Technical Report

SNMP Support in Data ONTAP®

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Abstract

The NetApp® Data ONTAP® 8.2.x operating system supports SNMP-based monitoring in both of the operating modes: clustered Data ONTAP® and Data ONTAP® operating in 7-Mode. The NetApp® Data ONTAP® 8.3.x operating system and later versions support SNMP-based monitoring only in clustered Data ONTAP® operating mode. The purpose of this TR is to describe SNMP support in both operating modes of Data ONTAP® 8.2.x, SNMP support in clustered Data ONTAP® 8.3.x and later releases of clustered Data ONTAP®. The document also provides a comparison of the support for Data ONTAP® operating in 7-Mode and clustered Data ONTAP®.

1 Version History

Version	Author	Changes Done	Date
1.0	Pavan Kuman H N and Vijayarajan R	Base version Created	Aug 2013
1.1	Vijayarajan.R	Up to 8.2.2 changes are documented	April 2014
1.2	Vijayarajan.R	8.2.2 To 9.1 changes documented	Oct 2016
1.3	Ravikishore.P and Manisha S	9.2 to 9.4 changes are documented.	Aug 2018
1.4	Vijayarajan R	9.5 to 9.9.0 changes are documented	Mar 2021

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2 Introduction

2.1 Overview

The Simple Network Management Protocol (SNMP) is an Internet-standard application-layer protocol for managing devices on IP networks. SNMP can be configured to monitor and manage storage systems and their functions. SNMP is supported by NetApp® storage systems running Data ONTAP® operating in 7-Mode as well as by NetApp® storage systems running clustered Data ONTAP®.

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

1. **Managed device:** A device or storage system (in case of NetApp®) to be monitored or managed.
2. **SNMP agent:** An agent is a network-management software module that resides on a NetApp® storage system or any other managed device that supports SNMP-based monitoring. An agent has local knowledge of management information and translates that information to or from an SNMP-specific form.
3. **SNMP manager:** SNMP network-management workstation or manager executes application(s) that monitor and control managed devices. SNMP manager can query the storage system's SNMP agent for information.

4. **Management Information Base (MIB):** Information is gathered by the SNMP agent by polling the Management Information Base (MIB) on network devices. A 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).
5. **SNMP Object or Object:** An object is simply something that we can gather information about on a network device. For instance, an object might be something like Interface Status. Querying Interface Status would return a variable – the interface could be Up, or Down. SNMP identifies objects like Interface Status with an Object Identifier (OID). SNMP object can be a simple variable or a table.
6. **Object Identifier (OID):** Object Identifier (OID) is an identifier used to name an object. Structurally, an OID consists of a node in a hierarchically-assigned namespace, formally defined using the *ITU-T*'s *ASN.1* standard, *X.690*. Successive numbers of the nodes, starting at the root of the tree, identify each node in the tree. Designers set up new nodes by registering them under the node's registration authority. In the context of SNMP, an OID consists of the object identifier for an object in a Management Information Base (MIB).
7. **SNMP MIB group / SNMP subtree:** A MIB group is a collection of managed objects, and is itself represented by the name or OID of a node in the OID tree. Groups may contain other groups. For example, *autosupport* is a MIB group that is a member of the *iso.org.dod.internet.private.enterprises.netapp.netapp1.sysStat*.
8. **Scalar Object / Simple Variable**: Managed objects, in SNMP, are of two types: scalar objects and tabular objects. A managed object that always has a single instance is called a scalar object or simple variable. Simple variables are referenced by appending ".0" to the variable's object identifier. For example, the counter *udpInDatagrams*, whose object identifier is *1.3.6.1.2.1.7.1*, is referenced as *1.3.6.1.2.1.7.1.0*.
9. **SNMP Table**: SNMP table can be defined as an ordered collection of objects consisting of zero or more rows. Each row may contain one or more objects. Each object in a table is identified using the table index. A table can have a single index or multiple indices. A table object or the columnar variable can have one or more instances and is identified by its index value. To identify a specific columnar variable, the index of the row has to be appended to its OID. For example, for a table with OID *.1.3.6.1.2.1.x.x.xTable*, with the column name *yy* and the index value *ind1*, the value of the column *yy* can be got by appending the instance *ind1* to the columnar OID *.1.3.6.1.2.1.x.x.xTable.xEntry.yy*.

2.2 SNMP Versions

Data ONTAP® supports SNMP versions 1, 2c, and 3. In SNMPv1 and SNMPv2c, authentication of clients is performed only by a "community string", in effect a type of password, which is transmitted in clear text over the wire. SNMPv3 provides security by offering strong authentication and data encryption for privacy.

3 Purpose and Intended Audience

The Netapp® custom MIB (`netapp.mib`) file is common for clustered Data ONTAP® and Data ONTAP® operating in 7-Mode, but there is a difference in the level of SNMP support for the two operating modes. Certain objects are not supported for both modes. 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.x and clustered Data ONTAP® 8.3.x. This TR also provides a comparison between the support for both modes. This TR provides information at the individual table or group level only. `netapp.mib` file provides further information on the different fields or variables supported within a table or group. A MIB browser tool like `iReasoning` can be used to easily interpret the contents of `netapp.mib` file.

4 Abbrevations

7DOT	7DOT refers to Data ONTAP® operating in 7-Mode
CDOT	cDOT refers to clustered Data ONTAP

5 SNMP Support in Data ONTAP®

The storage system includes a SNMP agent that responds to queries and sends traps to network management stations. The SNMP agent on the storage system supports GET operations but not SET operations.

In the case of Data ONTAP® operating in 7-Mode, the information returned from the SNMP agent is scoped to the entire storage system.

However, in the case of clustered Data ONTAP®, the information provided depends on the context. (IP address) When a SNMP request is sent to Cluster management LIF (IP address) or Node management LIF (IP address), the information returned from the SNMP agent is scoped to the entire cluster. When the SNMP query is sent to Data LIF of a Vserver, then the information returned from SNMP agent is scoped to the particular Data Vserver.

5.1 SNMP MIB in Data ONTAP®

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

Data ONTAP® provides two MIB files:

- A NetApp® custom MIB (`netapp.mib`)
- An Internet SCSI (iSCSI) MIB (`iscsi.mib`)

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

The latest versions of the Data ONTAP® MIBs and traps.dat files are available on the NetApp® Support site (https://mysupport.netapp.com/site/tools/tool-eula/ontap-mibs/download). 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.

5.2 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.

6 Overview of SNMP Support in Data ONTAP® 8.2.x and onwards

The following tables give an overview of the level of support offered for SNMP MIBs and SNMP traps in Data ONTAP® 8.2.x for both Data ONTAP® operating in 7-Mode and clustered Data ONTAP®. They also provide an overview of the level of support offered for SNMP MIBs and SNMP traps in Data ONTAP® 8.3.x. 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 some of the objects are supported for the given operating mode. "NA" indicates that the objects in the group are not applicable in the given operating mode.

In the tables below, 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 could be supported:

- In both clustered Data ONTAP® and Data ONTAP® operating in 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

Note: In the below tables, Data ONTAP® 7-Mode column is not applicable for Data ONTAP® 8.3.x.

6.1 Overview of SNMP MIB Support

Table 1) Overview of SNMP MIB support

SNMP MIB Group	Data ONTAP® 7-Mode	Clustered Data ONTAP®
product	Yes	Yes
sysStat	Partial	Partial
Nfs	Yes	No
quota	Yes	Yes
filesys	Yes	Partial
raid	Yes	Yes
cifs	Yes	No
netcache	No	No
snapmirror	Yes	Not supported in 8.2 Supported in 8.2.1 with changes. Refer to Table 33.
ndmp	Yes	No
fabric	Yes	No
dafs	No	No
backup	Yes	No
vfiler	Yes	NA
blocks	Partial	Partial
nfsCache	Yes	No
snapVault	Yes	Not supported in 8.2

SNMP MIB Group	Data ONTAP® 7-Mode	Clustered Data ONTAP®
		Supported in 8.2.1 with changes. Refer to Table 33.
compress	No	No
cluster	Partial	Partial
extcache	Yes	No
vserver	NA	Yes
Qos	No	Yes
Ftpd	Yes	No
storage	Yes	Yes
network	Partial	Partial in 8.2 Yes in 8.2.1 and 8.3.0
Sis	Yes	Yes
sm	NA	No in 8.2 Yes in 8.2.1 and 8.3.0

6.2 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	Yes	Yes
Cifs	Yes	Partial
Cmds	Yes	No
Config	Yes	Yes
Ds	Yes	Yes
disk	Yes	Yes
Ems	No	No
Esh	Yes	Yes
extCache	Yes	Yes
Fci	Yes	Yes

SNMP Traps Group	Data ONTAP® 7-Mode	Clustered Data ONTAP®
Ftpd	Yes	No
healthMonitor	No	Yes
Iscsi	Partial	Partial
Mgmt.	No	Yes
Mgr	Yes	Yes
Monitor	Partial	Partial
No	Yes	Yes
Pvif	Yes	Yes
Qos	No	Yes
Quota	Yes	Yes
Raid	Yes	Partial
rapid_restore	No	NA
remoteVolume	Yes	No
Rlm	Yes	Yes
Sas	Yes	Yes
scsiAdapter	Yes	Yes
scsiblade	No	Yes
scsitarget	Yes	Partial
ses	Yes	Yes
Sfo	Yes	Yes
Sftp	Yes	No
snapmirror	Yes	No Yes in 8.3.0
Snmp	Partial	Yes
Ups	No	No
Vf	Yes	No
Vscan	Yes	Partial
Wafl	Yes	Yes

7 SNMP MIB Support for Data ONTAP® 8.2.x and onwards

7.1 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, MIB objects described as deprecated or obsolete are not supported. For MIB objects under sysStat.misc and netInterfaces.netifTable, the status field for the object in the n*etapp.mib* file 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	
product	productLicenseTable	.1.3.6.1.4.1.789.1.1.14	7	No	No	Deprecated. The new table to use for both 7DOT and cDOT is licenseTable. Refer to Table 21.

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	
sysStat	cf	.1.3.6.1.4.1.789.1.2.3	8	Yes	No	Equivalent in cDOT is haTable. Refer to Table 26.
sysStat	environment	.1.3.6.1.4.1.789.1.2.4	5	Yes	No	Equivalent in cDOT is nodeTable. Refer to Table 21.
sysStat	nvram	.1.3.6.1.4.1.789.1.2.5	1	Yes	No	Equivalent in cDOT is nodeTable. Refer to Table 21.
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/rpcServ	.1.3.6.1.4.1.789.1.3.1.1	15	Yes	No	
nfs	curNfs/nfsServ	.1.3.6.1.4.1.789.1.3.1.2	213	Yes	No	
nfs	curNfs/nfsPerClient	.1.3.6.1.4.1.789.1.3.1.3	1 variable 1 table with 125 fields	Yes	No	
nfs	totNfs/trpcServ	.1.3.6.1.4.1.789.1.3.2.1	5	Yes	No	
nfs	totNfs/tnfsServ	.1.3.6.1.4.1.789.1.3.2.2	213	Yes	No	
nfs	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. Use qvStateTable and qrV2Table 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
filesys	Simple Variables	.1.3.6.1.4.1.789.1.5.1 - 3	3 variables filesysMaxfilesAvail, filesysMaxfilesUsed and filesysMaxfilesPossible	Yes	No	Deprecated. Use dfEntry.dfMaxFilesAvail, dfEntry.dfMaxFilesUsed and dfEntry.dfMaxFilesPossible instead, for both 7DOT and cDOT. Refer to dfTable below.
filesys	Simple Variables	.1.3.6.1.4.1.789.1.5.6.0 .1.3.6.1.4.1.789.1.5.9.0 .1.3.6.1.4.1.789.1.5.12.0	3 variables	Yes	Yes	
filesys	fsStatus	.1.3.6.1.4.1.789.1.5.7.1-4	4 variables	Yes	No	
filesys	dfTable	.1.3.6.1.4.1.789.1.5.4	1 table with 43 fields	Yes	Yes	
filesys	snapshot	.1.3.6.1.4.1.789.1.5.5	3 tables: slTable with 6 fields slVTable with 10 fields slQTable with 10 fields	Yes	No	
filesys	volTable	.1.3.6.1.4.1.789.1.5.8	29 fields	Yes	Yes	
filesys	qtreeTable	.1.3.6.1.4.1.789.1.5.10	9 fields	Yes	Yes	
filesys	aggrTable	.1.3.6.1.4.1.789.1.5.11	18 fields	Yes	Yes	
filesys	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	Simple Variables	.1.3.6.1.4.1.789.1.6.5 - 8 .1.3.6.1.4.1.789.1.6.12	5 variables	Yes	No	
raid	raidTable	.1.3.6.1.4.1.789.1.6.1	11 fields	No	No	Deprecated. Use raidVTable instead.
raid	raidVTable	.1.3.6.1.4.1.789.1.6.2	37 fields	Yes	Yes	
raid	spareTable	.1.3.6.1.4.1.789.1.6.3	24 fields	Yes	Yes	
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	Yes	
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	Yes	
raid	outOfDateDiskTable	.1.3.6.1.4.1.789.1.6.13	22 fields	Yes	No	

Table 9) SNMP MIB support for group name: cifs.

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/cifsServ	.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	snapmirrorStatusTable snapmirrorConnTable	.1.3.6.1.4.1.789.1.9	1 table with 22 fields 1 table with 7 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	Obsolete
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	Obsolete
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	
vi	viaNodeConnection	.1.3.6.1.4.1.789.1.13.1	22	No	No	
vi	viaConnTable	.1.3.6.1.4.1.789.1.13.1.23	20	No	No	
vi	viaErrors	.1.3.6.1.4.1.789.1.13.2	7	No	No	
vi	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	NA	vFiler® unit is 7DOT specific
vfiler	vfTable	.1.3.6.1.4.1.789.1.16.3	9	Yes	NA	
vfiler	vfIpTable	.1.3.6.1.4.1.789.1.16.4	3	Yes	NA	
vfiler	vfSpTable	.1.3.6.1.4.1.789.1.16.5	3	Yes	NA	
vfiler	vfProTable	.1.3.6.1.4.1.789.1.16.6	4	Yes	NA	

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

Note: For SNMP queries on objects of this group to work correctly, **snmp.san.enable** option should be enabled.

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	Yes	No	
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	initiatorGroupTable	.1.3.6.1.4.1.789.1.17.16.1	9	Yes	Yes	
blocks	initiatorGroupMemberTable	.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	
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	4	Yes	Yes	

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
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	11 simple variables 3 Tables: snapvault StatusTable - 18 fields snapvault HostTable – 6 fields snapvault SchedTable – 6 fields	Yes	No in 8.2 Yes in 8.2.1	Equivalent for cDOT in 8.2.1 is sm. Refer to Table 33.

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. Use dfTable and sisTable instead. Refer to Table 7 and Table 28.

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	NA	Yes	
cluster	nodeTable	.1.3.6.1.4.1.789.1.25.2	24 fields	No	Yes	Equivalents in 7DOT are nvram and environment tables. Refer to Table 4.
cluster	clusterLicense Table	.1.3.6.1.4.1.789.1.25.3	6 fields	No	No	Applies only to cDOT but deprecated now. Use licenseTable instead.
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	NA	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	qosWorkload Table	1.3.6.1.4.1.789.1.28.1	12 fields	No	Yes	In qos 3 tables in total, 1 table with 12 fields 1 table with 6 fields 1 table with 30 fields
qos	qosPolicyGroupTable	1.3.6.1.4.1.789.1.28.2	6 fields	NO	Yes	
qos	qosReadaheadSettingsTable	1.3.6.1.4.1.789.1.28.3	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	enclosure	.1.3.6.1.4.1.789.1.21.1	2 simple variables, 1 table with 65 fields	Yes	Yes	
storage	haTable	.1.3.6.1.4.1.789.1.21.2	10 fields	No	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	Partially supported in 7DOT through equivalent IF-MIB::ifTable with OID .1.3.6.1.2.1.2.2.
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	Partially supported in 7DOT through equivalent IP-MIB::ipAddrTable with OID .1.3.6.1.2.1.4.20.
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	NA	sis is licensed by default in cDOT.
	sisTable	.1.3.6.1.4.1.789.1.23.2	1 table with 30 fields in 7DOT and 31 fields in cDOT	Yes	Yes	

7.2 SNMP MIB Support for Data ONTAP® 8.2.1

Starting with Data ONTAP® 8.2.1, some additional MIB objects are supported. Some existing MIB objects, which were supported only in Data ONTAP® operating in 7-Mode, are now supported in clustered Data ONTAP®. Some existing MIB objects have now been augmented with additional variables. The following table describes the MIB changes in Data ONTAP® 8.2.1. In the tables below, 7DOT refers to Data ONTAP® operating in 7-Mode and cDOT refers to clustered Data ONTAP®.

Note: In the Remarks column, MIB objects described as deprecated or obsolete are not supported. For MIB objects under network.netifTable, the status field for the object in the n*etapp.mib* file indicates whether the same is deprecated or current.

Table 29) New 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	Simple variables	.1.3.6.1.4.1.789.1.2.1	13	Yes	Yes	These objects are now supported in cDOT. They provide CPU statistics for the node that is queried. Also refer to Table 4.
sysStat/ cpu	cDOTCpuTable	.1.3.6.1.4.1.789.1.2.1.14	14	No	Yes	New per-node table. This table provides CPU statistics for the given cDOTCpuNodeName. Also refer to Table 4.
sysStat/ cp	Simple variables	.1.3.6.1.4.1.789.1.2.6	15	Yes	Yes	Existing MIB objects are now supported in cDOT. 2 new variables cpFromLowMbufOps and cpFromNvlogReplayTakeoverTime are now supported. Refer to Table 4.
sysStat	cDOTCpTable	.1.3.6.1.4.1.789.1.2.6.16	15	No	Yes	New per-node table. No equivalent for cpFromLowVbufOps in cDOTCpTable as same is deprecated in cDOT. Refer to Table 4.

Table 30) New SNMP MIB support for group name: filesys.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
Filesys	qtreeTable	.1.3.6.1.4.1.789.1.5.10	11	Yes	Yes	2 new variables are now supported for cDOT, qtreeExportPolicy and qtreeIsExportPolicyInherited

Table 31) New SNMP MIB support for group name: network.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
network	netifTable	.1.3.6.1.4.1.789.1.22.1.2	35	Yes	Yes	

Table 32) New SNMP MIB support for group name: qos.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
Qos	qosReadaheadSettingsTable	.1.3.6.1.4.1.789.1.28.3	31	No	Yes	1 new variable qosReadaheadMinFileHistogram is added

Table 33) New SNMP MIB support for group name: sm.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
Sm	snapmirrorRelStatusTable	.1.3.6.1.4.1.789.1.29	31	NA	Yes	New cDOT snapmirror table. Equivalent to 7DOT snapmirrorStatusTable Also includes snapvault objects. Refer to Table 11 and Table 19.

7.3 SNMP MIB Support for Data ONTAP® 8.2.2

There are no changes to SNMP MIB in this version of Data ONTAP.

7.4 SNMP MIB Support for Data ONTAP® 8.2.3

Starting with Data ONTAP® 8.2.3, some existing MIB objects have now been augmented with additional variables. The following table describes the MIB changes in Data ONTAP® 8.2.3. In the tables below, 7DOT refers to Data ONTAP® operating in 7-Mode and cDOT refers to clustered Data ONTAP®.

Table 34) New SNMP MIB support for group name: cifs.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
Cifs	cifsStats/cifs Serv	.1.3.6.1.4.1.789.1.7.3.1	264 variables	Yes	No	1 new variable smb21SessionSetups is added

7.5 SNMP MIB Support for Data ONTAP® 8.2.4

Starting with Data ONTAP® 8.2.4, some existing MIB objects have been modified. The following table describes the MIB changes in Data ONTAP® 8.2.4. In the tables below, 7DOT refers to Data ONTAP® operating in 7-Mode and cDOT refers to clustered Data ONTAP®.

Table 35) New SNMP MIB support for group name: filesys.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
filesys	dfTable	.1.3.6.1.4.1.789.1.5.4	1 table with 43 fields	Yes	Yes	Refer to table 7. The range of following variables is changed from (1..100) to (0..100): dfCompressSavedPercent, dfDedupeSavedPercent and dfTotalSavedPercent

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
filesys	qtreeTable	.1.3.6.1.4.1.789.1.5.10	1 table with 11 fields	Yes	Yes	Refer to table 7. The descriptions for qtreeExportPolicy & qtreeIsExportPolicyInherited are updated to indicate that these variables are applicable only in c-mode.

7.6 SNMP MIB Support for Data ONTAP® 8.3.0

Starting with Data ONTAP® 8.3.0, some additional MIB objects are supported. Some existing MIB objects, which were supported only in Data ONTAP® operating in 7-Mode, are now supported in clustered Data ONTAP®. Some existing MIB objects have now been augmented with additional variables. The following table describes the MIB changes in Data ONTAP® 8.3.0. In the tables below, 7DOT refers to Data ONTAP® 8.2.x operating in 7-Mode and cDOT refers to clustered Data ONTAP® 8.3.0.

Note: In the Remarks column, MIB objects described as deprecated or obsolete are not supported. For a given MIB object, the status field for the object in the *netapp.mib* file also indicates whether the same is deprecated or current.

Table 36) New SNMP MIB support for group name: vserver.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
vserver	vserverTable	.1.3.6.1.4.1.789.1.27.1	24	NA	Yes	Refer to Table 23. 2 new fields are now supported for cDOT: vserverIPspace and vserverOperationalState vserverAntiVirusOnAccessPolicy field is now deprecated. An additional enum value of ‘system’ is now supported for vserverType field.

Table 37) New SNMP MIB support for group name: filesys.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
filesys	dfTable	.1.3.6.1.4.1.789.1.5.4	1 table with 43 fields	Yes	Yes	Refer to Table 7. Range of following fields is changed from (1..100) to (0..100): dfCompressSavedPercent, dfDedupeSavedPercent and dfTotalSavedPercent.
filesys	volTable	.1.3.6.1.4.1.789.1.5.8	30 fields	Yes	Yes	Refer to table 7. Type of volOptions is changed from DisplayString to OCTET STRING (SIZE (0..1024)). 1 new field is now supported for cDOT: volDrForceNvfail.
filesys	qtreeTable	.1.3.6.1.4.1.789.1.5.10	12 fields	Yes	Yes	Refer to tables 7 and 30. 1 new field is now supported for cDOT: qtreeMode.
filesys	aggrTable	.1.3.6.1.4.1.789.1.5.11	18 fields	Yes	Yes	Refer to table 7. Following fields are now deprecated in cDOT: aggrVolumeFootprints, aggrVolumeFootprintsPercent, aggrFilesystemMetadata and aggrFilesystemMetadataPercent Use aggr-space-get-iter ZAPI instead.

Table 38) New SNMP MIB support for group name: raid.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
raid	Simple Variables	.1.3.6.1.4.1.789.1.6.5 - 8 .1.3.6.1.4.1.789.1.6.12	5 variables	Yes	Yes	Some of the MIB field descriptions are modified to refer to aggregate instead of volume.
raid	raidVTable	.1.3.6.1.4.1.789.1.6.2	37 fields	Yes	Yes	Refer to Table 8. Following fields are now deprecated for cDOT: raidVDiskId, raidVScsiAdapter, raidVScsiId, raidVDiskPort, raidVSecondaryDiskName, raidVSecondaryDiskPort. Some of the MIB field descriptions are modified to refer to aggregate instead of volume.
raid	spareTable	.1.3.6.1.4.1.789.1.6.3	24 fields	Yes	Yes	Refer to Table 8. Following fields are now deprecated for cDOT: spareDiskId, spareScsiAdapter, spareScsiId, spareDiskPort, spareSecondaryDiskName, spareSecondaryDiskPort

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
raid	otherDiskTable	.1.3.6.1.4.1.789.1.6.9	23 fields	Yes	Yes	Refer to Table 8. Following fields are now deprecated for cDOT: otherDiskDiskId, otherDiskScsiAdapter, otherDiskScsiId, otherDiskDiskPort, otherDiskSecondaryDiskName, otherDiskSecondaryDiskPort Some of the MIB field descriptions are modified to refer to aggregate instead of volume.
raid	raidPTable	.1.3.6.1.4.1.789.1.6.10	35 fields	Yes	Yes	Refer to Table 8. Following fields are now deprecated for cDOT: raidPDiskPort, raidPSecondaryDiskName, raidPSecondaryDiskPort, raidPScsiAdapter, raidPScsiId, raidPDiskId, Some of MIB field descriptions are modified to refer to aggregate instead of volume.
raid	plexTable	.1.3.6.1.4.1.789.1.6.11	5 fields	Yes	Yes	Refer to Table 8. plexVolName field description is modified to refer to aggregate instead of volume.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
raid	outOfDateDiskTable	.1.3.6.1.4.1.789.1.6.13	22 fields	Yes	Yes	Refer to Table 8. Following fields are now deprecated for cDOT: outOfDateDiskDiskId, outOfDateDiskScsiAdapter, outOfDateDiskScsiId, outOfDateDiskDiskPort, outOfDateDiskSecondaryDiskName, outOfDateDiskSecondaryDiskPort Some of the MIB field descriptions are modified to refer to aggregate instead of volume.

Table 39) New 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 variables	Yes	No	Refer to Table 12. Obsoleted in cDOT.

Table 40) New 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	Refer to Table 15. Obsoleted in cDOT
backup	dump	.1.3.6.1.4.1.789.1.14.1	4	Yes	No	Refer to Table 15. Obsoleted in cDOT.
backup	dmpTable	.1.3.6.1.4.1.789.1.14.1.5	12	Yes	No	Refer to Table 15. Obsoleted in cDOT.
backup	restore	.1.3.6.1.4.1.789.1.14.2	4	Yes	No	Refer to Table 15. Obsoleted in cDOT

Table 41) New SNMP MIB support for group name: network.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
Network	netportTable	.1.3.6.1.4.1.789.1.22.2	29 fields	No	Yes	Refer to Table 27. 3 new fields are now supported for cDOT: netportIPspace, netportBroadcastDomain, netportMtuAdmin An additional enum value of 'none' is added to fields netportIfgDistrFunc and netportIfgMode Partially supported in 7DOT through equivalent IF-MIB::ifTable with OID .1.3.6.1.2.1.2.2.
Network	logicalInterfaceTable	.1.3.6.1.4.1.789.1.22.4	30 fields	No	Yes	Refer to table 27. 1 new field is now supported for cDOT: logicalInterfaceAddressString MIB field descriptions for logicalInterfaceAddress and logicalInterfaceNetmask are modified to specify they apply only to IPv4 and to look into logicalInterfaceAddressString for IPv6 address and netmask. Additional enum values are added to logicalInterfaceFailoverPolicy and logicalInterfaceUseFailoverGroup fields. Partially supported in 7DOT through equivalent IP-MIB::ipAddrTable with OID .1.3.6.1.2.1.4.20.

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	3 simple variables	No	Yes	Refer to table 27. 1 new field is now supported for cDOT: netOptsv6RAProcEnabled
Network	ipspaceTable	.1.3.6.1.4.1.789.1.22.6	5 fields	No	Yes	
Network	vsRouteTable	.1.3.6.1.4.1.789.1.22.7	6 fields	No	Yes	Partially supported in 7DOT through equivalent IP-MIB::ipRouteTable with OID .1.3.6.1.2.1.4.21.
Network	vsFailoverGroupTable	.1.3.6.1.4.1.789.1.22.8	3 fields	NA	Yes	
Network	vsFirewallPolicyTable	.1.3.6.1.4.1.789.1.22.9	5 fields	NA	Yes	
Network	broadcastDomainTable	.1.3.6.1.4.1.789.1.22.10	6 fields	NA	Yes	
Network	subnetTable	.1.3.6.1.4.1.789.1.22.11	9 fields	NA	Yes	

Table 42) New SNMP MIB support for group name: qos.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
Qos	qosWorkloadTable	1.3.6.1.4.1.789.1.28.1	12	No	Yes	Refer to Tables 24 and 32. qosWorkloadExtCache field is renamed to qosWorkloadCache. Additional enum values are defined for qosWorkloadClass field.

7.7 SNMP MIB Support for Data ONTAP® 8.3.1

There are minor changes to existing MIB objects in Data ONTAP® 8.3.1. The following table describes the MIB changes in Data ONTAP® 8.3.1. In the tables below, 7DOT refers to Data ONTAP® 8.2.x operating in 7-Mode and cDOT refers to clustered Data ONTAP® 8.3.1.

Table 43) New SNMP MIB support for group name: vserver.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
Vserver	vserverTable	.1.3.6.1.4.1.789.1.27.1	24	NA	Yes	Refer to tables 23 and 36. The type for vserverMaxVolumes field is changed from Integer32 to Unsigned32. The description for vserverMaxVolumes is enhanced to mention that a value of 4294967295 indicates the number of volumes that can be created for the Vserver is unlimited.

7.8 SNMP MIB Support for Data ONTAP® 8.3.2

There are minor changes to existing MIB objects in Data ONTAP® 8.3.2. The following table describes the MIB changes in Data ONTAP® 8.3.2. In the tables below, 7DOT refers to Data ONTAP® 8.2.x operating in 7-Mode and cDOT refers to clustered Data ONTAP® 8.3.2.

Table 44) New SNMP MIB support for group name: sis.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
Sis	sisTable	.1.3.6.1.4.1.789.1.23.2	1 table with 30 fields in 7DOT and 32 fields in cDOT	Yes	Yes	Refer to table 28. 1 new field is now supported for cDOT: sisIsInlineDedupeEnabled

7.9 SNMP MIB Support for ONTAP® 9.0

Starting with ONTAP® 9.0, some additional MIB objects are supported. Some existing MIB objects, which were supported only in Data ONTAP® operating in 7-Mode, are now supported in clustered ONTAP®. Some existing MIB objects have now been augmented with additional variables. The following table describes the MIB changes in ONTAP® 9.0. In the tables below, 7DOT refers to Data ONTAP® 8.2.x operating in 7-Mode and cDOT refers to ONTAP® 9.0.

Note: In the Remarks column, MIB objects described as deprecated or obsolete are not supported. For a given MIB object, the status field for the object in the *netapp.mib* file also indicates whether the same is deprecated or current.

Table 45) New SNMP MIB support for group name: cluster.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
cluster	clusterLicenseTable	.1.3.6.1.4.1.789.1.25.3	6	NA	Yes	Refer to table 21. Status of the table (and all its fields) is changed from deprecated to obsolete.

Table 46) New SNMP MIB support for group name: quota.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
quota	qrV2Table	.1.3.6.1.4.1.789.1.4.6	qrV2Table - 30 fields	Yes	Yes	Refer to table 6. Data type for qrV2PathName is changed from DisplayString to FilesystemPathString. Data type for qrV2Tree is changed from DisplayString to FileOrDirectoryString.

Table 47) New SNMP MIB support for group name: filesys.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
filesys	dfTable	.1.3.6.1.4.1.789.1.5.4	43 fields	Yes	Yes	Refer to tables 7, 35 & 37. traditionalVolume enum value is removed from dfType field.
filesys	slVTable	.1.3.6.1.4.1.789.1.5.5.2	10 fields	Yes	Yes	Refer to tables 7, 35 & 37. traditionalVolume enum value is removed from slVType field.
filesys	slQTable	.1.3.6.1.4.1.789.1.5.5.3	10 fields	Yes	Yes	Refer to table 7. Data type for slQQtreeName is changed from DisplayString to FileOrDirectoryString.
filesys	volTable	.1.3.6.1.4.1.789.1.5.8	30 fields	Yes	Yes	Refer to tables 7 and 37. traditionalVolume enum value is removed from volType field. Description for volClone field is changed.
filesys	qtreeTable	.1.3.6.1.4.1.789.1.5.10	12 fields	Yes	Yes	Refer to tables 7, 30 and 37. Data type for qtreeName is changed from DisplayString to FileOrDirectoryString.
filesys	aggrTable	.1.3.6.1.4.1.789.1.5.11	18 fields	Yes	Yes	Refer to tables 7 and 37. traditionalVolume enum value is removed from aggrType field.

Table 48) New SNMP MIB support for group name: raid.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
Raid	spareTable	.1.3.6.1.4.1.789.1.6.3	25 fields	Yes	Yes	Refer to tables 8 and 38. 1 new field is now supported for cDOT: spareOwnerNode.

Table 49) New SNMP MIB support for group name: blocks.

Note: **snmp.san.enable** option and the **blocks** group are not supported anymore.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/Fields)	7DOT	cDOT	Remarks
blocks	lunTable	.1.3.6.1.4.1.789.1.17.15.2	37	Yes	No	Refer to table 17. Is now obsoleted in cDOT. Data type for lunQtreeName is changed from DisplayString to FileOrDirectoryString.
blocks	lunMapTable	.1.3.6.1.4.1.789.1.17.15.3	6	Yes	No	Refer to table 17. Is now obsoleted in cDOT.
blocks	initiatorGroupTable	.1.3.6.1.4.1.789.1.17.16.1	9	Yes	No	Refer to table 17. Is now obsoleted in cDOT.
blocks	initiatorGroupMemberTable	.1.3.6.1.4.1.789.1.17.16.2	3	Yes	No	Refer to table 17. Is now obsoleted in cDOT.
blocks	initiatorListTable	.1.3.6.1.4.1.789.1.17.16.3	8	Yes	No	
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	

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/Fields)	7DOT	cDOT	Remarks
blocks	psetTable	.1.3.6.1.4.1.789.1.17.19.1	4	Yes	No	Refer to table 17. Is now obsoleted in cDOT.
blocks	psetMember Table	.1.3.6.1.4.1.789.1.17.19.2	4	Yes	No	Refer to table 17. Is now obsoleted in cDOT.
blocks	fcpTargetPortTable	.1.3.6.1.4.1.789.1.17.26.1	5	No	No	Refer to table 17. Is now obsoleted in cDOT.
blocks	fcpTargetLifTable	.1.3.6.1.4.1.789.1.17.27.1	8	No	No	Refer to table 17. Is now obsoleted in cDOT.

Table 50) New SNMP MIB support for group name: network.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables /Fields)	7DOT	cDOT	Remarks
network	netportTable	.1.3.6.1.4.1.789.1.22.2	32 fields	No	Yes	Refer to tables 27 and 41. 3 new fields are now supported for cDOT: netportHealthStatus, netportIgnoreHealthStatus and netportDegradedReason.

Table 51) New SNMP MIB support for group name: sis.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/Fields)	7DOT	cDOT	Remarks
sis	sisTable	.1.3.6.1.4.1.789.1.23.2	1 table with 30 fields in 7DOT and 33 fields in cDOT	Yes	Yes	Refer to tables 28 & 44. 1 new field is now supported for cDOT: sisIsDataCompactionEnabled

Table 52) New SNMP MIB support for group name: qos.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
Qos	qosWorkload Table	.1.3.6.1.4.1.789.1.28.1	12	No	Yes	Refer to Table 42. Data type for qosWorkloadQtree is changed from DisplayString to FileOrDirectoryString.

7.10 SNMP MIB Support for ONTAP® 9.1

Starting with ONTAP® 9.1, some additional MIB objects are supported. The following table describes the MIB changes in ONTAP® 9.1. In the tables below, 7DOT refers to Data ONTAP® 8.2.x operating in 7-Mode and cDOT refers to ONTAP® 9.1.

Table 53) New SNMP MIB support for group name: quota.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
quota	qrV3Table	.1.3.6.1.4.1.789.1.4.7	23 fields	No	Yes	Refer to table 46. Quota table with 64-bit index.

7.11 SNMP MIB Support for ONTAP® 9.2

In ONTAP® 9.2, some MIB objects are added more fields. The following tables describes the MIB changes in ONTAP® 9.2. In the tables below, cDOT refers to ONTAP® 9.2.

Table 54) New SNMP MIB support for group name: quota.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	cDOT	Remarks
quota	qrV3Table	1.3.6.1.4.1.789.1.4.7	26 fields	Yes	Refer to table 46. 3 fields are added from ONTAP 9.1 to ONTAP 9.2 The 3 new fields added are qrV364FilesUsed, Counter64, qrV364FileLimit, Counter64, qrV364SoftFileLimit, Counter64; there are 3 existing fields qrV3FilesUsed qrV3FileLimit qrV3SoftFileLimit which are deprecated in this version 9.2

Table 55) New SNMP MIB support for group name: raid.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	cDOT	Remarks
Raid	spareTable	1.3.6.1.4.1.789.1.6.3	27 fields	Yes	Refer to tables 8 and 38 and 48 2 more fields are added in 9.2 spareDrawer, Integer32, spareDrawerSlot, Integer32

Table 56) New SNMP MIB support for group name: sis.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/Fields)	cDOT	Remarks
Sis	sisTable	1.3.6.1.4.1.789.1.23.2	34 fields	Yes	Refer to tables 28 & 44 and 51 1 new field is now added in 9.2 version. sisIsCrossVolumeInlineDedupeEnabled Boolean

Table 57) New SNMP MIB support for group name: raid.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/Fields)	cDOT	Remarks
raid	outOfDate DiskTable	1.3.6.1.4.1.789.1.6.13	24 fields	Yes	Refer to Table 8. 2 more fields are added. outOfDateDiskDrawerSlot outOfDateDiskDrawer of Integer32 both
Raid	otherDisk Table	.1.3.6.1.4.1.789.1.6.9	25 fields	Yes	2 new fields are added. From 9.1 to 9.2 version otherDiskDrawer Integer32, otherDiskDrawerSlot Integer32

7.12 SNMP MIB Support for ONTAP® 9.3

Table 58) New SNMP MIB support for group name: sis.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/Fields)	cDOT	Remarks
Sis	sisTable	1.3.6.1.4.1.789.1.23.2	37 fields	Yes	Refer to tables 28 & 44 and 51 3 more fields are added. sisIsCrossVolumeBackgroundDedupeEnabled, Boolean sisApplicationIOSize, Integer sisCompressionType, Integer

Table 59) New SNMP MIB support for group name: qos.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	cDOT	Remarks
Qos	qosWorkload Table	1.3.6.1.4.1.789.1.28.1	14	Yes	Refer to Table 42. 2 more fields are added from 9.2 to 9.3 qosWorkloadMinThroughput DisplayString. qosWorkloadMaxThroughput DisplayString
Qos	qosAdaptive PolicyGroup Table	1.3.6.1.4.1.789.1.28.4	8 fields	Yes	Apart from existing 3 tables in previous version, 1 new table is added in this version i.e., from 9.2 to 9.3.
Qos	qosPolicyGro upTable	1.3.6.1.4.1.789.1.28.2	7 fields	Yes	Refer to table 24. 1 more field is added from previous version 9.2 to current 9.3 qosPolicyGroupMinThroughput DisplayString

7.13 SNMP MIB Support for ONTAP® 9.4

Table 60) SNMP MIB support for group name: qos.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	cDOT	Remarks
qos	qosPolicyGro upTable	1.3.6.1.4.1.789.1.28.2	8 fields	Yes	Refer to table 59. 1 more field is added from previous version 9.3 to current 9.4 qosPolicyGroupShared, Boolean

7.14 SNMP MIB Support for ONTAP® 9.5

Table 61) New SNMP MIB support for group name: misc.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	7DOT	cDOT	Remarks
sysStat	misc	1.3.6.1.4.1.789.1.2.2	35	Yes	Yes	Refer to table 4. 2 misc variables are now implemented in cDOT: miscGlobalStatus and miscGlobalStatusMessage.
sysStat/ misc	cDOTMiscTable	1.3.6.1.4.1.789.1.2.2.36	3	No	Yes	New per-node table. This new table provides a report of miscellaneous variables on a per-node basis. Currently cDOTMiscGlobalStatus and cDOTMiscGlobalStatusMessage are implemented.

Table 62) New SNMP MIB support for group name: sis.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/Fields)	cDOT	Remarks
sis	sisTable	1.3.6.1.4.1.789.1.23.2	38 fields	Yes	Refer to table 56. 1 more field is added. sisHasExtendedCompressedData Boolean

Table 63) New SNMP MIB support for group name: qos.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	cDOT	Remarks
qos	qosAdaptivePolicyGroupTable	1.3.6.1.4.1.789.1.28.4	10 fields	Yes	Refer to table 60. 2 new enums are added: qosAdaptivePolicyGroupExpectedIopsAllocation and qosAdaptivePolicyGroupBlockSize

7.15 SNMP MIB Support for ONTAP® 9.6

Table 64) New SNMP MIB support for group name: qos.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables/ Fields)	cDOT	Remarks
Qos	qosPolicyGroupTable	1.3.6.1.4.1.789.1.28.2	9 fields	Yes	Refer to table 60. 1 more field is added: qosPolicyGroupAutoGenerated, Boolean

7.16 SNMP MIB Support for ONTAP® 9.7

Table 65) New SNMP MIB support for group name: network.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables /Fields)	7DOT	cDOT	Remarks
network	netportTable	.1.3.6.1.4.1.789.1.22.2	32 fields	No	Yes	Refer to table 50. 3 new enum values are added to fields netportSpeedAdmin and netportSpeedOper: fourty-Gb, hundred-Gb & twenty-five-Gb.

7.17 SNMP MIB Support for ONTAP® 9.8

Table 66) 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	Refer to table 3. Following enum values are deleted from enum type for productVendor: ibm and dell. Following enum values are added to enum type for productVendor: lenovo and fujitsu

Table 67) SNMP MIB support for group name: filesys.

Group Name	Subtree/ Table Name	Object Identifier (OID)	Count of Objects (#Variables /Fields)	7DOT	cDOT	Remarks
filesys	qtreeTable	.1.3.6.1.4.1.789.1.5.10	13 fields	Yes	Yes	Refer to table 47. 1 new field is added: qtreeQosPolicyGroup DisplayString

7.18 SNMP MIB Support for ONTAP® 9.9.0

There are no changes to SNMP MIB in this version of ONTAP.

8 SNMP Traps Supported in Data ONTAP® 8.2.x and onwards

8.1 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®. NA is abbreviation for “Not Applicable”.

Table 68) New SNMP MIB support for group name: app.

Event Name	Trap Name	7DOT	cDOT
app.log.alert	appAlert	Yes	Yes
app.log.crit	appCritical	Yes	Yes

Event Name	Trap Name	7DOT	cDOT
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 69) New SNMP MIB support for group name: 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
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

Event Name	Trap Name	7DOT	cDOT
asup.throttle.drop	autosupportSendError	No	No
asup.throttle.msgHistory	autosupportConfigurationError	No	No
asup.throttle.msgHistoryErr	autosupportConfigurationError	No	No

Table 70) New SNMP MIB support for group name: auth.

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

Table 71) 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 72) SNMP traps support for group: cf.

Event Name	Trap Name	7DOT	cDOT
cf.fm.givebackComplete	clusterNodeRepaired	Yes	Yes
cf.fm.givebackDuration	clusterNodeRepaired	Yes	Yes
cf.fm.givebackStarted	clusterNodeRepairing	Yes	Yes
cf.fm.takeoverComplete	clusterNodeTakenOver	Yes	Yes
cf.fm.takeoverDuration	clusterNodeTakenOver	Yes	Yes
cf.fm.takeoverStarted	clusterNodeFailed	Yes	Yes
cf.noPartner_takeover	clusterNodeFailed	Yes	Yes

Table 73) 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 74) 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 75) 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 76) SNMP traps support for group: ds.

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

Table 77) SNMP traps support for group: ems.

Event Name	Trap Name	7DOT	cDOT
ems.eut.prilo1i_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 78) SNMP traps support for group: esh.

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

Table 79) SNMP traps support for group: extCache.

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

Table 80) SNMP traps support for group: fci.

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

Table 81) 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 82) SNMP traps support for group: iscsi.

Event Name	Trap Name	7DOT	cDOT
iscsi.snmp.authentication.failure	-	Yes	Yes
iscsi.snmp.bad.opcode	-	Yes	Yes
iscsi.snmp.datadigest.error	-	Yes	Yes
iscsi.snmp.hdrdigest.error	-	Yes	Yes
iscsi.snmp.version.mismatch	-	Yes	Yes

Table 83) 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 84) 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 85) 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 86) 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

Event Name	Trap Name	7DOT	cDOT
monitor.cpuFan.failed	chassisCPUFanStopped	No	No
monitor.cpuFan.ok	chassisCPUFanOk	No	No
monitor.diskLabelCheckFailed	diskFailed	Yes	Yes
monitor.fan.critical	fanFailureShutdown	Yes	Yes
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.nvmembattery.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

Event Name	Trap Name	7DOT	cDOT
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
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 87) 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 88) SNMP traps support for group: pvif.

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

Table 89) 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 90) 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 91) SNMP traps support for group: raid.

Event Name	Trap Name	7DOT	cDOT
raid.assim.mirror.noChild	volumeRestrictedByMirrorBigIo	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	NA
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	NA
raid.mirror.bigio.restrict	volumeRestrictedByMirrorBigIo	Yes	Yes
raid.mirror.vote.outOfDate	plexOffline	Yes	NA

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 92) 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

Table 93) SNMP traps support for group: remoteVolume.

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

Table 94) 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 95) SNMP traps support for group: sas.

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

Table 96) SNMP traps support for group: scsiAdapter.

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

Table 97) 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 98) 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 99) SNMP traps support for group: ses.

Event Name	Trap Name	7DOT	cDOT
ses.status.ACPError	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 100) SNMP traps support for group: sfo.

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

Table 101) 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 102) 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 103) SNMP traps support for group: snapvault.

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

Table 104) 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 105) 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 106) SNMP traps support for group: vf.

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

Table 107) 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 108) 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

Event Name	Trap Name	7DOT	cDOT
wafl.vvol.online	volumeOnline	Yes	Yes
wafl.vvol.restrict	volumeStateChanged	Yes	Yes

8.2 SNMP Traps Supported in Data ONTAP® 8.2.1

In addition to the above listed traps, starting from Data ONTAP® 8.2.1, the following new traps are supported. In the table below, 7DOT refers to Data ONTAP® 8.2.1 operating in 7-Mode and cDOT refers to clustered Data ONTAP® 8.2.1.

Table 109) New SNMP traps in Data ONTAP® 8.2.1

Event Name	Trap Name	7DOT	cDOT
LUN.destroy	lunDestroy	No	Yes
cifs.many.pending.auth.reqs	cifsAuthQueueBuildUp	Yes	No
cifs.few.pending.auth.reqs	cifsAuthQueueCleared	Yes	No

8.3 SNMP Traps Supported in Data ONTAP® 8.2.2

There are no changes to SNMP traps in this version of Data ONTAP.

8.4 SNMP Traps Supported in Data ONTAP® 8.2.3

In addition to the above listed traps, starting from Data ONTAP® 8.2.3, the following new traps are supported. In the table below, 7DOT refers to Data ONTAP® 8.2.3 operating in 7-Mode and cDOT refers to clustered Data ONTAP® 8.2.3.

Table 110) New SNMP traps in Data ONTAP® 8.2.3

Event Name	Trap Name	7DOT	cDOT
vifmgr.clus.linkdown	clusterLinkDown	NA	Yes
vifmgr.cluscheck.l2ping	clusterL2ConnFail	NA	Yes
vifmgr.cluscheck.droppedlarge	clusterPingDropLarge	NA	Yes

8.5 SNMP Traps Supported in Data ONTAP® 8.2.4

In addition to the above listed traps, starting from Data ONTAP® 8.2.4, the following new traps are supported. In the table below, 7DOT refers to Data ONTAP® 8.2.4 operating in 7-Mode and cDOT refers to clustered Data ONTAP® 8.2.4. Also, *hbaOfflineInformation* trap was renamed to *hbaOfflineNotice* and the severity of the same was changed from Information to Notification (refer to table 53).

Table 111) New SNMP traps in Data ONTAP® 8.2.4

Event Name	Trap Name	7DOT	cDOT
monitor.shelf.warning	shelfWarning	Yes	Yes
fci.link.error	hbaOfflineError	Yes	Yes
fci.adapter.online.failed	hbaOnlineFailWarning	Yes	Yes
fci.adapter.online	hbaOnlineInformation	Yes	Yes
sas.cable.pulled	sasConnectorWarn	Yes	Yes
sas.cable.pushed	sasConnectorInfo	Yes	Yes

8.6 SNMP Traps Supported in Data ONTAP® 8.3.0

In addition to the above listed traps, starting from Data ONTAP® 8.3.0, the following new traps are supported. In the table below, 7DOT refers to Data ONTAP® 8.2.x operating in 7-Mode and cDOT refers to clustered Data ONTAP® 8.3.0.

Table 112) New SNMP traps in Data ONTAP® 8.3.0

Event Name	Trap Name	7DOT	cDOT
hm.alert.raised	healthMonitorAlertRaised	NA	Yes
hm.alert.cleared	healthMonitorAlertCleared	NA	Yes
vol.log.overalloc	volumeLogicalOverallocated	No	Yes
vol.reserve.grew	volumeReserveGrew	No	Yes
vol.phys.overalloc	volumePhysicalOverallocated	No	Yes
sm.vault.xfer.warn.snapshot.count.limit	smVaultSnapWarnLimit	No	Yes
LUN.move.dstPresent	lunRelocationCompletion	No	Yes

8.7 SNMP Traps Supported in Data ONTAP® 8.3.1

In addition to the above listed traps, starting from Data ONTAP® 8.3.1, the following new traps are supported. In the table below, 7DOT refers to Data ONTAP® 8.2.x operating in 7-Mode and cDOT refers to clustered Data ONTAP® 8.3.1.

Table 113) New SNMP traps in Data ONTAP® 8.3.1

Event Name	Trap Name	7DOT	cDOT
monitor.shelf.warning	shelfWarning	Yes	Yes
hm.alert.cleared	shelfSESElectronicsWarning	Yes	Yes
raid.carrier.remove	diskFailedRemoveCarrier	No	Yes

8.8 SNMP Traps Supported in Data ONTAP® 8.3.2

In addition to the above listed traps, starting from Data ONTAP® 8.3.2, the following new traps are supported. In the table below, 7DOT refers to Data ONTAP® 8.2.x operating in 7-Mode and cDOT refers to clustered Data ONTAP® 8.3.2.

Table 114) New SNMP traps in Data ONTAP® 8.3.2

Event Name	Trap Name	7DOT	cDOT
scsiAdapter.offline & sas.adapter.offline	hbaOfflineInformation	Yes	Yes
fci.link.error	fcOfflineError	Yes	Yes
fci.adapter.online.failed	fcOnlineFailWarning	Yes	Yes
fci.adapter.offline	fcOffLineNotification	Yes	Yes
fci.adapter.online	fcOnlineInformation	Yes	Yes
sas.cable.pulled	sasConnectorWarn	Yes	Yes
sas.cable.pushed	sasConnectorInfo	Yes	Yes
ses.status.psError	sesShelfPowerSupplyError	Yes	Yes
ses.status.psWarning	sesShelfPowerSupplyWarn	Yes	Yes
ses.status.psInfo	sesShelfPowerSupplyInfo	Yes	Yes
mgmt.vopl.rehost.failed	volRehostFailed	No	Yes
mgmt.vopl.rehost.succeeded	volRehostSucceeded	No	Yes
Nblade.vscanVirusDetected	offboxvscanVirusDetectedError	No	Yes

8.9 SNMP Traps Supported in ONTAP® 9.0

In addition to the above listed traps, starting from ONTAP® 9.0, the following new traps are supported. In the table below, 7DOT refers to ONTAP® 8.2.x operating in 7-Mode and cDOT refers to clustered ONTAP® 9.0.

Table 115) New SNMP traps in ONTAP® 9.0

Event Name	Trap Name	7DOT	cDOT
monitor.ioCard.degraded	ioCardFailed	No	Yes
monitor.ioCard.ok	ioCardOk	No	Yes
sm.syncmirror.out.of.sync	smSyncOutOfSyncWarn	No	Yes
ses.status.volWarning	sesShelfVoltageWarning	No	Yes
ems.test.notice	snmpTestTraphost	No	Yes
snmp.fips.support	snmpFipsSupport	No	Yes
secd.nis.noServers	noNisServersAvailable	No	Yes
secd.ldap.noServers	noLdapServersAvailable	No	Yes

Event Name	Trap Name	7DOT	cDOT
secd.lsa.noServers	noLsaServersAvailable	No	Yes
secd.netlogon.noServers	noNetlogonServersAvailable	No	Yes

8.10 SNMP Traps Supported in ONTAP® 9.1

There are no changes to SNMP traps in this version of Data ONTAP.

8.11 SNMP Traps Supported in ONTAP® 9.2

The following new traps are supported. In the table below, cDOT refers to clustered ONTAP® 9.2.

Table 116) New SNMP traps in ONTAP® 9.2

Event Name	Trap Name	cDOT
snmp.snmpv3.enable	snmpSnmpv3Enable	Yes

8.12 SNMP Traps Supported in ONTAP® 9.3

Table 117) New SNMP traps in ONTAP® 9.3

Event Name	Trap Name	cDOT
snmp.fips.objs.del.failed	snmpFipsObjsDelFailed	Yes

8.13 SNMP Traps Supported in ONTAP® 9.4

There are no changes to SNMP traps in this version of ONTAP.

8.14 SNMP Traps Supported in ONTAP® 9.5

The following new traps are supported. In the table below, cDOT refers to ONTAP® 9.5.

Table 118) New SNMP traps in ONTAP® 9.5

Event Name	Trap Name	cDOT
fc.bridge.temp.emergency	fcBridgeTempEmergency	Yes
fc.bridge.temp.alert	fcBridgeTempAlert	Yes
fc.bridge.temp.notice	fcBridgeTempNotice	Yes
fc.bridge.fc.port.alert	fcBridgeFcPortAlert	Yes

Event Name	Trap Name	cDOT
fc.bridge.fc.port.notice	fcBridgeFcPortNotice	Yes
fc.bridge.sas.port.alert	fcBridgeSASPortAlert	Yes
fc.bridge.sas.port.notice	fcBridgeSASPortNotice	Yes
fc.bridge.throughput.alert	fcBridgeThroughputAlert	Yes
fc.bridge.throughput.notice	fcBridgeThroughputNotice	Yes
fc.bridge.power.alert	fcBridgePowerSupplyAlert	Yes
fc.bridge.power.notice	fcBridgePowerSupplyNotice	Yes
fc.bridge.sas.phy.alert	fcBridgeSasPhyTransitionAlert	Yes
fc.bridge.sas.phy.notice	fcBridgeSasPhyTransitionNotice	Yes
vsa.scheduledEvent.scheduled	vsaCloudProviderScheduledEventScheduled	Yes
vsa.scheduledEvent.update	vsaCloudProviderScheduledEventUpdate	Yes

8.15 SNMP Traps Supported in ONTAP® 9.6

There are no changes to SNMP traps in this version of ONTAP.

8.16 SNMP Traps Supported in ONTAP® 9.7

The following traps are deprecated in ONTAP® 9.7 since they are not associated with any EMS message. In the table below, cDOT refers to ONTAP® 9.7.

Table 119) Deprecated SNMP traps in ONTAP® 9.7

Trap Name	cDOT
autosupportConfigurationError	Yes
upsLinePowerOff	Yes
upsBatteryCritical	Yes
upsShuttingDown	Yes
upsBatteryWarning	Yes

Trap Name	cDOT
vifPrimaryLinkFailed	Yes
vifAllLinksFailed	Yes
prefDCDisconnect	Yes
cifsStatsExhaustMemCtrlBlk	Yes
chassisPSUsMismatch	Yes
chassisPSUwrongInput	Yes
powerSupplyFanFailxMinShutdown	Yes

8.17 SNMP Traps Supported in ONTAP® 9.8

There are no changes to SNMP traps in this version of ONTAP.

8.18 SNMP Traps Supported in ONTAP® 9.9.0

There are no changes to SNMP traps in this version of ONTAP.

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