, iDRAC8 or iDRAC9 problem events.

The `dell_compellent_deduplicate_clear` trigger correlates the Dell EMC SC-Series 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 EMC 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 EMC OpenManage Server Administrator Messages Reference Guide* at dell.com/support/home.

Dell EMC 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 EMC 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.

Alert Group	Description
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-SNMPAgentKey	Generated when the SNMP Agent Key is missing.
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-UnmonitoredSensors	Provides information of the alerts generated from unmonitored sensors.
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.
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 EMC 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 EMC 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.

Alert Group	Description
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.
Redundancy	Provides status of the redundancy device.
SSDDisk	Provides status of the SSD Disk usage.
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 EMC PS-Series Alert Groups

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

Table 20. Dell EMC PS-Series Alert Groups

Alert Group	Description
AdminLoginStatus	Provides information when a Group Admin Account Status is modified.
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.
EthNetMask	Provides information of the Netmask Interface change.

Alert Group	Description
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.
IPAddrChange	Provides information of the Group IP address change.
ISCSIVolume	Provides information when the volume of the iSCSI initiator is modified.
LowAmbientTemp	Provides information that one or more sensors are within the critical temperature range.
MultipleRAIDSets	Provides information that multiple valid RAID sets are found.
MWKAChange	Provides information that MWKA is changed for PS-Series Storage Array.
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 Dell EMC PS-Series disk has changed.
SCSITgtDevice	Provides information that status of the Dell EMC PS-Series SCSI target device has changed.
SCSILuStatus	Provides information that status of the Dell EMC PS-Series Logical Unit Number (LUN) has changed.
ISCSITgtLogin	Provides information that the Dell EMC PS-Series iSCSI target device's login attempt failed.
ISCSIIIntrLogin	Provides information that the initiator's login attempt failed.
ISCSIIInstSession	Provides information that the active session for a target system or an initiator failed.

iDRAC7, iDRAC8 and iDRAC9 Alert Groups

These alerts are the events generated by Integrated Dell Remote Access Controller 7 (iDRAC7), Integrated Dell Remote Access Controller 8 (iDRAC8) and Dell Remote Access Controller 9 (iDRAC9) devices and displayed on the Netcool/OMNIBus console. The following table lists the iDRAC7, iDRAC8 and iDRAC9 alert groups.

Table 21. iDRAC7, iDRAC8 and iDRAC9 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.

Alert Group	Description
AutomaticSystemRecovery	Provides the OS watchdog timer details of the system.
Battery	Provides the details of the system-board battery.
BIOSPOST	Provides information about the memory performance during system BIOS Power-On Self Test (POST).
CMC	Provides information of the audit information events error for Chassis Management Controller.
Configuration	Provides information for the Job Configuration status.
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.
InfrastructureFirmware	Provides information of the IO Virtualization failure of critical event.
JOB	Provides information on the scheduled 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.
StorageController	Provides details of the storage controller.

Alert Group	Description
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.
StoragePhysicalDisk	Indicates that the storage device status is not determined.
StoragePowerSupply	Provides the power supply information of the storage device.
StorageSolidstateDrive	Provides information of the threshold value of Solid State Drive.
StorageTemperatureProbe	Provides temperature information of an enclosure.
SystemEventLog	Provides information about the event logs of the system.
SystemHealth	Provides information of the system security health.
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 EMC DRAC5 and iDRAC6 Alert Groups

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

Table 22. Dell EMC 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.
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.

Alert Group	Description
WatchDog	Provides the status information of the System Watchdog.

Dell EMC Chassis Alert Groups

The PowerEdge FX2, PowerEdge VRTX, PowerEdge M1000e and Dell EMC PowerEdge MX7000 devices generate the Chassis alerts and these alerts are displayed on the Netcool/OMNIBus console. The following table lists the Dell EMC Chassis alert groups.

Table 23. Dell EMC 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.
Generic	Provides the detailed information of system alerts for Management Modules(MX7000) and generates test trap events.
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.
PowerUsage	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.
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.

Alert Group	Description
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 EMC SC-Series Alert Groups

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

Table 24. Dell EMC SC-Series 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 Dell EMC SC-Series 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 Dell EMC SC-Series enclosures in case of any change in its current status.
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 Dell EMC SC-Series 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 EMC Modular Disk Storage Array Alert Groups

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

Table 25. Dell EMC Modular Disk Storage 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.
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.

Alert Group	Description
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.
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 EMC Enterprise Switches (S-Series, Z-Series, M-Series, and C-Series) Alert Groups

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

Table 26. Dell EMC 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.
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.
MacNotification	Generated when the MAC address is detected for the first time in the device.
Memory	Provides Memory Utilization status.
NetAlarm	Generated when the Bit error rate of the interface is changed or when the retrain event is observed on an interface.
NetSysLog	Provides information about the availability of the server syslog.
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.
ProductGlobalStatusChange	Provides information when the Device Global Status changes.
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.

Alert Group	Description
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	Provides information about any changes in the Virtual Router Redundancy Protocol entries.

Dell EMC N-Series Switch Alert Groups

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

Table 27. Dell EMC 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.
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.
AgentSwitchDisable	Provides information when the interface is auto recovered from AgentPortDDisable.
AgentSwitchIP	Provides information about the Agent Switch IP status.
AgentSwitchMbuf	Provides information when the Mbuf utilization falls or exceeds the utilization threshold.
Authentication	Provides information on Authentication Manager when the client is in the authorized/un-authorized state.
BGPFSMStatus	Provides information when BGP FSM Status is changed.
Broadcast	Provides information about the Broadcast storm status.
BSR	Provides information for Bootstrap Router Configuration.
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.
EnvMonFanStatusGroup	Provides information about the fan status.

Alert Group	Description
EnvMonPowerSupplyStatusGroup	Provides information about the power supply status.
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.
LoginStatus	Generates traps when a CLI session starts or ends.
LoopTrap	Generates traps when a loop on an interface is detected.
MAU	Provides information whenever a managed repeater MAU enters the Jabber state.
MEP	Provides information when there is a change in Fault Alarm.
Network	Generated when the sending Agent has transitioned to Master State.
NewRoot	Indicates that a new root has been elected
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.
PethMainPowerUsage	Provides information about power usage On/Off notification status.
PimNeighborLossGroup	Generated when there is loss of an adjacency with a neighbor.
PingProbe	Provides information when a ping probe changed is detected.
PingTestFailed	Provides information when a ping test is Failed.
PingTestCompleted	Provides information when a ping test is Completed.
PortState	Provides the Port State change information.
PortStatus	Provides status information for the ports with either an Authorised or Unauthorized message.
PowerSupply	Provides status information of the power supplies.
ProductGlobalStatusChange	Provides information of the overall device status.
PSEPORT	Provides information about Port On/Off status.
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.
TargetPath	Generated when the path of the target is changed.
Temperature	Provides temperature statistics information of the switch.
TFTP	Provides information about the status of the Trivial File Transfer Protocol.

Alert Group	Description
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.
TopologyChange	Provides information about change in Topology.
TrunkPort	Provides status information when a port has been added or deleted.
UserLogin	Provides information about the users logged in.
VirtualRouter	Provides information about an application belonging to a particular Virtual Router.
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 EMC W-Series Switches and displayed on the Netcool/OMNIBus console. The following table lists the W-Series alert groups.

Table 28. Dell EMC 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.
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.

Alert Group	Description
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.
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.

Alert Group	Description
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.
ShortPreamble	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.
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 EMC Devices and their console launch tools

The Dell EMC OpenManage Connection enables you to launch various Dell EMC one-to-one, one-to-many consoles and other Dell EMC tools to get more information about the Dell EMC 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 EMC consoles from the Web GUI](#) and [Launching Dell consoles from Desktop Event List](#).

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

Table 29. Dell EMC One-to-One console launches

Dell EMC Device	Console launch tools
Dell EMC Servers/OEM Servers	Dell EMC Server Administrator Console Del EMC Server Administrator Web Server Console Dell EMC Remote Access Controller Console Dell EMC Warranty Report
Dell EMC iDRAC 7, iDRAC 8 or iDRAC9	Dell EMC Server Administrator Console Dell EMC Server Trap Configuration Information Console Dell EMC iDRAC Console Dell EMC Warranty Report
Dell EMC Hyper Converged Infrastructure (HCI) Devices (VxRail and Nutanix XC series)	Dell EMC Server Administrator Console Dell EMC Server Trap Configuration Information Console Dell EMC iDRAC Console Dell EMC Warranty Report
Dell EMC Workstations	Dell EMC Server Administrator Console Dell EMC Server Administrator Web Server Console Dell EMC Remote Access Controller Console Dell EMC Warranty Report
Dell EMC DRACs	Dell EMC Remote Access Controller Console Dell EMC Server Administrator Console Dell EMC Warranty Report

Dell EMC Device	Console launch tools
Dell EMC Chassis	Dell EMC Chassis Management Controller Console Dell EMC Warranty Report
Dell EMC MX7000	Dell EMC OpenManage Enterprise Modular (OME-M) (Dell EMC Chassis Management Controller Console) Dell EMC Warranty Report
PowerVault NX Storage Arrays:	Dell EMC Server Administrator Console Dell EMC Server Administrator Web Server Console Dell EMC Remote Access Controller Console Dell EMC Warranty Report
Dell EMC SC-Series Storage Arrays:	Dell EMC SC-Series Storage Manager Console Dell EMC Warranty Report
Dell EMC PS-Series Storage Arrays:	Dell EMC PS-Series Group Manager Console Dell EMC Warranty Report
Dell EMC Modular Disk Storage Arrays	Dell EMC Modular Disk Storage Manager Console Dell EMC Warranty Report
Dell EMC N-Series switches	Dell EMC OpenManage Switch Administrator Console Dell EMC OpenManage Network Manager Console Dell EMC Warranty Report
Dell EMC Enterprise Switches	Dell EMC OpenManage Network Manager Console Dell EMC Warranty Report
Dell EMC W-Series Switches	Dell EMC AirWave Management Platform Console

NOTE: An active Internet connection is required to retrieve the warranty report information for a Dell EMC device.

Table 30. Dell EMC One-to-Many console launches

Dell EMC Device	Console launch tools
All Supported Dell EMC Devices	Dell EMC OpenManage Enterprise Console

Topics:

- [Launching Dell EMC consoles from the Web GUI](#)
- [Launching Dell EMC consoles from the Desktop Event List](#)

Launching Dell EMC consoles from the Web GUI

You can launch the supported console launch tools from the respective Dell EMC 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.

NOTE: For Netcool OMNibus version 8.1, you have to click on Incident > Events > Active Event List (AEL).

3 Right-click on any event generated by a Dell EMC device on the **Active Event List**.

4 From the options, click **Dell EMC Tools > <Dell EMC Console Launch Tool>** .

The respective **<Dell EMC Console Launch Tool>** is launched in the default browser.

For Example:

To launch the **Dell EMC SC-Series Storage Manager Console** from the Web GUI, Right-click the Dell EMC SC-Series event on the **Active Event List**, from the options displayed, click **Dell EMC Tools > Dell EMC SC-Series Storage Manager Console**.

The Dell EMC SC-Series Storage Manager Console is launched in a default browser.

Launching Dell EMC consoles from the Desktop Event List

You can launch the supported console launch tools from the respective Dell EMC 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 EMC device on the **Event List**.

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

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

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

For Example:

To launch the **Dell EMC SC-Series Storage Manager Console** from the **Desktop Event List**, right-click the Dell EMC SC-Series event on the **Event List**, from the options displayed, click **Dell EMC Tools > Dell EMC SC-Series Storage Manager Console**.

The Dell EMC SC-Series Storage Manager Console is launched in a default browser.

Troubleshooting

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

Topics:

- Console Tool Launch from ITNO WEB GUI is opening with additional content in the URL specific to IE Browser.
- Warning messages are displayed while configuring parameters using Dell EMC Config Utility.
- Dell EMC MX7000 events are not received at the Netcool/OMNIbus console
- Error while launching the Warranty Report Information console from events generated by servers or workstations running ESXi Operating System.
- Error while launching the Dell EMC Remote Access controller Information Console from events generated by Servers or Workstations running ESXi Operating System.
- Launching Console from SNMPv3 traps received from supported Dell EMC Devices
- SNMPv3 traps are not received in the IBM Tivoli Netcool/OMNIbus console
- Error while launching the OMSA console from iDRAC7/iDRAC8/iDRAC9 events or SNMP traps
- PowerEdge server, PowerVault NX Storage Arrays, and Workstation events are not received at the Netcool/OMNIbus console
- iDRAC7, iDRAC8 and iDRAC9 Server events are not received at the Netcool/OMNIbus console
- Dell EMC FX2 CMC, Dell EMC VRTX CMC, Dell EMC CMC and Dell EMC DRAC events are not received at the Netcool/OMNIbus console
- Dell EMC SC-Series Storage Array events are not received at the Netcool/OMNIbus console
- Dell EMC PS-Series Storage Array events are not received at the Netcool/OMNIbus console
- Dell EMC Modular Disk Storage Array events are not received at the Netcool/OMNIbus console
- Dell EMC Enterprise switch events are not received at the Netcool/OMNIbus console
- Dell EMC N-Series switch events are not received at the Netcool/OMNIbus console
- Dell EMC W-Series switch events are not received at the Netcool/OMNIbus console
- Dell EMC OpenManage Server Administrator events are not correlated
- iDRAC7/iDRAC8/iDRAC9 events are not correlated
- Dell EMC FX2 CMC or Dell EMC VRTX CMC events are not correlated
- Dell EMC SC-Series events are not correlated
- Dell EMC PS-Series events are not correlated
- Dell EMC Enterprise (S-Series, M-Series, Z-Series, and C-Series) events are not correlated
- Dell EMC N-Series events are not correlated
- Error while importing the Web GUI Integrations
- Error while launching the Dell EMC consoles using Web GUI
- Error while launching the Dell EMC Modular Disk Storage Array console using Web GUI
- Error in restarting the MTTTrapd probe in Windows

Console Tool Launch from ITNO WEB GUI is opening with additional content in the URL specific to IE Browser.

Tool Launch from ITNO Webgui is opening with additional content in the URL specific to IE Browser

- User can remove the additional content `IBM/console/undefined` by manually editing the URL.
- User can set Mozilla Firefox or Google Chrome(only for 8.1) as default browser.

Warning messages are displayed while configuring parameters using Dell EMC Config Utility.

Warning messages are displayed while using Dell EMC Config Utility and user will not be able to launch the console.

- 1 User will have to configure the **OMNIWEBGUI** environment variable.
Example : **OMNIWEBGUI** `C:\IBM\Netcool\gui\omnibus_webgui`
- 2 Close the existing Terminal.
- 3 Open New Terminal and configure the parameters using Dell EMC Config Utility.

Dell EMC MX7000 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 "$NC_RULES_HOME/include-snmpttrap/dell/dell-NGM-MIB.include.snmpttrap.lookup"`
- 3 Verify that the following entry is included in the **dell.master.include.rules** file:
`include "$NC_RULES_HOME/include-snmpttrap/dell/dell-NGM-MIB.include.snmpttrap.rules"`

Error while launching the Warranty Report Information console from events generated by servers or workstations running ESXi Operating System.

User needs to configure the Dell EMC Warranty Report by performing the following steps:

- 1 In the Netcool/OMNIBus Desktop component Configuration window, double click **Menu > Tools > Dell EMC WarrantyReport**.
The Edit Tool Window for DELL EMC Warranty Report is displayed.
- 2 Install custom **Oracle Java version 1.8.0_181** or later on the server running with Desktop component.
- 3 Click the **Executable tab** and edit the string in the Executable Commands field as given in the example.

For Example:

Systems running on Windows:

```
$(NCHOME)\platform\win32\jre_1.6.7\jre\bin\java to <installed custom Java path>
\jre1.8.0_181\bin\java
```

Systems running on Linux:

```
$(NCHOME)/platform/linux2x86/jre_1.6.7/jre/bin/java to <installed custom Java path>/
jre1.8.0_181/bin/java
```

- 4 To reconfigure the Netcool/OMNIBus Web GUI component, install Oracle Java version 1.8.0_181 or later and then configure the `TIPJAVAHOME` variable by providing the complete installed Java path.

Error while launching the Dell EMC Remote Access controller Information Console from events generated by Servers or Workstations running ESXi Operating System.

User needs to configure the Dell EMC Remote Access Controller by performing the following steps:

- 1 In the Netcool/OMNIBus Desktop component Configuration window, double click **Menu > Tools > Dell EMC Remote Access Controller**.

The Edit Tool Window for Dell EMC Remote Access controller Information Console is displayed.

- 2 Install custom **Oracle Java version 1.8.0_181** or later on the server running with Desktop component.
- 3 Click the **Executable tab** and edit the string in the Executable Commands field as given in the example.

For Example:

Systems running on Windows:

```
$(NCHOME)\platform\win32\jre_1.6.7\jre\bin\java to <installed custom Java path>\jre1.8.0_181\bin\java
```

Systems running on Linux:

```
$(NCHOME)/platform/linux2x86/jre_1.6.7/jre/bin/java to <installed custom Java path>/jre1.8.0_181/bin/java
```

- 4 To reconfigure the Netcool/OMNIBus Web GUI component, install Oracle Java version 1.8.0_181 or later and then configure the `TIPJAVAHOME` variable by providing the complete installed Java path.

Launching Console from SNMPv3 traps received from supported Dell EMC Devices

User will not be able to launch the Dell EMC device specific consoles from IBM Tivoli Netcool/OMNIBus.

User has to enable both SNMPv1 or SNMPv2 along with SNMPv3 on the supported Dell EMC devices before launching the respective console.

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 `Mttrapd` probe service.

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

Error while launching the OMSA console from iDRAC7/iDRAC8/iDRAC9 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 iDRAC7/iDRAC8/iDRAC9 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.

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"`

iDRAC7, iDRAC8 and iDRAC9 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 EMC FX2 CMC, Dell EMC VRTX CMC, Dell EMC CMC and Dell EMC 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 EMC SC-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 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 EMC 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-snmpttrap/dell/equalLogic-SCSI-MIB.include.snmpttrap.rules"`
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/equalLogic-ISCSI-MIB.include.snmpttrap.rules"`

Dell EMC 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 "$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.rules"`
 - `include "$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-MDStorageArray-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-MDStorageArray-MIB.include.snmpttrap.rules"
```

Dell EMC 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 "$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.rules"`
 - `include "$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 "$NC_RULES_HOME/include-snmpttrap/dell/dell.switch.master.include.snmpttrap.lookup"`
- 3 Verify that the following entries are included in the **dell.master.include.rules** file:
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/dell.switch.master.include.snmpttrap.rules"`

Dell EMC 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 "$NC_RULES_HOME/include-snmpttrap/dell/dell.master.include.rules"`
 - `include "$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 "$NC_RULES_HOME/include-snmpttrap/dell/dell.Nseriesswitch.master.include.snmpttrap.lookup"`
- 3 Verify that the following entries are included in the **dell.master.include.rules** file:
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/dell.Nseriesswitch.master.include.snmpttrap.rules"`

Dell EMC 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 "$NC_RULES_HOME/include-snmpttrap/dell/dell.Wseriesswitch.master.include.snmpttrap.lookup"`
- 3 Verify that the following entries are included in the **dell.master.include.rules** file:
 - `include "$NC_RULES_HOME/include-snmpttrap/dell/dell.Wseriesswitch.master.include.snmpttrap.rules"`

Dell EMC 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/iDRAC9 events are not correlated

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

- dell_idrac_clear
- dell_idrac_deduplicate_clear

Dell EMC FX2 CMC or Dell EMC VRTX CMC events are not correlated

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

- dell_cmc_clear
- dell_cmc_deduplicate_clear

Dell EMC SC-Series events are not correlated

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

- dell_compellent_clear
- dell_compellent_deduplicate_clear

Dell EMC PS-Series events are not correlated

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

- dell_equallogic_clear
- dell_equallogic_deduplicate_clear

Dell EMC 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 EMC 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 EMC OpenManage Connection to the ObjectServer.

Error while launching the Dell EMC 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 EMC Modular Disk Storage Array console using Web GUI

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

Error in restarting the MTTrapd 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 EMC OpenManage Connection for IBM Tivoli Netcool/OMNIBus.

Topics:

- [Other documents you may need](#)
- [Contacting Dell](#)
- [Accessing documents from the Dell EMC support site](#)

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 EMC 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.

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 the Dell EMC support site

You can access the required documents using the following links:

- For Dell EMC Enterprise Systems Management documents — www.dell.com/esmmanuals
- For Dell EMC OpenManage documents — www.dell.com/openmanagemanuals
- For Dell EMC Remote Enterprise Systems Management documents — www.dell.com/esmmanuals
- For iDRAC and Dell Lifecycle Controller documents — www.dell.com/idracmanuals
- For Dell EMC OpenManage Connections Enterprise Systems Management documents — www.dell.com/esmmanuals
- For Dell EMC Serviceability Tools documents — www.dell.com/serviceabilitytools
- a Go to www.dell.com/support.
- b Click **Browse all products**.

- c From **All products** page, click **Software**, and then click the required link from the following:
 - **Analytics**
 - **Client Systems Management**
 - **Enterprise Applications**
 - **Enterprise Systems Management**
 - **Public Sector Solutions**
 - **Utilities**
 - **Mainframe**
 - **Serviceability Tools**
 - **Virtualization Solutions**
 - **Operating Systems**
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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.