



Technical Report

## Level of SNMP Support in Data ONTAP 8.2 SNMP MIBs and Traps in Clustered Data ONTAP

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### Abstract

The NetApp® Data ONTAP® 8.2 operating system supports SNMP-based monitoring in both of the operating modes: clustered Data ONTAP and 7-Mode. Since the objects supported for both modes are different, certain objects in 7-Mode may not be supported in clustered Data ONTAP and vice versa. The purpose of this TR is to help you understand the level of SNMP support in Data ONTAP 8.2 for clustered Data ONTAP and to provide a comparison between the support for 7-Mode and that for clustered Data ONTAP.

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# 1 Introduction

## 1.1 Overview

The Simple Network Management Protocol (SNMP) is an Internet-standard application-layer protocol that facilitates exchange of information between devices connected to a network. SNMP can be configured to monitor storage systems to avoid issues before they occur and to respond to issues when they occur. NetApp storage systems running Data ONTAP operating in 7-Mode and clustered Data ONTAP can take advantage of SNMP features and functionality.

SNMP is based on an agent/manager model. The key components of SNMP are as follows.

1. **Managed device:** This can be a NetApp storage system or any other device on the network that is to be monitored and managed.
2. **SNMP managers:** SNMP network management workstations or managers can query your storage system's SNMP agent for information.
3. **SNMP agent:** The NetApp storage system or any other managed device that supports SNMP-based monitoring includes an SNMP agent, which gathers information and forwards it to the SNMP manager.
4. **Management Information Base (MIB):** The information is gathered by the SNMP agent by polling the Management Information Base (MIB) on network devices. An MIB is a simple database structure that is hierarchical in nature and consists of variables and other metadata, such as a description of variables. Entries in the MIB are defined by Object Identifiers (OIDs).

## 1.2 SNMP Versions

Clustered Data ONTAP provides an SNMP agent compatible with SNMP versions 1, 2c, and 3. SNMP v3 offers advanced security by using pass phrases and encryption. A community string, which is similar to a password, is used for SNMP v1; the individual must know only the name of the community in order to gain access. SNMP v3 supports the MIB II specification and the MIBs of the storage system.

# 2 Purpose and Intended Audience

Data ONTAP 8.2 provides two operating modes, namely, clustered Data ONTAP and 7-Mode. Since the `netapp.mib` file is common for both operating modes, there is a difference in the level of SNMP support for the two operating modes. Hence, certain objects that are supported in 7-Mode may not be supported in clustered Data ONTAP and vice versa. The purpose of this TR is to help customers and NetApp field teams understand the level of SNMP support in clustered Data ONTAP 8.2 and provide a comparison between the support for 7-Mode and that for clustered Data ONTAP.

# 3 SNMP Support in Data ONTAP

The storage system includes an SNMP agent that responds to queries and sends traps to network management stations. The SNMP agent on the storage system has read-only privileges; that is, it cannot be used to take corrective action in response to a trap.

In the case of Data ONTAP operating in 7-Mode, SNMP network management workstations or managers can query your **storage system's SNMP agent** for information; in clustered Data ONTAP, SNMP managers can query your **administrative Vserver's or data Vserver's SNMP agent** for information.

### 3.1 SNMP MIB in Data ONTAP

An MIB file is a text file that describes SNMP objects and traps. MIBs describe the structure of the management data of the storage system and they use a hierarchical namespace containing object identifiers (OIDs). Each OID identifies a variable that can be read by using SNMP.

Data ONTAP provides two MIB files:

- A NetApp custom MIB
- An Internet SCSI (iSCSI) MIB

Data ONTAP also provides a short cross-reference between object identifiers and object short names in the `traps.dat` file.

**Note:** The latest versions of the Data ONTAP MIBs and `traps.dat` files are available online on the NetApp Support site (<http://support.netapp.com/NOW/download/tools/mib/>). However, the versions of these files on the website do not necessarily correspond to the SNMP capabilities of your installed Data ONTAP version. This document and the above files should be read together to understand the exact level of support in your installed Data ONTAP version.

### 3.2 SNMP Traps in Data ONTAP

SNMP traps capture system monitoring information that is sent as an asynchronous notification from the SNMP agent to the SNMP manager. There are three types of SNMP traps:

1. **Standard SNMP traps.** These traps are defined in RFC 1215. There are five standard SNMP traps that are supported by Data ONTAP: `coldStart`, `warmStart`, `linkDown`, `linkUp`, and `authenticationFailure`.
2. **Built-in SNMP traps.** Built-in traps are predefined in Data ONTAP and are automatically sent to the network management stations on the `traphost` list if an event occurs. These traps, such as `diskFailedShutdown`, `cpuTooBusy`, and `volumeNearlyFull`, are defined in the custom MIB. Each built-in trap is identified by a unique trap code.
3. **User-defined SNMP traps.** User-defined traps are **supported only in Data ONTAP 7-Mode**. User-defined traps are defined and modified by the `snmp traps` command.

A trap can be used to check periodically for operational thresholds or failures that are defined in the MIB. If a threshold is reached or a failure is detected, the SNMP agent sends a message (trap) to the `traphosts` alerting them of the event.

## 4 Overview of SNMP Support for Data ONTAP 8.2

The following tables give an overview of the level of support offered for SNMP MIBs and SNMP traps in Data ONTAP 8.2 for both Data ONTAP 7-Mode and clustered Data ONTAP. A “Yes” in the operating mode column indicates that the objects under the group are fully supported; “No” indicates that none of the objects in the group are supported; and “Partial” indicates that a few of the objects are supported for the given operating mode.

In the tables below, most of the SNMP MIB Object Identifiers and SNMP traps that appear in the netapp.mib file are discussed. As the tables show, the SNMP MIB objects and traps can be supported:

- In both clustered Data ONTAP and Data ONTAP 7-Mode
- Only in one of the operating modes: clustered Data ONTAP or 7-Mode
- In neither Data ONTAP 7-Mode nor clustered Data ONTAP, but they are present in the netapp.mib file

### 4.1 Overview of SNMP MIB Support

Table 1) Overview of SNMP MIB support.

SNMP MIB Group	Data ONTAP 7-Mode	Clustered Data ONTAP
product	Partial	Partial
sysStat	Yes	No
Nfs	Yes	No
quota	Yes	Yes
filesystem	Yes	Partial
Raid	Partial	No
Cifs	Yes	No
netcache	No	No
snapmirror	Yes	No
ndmp	Yes	No
fabric	Yes	No
dafs	No	No
backup	Yes	No
blocks	Partial	Partial
nfsCache	Yes	No
snapVault	Yes	No
compress	No	No
cluster	Partial	Partial
extcache	Yes	No
vserver	No	Yes

SNMP MIB Group	Data ONTAP 7-Mode	Clustered Data ONTAP
Qos	No	Yes
Ftpd	Yes	No
storage	Yes	Yes
network	Partial	Partial
sis	Partial	Partial

## 4.2 Overview of SNMP Traps Support

Table 2) Overview of SNMP traps support.

SNMP Traps Group	Data ONTAP 7-Mode	Clustered Data ONTAP
App	Yes	Yes
Asup	Partial	Partial
Auth	Yes	Yes
Av	No	No
Cf	Partial	Partial
Cifs	Partial	Partial
Cmds	Yes	No
Config	Yes	Yes
Ds	Yes	Yes
Ems	No	No
Esh	Yes	Yes
extCache	Yes	Yes
Fci	Yes	Yes
Ftpd	Yes	No
Iscsi	Partial	Partial
Mgmt.	No	Yes
Mgr	Yes	Yes
Monitor	Partial	Partial
No	Yes	Yes
Pvif	Yes	Yes
Qos	No	Yes
Quota	Yes	Yes



SNMP Traps Group	Data ONTAP 7-Mode	Clustered Data ONTAP
Raid	Yes	Partial
rapid_restore	No	No
remoteVolume	Yes	No
Rlm	Yes	Yes
Sas	Yes	Yes
scsiAdapter	Yes	Yes
scsiblade	No	Yes
Ses	Yes	Yes
Sfo	Yes	Yes
Sftp	Yes	No
snapmirror	Yes	No
Snmp	Partial	Yes
Ups	No	No
Vf	Yes	No
Vscan	Yes	Partial
Waf	Partial	Partial

## 5 SNMP MIB Support for Data ONTAP 8.2

The following tables give information about the level of SNMP MIB support for Data ONTAP 8.2. In the tables, 7DOT refers to Data ONTAP operating in 7-Mode and cDOT refers to clustered Data ONTAP.

**Note:** In the Remarks column, a few of the MIB objects are called deprecated or obsolete, which means they are not supported.

In the netapp.mib file, the status field for any MIB object under sysStat.misc or netInterfaces.netifTable indicates whether the same is deprecated or current.

Table 3) SNMP MIB support for group name: Product.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables /Fields)	7DOT	cDOT	Remarks
product	Simple Variables (productType to productMachineType)	.1.3.6.1.4.1.789.1.1.1 to .1.3.6.1.4.1.789.1.1.13	13	Yes	Yes	Supported in both modes; however, number of variables differs.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/Fields)	7DOT	cDOT	Remarks
product	productLicenseTable	.1.3.6.1.4.1.789.1.1.14	7	No	No	Deprecated in 7DOT. Equivalent in cDOT was clusterLicenseTable, which is also deprecated. The new table to use for both 7DOT and cDOT is licenseTable.

**Table 4) SNMP MIB support for group name: sysStat.**

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/Fields)	7DOT	cDOT	Remarks
sysStat	cpu	.1.3.6.1.4.1.789.1.2.1	13	Yes	No	
sysStat	misc	.1.3.6.1.4.1.789.1.2.2	35	Yes	No	The deprecated variables are returned when queried but should not be used. The current COUNTER64 objects should be used instead.
sysStat	cf	.1.3.6.1.4.1.789.1.2.3	8	Yes	No	
sysStat	environment	.1.3.6.1.4.1.789.1.2.4	5	Yes	No	Equivalent in cDOT is nodeTable
sysStat	nvrAm	.1.3.6.1.4.1.789.1.2.5	1	Yes	No	Equivalent in cDOT is nodeTable
sysStat	cp	.1.3.6.1.4.1.789.1.2.6	13	Yes	No	
sysStat	autosupport	.1.3.6.1.4.1.789.1.2.7	4	Yes	Yes	
sysStat	nodeStats	.1.3.6.1.4.1.789.1.2.10	13	No	Yes	

**Table 5) SNMP MIB support for group name: nfs.**

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/Fields)	7DOT	cDOT	Remarks
nfs	curNfs/rpcServer	.1.3.6.1.4.1.789.1.3.1.1	15	Yes	No	
nfs	curNfs/nfsServer	.1.3.6.1.4.1.789.1.3.1.2	74	Yes	No	

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
nfs	curNfs/nfsPerClient	.1.3.6.1.4.1.789.1.3.1.3	1 table with 125 fields	Yes	No	
nfs	totNfs/trpcServer	.1.3.6.1.4.1.789.1.3.2.1	5	Yes	No	
nfs	totNfs/tnfsServer	.1.3.6.1.4.1.789.1.3.2.2	213	Yes	No	
nfs	totNfs/nfsOptions	.1.3.6.1.4.1.789.1.3.3	1	Yes	No	

Table 6) SNMP MIB support for group name: Quota.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/Fields)	7DOT	cDOT	Remarks
quota		.1.3.6.1.4.1.789.1.4	2 variables  4 tables: qrTable - 8 fields qvStateTable - 5 fields qrVTable - 15 fields qrV2Table - 30 fields	Yes	Yes	qrTable and qrVTable are deprecated and should not be used even though they may return values.  qvStateTable and qrV2Table can be used instead.

Table 7) SNMP MIB support for group name: filesys.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
fileysys	Simple Variables	.1.3.6.1.4.1.789.1.5.1 - 3 .1.3.6.1.4.1.789.1.5.6.0 .1.3.6.1.4.1.789.1.5.7.1-4 .1.3.6.1.4.1.789.1.5.9.0 .1.3.6.1.4.1.789.1.5.12.0		Yes	Yes	
fileysys	dfTable	.1.3.6.1.4.1.789.1.5.4	1 table with 43 fields	Yes	Yes	

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
filesystems	snapshot	.1.3.6.1.4.1.789.1.5.5	3 tables: sITable with 6 fields sIVTable with 10 fields sIQTable with 10 fields	Yes	No	
filesystems	volTable	.1.3.6.1.4.1.789.1.5.8	29 fields	Yes	Yes	
filesystems	qtreeTable	.1.3.6.1.4.1.789.1.5.10	9 fields	Yes	Yes	
filesystems	aggrTable	.1.3.6.1.4.1.789.1.5.11	18 fields	Yes	Yes	
filesystems	volMoveStatusTable	.1.3.6.1.4.1.789.1.5.13	6 fields	Yes	No	

Table 8) SNMP MIB support for group name: raid.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
raid	raidTable	.1.3.6.1.4.1.789.1.6.1	11 fields	No	No	raidTable is deprecated and should not be used even though it may return values. Use raidVTable instead.
raid	raidVTable	.1.3.6.1.4.1.789.1.6.2	37 fields	Yes	No	
raid	spareTable	.1.3.6.1.4.1.789.1.6.3	24 fields	Yes	No	
raid	diskSummary	.1.3.6.1.4.1.789.1.6.4.1.0 - .1.3.6.1.4.1.789.1.6.4.11.0	11 variables	Yes	No	
raid	otherDiskTable	.1.3.6.1.4.1.789.1.6.9	23 fields	Yes	No	
raid	raidPTable	.1.3.6.1.4.1.789.1.6.10	35 fields	Yes	No	
raid	plexTable	.1.3.6.1.4.1.789.1.6.11	5 fields	Yes	No	
raid	outOfDateDiskTable	.1.3.6.1.4.1.789.1.6.13	22 fields	Yes	No	

**Table 9) SNMP MIB support for group name: raid.**

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
cifs	cifsOptions	.1.3.6.1.4.1.789.1.7.1	22 variables	Yes	No	
cifs	cifsInfo	.1.3.6.1.4.1.789.1.7.2	19 variables	Yes	No	
cifs	cifsStats/cifs Serv	.1.3.6.1.4.1.789.1.7.3.1	263 variables	Yes	No	
cifs	cifsMisc	.1.3.6.1.4.1.789.1.7.4	55 variables	Yes	No	

**Table 10) SNMP MIB support for group name: netcache.**

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/Fields )	7DOT	cDOT	Remarks
		.1.3.6.1.4.1.789.1.8	171 simple variables	No	No	Obsolete
netcache	ncInfo/accelmonitor	.1.3.6.1.4.1.789.1.8.2.3	1 table with 4 fields	No	No	Obsolete
netcache	ncStats/ncHttp	.1.3.6.1.4.1.789.1.8.3.6	2 tables with 4 fields each	No	No	Obsolete
netcache	ncStats/ncStreaming	.1.3.6.1.4.1.789.1.8.3.9	1 table with 4 fields	No	No	Obsolete

**Table 11) SNMP MIB support for group name: snapmirror.**

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
snapmirror		.1.3.6.1.4.1.789.1.9	19 simple variables	Yes	No	
snapmirror		.1.3.6.1.4.1.789.1.9	1 table with 22 fields 1 table with 9 fields	Yes	No	

**Table 12) SNMP MIB support for group name: ndmp.**

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
ndmp		.1.3.6.1.4.1.789.1.10	11	Yes	No	

**Table 13) SNMP MIB support for group name: fabric.**

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
fabric		.1.3.6.1.4.1.789.1.11	1	Yes	No	
fabric	fabricTable	.1.3.6.1.4.1.789.1.11.2	5	Yes	No	
fabric	switchTable	.1.3.6.1.4.1.789.1.11.3	16	Yes	No	
fabric	portTable	.1.3.6.1.4.1.789.1.11.4	8	Yes	No	

**Table 14) SNMP MIB support for group name: dafs.**

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
dafs		.1.3.6.1.4.1.789.1.12	0	No	No	
dafs	dafsOptions	.1.3.6.1.4.1.789.1.12.1	14	No	No	Marked obsolete in MIB file
dafs	dafsNicTable	.1.3.6.1.4.1.789.1.12.2	10	No	No	
dafs	curDafs	.1.3.6.1.4.1.789.1.12.3	2	No	No	Marked obsolete in MIB file
dafs	totDafs	.1.3.6.1.4.1.789.1.12.4	62	No	No	
dafs	dafsSesionTable	.1.3.6.1.4.1.789.1.12.5	15	No	No	
dafs	dafsExportTable	.1.3.6.1.4.1.789.1.12.6	6	No	No	
dafs	viaNodeConnection	.1.3.6.1.4.1.789.1.13.1	22	No	No	
dafs	viaConnTable	.1.3.6.1.4.1.789.1.13.1.2.3	20	No	No	
dafs	viaErrors	.1.3.6.1.4.1.789.1.13.2	7	No	No	
dafs	viaNicAttributes	.1.3.6.1.4.1.789.1.13.3	24	No	No	

**Table 15) SNMP MIB support for group name: backup.**

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
backup		.1.3.6.1.4.1.789.1.14	0	Yes	No	
backup	dump	.1.3.6.1.4.1.789.1.14.1	4	Yes	No	
backup	dmpTable	.1.3.6.1.4.1.789.1.14.1.5	12	Yes	No	
backup	restore	.1.3.6.1.4.1.789.1.14.2	4	Yes	No	

**Table 16) SNMP MIB support for group name: vfiler.**

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
vfiler		.1.3.6.1.4.1.789.1.16	2	Yes	No	vFiler <sup>®</sup> unit is 7DOT specific
vfiler	vfTable	.1.3.6.1.4.1.789.1.16.3	9	Yes	No	
vfiler	vfIpTable	.1.3.6.1.4.1.789.1.16.4	3	Yes	No	
vfiler	vfSpTable	.1.3.6.1.4.1.789.1.16.5	3	Yes	No	
vfiler	vfProTable	.1.3.6.1.4.1.789.1.16.6	4	Yes	No	

**Table 17) SNMP MIB support for group name: blocks.**

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
blocks		.1.3.6.1.4.1.789.1.17	21			
blocks	lun	.1.3.6.1.4.1.789.1.17.15	1	Yes	No	
blocks	lunTable	.1.3.6.1.4.1.789.1.17.15.2	37	Yes	Yes	
blocks	lunMapTable	.1.3.6.1.4.1.789.1.17.15.3	6	Yes	Yes	
blocks	initiator	.1.3.6.1.4.1.789.1.17.16	0	Yes	Yes	
blocks	initiatorGroup Table	.1.3.6.1.4.1.789.1.17.16.1	9	Yes	Yes	
blocks	initiatorGroup MemberTable	.1.3.6.1.4.1.789.1.17.16.2	3	Yes	Yes	
blocks	initiatorListTable	.1.3.6.1.4.1.789.1.17.16.3	8	Yes	No	

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
blocks	fcpTarget	.1.3.6.1.4.1.789.1.17.17	0	Yes	No	
blocks	fcpTargetTable	.1.3.6.1.4.1.789.1.17.17.1	9	Yes	No	
blocks	pset	.1.3.6.1.4.1.789.1.17.19	0	Yes	Yes	
blocks	psetTable	.1.3.6.1.4.1.789.1.17.19.1	4	Yes	Yes	
blocks	psetMemberTable	.1.3.6.1.4.1.789.1.17.19.2	3	Yes	Yes	
blocks	fcpTargetPort	.1.3.6.1.4.1.789.1.17.26	0	No	Yes	
blocks	fcpTargetPortTable	.1.3.6.1.4.1.789.1.17.26.1	5	No	Yes	
blocks	fcpTargetLif	.1.3.6.1.4.1.789.1.17.27	0	No	Yes	
blocks	fcpTargetLifTable	.1.3.6.1.4.1.789.1.17.27.1	8	No	Yes	

Table 18) SNMP MIB support for group name: nfscache.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
nfsCache		.1.3.6.1.4.1.789.1.18	0	Yes	No	
nfsCache	nfsCacheOptions	.1.3.6.1.4.1.789.1.18.1	2	Yes	No	
nfsCache	nfsCacheStats	.1.3.6.1.4.1.789.1.18.2	34	Yes	No	

Table 19) SNMP MIB support for group name: snapVault.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects	7DOT	cDOT	Remarks
snapVault		.1.3.6.1.4.1.789.1.19		Yes	No	



Table 20) SNMP MIB support for group name: compress.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/Fields)	7DOT	cDOT	Remarks
compress		.1.3.6.1.4.1.789.1.24	1 simple variable 1 table with 9 fields	No	No	Deprecated values are returned when queried but should not be used. Compression-related entries can now be found in filesys->dfTable and sis->sisTable-> sisEntry.

Table 21) SNMP MIB support for group name: cluster.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/Fields)	7DOT	cDOT	Remarks
cluster	clusterIdentity	.1.3.6.1.4.1.789.1.25.1	3 simple variables	No	Yes	
cluster	nodeTable	.1.3.6.1.4.1.789.1.25.2	24 fields	No	Yes	
cluster	clusterLicense Table	.1.3.6.1.4.1.789.1.25.3	6 fields	No	No	Applies only to cDOT. Deprecated now.
cluster	licenseTable	.1.3.6.1.4.1.789.1.25.4	8 fields	Yes	Yes	

Table 22) SNMP MIB support for group name: extcache.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/Fields)	7DOT	cDOT	Remarks
extcache		.1.3.6.1.4.1.789.1.26	20 simple variables	Yes	No	

Table 23) SNMP MIB support for group name: vserver.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/Fields)	7DOT	cDOT	Remarks
vserver		.1.3.6.1.4.1.789.1.27	1 table with 22 entries	No	Yes	

**Table 24) SNMP MIB support for group name: qos.**

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
qos		.1.3.6.1.4.1.789.1.28	3 tables 1 table with 12 fields 1 table with 6 fields 1 table with 30 fields	No	Yes	

**Table 25) SNMP MIB support for group name: ftpd.**

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
ftpd		.1.3.6.1.4.1.789.1.20	4 simple variables	Yes	No	

**Table 26) SNMP MIB support for group name: storage.**

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
storage		.1.3.6.1.4.1.789.1.21	2 simple variables, 1 table with 65 fields	Yes	Yes	

**Table 27) SNMP MIB support for group name: network.**

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
network	netInterfaces	.1.3.6.1.4.1.789.1.22.1	1 simple variable, 1 table with 35 fields	Yes	No	Present only in 7DOT. netifNumber and 11 of the 35 fields (COUNTER64 fields) in the netifTable are still current but missing in cDOT.
network	netportTable	.1.3.6.1.4.1.789.1.22.2	26 fields	No	Yes	
network	netportIfGrpTable	.1.3.6.1.4.1.789.1.22.3	9 fields	No	Yes	
network	logicalInterfaceTable	.1.3.6.1.4.1.789.1.22.4	29 fields	No	Yes	

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
network	netOpts	.1.3.6.1.4.1.789.1.22.5	2 simple variables	No	Yes	

Table 28) SNMP MIB support for group name: sis.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/Fields)	7DOT	cDOT	Remarks
sis		.1.3.6.1.4.1.789.1.23	1 simple variable	Yes	No	
	sisTable		1 table with 31 fields	No	Yes	

## 6 SNMP Traps Supported in Data ONTAP 8.2

The following tables give information about the level of SNMP traps supported in Data ONTAP 8.2. In the table below, 7DOT refers to Data ONTAP operating in 7-Mode and cDOT refers to clustered Data ONTAP.

Table 29) SNMP traps support for group: app.

Event Name	Trap Name	7DOT	cDOT
app.log.alert	appAlert	Yes	Yes
app.log.crit	appCritical	Yes	Yes
app.log.debug	appTrap	Yes	Yes
app.log.emerg	appEmergency	Yes	Yes
app.log.err	appError	Yes	Yes
app.log.info	appInfo	Yes	Yes
app.log.notice	appNotice	Yes	Yes
app.log.warn	appWarning	Yes	Yes

Table 30) SNMP traps support for group: asup.

Event Name	Trap Name	7DOT	cDOT
asup.general.create	autosupportSendError	No	No
asup.general.drop	autosupportSendError	No	No
asup.general.drop.enqueue	autosupportSendError	No	No
asup.general.lowMemory	autosupportSendError	No	No

Event Name	Trap Name	7DOT	cDOT
asup.general.optout	autosupportSendError	Yes	Yes
asup.mime.lowMemory	autosupportSendError	No	No
asup.mime.openFailed	autosupportSendError	No	No
asup.post.badUrl	autosupportConfigurationError	No	No
asup.post.drop	autosupportSendError	Yes	Yes
asup.post.drop.enqueue	autosupportSendError	No	No
asup.post.sent	autosupportSent	No	No
asup.post.sent.diskless	autosupportSent	No	No
asup.post.sent.minicore	autosupportSent	No	No
asup.smtp.detailNotSent	autosupportConfigurationError	No	No
asup.smtp.drop	autosupportSendError	Yes	Yes
asup.smtp.drop.enqueue	autosupportSendError	No	No
asup.smtp.noMailhost	autosupportConfigurationError	No	No
asup.smtp.noRecipients	autosupportConfigurationError	No	No
asup.smtp.reject	autosupportSendError	No	No
asup.smtp.sent	autosupportSent	No	No
asup.smtp.sent.diskless	autosupportSent	No	No
asup.smtp.sent.minicore	autosupportSent	No	No
asup.smtp.unreach	autosupportSendError	No	No
asup.throttle.drop	autosupportSendError	No	No
asup.throttle.msgHistory	autosupportConfigurationError	No	No
asup.throttle.msgHistoryErr	autosupportConfigurationError	No	No

Table 31) SNMP traps support for group: auth.

Event Name	Trap Name	7DOT	cDOT
auth.dc.DCpasswdChange.failed	dcPasswdChangeFailed	Yes	Yes

Table 32) SNMP traps support for group: av.

Event Name	Trap Name	7DOT	cDOT
av.avlm.license.check	avLicenseCheck	No	No
av.avlm.license.check.failure	avLicenseCheckFailed	No	No
av.avm.disable	avDisable	No	No
av.avm.disableFailure	avDisableFailed	No	No
av.avm.enable	avEnable	No	No
av.avm.enableFailure	avEnableFailed	No	No
av.avm.mcafee.licenseExpiring	avMcAfeeLicenseExpiring	No	No
av.avm.mcafee.licenseFailed	avMcAfeeLicenseFailed	No	No
av.avm.rollback	avRollback	No	No
av.avm.rollbackFailure	avRollbackFailed	No	No
av.avm.trend.licenseExpired	avTrendLicenseExpired	No	No
av.avm.trend.licenseExpiring	avTrendLicenseExpiring	No	No
av.avm.update	avUpdate	No	No
av.avm.updateFailure	avUpdateFailed	No	No
av.avs.2gbFileNotScanned	av2gbFileNotScanned	No	No
av.avs.mcafee.engineExpired	avMcAfeeEngineExpired	No	No
av.avs.mcafee.engineExpiring	avMcAfeeEngineExpiring	No	No
av.avs.mcafee.productExpired	avMcAfeeProductExpired	No	No
av.avs.mcafee.productExpiring	avMcAfeeProductExpiring	No	No
av.avs.remedy	avRemedy	No	No
av.avs.remedyFailure	avRemedyFailure	No	No
av.avs.spywareFound	avSpywareFound	No	No
av.avs.virusFound	avVirusfound	No	No

**Table 33) SNMP traps support for group: cf.**

Event Name	Trap Name	7DOT	cDOT
cf.fm.givebackComplete	clusterNodeRepaired	No	No
cf.fm.givebackDuration	clusterNodeRepaired	No	No
cf.fm.givebackStarted	clusterNodeRepairing	No	No
cf.fm.takeoverComplete	clusterNodeTakenOver	Yes	Yes
cf.fm.takeoverDuration	clusterNodeTakenOver	No	No
cf.fm.takeoverStarted	clusterNodeFailed	No	No
cf.noPartner_takeover	clusterNodeFailed	No	No

**Table 34) SNMP traps support for group: cifs.**

Event Name	Trap Name	7DOT	cDOT
cifs.auditfile.autosaved.onsize.snmp	alfFileSaved	Yes	No
cifs.auditfile.autosaved.ontime.snmp	alfFileSaved	Yes	No
cifs.auditfile.nearwrapped	alfFileNearlyFull	Yes	No
cifs.auditfile.wrapped	alfFilewrap	Yes	No
cifs.few.pending.auth.reqs	cifsAuthQueueCleared	Yes	No
cifs.many.pending.auth.reqs	cifsAuthQueueBuildUp	Yes	No
cifs.stats.pBlkExhaust	cifsStatsExhaustMemCtrlBlk	No	No
cifs.trace.DCConnected	domainControllerConnected	Yes	Yes
cifs.trace.DCDisconnect	domainControllerDisconnect	Yes	Yes
cifs.trace.PrefDCDisconnect	prefDCDisconnect	Yes	Yes

**Table 35) SNMP traps support for group: cmds.**

Event Name	Trap Name	7DOT	cDOT
cmds.vf.migrate.complete	vfStopped	Yes	No
cmds.vf.migrate.info	vfStopped	Yes	No
cmds.vf.trans.migrated	vfStopped	Yes	No
cmds.vfiler.dr.configure	vfStopped	Yes	No

**Table 36) SNMP traps support for group: config.**

Event Name	Trap Name	7DOT	cDOT
config.MirrorNotMultiPath	diskMultipathWarning	Yes	Yes
config.noPartnerDisks	diskMultipathNoTakeover	Yes	Yes
config.noPartnerLUNs	diskMultipathNoTakeover	Yes	Yes
config.NotMultiPath	diskMultipathWarning	Yes	Yes
config.OneSwitch	diskMultipathOneSwitch	Yes	Yes

**Table 37) SNMP traps support for group: ds.**

Event Name	Trap Name	7DOT	cDOT
ds.sas.drivephy.disableErr	driveDisableErr	Yes	Yes

**Table 38) SNMP traps support for group: ems.**

Event Name	Trap Name	7DOT	cDOT
ems.eut.pri1o1i_snmp_syslog	linkUp	No	No
ems.eut.privar0_snmp	dbgTrap	No	No
ems.eut.privar16s_snmp	dbgTrap	No	No
ems.eut.privar16s_snmp_syslog	dhmNoticePFAEvent	No	No
ems.eut.snmpEnterprise	NA	No	No
ems.eut.snmponly	dbgTrap	No	No

**Table 39) SNMP traps support for group: esh.**

Event Name	Trap Name	7DOT	cDOT
esh.bypass.err.disk	driveDisableErr	Yes	Yes

**Table 40) SNMP traps support for group: extCache.**

Event Name	Trap Name	7DOT	cDOT
extCache.io.cardError	extcacheCardError	Yes	Yes
extCache.offline	extcacheCardOffline	Yes	Yes

**Table 41) SNMP traps support for group: fci.**

Event Name	Trap Name	7DOT	cDOT
fci.adapter.offline	hbaOfflineInformation	Yes	Yes

**Table 42) SNMP traps support for group: ftpd.**

Event Name	Trap Name	7DOT	cDOT
ftpd.connections.maximum	ftpdMaxConnNotice	Yes	No
ftpd.connections.threshold	ftpdMaxConnThresholdNotice	Yes	No
ftpd.service.off	ftpdError	Yes	No

**Table 43) SNMP traps support for group: iscsi.**

Event Name	Trap Name	7DOT	cDOT
iscsi.snmp.authentication.failure	-	No	No
iscsi.snmp.bad.opcode	-	No	No
iscsi.snmp.datadigest.error	-	No	No
iscsi.snmp.hdrdigest.error	-	No	No
iscsi.snmp.version.mismatch	-	No	No

**Table 44) SNMP traps support for group: lun.**

Event Name	Trap Name	7DOT	cDOT
lun.clone.created	lunCloneCreate	Yes	No
lun.clone.split.completed	lunCloneSplitComplete	Yes	No
lun.clone.split.started	lunCloneSplitStart	Yes	No
LUN.destroy	lunDestroy	No	Yes
lun.snaprestore.notice	lunSnapRestoreStatus	Yes	No

**Table 45) SNMP traps support for group: mgmt.**

Event Name	Trap Name	7DOT	cDOT
mgmt.vopl.move.cutover.deferred	volMoveCutoverDeferred	No	Yes
mgmt.vopl.move.cutover.deferred.wait	volMoveCutoverDeferredWait	No	Yes
mgmt.vopl.move.cutover.failed	volMoveCutoverFailed	No	Yes
mgmt.vopl.move.done	volMoveDone	No	Yes

**Table 46) SNMP traps support for group: mgr.**

Event Name	Trap Name	7DOT	cDOT
mgr.boot.reason_abnormal	rebootAbnormal	Yes	Yes
mgr.boot.reason_ok	rebootNormal	Yes	Yes



Table 47) SNMP traps support for group: monitor.

Event Name	Trap Name	7DOT	cDOT
monitor.chassisFan.degraded	chassisFanDegraded	Yes	Yes
monitor.chassisFan.ok	chassisFanOk	Yes	Yes
monitor.chassisFan.removed	chassisFanRemoved	Yes	Yes
monitor.chassisFan.stop	chassisFanStopped	Yes	Yes
monitor.chassisFan.warning	chassisFanWarning	Yes	Yes
monitor.chassisFanFail.xMinShutdown	chassisFanFailxMinShutdown	Yes	Yes
monitor.chassisPower.degraded	chassisPowerDegraded	Yes	Yes
monitor.chassisPower.ok	chassisPowerOk	Yes	Yes
monitor.chassisPowerSupplies.failed	chassisPowerSuppliesFailed	No	No
monitor.chassisPowerSupplies.Mismatch	chassisPSUsMismatch	No	No
monitor.chassisPowerSupplies.ok	chassisPowerSuppliesOk	Yes	Yes
monitor.chassisPowerSupply.degraded	chassisPowerSupplyDegraded	Yes	Yes
monitor.chassisPowerSupply.failed	chassisPowerSupplyFailed	No	No
monitor.chassisPowerSupply.notPresent	chassisPowerSupplyRemoved	Yes	Yes
monitor.chassisPowerSupply.off	chassisPowerSupplyOff	Yes	Yes
monitor.chassisPowerSupply.ok	chassisPowerSupplyOk	Yes	Yes
monitor.chassisPowerSupply.reinstalled	chassisPowerSupplyOff	No	No
monitor.chassisPowerSupply.wrongInput	chassisPSUwrongInput	No	No
monitor.chassisPowerSupplyRemoved.xMinShutdown	chassisPSRemovedxMinShutdown	No	No
monitor.chassisTemperature.cool	chassisTemperatureWarning	Yes	Yes
monitor.chassisTemperature.ok	chassisTemperatureOk	Yes	Yes
monitor.chassisTemperature.state.unknown	chassisTemperatureUnknown	Yes	Yes
monitor.chassisTemperature.warm	chassisTemperatureWarning	Yes	Yes
monitor.cpu.ok	cpuOk	Yes	Yes
monitor.cpu.tooBusy	cpuTooBusy	No	No
monitor.cpuFan.degraded	chassisCPUFanSlow	No	No
monitor.cpuFan.failed	chassisCPUFanStopped	No	No
monitor.cpuFan.ok	chassisCPUFanOk	No	No
monitor.diskLabelCheckFailed	diskFailed	Yes	Yes
monitor.fan.critical	fanFailureShutdown	Yes	Yes

Event Name	Trap Name	7DOT	cDOT
monitor.fan.failed	fanFailed	Yes	Yes
monitor.fan.ok	fanRepaired	Yes	Yes
monitor.fan.warning	fanWarning	Yes	Yes
monitor.globalStatus.critical	globalStatusCritical	Yes	Yes
monitor.globalStatus.nonCritical	globalStatusNonCritical	Yes	Yes
monitor.globalStatus.nonRecoverable	globalStatusNonRecoverable	Yes	Yes
monitor.globalStatus.ok	globalStatusOk	Yes	Yes
monitor.ioexpansion.unpresent	chassisPowerSupplyRemoved	No	No
monitor.ioexpansionPower.degraded	chassisPowerDegraded	Yes	Yes
monitor.ioexpansionPower.ok	chassisPowerOk	Yes	Yes
monitor.ioexpansionTemperature.cool	chassisTemperatureWarning	Yes	Yes
monitor.ioexpansionTemperature.ok	chassisTemperatureOk	Yes	Yes
monitor.ioexpansionTemperature.warm	chassisTemperatureWarning	Yes	Yes
monitor.nvmebattery.warninglow	nvramBatteryLow	Yes	Yes
monitor.nvramLowBatteries	nvramBatteryLow	Yes	Yes
monitor.nvramLowBattery	nvramBatteryLow	Yes	Yes
monitor.power.critical	powerSupplyFailureShutdown	No	No
monitor.power.degraded	powerSupplyFailed	No	No
monitor.power.ok	powerSupplyRepaired	No	No
monitor.power.warning	powerSupplyWarning	No	No
monitor.proxyshutdown.brokenDisk.pending	diskFailed	No	No
monitor.proxyshutdown.nvramLowBatteries.pending	nvramBatteryLow	No	No
monitor.proxyshutdown.nvramLowBattery.pending	nvramBatteryLow	No	No
monitor.psuFanFail.xMinShutdown	powerSupplyFanFailxMinShutdown	No	No
monitor.raid.brokenDisk	diskFailed	Yes	Yes
monitor.raiddp.vol.singleDegraded	diskFailed	Yes	Yes
monitor.shelf.accessError	shelfFault	Yes	Yes
monitor.shelf.accessError.ok	shelfRepaired	Yes	Yes
monitor.shelf.configError	shelfFault	Yes	Yes
monitor.shelf.configError.ok	shelfRepaired	Yes	Yes
monitor.shelf.fault	shelfFault	Yes	Yes

Event Name	Trap Name	7DOT	cDOT
monitor.shelf.fault.ok	shelfRepaired	Yes	Yes
monitor.shutdown.brokenDisk	diskFailedShutdown	Yes	Yes
monitor.shutdown.brokenDisk.pending	diskFailed	Yes	Yes
monitor.shutdown.cancel	dhmNoticeDegradedIO	Yes	Yes
monitor.shutdown.cancel.brokenDisk	dhmNoticeDegradedIO	Yes	Yes
monitor.shutdown.cancel.nvramLowBatteries	dhmNoticeDegradedIO	Yes	Yes
monitor.shutdown.cancel.nvramLowBattery	dhmNoticeDegradedIO	Yes	Yes
monitor.shutdown.chassisOverTemp	chassisTemperatureShutdown	Yes	Yes
monitor.shutdown.chassisUnderTemp	chassisTemperatureShutdown	Yes	Yes
monitor.shutdown.emergency	dhmNoticeDegradedIO	Yes	Yes
monitor.shutdown.ioexpansionOverTemp	chassisTemperatureShutdown	Yes	Yes
monitor.shutdown.ioexpansionUnderTemp	chassisTemperatureShutdown	Yes	Yes
monitor.shutdown.nvramLowBatteries	nvramBatteryDischarged	Yes	Yes
monitor.shutdown.nvramLowBatteries.pending	nvramBatteryLow	Yes	Yes
monitor.shutdown.nvramLowBattery	nvramBatteryDischarged	Yes	Yes
monitor.shutdown.nvramLowBattery.pending	nvramBatteryLow	Yes	Yes
monitor.shutdown.overTemp	overTempShutdown	Yes	Yes
monitor.shutdown.temp	overTempShutdown	Yes	Yes
monitor.spareLabelCheckFailed	diskFailed	Yes	Yes
monitor.temp.ok	overTempRepaired	No	No
monitor.temp.state	overTempShutdown	No	No
monitor.temp.warning	overTemp	No	No
monitor.volume.full	volumeFull	Yes	Yes
monitor.volume.nearlyFull	volumeNearlyFull	Yes	Yes
monitor.volume.ok	volumeRepaired	Yes	Yes
monitor.volumes.one.ok	volumesStillFull	Yes	Yes
monitor.volumes.still.full	volumesStillFull	Yes	Yes

**Table 48) SNMP traps support for group: no.**

Event Name	Trap Name	7DOT	cDOT
no.halt.brokenDisk	diskFailed	Yes	Yes
no.halt.nvramLowBatteries	nvramBatteryLow	Yes	Yes
no.halt.nvramLowBattery	nvramBatteryLow	Yes	Yes

**Table 49) SNMP traps support for group: pvif.**

Event Name	Trap Name	7DOT	cDOT
pvif.alllinksdowntrap	vifAllLinksFailed	Yes	Yes
pvif.failovertrap	vifPrimaryLinkFailed	Yes	Yes

**Table 50) SNMP traps support for group: qos.**

Event Name	Trap Name	7DOT	cDOT
qos.monitor.memory.abated	qosMonitorMemoryAbated	No	Yes
qos.monitor.memory.maxed	qosMonitorMemoryMaxed	No	Yes

**Table 51) SNMP traps support for group: quota.**

Event Name	Trap Name	7DOT	cDOT
quota.exceeded	quotaExceeded	Yes	Yes
quota.normal	quotaNormal	Yes	Yes
quota.softlimit.exceeded	softQuotaExceeded	Yes	Yes
quota.softlimit.normal	softQuotaNormal	Yes	Yes
quota.upgrade	volumeAutogrow	Yes	Yes

**Table 52) SNMP traps support for group: raid.**

Event Name	Trap Name	7DOT	cDOT
raid.assim.mirror.noChild	volumeRestrictedByMirrorBiglo	Yes	Yes
raid.assim.rg.missingChild	volumeError	Yes	Yes
raid.assim.rg.tooManyDisks	volumeError	Yes	Yes
raid.assim.tree.degradedDirty	volumeDegradedDirty	Yes	Yes
raid.assim.tree.foreign	volumeOffline	Yes	Yes
raid.assim.tree.offline	volumeOffline	Yes	Yes
raid.assim.tree.restrict	volumeRestricted	Yes	Yes
raid.config.check.failed	volumeError	Yes	Yes
raid.config.check.failedPlex	plexFailed	Yes	No
raid.config.disk.bad.label	diskFailed	Yes	Yes

Event Name	Trap Name	7DOT	cDOT
raid.config.disk.bad.label.version	diskFailed	Yes	Yes
raid.config.disk.failed	diskFailed	Yes	Yes
raid.config.disk.init.failed	diskFailed	Yes	Yes
raid.config.disk.labeled.broken	diskFailed	Yes	Yes
raid.config.disk.missing	diskFailed	Yes	Yes
raid.config.disk.not.responding	diskFailed	Yes	Yes
raid.config.disk.rawsize.shrank	diskFailed	Yes	Yes
raid.config.disk.recovering	diskFailed	Yes	Yes
raid.config.disk.sfo.policy	diskFailed	Yes	No
raid.config.filesystem.disk.admin.failed	diskFailed	Yes	Yes
raid.config.filesystem.disk.admin.failed.after.copy	diskFailed	Yes	Yes
raid.config.filesystem.disk.bad.label	diskFailed	Yes	Yes
raid.config.filesystem.disk.bad.label.version	diskFailed	Yes	Yes
raid.config.filesystem.disk.failed	diskFailed	Yes	Yes
raid.config.filesystem.disk.failed.after.copy	diskFailed	Yes	Yes
raid.config.filesystem.disk.missing	diskFailed	Yes	Yes
raid.config.filesystem.disk.not.responding	diskFailed	Yes	Yes
raid.config.filesystem.disk.rawsize.shrank	diskFailed	Yes	Yes
raid.config.filesystem.disk.recovering	diskFailed	Yes	Yes
raid.config.filesystem.lun.resized	diskFailed	Yes	Yes
raid.config.spare.disk.admin.removed	diskFailed	Yes	Yes
raid.config.spare.disk.bad.label	diskFailed	Yes	Yes
raid.config.spare.disk.bad.label.version	diskFailed	Yes	Yes
raid.config.spare.disk.failed	diskFailed	Yes	Yes
raid.config.spare.disk.missing	diskFailed	Yes	Yes
raid.config.spare.disk.not.responding	diskFailed	Yes	Yes
raid.config.spare.disk.rawsize.shrank	diskFailed	Yes	Yes
raid.config.spare.disk.recovering	diskFailed	Yes	Yes
raid.fm.volDisasterFail	volumeError	Yes	No
raid.mirror.bigio.restrict	volumeRestrictedByMirrorBigio	Yes	Yes
raid.mirror.vote.outOfDate	plexOffline	Yes	No

Event Name	Trap Name	7DOT	cDOT
raid.vol.failed	volumeError	Yes	Yes
raid.vol.inconsist.unmount	volumeInconsistentUmount	Yes	Yes
raid.vol.mirror.degraded	plexFailed	Yes	No
raid.vol.rootConflictRestrict	volumeRestrictedRootConflict	Yes	Yes
raid.vol.rootRestrictLessRecent	volumeRestrictedRootConflict	Yes	Yes
raid.vol.rootSelectMostRecent	volumeSelectedRootConflict	Yes	Yes
raid.vol.state.changed	volumeStateChanged	Yes	Yes
raid.vol.state.online	volumeOnline	Yes	Yes
raid.vol.tooBig.offline	volumeOfflineTooBig	Yes	Yes
raid.vol.unprotected.remotesyncmirror	plexOffline	Yes	No

Table 53) SNMP traps support for group: rapid\_restore.

Event Name	Trap Name	7DOT	cDOT
rapid_restore.complete	volumeRemoteRestored	No	No
rapid_restore.start	volumeRemoteRestoreBegin	No	No

Event Name	Trap Name	7DOT	cDOT
remoteVolume.available	volumeRemoteOk	Yes	No
remoteVolume.unreachable	volumeRemoteUnreachable	Yes	No

Table 54) SNMP traps support for group: rlm.

Event Name	Trap Name	7DOT	cDOT
rlm.systemDown.alert	remoteSystemMgtAlert	Yes	Yes
rlm.systemDown.notice	remoteSystemMgmtWarning	Yes	Yes
rlm.systemDown.warning	remoteSystemMgmtNotification	Yes	Yes
rlm.systemPeriodic.keepAlive	remoteSystemMgmtPeriodic	Yes	Yes
rlm.systemTest.notice	remotesystemMgmtTest	Yes	Yes

Table 55) SNMP traps support for group: sas.

Event Name	Trap Name	7DOT	cDOT
sas.adapter.offline	hbaOfflineInformation	Yes	Yes

Table 56) SNMP traps support for group: scsiAdapter.

Event Name	Trap Name	7DOT	cDOT
scsiAdapter.offline	hbaOfflineInformation	Yes	Yes

Table 57) SNMP traps support for group: scsiblade.

Event Name	Trap Name	7DOT	cDOT
scsiblade.in.quorum	scsibladeInQuorum	No	Yes
scsiblade.out.of.quorum	scsibladeOutOfQuorum	No	Yes

Table 58) SNMP traps support for group: scsitarget.

Event Name	Trap Name	7DOT	cDOT
scsitarget.ispfct.linkBreak	scsitgtFCPLinkBreak	Yes	Yes
scsitarget.ispfct.linkUpFailure	scsitgtFCPLinkBreak	Yes	Yes
scsitarget.partnerPath.misconfigured	scsitgtPartnerPathMisconfigured	Yes	No
scsitarget.throttle.exceeded	scsitgtThrottleNotice	Yes	No
scsitarget.throttle.unreserved.exhausted	scsitgtThrottleNotice	Yes	No

Table 59) SNMP traps support for group: ses.

Event Name	Trap Name	7DOT	cDOT
ses.status.ACPErr	shelfSESElectronicsFailed	Yes	Yes
ses.status.ACPInfo	shelfSESElectronicsInfo	Yes	Yes
ses.status.ATFCXError	shelfIFModuleFailed	Yes	Yes
ses.status.ATFCXInfo	shelfIFModuleInfo	Yes	Yes
ses.status.electronicsError	shelfSESElectronicsFailed	Yes	Yes
ses.status.electronicsInfo	shelfSESElectronicsInfo	Yes	Yes
ses.status.ModuleError	shelfIFModuleFailed	Yes	Yes
ses.status.ModuleInfo	shelfIFModuleInfo	Yes	Yes
ses.status.ModuleWarn	shelfIFModuleWarning	Yes	Yes

Table 60) SNMP traps support for group: sfo.

Event Name	Trap Name	7DOT	cDOT
sfo.aggr.relocated.perm	sfoAggregateRelocated	Yes	Yes

Table 61) SNMP traps support for group: sftp.

Event Name	Trap Name	7DOT	cDOT
sftp.connections.maximum.reached	ftpdMaxConnNotice	Yes	No
sftp.connections.threshold	ftpdMaxConnThresholdNotice	Yes	No

**Table 62) SNMP traps support for group: snapmirror.**

Event Name	Trap Name	7DOT	cDOT
snapmirror.sync.fail	snapmirrorSyncFailed	Yes	No
snapmirror.sync.ok	snapmirrorSyncOk	Yes	No

**Table 63) SNMP traps support for group: snapvault.**

Event Name	Trap Name	7DOT	cDOT
snapvault.dst.lowSnapWarn	svBackupSnapWarningLimit	Yes	No

**Table 64) SNMP traps support for group: snmp.**

Event Name	Trap Name	7DOT	cDOT
snmp.authentication.failure	authenticationFailure	No	Yes
snmp.coldstart.trap	coldStart	No	Yes
snmp.link.down	linkDown	Yes	Yes
snmp.link.up	linkUp	Yes	Yes
snmp.server.busy	snmpBusy	No	Yes
snmp.warmstart.trap	warmStart	No	Yes

**Table 65) SNMP traps support for group: ups.**

Event Name	Trap Name	7DOT	cDOT
ups.battery.critical	upsBatteryCritical	No	No
ups.battery.warning	upsBatteryWarning	No	No
ups.inputpower.failed	upsLinePowerOff	No	No
ups.inputpower.restored	upsLinePowerRestored	No	No
ups.systemshutdown	upsShuttingDown	No	No

**Table 66) SNMP traps support for group: vf.**

Event Name	Trap Name	7DOT	cDOT
vf.started	vfStarted	Yes	No
vf.stopped	vfStopped	Yes	No



Table 67) SNMP traps support for group: vscan.

Event Name	Trap Name	7DOT	cDOT
vscan.config.excludeList.add	vscanConfigurationChange	Yes	Yes
vscan.config.excludeList.remove	vscanConfigurationChange	Yes	Yes
vscan.config.excludeList.reset	vscanConfigurationChange	Yes	Yes
vscan.config.excludeList.set	vscanConfigurationChange	Yes	Yes
vscan.config.includeList.add	vscanConfigurationChange	Yes	No
vscan.config.includeList.remove	vscanConfigurationChange	Yes	No
vscan.config.includeList.reset	vscanConfigurationChange	Yes	No
vscan.config.includeList.set	vscanConfigurationChange	Yes	No
vscan.disable	vscanConfigurationChange	Yes	Yes
vscan.dropped.connection	vscanDisConnection	Yes	Yes
vscan.enable	vscanConfigurationChange	Yes	Yes
vscan.server.connectedNone	vscanConfigurationChange	Yes	Yes
vscan.server.connecting.disconnect	vscanDisConnection	Yes	Yes
vscan.server.connecting.successful	vscanConnection	Yes	Yes
vscan.server.upgradeNotification	vscanServerUpgrade	Yes	Yes
vscan.virus.created	vscanVirusDetectedError	Yes	Yes
vscan.virus.detected	vscanVirusDetectedError	Yes	Yes

Table 68) SNMP traps support for group: wafL.

Event Name	Trap Name	7DOT	cDOT
wafL.dir.link.trap	wafLDirFull	Yes	Yes
wafL.dir.size.max	maxDirSizeAlert	Yes	Yes
wafL.dir.size.warning	maxDirSizeWarning	Yes	Yes
wafL.scan.clone.split.complete	flexCloneSplitComplete	Yes	Yes
wafL.svo.checkFailed	writeVerificationFailed	No	No
wafL.vol.autoSize.done	volumeAutogrow	Yes	Yes
wafL.volume.clone.created	volumeCloneCreate	Yes	Yes
wafL.volume.clone.fractional_rsrv.changed	volumeCloneCreate	Yes	Yes
wafL.volume.clone.split.started	flexCloneSplitStart	Yes	Yes
wafL.volume.snap.autoDelete	snapAutoDelete	Yes	Yes
wafL.vvol.offline	volumeStateChanged	Yes	Yes
wafL.vvol.online	volumeOnline	Yes	Yes
wafL.vvol.restrict	volumeStateChanged	Yes	Yes

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