

Dell Data Protection Advisor 19.12

Data Collection Reference Guide

Dell Inc.

Notes, cautions, and warnings

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

 **CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

 **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

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Preface

As part of an effort to improve its product lines, Dell Technologies periodically releases revisions of its software and hardware. Therefore, some functions that are described in this document might not be supported by all versions of the software or hardware currently in use. The product release notes provide the most up-to-date information about product features.

Contact your Dell Technologies technical support professional if a product does not function properly or does not function as described in this document.

i | NOTE: This document was accurate at publication time. Go to Dell Technologies Online Support ([Dell Support](#)) to ensure that you are using the latest version of this document.

Language use

This document might contain language that is not consistent with Dell Technologies current guidelines. Dell Technologies plans to update the document over subsequent future releases to revise the language accordingly.

This document might contain language from third-party content that is not under Dell Technologies control and is not consistent with the current guidelines for Dell Technologies own content. When such third-party content is updated by the relevant third parties, this document is revised accordingly.

Purpose

The purpose of this document is to describe each of the Data Protection Advisor data collection modules, describing the information that each module returns and how it obtains that data..

ISO 9001 certification

The management system governing the design and development of this product is ISO 9001:2015 certified.

Audience

This document is intended for users of Data Protection Advisor. Readers of this document are expected to have administrator knowledge of Data Protection Advisor and of the backup and recovery environment on which Data Protection Advisor monitors and reports.

Revision history

The following table presents the revision history of this document.

Table 1. Revision history

Revision	Date	Description
02	March 2025	Updated the following topics: <ul style="list-style-type: none">● backupjob for Avamar● restorejob for Avamar● clonejob for Avamar● backupjob for NetWorker● backupjob for Micro Focus Data Protector servers● backupjob for CommVault
01	January 2025	First release of this document for Data Protection Advisor 19.12.

Related documentation

The <https://www.dell.com/support> documentation set includes the following publications:

- *Dell Data Protection Advisor 19.12 Release Notes*
- *Dell Data Protection Advisor 19.12 Installation and Administration Guide*
- *Dell Data Protection Advisor 19.12 Product Guide*
- *Dell Data Protection Advisor 19.12 Security Configuration Guide*
- *Dell Data Protection Advisor 19.12 Data Collection Reference Guide*
- *Dell Data Protection Advisor 19.12 Custom Report Guide*
- *Dell Data Protection Advisor 19.12 Report Reference Guide*
- *Dell Data Protection Advisor 19.12 REST API Guide*
- *Dell Data Protection Advisor 19.12 Online Help*

Typographical conventions

The following type style conventions are used in this document:

Table 2. Style conventions

Formatting	Description
Bold	Used for interface elements that a user specifically selects or clicks, for example, names of buttons, fields, tab names, and menu paths. Also used for the name of a dialog box, page, pane, screen area with title, table label, and window.
<i>Italic</i>	Used for full titles of publications that are referenced in the text.
Monospace	Used for: <ul style="list-style-type: none">• System code• System output, such as an error message or script• Pathnames, file names, file name extensions, prompts, and syntax• Commands and options
<i>Monospace italic</i>	Used for variables.
Monospace bold	Used for user input.
[]	Square brackets enclose optional values.
	Vertical line indicates alternate selections. The vertical line means or for the alternate selections.
{ }	Braces enclose content that the user must specify, such as x, y, or z.
...	Ellipses indicate non-essential information that is omitted from the example.

You can use the following resources to find more information about this product, obtain support, and provide feedback.

Where to find product documentation

- [Dell Customer Support](#)
- [Dell Community Network](#)

Where to get support

The Support website [Dell Customer Support](#) provides access to product licensing, documentation, advisories, downloads, and how-to and troubleshooting information. The information can enable you to resolve a product issue before you contact Support.

To access a product-specific page:

1. Go to [Dell Customer Support](#).

2. In the search box, type a product name, and then from the list that appears, select the product.

Knowledgebase

The Knowledgebase contains applicable solutions that you can search for either by solution number (for example, KB000xxxxxx) or by keyword.

To search the Knowledgebase:

1. Go to [Dell Customer Support](#).
2. On the **Support** tab, click **Knowledge Base**.
3. In the search box, type either the solution number or keywords. Optionally, you can limit the search to specific products by typing a product name in the search box, and then selecting the product from the list that appears.

Live chat

To participate in a live interactive chat with a support agent:

1. Go to [Dell Customer Support](#).
2. On the **Support** tab, click **Contact Support**.
3. On the **Contact Information** page, click the relevant support, and then proceed.

Service requests

To obtain in-depth help from Licensing, submit a service request. To submit a service request:

1. Go to [Dell Customer Support](#).
2. On the **Support** tab, click **Service Requests**.

(i) NOTE: To create a service request, you must have a valid support agreement. For details about either an account or obtaining a valid support agreement, contact a sales representative. To find the details of a service request in the Service Request Number field, type the service request number, and then click the right arrow.

To review an open service request:

1. Go to [Dell Customer Support](#).
2. On the **Support** tab, click **Service Requests**.
3. On the **Service Requests** page, under **Manage Your Service Requests**, click **View All Dell Service Requests**.

Online communities

For peer contacts, conversations, and content on product support and solutions, go to the [Dell Community Network](#). Interactively engage with customers, partners, and certified professionals online.

How to provide feedback

Feedback helps to improve the accuracy, organization, and overall quality of publications. Perform one of the following steps to provide feedback:

- Go to [Dell Content Feedback Platform](#), and submit a ticket.
- Send feedback to [DPADDocFeedback](#).

Introduction

Dell Data Protection Advisor (Data Protection Advisor) is a sophisticated reporting and analytics application that provides you with full visibility into the effectiveness of your data protection strategy. Data Protection Advisor monitors all the technologies that you use to protect your data including Backup Software, Storage Arrays, File Servers, and Tape Libraries.

The sophisticated reporting engine of Data Protection Advisor provides highly customizable reports to spotlight the problems within your environment, and enables you to perform Capacity Management, Service Level Reporting, Chargeback, Change Management, and Troubleshooting.

The Predictive Analysis Engine of Data Protection Advisor provides an early warning of problems that can occur and generates alerts that allow you to resolve problems sooner, reducing business impact.

A set of modules that the Data Protection Advisor Data Collection Agent process uses implements the data collection within Data Protection Advisor. Each module collects data about a distinct type of information from either a device or application.

ACSLS Module

The ACSLS module gathers information about Oracle StorageTek ACSLS servers. Data Protection Advisor uses the ASCLS command-line tool (`cmd_proc.exe`) to return and display Configuration, Status, and Job Monitor information. The module includes the following functions that gather different types of information:

Topics:

- Configuration function for ACSLS
- Status function for ACSLS
- Job Monitor for ACSLS

Configuration function for ACSLS

The Configuration function gathers the following data:

library_config for ACSLS

The fields described in the following table are returned.

Table 3. library_config

Field	Description	From
libraryname	Name of library	acs and lsm fields from running display lsm
vendor	Vendor that produces the tape library	Hard coded to Storage Tek
model	Library model	type field from running display lsm
serial	Library serial number	serial_num field from running display lsm
slots	Number of slots in the library	Count of number of cells that are returned that belong to each library from running display cell
caps	Number of CAPs in the library	Count of number of CAPs that are returned that belong to each library from running display cell
drives	Number of drives in the library	Count of number of cells that are returned that belong to each library from running display cell

tapedrive_config for ACSLS

The fields described in the following table are returned.

Table 4. tapedrive_config

Field	Description	From
name	Tape drive name	acs, lsm, and panel fields from running display drive
model	Tape drive model	type field from running display drive

Table 4. tapedrive_config (continued)

Field	Description	From
serial	Tape drive serial number	serial_num field from running display drive
libraryname	Name of library in which the tape drive is located	acs and lsm fields from running display drive

license_config for ACSLS

The fields that are described in the following table are returned.

 **NOTE:** For ACSLS version 7.3.1 or later, ACSLS no longer requires a license key. Data Protection Advisor does not report any license information for these ACSLS versions.

Table 5. license_config

Field	Description	From
product	Product name	Hard coded to ACSLS
identifier	License identifier	Customer field from results of get_license_info command
code	License code	License Key field from results of get_license_info command
instance	Instance of the license	Hard coded to 1
description	License description	Key Type field from results of get_license_info command
instances	Number of licensed cells	Licensed Cells field from results of get_license_info command
valid	Indicates if the license is valid.	Hard coded to 1
expires	License expiry date	Expires field from results of get_license_info command

Status function for ACSLS

The Status function gathers connectivity of the port status information. The Status function gathers the following data:

- acslsserver_status
- acslsport_status
- acs_status for ACSLS
- library_status for ACSLS
- library_slotstatus for ACSLS
- tapedrive_status for ACSLS
- library_volstatus for ACSLS
- library_capstatus for ACSLS
- ACSLS Errors
- acsls_lock
- application_error for ACSLS

acsIsServer_Status

The fields described in the following table are returned.

Table 6. acsIsServer_Status

Field	Description	From
state	Status of the ACSLS Server	state field from running query server
current_audit	Number of audit requests that are in progress on the server	Left value of the Audit field from running query server
pending_audit	Number of audit requests that are pending on the server	Right value of the Audit field from running query server
current_mount	Number of mount requests that are in progress on the server	Left value of the Mount field from running query server
pending_mount	Number of mount requests that are pending on the server	Right value of the Mount field from running query server
current_dismount	Number of dismount requests that are in progress on the server	Left value of the Dismount field from running query server
pending_dismount	Number of dismount requests are pending on the server	Right value of the Dismount field from running query server
current_eject	Number of eject requests that are in progress on the server	Left value of the Eject field from running query server
pending_eject	Number of eject requests are pending on the server	Right value of the Eject field from running query server

acsIsPort_Status

The fields described in the following table are returned.

Table 7. acsIsPort_Status

Field	Description	From
port	Address of the ACSLS Port. The value for this field is a combination of the ACS and Port fields. An example of data returned for this field is 0,0	acs and port fields from running display port
name	Name of the ACSLS port; for example, /dev/mchanger1	name field from running display port
state	Status of the port: Offline, Online	state field from running display port

acs_Status for ACSLS

The fields described in the following table are returned.

Table 8. acs_Status

Field	Description	From
name	Name of ACS	identifier field from running query acs
state	Current state of the ACSLS Software: Diagnostic, Offline, Offline Pending, Online, Recovery	state field from running query acs

Table 8. acs_status (continued)

Field	Description	From
current_audit	Number of audit requests that are in progress on the server	Left value of the Audit field from running query acs
pending_audit	Number of audit requests that are pending on the server	Right value of the Audit field from running query acs
current_mount	Number of mount requests that are in progress on the server	Left value of the Mount field from running query acs
pending_mount	Number of mount requests that are pending on the server	Right value of the Mount field from running query acs
current_dismount	Number of dismount requests that are in progress on the server	Left value of the Dismount field from running query acs
pending_dismount	Number of dismount requests are pending on the server	Right value of the Dismount field from running query acs
current_eject	Number of eject requests that are in progress on the server	Left value of the Eject field from running query acs
pending_eject	Number of eject requests that are pending on the server	Right value of the Eject field from running query acs

library_status for ACSLS

The fields described in the following table are returned.

Table 9. library_status

Field	Description	From
status	Status of the tape library	status field from running display lsm
libraryname	Library name	acs and lsm fields from running display lsm
numvolumes	Number of volumes in the library	Count of number of cells that are returned that belong to each library from running display volume

library_slotstatus for ACSLS

The fields described in the following table are returned.

Table 10. library_slotstatus

Field	Description	From
address	Address of the slot	acs, lsm, panel, row, and column fields from running display cell
status	Current status of the slot	status field from running display cell
volume	Volume ID of the volume in the slot	vol_id field from running display volume
libraryname	Name of library in which the library slot is located	acs and lsm fields from running display cell

tapedrive_status for ACSLS

The fields described in the following table are returned.

Table 11. tapedrive_status

Field	Description	From
name	Tape drive name	acs, lsm, panel, and drive fields from running display drive
status	Current state of the drive	status field from running display drive
volume	Indicates if a volume is loaded in the tape drive	volume field from running display drive
state	Additional drive state information	state field from running display drive
libraryname	Library in which the tape drive is located	acs and lsm fields from running display drive

library_volstatus for ACSLS

The fields described in the following table are returned.

Table 12. library_volstatus

Field	Description	From
libraryname	Library in which the library volume is located	acs and lsm fields from running display volume
volumeid	Identifier of the volume loaded in the drive	vol_id field from running display volume
pool	Pool in which the tape is in	pool field from running display volume
type	Media type	media field from running display volume
entry_date	Date that the volume was entered into the library	entry_date field from running display volume
access_date	Last time the volume was accessed	access_date field from running display volume
access_count	Number of times the volume has been accessed	access_count field from running display volume
max_use	Maximum number of times a volume is used	max_use field from running display volume
location	Library volume location	If in a slot: <ul style="list-style-type: none">● acs, lsm, panel, row, and column fields from running display volume If in a drive: <ul style="list-style-type: none">● acs, lsm, panel, and drive fields from running display volume
location_type	Location type. For example, Storage	status field from running display volume
data_type	Tape type: Cleaning, Data, Scratch	type field from running display volume

library_capstatus for ACSLS

The fields described in the following table are returned.

Table 13. library_capstatus

Field	Description	From
libraryname	Name of library	acs and lsm fields from running display CAP
address	Address of the CAP	acs, lsm, and CAP fields from running display CAP
status	Current health of the CAP	status field from running display CAP
accessibility	Indicates if the CAP is locked	mode field from running display CAP
open	Indicates if the CAP is open	status field from running display CAP

ACSL Errors

The fields described in the following table are returned.

Table 14. ACSLS errors

Field	Description	From
name	Hostname or IP address of the ACSLS server host	The node name as configured in Data Protection Advisor
Application ID	Application	Hard coded to ACSLS
errcode	The error code	From the error log using greplog
severity	Severity of the error	From the error log using greplog
errorstring	Error message	From the error log using greplog

acsIs_lock

The fields described in the following table are returned.

Table 15. acsIs_lock

Field	Description	From
lockid	Lock identifier	LockID field from results of query lock drive all or query lock volume all
type	Target type: Drive, Volume	From results of query lock drive all or query lock volume all
identifier	Identifier	From results of query lock drive all or query lock volume all
duration	Duration of the lock (in seconds)	LockDuration field from results of query lock drive all or query lock volume all
pending	Number of pending locks on the target	LockStatusPending field from results of query lock drive all or query lock volume all
status	Status of the target (for example, in use)	Status field from results of query lock drive all or query lock volume all

Table 15. acsIs_lock (continued)

Field	Description	From
user	ID of the lock owner	UserIdentifier field from results of query lock drive all or query lock volume all

application_error for ACSLS

The fields described in the following table are returned.

Table 16. application_error

Field	Description	From
appid	Session/Process ID corresponding to error	Log entry from the acsss_event.log or event0.log files
errcode	Error code	Log entry from the acsss_event.log or event0.log files
errorstring	Error string	Log entry from the acsss_event.log or event0.log files
source	Error source	Log entry from the acsss_event.log or event0.log files
category	Error category	Log entry from the acsss_event.log or event0.log files

Job Monitor for ACSLS

The Job Monitor function gathers information on backup jobs processed by ACSLS.

ACSLS Backups

The fields described in the following table are returned.

Table 17. ACSLS backups

Field	Description	From
name	Hostname or IP address of the ACSLS server host	The node name as configured in Data Protection Advisor
starttime	Job start time	From timed_bkup.sh.log
endtime	Job end time	From timed_bkup.sh.log
size	Size of job (in MB)	From timed_bkup.sh.log
sizescannedboffset	+/- 512KB from the size to get total size (in bytes)	From ttimed_bkup.sh.log
status	Status of the backup: Success, Failed	From timed_bkup.sh.log

ARCserve Module

The ARCserve module monitors the status of CA BrightStor ARCserve servers. Data Protection Advisor uses the ARCserve command-line tool to return and display Configuration, Status, and Job Monitor information. The ARCserve module consists of the following functions:

Topics:

- Volume Status function for ARCserve
- Job Monitor function for ARCserve

Volume Status function for ARCserve

The Volume Status function gathers data on the status of volumes in the ARCserve server. The function includes the following options:

- dateformat — Specifies the date format

volume_status for ARCserve

The fields described in the following table are returned.

Table 18. volume_status

Field	Description	From
volume_id	Unique identifier for the volume	randomid field of astape table
pool	Pool in which a volume is located	poolname field of astape table
state	Volume state: Empty, Partial, Full, Frozen, Suspended	used field of astape table
used	Amount of data written to the tape (in MB)	ttlkbwritten field of astape table
expdate	Date the volume is due to expire	expiredate field of astape table
online	Indicates if the volume is online	locatstatus field of astape table
cartridge	Type of cartridge on the volume	tapetype field of astape table
jukebox	Name of the jukebox in which a volume is located if it is online	locatid field of astape table
lastwritten	Time that a volume was last written	lastwrite field of astape table

Job Monitor function for ARCserve

The Job Monitor function gathers information about backup and restore jobs that have occurred on the ARCserve server. The function includes the following options:

- dateformat — Specifies the date format

The Job Monitor function gathers the following data:

- backupjob for ARCserve
- backupevent for ARCserve

- backup_error for ARCserve
- restorejob for ARCserve
- restoreevent for ARCserve

backupjob for ARCserve

The fields described in the following table are returned.

Table 19. backupjob

Field	Description	From
backup_servername	Backup server name	Name of the backup server as defined in Data Protection Advisor
media_server	Name of the media server on which the backup occurred	jhostname field of asjob table
group_name	Group that scheduled the backup	no field of asjob table
client_name	Name of the client that was backed up	srchostid field of astpses table
schedule_name	Name of schedule that was backed up	comment field of asjob table
job_name	Name of the file system that was backed up	srcpathid field of astpses table
status	Indicates if the backup was successful: Success, Failed	status field of astpses table
size	Amount of data that was backed up (in MB)	totalkb field of astpses table
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	totalkb field of astpses table
nfiles	Number of files that were backed up	totalfiles field of astpses table
nfilesnot	Number of files that were not backed up	totalmissed field of astpses table
jobid	ARCserve Job ID in the activity log	id field of astpses table
queuestart	Time the backup went into the backup applications queue	starttime field of asjob table
starttime	Time the ARCserve job session started	starttime field of astpses table (if available) or asjob table
endtime	Time the ARCserve job session ended	endtime field of astpses table (if available) or asjob table

backupevent for ARCserve

The fields described in the following table are returned.

Table 20. backupevent

Field	Description	From
backup_servername	Backup server name	Name of the backup server as defined in Data Protection Advisor
media_servername	Name of the media server on which the backup occurred	jhostname field of asjob table
group_name	Group that scheduled the backup	no field of asjob table

Table 20. backupevent (continued)

Field	Description	From
schedule_name	Name of the schedule that was backed up	comment field of asjob table
client_name	Name of the client that was backed up	srchostid field of astpses table
job_name	Name of the file system that was backed up	srcpathid field of astpses table
status	Indicates if the backup was successful: Success, Failed	status field of astpses table
queuestart	Time the backup went into the backup applications queue	starttime field of asjob table

backup_error for ARCserve

The fields described in the following table are returned.

Table 21. backup_error

Field	Description	From
client_name	Client name	srchostid field of astpses table
severity	Severity of the error	logtype field of aslogerr table
errorstring	Error message	logmsg field of aslogerr table

restorejob for ARCserve

The fields described in the following table are returned.

Table 22. restorejob

Field	Description	From
backup_servername	Backup server on which the restore occurred	Name of the backup server as defined in Data Protection Advisor
media_server	Media server on which the restore occurred	jhostname field of asjob table
client_name	Name of the client that was restored	srchostid field of astpses table
job_name	Name of the file system that is restored	srcpathid of astpses table
status	Status of the restore	status field of astpses table
errcode	Error code	
size	Amount of data restored	totalkb field of astpses table
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	totalkb field of astpses table
nfiles	Number of files restored	totalfiles field of astpses table
queuestart	Time the restore was requested	starttime of asjob table

restoreevent for ARCserve

The fields described in the following table are returned.

Table 23. restoreevent

Field	Description	From
backup_servername	Backup server on which the restore occurred	Name of the backup server as defined in Data Protection Advisor
media_server	Media server on which the restore occurred	jhostname field of asjob table
client_name	Name of the client that was restored	srchostid field of astpses table
job_name	Name of the file system that is restored	srcpathid of astpses table
status	Status of the restore	status field of astpses table
queuestart	Time the restore was requested	starttime of asjob table

Avamar Module

The Avamar module monitors the status of Avamar servers. Data Protection Advisor uses ODBC API calls and responses to gather Configuration, Status, and Job Monitor information. It consists of the following functions:

Topics:

- Configuration function for Avamar
- Job Monitor function for Avamar
- Status function for Avamar

Configuration function for Avamar

The Configuration function of the Avamar module gathers information about the configuration of the backup server including information about clients, policies, pools, and devices. The function includes the following options:

- *dbname*: Database name. The default value is **mcdb**.
- *dbport*: Port, on which you want to access the database. The default value is **5555**.
- *Avamar decimal capacity factor*: Identifies the capacity factor to be used in Data Protection Advisor to ensure that the capacity is similar in Avamar and Data Protection Advisor reports. If the Avamar **decimalCapacityFactor** entry value in /data01/avamar/var/mc/server_data/prefs/mcserver.xml is set to **1.075**, set this option to **1.075**.
- *Show potentially disabled VM clients and HLE containers*: Filters out disabled clients, and potentially HLE container objects. The default value is **false**.
- *Show all groups for AVAMAR client*: Shows all the groups for the specified Avamar client regardless of whether the plug-in is configured, when this option is set to **true**. The default value is **false**.
- *Show dataset value for jobname*: Enables you to specify either the dataset value or the dataset name in the **Jobname** field. The default value is **false**, which specifies the dataset name in the **Jobname** field. Setting the value to **true** specifies the dataset value in the **Jobname** field.

(i) NOTE: Scenarios, in which the value is set to false, and backups were performed without dataset names, the dataset values are automatically specified in the **Jobname** field. Example for a backup performed without a dataset name: An ondemand backup or a client-initiated backup.

The Configuration function gathers the following data:

- *bkup_server_config* for Avamar
- *bkup_server_mapping* for Avamar
- *group_config* for Avamar
- *License Usage* for Avamar
- *client_config* for Avamar
- *schedule_config* for Avamar
- *job_config* for Avamar
- *ret_policy_config* for Avamar

bkup_server_config for Avamar

The fields described in the following table are returned.

Table 24. bkup_server_config

Field	Description	From
backup_servername	Backup server name	Name of the host as defined in Data Protection Advisor .

Table 24. bkup_server_config (continued)

Field	Description	From
application	Application name	Hard coded to Avamar.
version	Version of the Avamar server	Output of the Avmaint --version command.
encryptstrength	SSL encryption type of the Avamar server	Output of Avmaint --version command.
os_type	Combined information of the platform, operating system, and processor of the Avamar server	Output of Avmaint --version command.
capacity	Total capacity of the Avamar server	capacity_mb field in the v_node_space view.
usable_capacity	Amount that can be used for storage on the Avamar server	For Avamar 4.0 and earlier: capacity_mb field in the v_node_space view. For Avamar 4.1 and later: capacity_mb and diskreadonly fields in the v_node_space view.
ip_address	IP address of the backup server	For Avamar 7.1 and later: ipaddr field in v_server_info view.
hardware_id	Hardware identifier of the backup server	For Avamar 7.1 and later: hardwareid field in v_server_info view.
hostname	FQDN of the backup server	For Avamar 7.1 and later: hostname field in config xml.

bkup_server_mapping for Avamar

The fields described in the following table are returned.

Table 25. bkup_server_mapping

Field	Description	From
client_name	Name of client	client_name field in the v_clients view
group_name	Name of group	group_name field in the v_groups view
schedule_name	Name of schedule	name field in the v_schedules view
job_name	Name of Job	Combination of the v_plugins view and the v_ds_targets view
domain_name	Name of the domain associated with the group	domain field in the v_groups view
nsr_retention_policy	Name of the group retention policy	name field in the v_groups_retention view

client_config for Avamar

The fields described in the following table are returned.

Table 26. client_config

Field	Description	From
client_name	Client name	client_name field in the v_clients view

Table 26. client_config (continued)

Field	Description	From
active	Indicates if the client is active: 1 (active)	enabled field in the v_clients view
activated	Indicates if the client is activated with the Avamar server	activated field in the v_clients view
version	Application version running on the client	agent_version field in the v_clients view
remoteip	Client IP address	client_addr field in the v_clients view
os_type	Client operating system	os_type field in the v_clients view
client_identifier	Client Identifier	cid field in the v_clients view
domain_name	Avamar domain to which the client belongs	full_domain_name field in the v_clients view
overtime	Option for overriding the group schedule duration setting for a client	overtime_option field in the v_clients view
regtime	Client registration date	registered_ts field in the v_clients view

group_config for Avamar

The fields described in the following table are returned.

Table 27. group_config

Field	Description	From
group_name	Group name	name field in the v_groups view
active	Indicates if the group is active	enabled field in the v_groups view
domain_name	Name of the domain associated with the group	domain field in the v_groups view

license_usage for Avamar

The fields described in the following table are returned.

Table 28. license_usage

Field	Description	From
usage	Estimated front-end capacity usage in GiB	The output field of the v_report_history view

schedule_config for Avamar

The fields described in the following table are returned.

Table 29. schedule_config

Field	Description	From
schedule_name	Schedule name	name field in the v_schedules view
group_name	Name of the group associated with the schedule	name field in the v_groups view
domain_name	Name of the domain associated with the schedule	domain field in the v_schedules view

Table 29. schedule_config (continued)

Field	Description	From
enabled	Indicates if scheduling is enabled	enabled field in the v_schedules view
type	Schedule type	recur_interval field in the v_schedules view
schedule_starttime	Start time of schedule	schedule_start field in the v_schedules view
schedule_endtime	End time of schedule	schedule_end field in the v_schedules view
windowstart	Start time of backup window	window_start field in the v_schedules view
windowduration	Duration of backup window	window_duration field in the v_schedules view
calendar_hours	Hours selected if using a calendar window	calendar_hours field in the v_schedules view
calendar_weekdays	Week days selected if using a calendar window	calendar_weekdays field in the v_schedules view
calendar_monthdays	Month days selected if using a calendar window	calendar_monthdays field in the v_schedules view

job_config for Avamar

The fields described in the following table are returned.

Table 30. job_config

Field	Description	From
job_name	Job name	Combination of the v_plugins view and the v_ds_targets view
client_name	Client name	client_name field in the clients view
group_name	Name of the group that the client is in that causes the backup of this Job	name field in the v_groups view
domain_name	Name of the domain associated with the group	domain field in the v_groups view

ret_policy_config for Avamar

The fields described in the following table are returned.

Table 31. ret_policy_config

Field	Description	From
name	Name of the Retention Policy	name field in the v_retention_policies view
domain_name	Avamar domain associated with the policy	domain field in the v_retention_policies view
enabled	Indicates if the policy is enabled or not	enabled field in the v_retention_policies view
readonly	Indicates if the policy is Read Only	read_only field in the v_retention_policies view

Table 31. ret_policy_config (continued)

Field	Description	From
expiration	Expiration date of the policy	Calculated from duration and unit fields in the v_retention_policies view
duration	Duration that data should be backed up	duration field in the v_retention_policies view
durationtype	Units of policy duration	unit field in the v_retention_policies view
override	Indicates if to override Basic Retention	override field in the v_retention_policies view
keepdaysdaily	Number of days of daily backups to keep	daily field in the v_retention_policies view
keepweeksweekly	Number of weeks of weekly backups to keep	weekly field in the v_retention_policies view
keepmonthsmonthly	Number of months of monthly backups to keep	monthly field in the v_retention_policies view
keepyearsyearly	Number of years of yearly backups to keep	yearly field in the v_retention_policies view

Job Monitor function for Avamar

The Job Monitor function gathers information about backup and restore jobs that have occurred on the Avamar server.

Note the following points when you use the MCDB as the source for Avamar data:

- Restarting the Avamar MCS can cause the results of *in progress* operations not to be recorded in the MCDB.
- The failure of *in progress* operations to be recorded in the MCDB causes Data Protection Advisor not to capture the result of the operation. This applies to backup or replication operations. However, this does not affect the operations that are either completed before the MCS restart or started after the MCS restart. These continue to be reported in Data Protection Advisor.

The function includes the following options:

- **dbname:** Database name. The default value is **mcdb**.
- **dbport:** Port, on which you want to access the database. The default value is **5555**.
- **Max data time range each request will gather from:** Changes the maximum amount of time the request gathers job data in one run of Jobmonitor. The default value is **86400**, which is one day in seconds. You can edit the value.
- **Show dataset value for jobname:** Enables you to specify either the dataset value or the dataset name in the **Jobname** field. The default value is **false**, which specifies the dataset name in the **Jobname** field. Setting the value to **true** specifies the dataset value in the **Jobname** field.

(i) NOTE: Scenarios, in which the value is set to false, and backups were performed without dataset names, the dataset values are automatically specified in the **Jobname** field. Example for a backup performed without a dataset name: An ondemand backup or a client-initiated backup.

The Job Monitor function gathers the following data:

- backupjob for Avamar
- backupevent for Avamar
- backup_error for Avamar
- restorejob for Avamar
- restoreevent for Avamar
- clonejob for Avamar
- clone_object for Avamar
- maintenancejob for Avamar
- application_error for Avamar

backupjob for Avamar

The fields that are described in the following table are returned.

Table 32. backupjob

Field	Description	From
backup_servername	Backup server name	Name of the host as defined in Data Protection Advisor
media_server	Name of the media server on which the backup occurred	Name of the host as defined in Data Protection Advisor
group_name	Group that scheduled the backup	group_name field in the v_activities_2 view
client_name	Name of the client that was backed up.	display_name field in the v_activities_2 view
schedule_name	Schedule that triggered the backup	schedule field in the v_activities_2 view
job_name	Name of the file system that was backed up.	Combination of the plugin_name , the display_name , and the dataset fields in the v_activities_2 view
domain_name	Name of the Avamar domain to which the client belongs	domain field in the v_activities_2 view
effective_path	Effective path of the Backup	effective_path field in the v_activities_2 view
errorcodesummary	Error summary code of the backup job	error_code_summary field in the v_activities_2 view
statuscodesummary	Status summary code of the backup job	status_code_summary field in the v_activities_2 view
pluginname	Avamar plug-in name	plugin_name field in the v_activities_2 view
status	Indicates if the backup was successful: Success, Failed	status_code a field in the v_activities_2 view i NOTE: If this value is 30,000, 30,004, 30,005, or 31,037, then the status is Success. Otherwise, the status is Failed.
errcode	Application error code associated with the Job	error_code field in the v_activities_2 view
statuscode	Application status code associated with the job	status_code field in the v_activities_2 view i NOTE: The values that are captured are from the Avamar event code.
level	Level of the backup	Hard coded to Full
size	Amount of data that was backed up (in MB)	bytes_new field in the v_activities_2 view
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	bytes_new field in the v_activities_2 view
sizescanned	Total size of the data scanned (in MB).	bytes_scanned field in the v_activities_2 view

Table 32. backupjob (continued)

Field	Description	From
sizescannedboffset	Byte offset of scanned size	bytes_scanned field in the v_activities_2 view
nfiles	Number of files that were backed up.	num_of_files field in the _2 view
nfilesnot	Number of files that were not backed up.	num_files_skipped field in the v_activities_2 view
bytesmodifiedsent	Bytes modified sent	bytes_modified_sent field in the v_activities_2 view
bytesmodifiednotsent	Bytes modified not sent	bytes_modified_not_sent field in the v_activities_2 view
expiry	Expiration date of this Job	effective_expiration field in the v_activities_2 view
jobid	Avamar Job ID in the activity log	session_id field in the v_activities_2 view
queuestart	The time the backup went into the backup applications queue	scheduled_start_ts field in the v_activities_2 view
proxy	Proxy backup host	Combination of v_clients view and v_activities_2 view
sizeprotected	Total size of protected data	bytes_protected field in the v_activities_2 view
sizeprotectedboffset	Byte offset of protected size	bytes_protected field in the v_activities_2 view
currentretention	Current retention tag	<p>original_retention field in the v_activities_2 view</p> <p>The possible values are as follows:</p> <ul style="list-style-type: none"> • Daily • Weekly • Monthly • Yearly • Combination of the above options • None
originalretention	Original retention tag	<p>current_retention field in the v_activities_2 view</p> <p>The possible values are as follows:</p> <ul style="list-style-type: none"> • Daily • Weekly • Monthly • Yearly • Combination of the above options • None

backupevent for Avamar

The fields described in the following table are returned.

Table 33. backupevent

Field	Description	From
backup_servername	Backup server name	Name of the host as defined in Data Protection Advisor
media_server	Name of the media server on which the backup occurred	Name of the host as defined in Data Protection Advisor
group_name	Group that scheduled the backup	group_name field in the v_activities_2 view
client_name	Name of the client that was backed up	client_name field in the v_activities_2 view
schedule_name	Schedule that triggered the backup	schedule field in the v_activities_2 view
job_name	Name of the file system that was backed up	Combination of the name, client_name, and the dataset fields in the v_activities_2 view
domain_name	Name of the Avamar domain to which the client belongs	domain field in the v_activities_2 view
status	Indicates if the backup was successful: Success, Failed	status_code field in the v_activities_2 view Note: If this value is 30,000 or 30,005, then the status is Success. If the value is anything else, then this value is Failed
errcode	Application error code associated with the Job	error code field in the v_activities_2 view
queuestart	Time the backup went into the backup applications queue	scheduled_start_ts field in the v_activities_2 view
proxy	Proxy backup host	Combination of v_clients view and v_activities_2 view

backup_error for Avamar

The fields described in the following table are returned.

Table 34. backup_error

Field	Description	From
backupjob_id	Avamar Job ID in the activity log	Combination of the session_id field in the v_activity_errors, v_ev_catalog, and v_activities_2 views
client_name	Name of the client that failed	Combination of the client_name field in the v_activity_errors, v_ev_catalog, and v_activities_2 views
severity	Severity of the error message	Combination of the severity field in the v_activity_errors, v_ev_catalog, and v_activities_2 views
errorstring	Error message	Combination of the summary field in the v_activity_errors, v_ev_catalog, and v_activities_2 views

restorejob for Avamar

The fields described in the following table are returned.

Table 35. restorejob

Field	Description	From
backup_servername	Backup server on which the restore occurred	Name of the host as defined in Data Protection Advisor
media_server	Media server on which the restore occurred	Name of the host as defined in Data Protection Advisor
client_name	Name of the client that was restored	client_name field in the v_activities_2 view
job_name	Name of the file system that is restored	Combination of the name, dataset, and client_name fields in the v_activities_2 view
domain_name	Name of the Avamar domain to which the client belongs	domain field in the v_activities_2 view
jobid	Job ID of the job that is restored	jobid field in the v_activities_2 view
status	Status of the restore	status_code field in the v_activities_2 view
errcode	Any error code associated with a failed restore	err_code field in the v_activities_2 view
size	Amount of data restored	bytes_new field in the v_activities_2 view
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	bytes_new field in the v_activities_2 view
sizescanned	Total size of the data scanned (in MB)	bytes_scanned field in the v_activities_2 view
sizescannedoffset	Byte offset of scanned size	bytes_scanned field in the v_activities_2 view
nfiles	Number of files restored	num_of_files field in the v_activities_2 view
queuestart	Time the restore was requested	scheduled_start_ts field in the v_activities_2 view
backupnumber	Number of the backup that is being restored	backup_number field in the v_activities_2 view
backuplabel	Name of the backup that is being restored	backup_label field in the v_activities_2 view
recordeddatetime	Timestamp of the restore	recorded_date_time field in the v_activities_2 view
numoffiles	Number of files recovered	num_of_files field in the v_activities_2 view
mbytesscanned	Number of bytes scanned	bytes_scanned field in the v_activities_2 view
pluginname	Avamar plug-in name	plugin_name field in the v_activities_2 view

restoreevent for Avamar

The fields described in the following table are returned.

Table 36. restoreevent

Field	Description	From
backup_servername	Backup server on which the restore occurred	Name of the host as defined in Data Protection Advisor
media_server	Media server on which the restore occurred	Name of the host as defined in Data Protection Advisor
client_name	Name of the client that was restored	client_name field in the v_activities_2 view
job_name	Name of the file system that is restored	Combination of the name, dataset, and client_name field in the v_activities_2 view
jobid	Unique ID of the job	jobid field in the v_activities_2 view
domain_name	Name of the Avamar domain to which the client belongs	domain field in the v_activities_2 view
status	Status of the restore	status_code field in the v_activities_2 view
queuestart	Time the restore was requested	scheduled_start_ts field in the v_activities_2 view

clonejob for Avamar

The Job Monitor function returns information about jobs for replications that have occurred on the Avamar server. The fields described in the following table are returned.

Table 37. clonejob

Field	Description	From
backup_servername	Backup server name	Node name
media_server name	Name of the backup server	Node name
cloneid	Identifier for the replication job	session_id field in the v_repl_activities view
client	Client for which replication is being performed	client_name field in the v_repl_activities view
domain_name	Name of the Avamar domain to which the client belongs	domain field in the v_repl_activities view
status	Status of the replication Job: Success, Failed	status_code field in the v_repl_activities view
errcode	Error code (if available) from the backup application	error_code field in the v_repl_activities view
size	Amount of data backed up (in MB)	bytes_modifiedfield in the v_repl_activities view
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	bytes_modified field in the v_repl_activities view
sizescanned	Total size of the data scanned (in MB)	bytes_scanned field in the v_repl_activities view

Table 37. clonejob (continued)

Field	Description	From
sizescannedboffset	Byte offset of scanned size	bytes_scanned field in the v_repl_activities view

clone_object for Avamar

The fields described in the following table are returned.

Table 38. clone_object

Field	Description	From
clonejob_id	Clone Job ID	session_id field in the v_repl_activities view
backupjob_id	Backup Job ID	session_id field in the v_activities_2 view

maintenancejob for Avamar

The fields described in the following table are returned.

Table 39. maintenancejobs

Field	Description	From
job_type	Job type: <ul style="list-style-type: none">● Garbage collection● Checkpoint maintenance● HFS check	code field in the v_event view
status	Status of the Job: Success, Failed	code field in the v_event view
jobid	Identifier for the maintenance job	event_id field in the v_event view
queuestart	Time the job started queuing	timestamp field in the v_event view
starttime	Start time of the job	timestamp field in the v_event view
endtime	End time of the job	timestamp field in the v_event view

application_error for Avamar

Only data on events of type Warning or Error is gathered. The fields described in the following table are returned.

Table 40. application_error

Field	Description	From
appid	Application Identifier	Hard coded to Avamar
errcode	Error code	code field in the v_event view
errorstring	Error string	summary field in the v_event view
severity	Severity	severity field in the v_event view
type	Event type	type field in the v_event view
source	Source of the event	source field in the v_event view
domain	Domain of the event	domain field in the v_event view

Table 40. application_error (continued)

Field	Description	From
category	Category of the event	category field in the v_event view
starttime	Start time of the event	timestamp field in the v_event view
endtime	End time of the event	timestamp field in the v_event view

Status function for Avamar

The Status function gathers information about the status of the Avamar server and Avamar garbage collection. The function includes the following options:

- dbname — Database name. The default value is mcdb.
- dbport — Port on which to access the database. The default value is 5555.
- Avamar decimal capacity factor — Identifies the decimal capacity factor with which to use in Data Protection Advisor to ensure that the capacity is similar in Avamar and Data Protection Advisor reports. If the Avamar *decimalCapacityFactor* entry value in /data01/avamar/var/mc/server_data/prefs/mcserver.xml is set to 1.075, then set the Data Protection Advisor this option to 1.075.

The Status function gathers the following data:

- [bkup_server_status for Avamar](#)
- [gc_status for Avamar](#)
- [avamar_audit for Avamar](#)

[bkup_server_status for Avamar](#)

The fields described in the following table are returned.

Table 41. bkup_server_status

Field	Description	From
utilisation	Percentage utilization of the Avamar server	utilization field in the v_node_space view
used	Server space used (in MB)	used_mb field in the v_node_space view

[gc_status for Avamar](#)

Garbage collection data is only gathered for Avamar version 5. The fields described in the following table are returned.

Table 42. gc_status

Field	Description	From
node_count	Number of Avamar nodes involved in the garbage collection process	node_count field in the v_gcstatus view
idxstr_processed	Number of index stripes processed by the garbage collection process	indexstripes_processed field in the v_gcstatus view
idxstr_total	Total number of index stripes	indexstripes_total field in the v_gcstatus view
mb_recovered	Number of bytes recovered by the garbage collection process	bytes_recovered field in the v_gcstatus view
mb_recovered_boffset	Recovered offset	bytes_recovered field in the v_gcstatus view

Table 42. gc_status (continued)

Field	Description	From
chunks_deleted	Number of chunks deleted by the garbage collection process	chunks_deleted field in the v_gcstatus view
result	Status code for the garbage collection process	gcstatusid field in the v_gcstatus view
gcid	Unique ID for the garbage collection process	result_code field in the v_gcstatus view
starttime	Time the collection process started	start_time field in the v_gcstatus view
endtime	Time the collection process ended	end_time field in the v_gcstatus view

avamar_audit for Avamar

Garbage collection data is only gathered for Avamar version 5. The fields described in the following table are returned.

Table 43. avamar_audit

Field	Description	From
domain_name	Domain associated with the changed object	domain field in the v_audits view
user	User that changed the object	user_name field in the v_audits view
object	Object that changed: SCHEDULE, GROUP, DOMAIN, CLIENT, DATASET, USER	object field in the v_audits view
operation	Type of change	operation field in the v_audits view

Backup Exec Module

The Backup Exec module monitors the status of Veritas Backup Exec servers. Data Protection Advisor uses ODBC API calls and responses to gather Configuration, Status, Job Monitor, and Volume Status information. Note that *Duplications* in Backup Exec are treated as *Clones* in Data Protection Advisor. The Backup Exec module consists of the following functions:

Topics:

- Configuration function for Backup Exec
- Status function for Backup Exec
- Volume Status function for Backup Exec
- Job Monitor function for Backup Exec

Configuration function for Backup Exec

The Configuration function of the Backup Exec module gathers information about the configuration of the backup server including information about clients, policies, pools, and devices. The function includes the following options:

- dbserver — Specifies the database server instance

The Configuration function gathers the following data:

- bkup_server_config for Backup Exec
- bkup_server_mapping for Backup Exec
- group_config for Backup Exec
- client_config for Backup Exec
- job_config for Backup Exec
- jukebox_config for Backup Exec
- device_config for Backup Exec
- bkup_pool_config for Backup Exec

bkup_server_config for Backup Exec

The fields described in the following table are returned.

Table 44. bkup_server_config

Field	Description	From
backup_servername	Backup server name	Name of the node to which the request is assigned
application	Application name	Hard coded to Backup Exec
version	Application version	Version table
schedule_name	Schedule name	Schedule attribute of the NSR client resource
nsr_retention_policy	Name of the group retention policy	Retention policy attribute of the NSR client resource

bkup_server_mapping for Backup Exec

The fields described in the following table are returned.

Table 45. backup_server_mapping

Field	Description	From
client_name	Client name	resource table
group_name	Group name	jobs table
job_name	Job name	resource table

group_config for Backup Exec

The fields described in the following table are returned.

Table 46. group_config

Field	Description	From
group_name	Group name	jobs table
active	Indicates if the group is active: 1 (active)	Hard coded to True
group_name	Backup Exec group name	JobHistorySummary table

client_config for Backup Exec

The fields that are described in the following table are returned.

Table 47. client_config

Field	Description	From
client_name	Client name	Resource table
client_identifier	Client ID. Physical name of client	Resource table
active	Indicates if the group is active: 1 (active)	Hard coded to True
version	Client version	Client version
remoteip	Client IP address	TCP/IP address
os_type	Client operating system	Platform
contact	Client admin. Text string of information identifying the client node	Contact
os_version	Client operating system version	Client OS level
regtime	Client registration date	Registration date/time
lastacctime	Time last accessed	Last access date/time
pwset_time	Time password was set	Password set date/time
invalid_pw_count	Number of invalid password entries	Invalid sign-on count
compression	Indicates if compression is enabled	
archdelete	Indicates if archive deletion is permitted	Archive delete allowed
backdelete	Indicates if backup deletion is permitted	Backup delete allowed
locked	Indicates if the client node is locked	Locked

Table 47. client_config (continued)

Field	Description	From
reg_admin	Name of the administrator who registered the client	Registering administrator
option_set	Option set for the client specified on the BackupExec server	Option set
aggregation		
url	URL for the web client	URL
nodetype	Type of client node: Client, Server, NAS	Node type
passexp	Number of days after which a password expires	Password expiration period
keep_mp	Indicates if the client can keep mount points during a session	Keep mount point
max_mp_allowed	Maximum number of mount points permitted for a client in a session	Maximum Mount Points Allowed
auto_fs_rename	Indicates if BackupExec prompts the client to rename file spaces when the client system upgrades to a client that supports Unicode	Auto filespace rename
validateprotocol	Indicates if the client has data validation enabled	Validate protocol
guid	Globally unique identifier (GUID) of the client node	Globally unique ID
txngroupmax	Maximum number of files or directories that can be contained in a transaction group	Transaction group max
datareadpath	Transfer path when sending data: <ul style="list-style-type: none">● LAN path only● LAN-free path only● Any path	Data read path
datawritepath	Transfer path when receiving data: <ul style="list-style-type: none">● LAN path only● LAN-free path only● Any path	Data write path
sessioninitiation	Initiator of session: server or client, or server only	Session initiation
client_hla	High level address of the NAS file server (IP address or domain name)	High level address
client_lln	Low level address of the NAS file server (port number)	Low level address
collocgroup_name	Indicates that collocation is enabled for the client	Collocation group name
proxy_target	Specifies which nodes are proxy nodes (agents) for other nodes	Proxynode target
compression_loc	Indicates where the compression is performed	Compression
deduplication	Indicates where the data is deduplicated: ClientOrServer, ServerOnly	Deduplication

Table 47. client_config (continued)

Field	Description	From
replication_state	Indicates whether the node is enabled for replication	QUERY node type=any f=d call
replication_mode	Indicates whether the node is configured as the source of or target for replicated data. If this field is blank, the node is not configured for replication.	QUERY node type=any f=d call
backup_repl_rule	The replication rule that applies to backup, archive, and space-managed data that belongs to the node.	QUERY node type=any f=d call
archive_repl_rule	The replication rule that applies to backup, archive, and space-managed data that belongs to the node.	QUERY node type=any f=d call
space_mgmt_repl_rule	The replication rule that applies to backup, archive, and space-managed data that belongs to the node.	QUERY node type=any f=d call
activated	Indicates if the client is activated with the BackupExec server	Activated field in the v_clients view

job_config for Backup Exec

The fields described in the following table are returned:

Table 48. job_config

Field	Description	From
job_name	Job name. Name of the entry in the file list	resource table
client_name	Client name	resource table
group_name	Name of the group in which the client is located	jobs table

jukebox_config for Backup Exec

The fields described in the following table are returned.

Table 49. jukebox_config

Field	Description	From
jukebox_name	Jukebox logical name	charger table
num_devices	Number of devices in the jukebox	charger table
num_slots	Number of slots in the jukebox	charger table

device_config for Backup Exec

The fields described in the following table are returned.

Table 50. device_config

Field	Description	From
device_host	Host name that controls the device	device table

Table 50. device_config (continued)

Field	Description	From
device_name	Device name	device table
device_path	Path used to access the device	machinedevice table
device_class	Class of device: Tape, Disk	device table
device_type	Specific type of device. For example, LTO	device table
nsr_resource_id	Resource identifier for the BackupExec server	Resource identifier attribute of the NSR resource
read_only	Indicates if the drive is configured as readonly: Yes, No	Read only attribute of the NSR device resource
targetsessions	Number of target sessions	Target sessions field of the NSR device resource
maxsessions	Maximum number of sessions	Max sessions field of the NSR device resource
sendrecvtimeout	Send and Receive timeout	Sent/Receive Timeout field of the NSR device resource
numretries	Number of retries	Number of Retries field of the NSR device resource
netretryint	Network failure retry interval (in seconds)	Network Failure Retry Interval field of the NSR device resource
compression	Indicates if compression is enabled	Compression field of the NSR device resource
encryption	Indicates if encryption is enabled	Encryption field of the NSR device resource
maxerrors	Max errors	Max consecutive errors field of the NSR device resource
device_access	Device access information	Device access information field of the NSR device resource

bkup_pool_config for Backup Exec

The fields described in the following table are returned.

Table 51. bkup_pool_config

Field	Description	From
masterservername	Name of the node that is monitored	Name of the node to which the request is assigned
poolname	Pool name	mediaset table
pooltype	Pool type	Pool type attribute from NSR pool resource
description	Pool description	Comment attribute from NSR pool resource
device_class	Device class associated with the storage pool	Device class name
est_capacity	Amount of estimated space of the backup pool	Estimated capacity

Table 51. bkup_pool_config (continued)

Field	Description	From
est_capacity_GB	Amount of estimated space of the backup pool (in GB)	Estimated capacity
high_mig_pct	Value at which the BackupExec server automatically starts migration for this storage pool. This value is determined when the number of volumes containing data reaches this percentage of the total number of volumes in the storage pool. The total number of volumes includes the maximum number of scratch volumes.	High Mig Pct
low_mig_pct	Value at which the BackupExec server stops migration for this storage pool. This value is determined when the number of volumes containing data reaches this percentage of the total number of volumes in the storage pool	Low Mig Pct
next_storage_pool	Primary storage pool to which files are migrated	Next storage pool
reclaim_storage_pool	Primary storage pool as a target for reclaimed data from this storage pool	Reclaim storage pool
max_size_threshold	Maximum size for a physical file that the server can store in the storage pool	Maximum size threshold
overflow_location	Overflow location for the storage pool	Overflow location
cache_migrated_files	Indicates if the migration process leaves a cached copy of a file in this storage pool after migrating the file to the next storage pool	Cache migrated files
collocate	Indicates if the server attempts to keep data belonging to a single client node, group of client nodes, or client file space stored on as few volumes as possible	Collocate
reclamation_threshold	Indicates if the server attempts to keep data belonging to a single client node, group of client nodes, or client file space stored on as few volumes as possible	Reclamation threshold
offsite_reclamation_limit	Number of offsite volumes to have their space reclaimed during reclamation for this storage pool	Offsite reclamation limit
max_scratch_volumes	Maximum number of scratch volumes that the server can request for this storage pool. Valid values are between 0 and 100000000	Maximum scratch volumes allowed
delay_period_for_reuse	Number of days that must elapse after all files are deleted from a volume before the volume can be rewritten or returned to the scratch pool	Delay period for volume reuse
updated_by	User ID of the user who updated the pool	Last update by administrator
updated	Date and time change is made to the backup pool	Last update date/time

Table 51. bkup_pool_config (continued)

Field	Description	From
storage_pool_data_format	Data format to use to back up files to this storage pool and restore files from this storage pool	Data format
copy_storage_pools	Names of copy storage pools where the server simultaneously writes data	Copy storage pools
crc_data	Indicates if a cyclic redundancy check (CRC) validates storage pool data when audit volume processing occurs on the server	CRC data
access	Specifies how client nodes and server processes (such as migration and reclamation) can access files in the storage pool. Valid values include: <ul style="list-style-type: none">• READWrite - Specifies that client nodes and server processes can read and write to files stored on volumes in the storage pool• READOnly - Specifies that client nodes can only read files from the volumes in the storage pool• UNAvailable - Specifies that client nodes cannot access files stored on volumes in the storage pool	Access
enabled	Indicates if the pool is enabled and considered for selection	Enabled attribute in NSR pool resource
archive_only	Indicates if the pool is set for archiving	Archive attribute in NSR pool resource
label_template	Template that is to be used when labeling volumes in this pool	Label template attribute in NSR pool resource
retention_policy	Retention policy associated with the backup pool. Retention policies determine how long a volume is protected from being overwritten	Retention policy attribute in NSR pool resource
groups	Groups that are required to enter into the backup pool	Groups attribute in NSR pool resource
clients	Clients that are required to enter into the backup pool	Clients attribute in NSR pool resource
job_names	Jobs that are allowed in the backup pool	Save sets attribute in NSR pool resource
levels	Levels that are required to enter into the backup pool	Levels attribute in NSR pool resource
devices	Devices on which volumes are allowed to be mounted	Devices attribute in NSR pool resource
store_index_entries	Indicates if file index entries are generated for the backup pool	Store index entries attribute in NSR pool resource
auto_media_verify	Indicates if automated verification is performed while data is being written to a volume from the backup pool	Auto media verify attribute in NSR pool resource
recycle_to_pools	Indicates if recyclable volumes can be used by other pools	Recycle to other pools attribute in NSR pool resource
recycle_from_pools	Indicates if backup pool can recycle volumes from other pools	Recycle from other pools attribute in NSR pool resource

Table 51. bkup_pool_config (continued)

Field	Description	From
vol_type_pref	Selection factor when a request is made for a writable volume. Preferred type is considered first within a priority level	Volume type preferences attribute in NSR pool resource
max_parallelism	Number of parallel sessions per device allowed when saving to this backup pool	Max parallelism attribute in NSR pool resource
mount_class	Class of mount requests for media belonging to the pool or for media being added to this pool	Mount class attribute in NSR pool resource
worm_pool	Indicates if this pool uses WORM tapes and only WORM tapes	WORM pool attribute in NSR pool resource
dlt_worm	Indicates if any tapes labelled in this WORM pool are initialized as DLWORM tapes, assuming that they are in DLWORM capable drives	Create DLTWORM attribute in NSR pool resource
barcode_prefix	Barcodes with this prefix value are selected for the pool	Barcode prefix attribute in NSR pool resource
pool_host	Name of the host that is permitted to request and use volumes in this volume pool	Returned from the result of running the vmpool command
pool_user	User ID of the user who is permitted to request and use volumes in the volumepool. The default is -1 (ANY) to allow any user to access volumes in this pool	Returned from the result of running the vmpool command
pool_group	Group ID of the group that is permitted to request and use volumes in this volume pool	Returned from the result of running the vmpool command
dedupdata	Indicates if data in the storage pool is deduplicated: Yes, No	Deduplicate data
num_identify_proc	Number of duplicate identification processes that are specified as the default for the storage pool	Processes for identifying duplicates
data_dedup_by_clnt	Indicates if the storage pool contains data that was deduplicated by clients: Yes, No	Contains data deduplicated by clients

Status function for Backup Exec

The Status function gathers information from the Backup Exec server on the status of devices. The function includes the following options:

- dbserver — Specifies the database server instance

device_status for Backup Exec

The fields described in the following table are returned.

Table 52. device_status

Field	Description	From
device_host	Name of the device that controls the device	device table
device_name	Device name	device table
status	Device status: Up, Down, Service Mode	machinedevice table
errors	Current error count of the device	errors table
volume_id	Name of the volume currently mounted in the device	media table

Volume Status function for Backup Exec

The Volume Status function gathers data on the status of volumes in the Backup Exec server. The function includes the following options:

- dbserver — Specifies the database server instance

volume_status for Backup Exec

The fields described in the following table are returned.

Table 53. volume_status

Field	Description	From
volume_id	Unique identifier for a volume	media table
pool	Pool in which a volume is located	mediaset table
state	State of a volume: Empty, Partial, Full, Frozen, Suspended	media table
used	Amount of data written to the tape (in MB)	media table
retention	Retention period of the volume	mediaset table
expdate	Date the volume is due to expire	Combination of values from the mediaset table
online	Indicates if the volume is online	media table
cartridge_type	Cartridge type. For example, DLT, LTO	mediatype table
capacity	Capacity of the cartridge	mediatype table
jukebox	Name of the jukebox in which a volume is located if it is online	changer table
slot	Slot that a volume is in if it is online	media table
lastwritten	Time that a volume was last written	media table
firstwritten	Indicates when the volume was first written	media table
nummounts	Number of times the volume has been mounted	media table

Table 53. volume_status (continued)

Field	Description	From
expiry_flag	Indicates if a volume has expired	Combination of values from the mediaset table

Job Monitor function for Backup Exec

The Job Monitor function gathers information about backup, restore, and duplication jobs that have occurred on the Backup Exec server. The function includes the following options:

- dbserver — Specifies the database server instance

The Job Monitor function gathers the following data:

- [backupjob for Backup Exec](#)
- [backupevent for Backup Exec](#)
- [backup_error for Backup Exec](#)
- [restorejob for Backup Exec](#)
- [restoreevent for Backup Exec](#)
- [backup_media for Backup Exec](#)
- [clonejob for Backup Exec](#)
- [clone_object for Backup Exec](#)
- [clone_media for Backup Exec](#)
- [groupevent for Backup Exec](#)
- [groupjob for Backup Exec](#)

backupjob for Backup Exec

The fields described in the following table are returned.

Table 54. backupjob

Field	Description	From
backup_servername	Backup server name	Name of the node to which the requests are assigned
media_server	Name of the media server on which the backup occurred	datapartition table
group_name	Group that scheduled the backup	jobhistorysummary table
client_name	Name of the client that was backed up	servers table
job_name	Name of the file system that was backed up	resource table
status	Indicates if the backup was successful: Success, Failed	jobhistorydetail table
errcode	Application error code associated with the Job	jobhistorydetail table
level	Backup level	backupjobinstance table
size	Amount of data that was backed up (in MB)	jobhistorydetail table
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	jobhistorydetail table
nfiles	Number of files that were backed up	jobhistorydetail table

Table 54. backupjob (continued)

Field	Description	From
nfilesnot	Number of files that were not backed up	jobhistorydetail table
jobid	Backup Exec Job ID in the activity log	jobhistorydetail table
queuestart	Time the backup went into the backup applications queue	jobhistorysummary table

backupevent for Backup Exec

The fields described in the following table are returned.

Table 55. backupevent

Field	Description	From
backup_servername	Backup server name	Name of the node to which the requests are assigned
media_server	Name of the media server on which the backup occurred	datapartition table
group_name	Group that scheduled the backup	jobhistorysummary table
client_name	Name of the client that was backed up	servers table
job_name	Name of the file system that was backed up	resource table
status	Indicates if the backup was successful: Success, Failed	jobhistorydetail table
errcode	Application error code associated with the Job	jobhistorydetail table
queuestart	Time the backup went into the backup applications queue	jobhistorysummary table

backup_error for Backup Exec

The fields described in the following table are returned.

Table 56. backup_error

Field	Description	From
backupjob_id	Job ID in the activity log	jobhistorydetail table
client_name	Name of the client that failed	servers table
errorstring	Error message	jobhistorydetail table

restorejob for Backup Exec

The fields described in the following table are returned.

Table 57. restorejob

Field	Description	From
backup_servername	Backup server on which the restore occurred	Node name to which the requests are assigned

Table 57. restorejob (continued)

Field	Description	From
media_server	Media server on which the restore occurred	datapartition table
client_name	Name of the client that was restored	servers table
job_name	Name of the file system that is restored	resource table
errcode	Any error code associated with a failed restore	jobhistorydetail table
size	Amount of data restored	jobhistorydetail table
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	jobhistorydetail table
nfiles	Number of files restored	jobhistorydetail table
queuestart	Time the restore was requested	jobhistorysummary table
jobid	Backup Exec Job ID in the activity log	jobhistorydetail table
session	Session ID for the session	
starttime	Time the restore started to write into the destination device	jobhistorysummary table
endtime	Time the restore finished writing into the destination device	jobhistorysummary table

restoreevent for Backup Exec

The fields described in the following table are returned.

Table 58. restoreevent

Field	Description	From
backup_servername	Backup server on which the restore occurred	Node name to which the requests are assigned
media_server	Media server on which the restore occurred	datapartition table
client_name	Name of the client that was restored	servers table
job_name	Name of the file system that is restored	resource table
status	Restore status	jobhistorydetail table
queuestart	Time the restore was requested	jobhistorysummary table
session	Session ID for the session	
jobid	Backup Exec Job ID in the activity log	jobhistorydetail table
starttime	Time the restore started to write into the destination device	jobhistorysummary table

backup_media for Backup Exec

The fields described in the following table are returned.

Table 59. backup_media

Field	Description	From
backupjob_id	Backup job ID	jobhistorydetail table
volume_id	Volume to which the Job was backed up	media table
starttime	Time the backup started to write into the destination device	jobhistorysummary table
endtime	Time the backup finished writing into the destination device	jobhistorysummary table

clonejob for Backup Exec

The fields described in the following table are returned.

i **NOTE:** Duplication job data is not gathered for Backup Exec 9.1.

Table 60. clonejob

Field	Description	From
backup_servername	Backup server on which the duplication occurred	Node name to which the requests are assigned
media_server	Media server name	jobhistorysummary table
Duplication name	Duplication Job name	jobhistorysummary table
Duplication ID	Duplication backup job ID	jobhistorysummary table
status	Duplication job status: Success, Failed	jobhistorydetail table
errcode	Error code (if available) from the backup application	jobhistorysummary table
size	Amount of data backed up (in MB)	jobhistorysummary table
sizescannedboffset	Byte offset of scanned size	jobhistorydetail table

clone_object for Backup Exec

The fields described in the following table are returned.

i **NOTE:** Duplication job data is not gathered for Backup Exec 9.1.

Table 61. clone_object

Field	Description	From
Duplication Job ID	Duplication job ID	jobhistorydetail table
backupjob_id	Backup job ID	jobhistorydetail table
status	Duplication job status: Success, Failed	jobhistorydetail table

clone_media for Backup Exec

The fields described in the following table are returned.

i | NOTE: Duplication job data is not gathered for Backup Exec 9.1.

Table 62. clone_media

Field	Description	From
Duplication jobid	Duplication backup job ID	jobhistorydetail table
volume_id	Unique identifier for the volume	media table

groupevent for Backup Exec

The fields described in the following table are returned.

Table 63. groupevent

Field	Description	From
group_name	Backup Exec group name	JobHistorySummary table
status	Group status: Queued, Running, Completed, Null	JobHistorySummary table
groupstart	Time the group started	JobHistorySummary table
groupend	Time the group ended (for completed groups)	JobHistorySummary table

groupjob for Backup Exec

The fields described in the following table are returned.

Table 64. groupjob

Field	Description	From
group_name	Backup Exec group name	JobHistorySummary table
status	Group job status: Success, Failure	JobHistorySummary table
app_status	Application status: Success, Cancelled, Missed, Exec, Run	JobHistorySummary table
groupstart	Time the group job started	JobHistorySummary table
starttime	Time the group job started to write into the destination device	jobhistorysummary table
endtime	Time the group job finished writing into the destination device	jobhistorysummary table

Cluster Module

The Cluster module monitors the status of VCS (Veritas Cluster Server) and MSCS (Microsoft Cluster Server) clusters. Data Protection Advisor uses WMI and OS-specific commands to gather Configuration and Status data. It consists of the following functions:

Topics:

- Configuration function for clusters
- Status function for clusters

Configuration function for clusters

The Configuration function gathers the following data:

- `cluster_config`
- `cluster_host_config`
- `cluster_filesystem_config`

`cluster_config`

The fields described in the following table are returned.

Table 65. Cluster configuration

Field	Description	VCS	MSCS
clustername	Logical name of the cluster	Output from haclus	From MSCluster_Cluster class of WMI
type	Cluster software type	Hard coded to VCS	Hard coded to MSCS

`cluster_host_config`

The fields described in the following table are returned.

Table 66. Cluster node configuration

Field	Description	VCS	MSCS
clustername	Logical name of the cluster	Output from haclus	From MSCluster_Cluster class of WMI
name	Host name for a cluster node	Output from hasys	From MSCluster_Node class of WMI
version	Version of cluster application	Output from hasys	From MSCluster_Node class of WMI
provider	Resource host	Output from hasys	From MSCluster_Node class of WMI

cluster_filesystem_config

The fields described in the following table are returned.

Table 67. Cluster filesystem configuration

Field	Description	VCS	MSCS
clustername	Logical name of the cluster	Output from haclus	From MSCluster_Cluster class of WMI
type	Type of the filesystem	Output from hares	From MSCluster_Resource class of WMI
device	Full path to disk partition	Output from hares	From MSCluster_DiskPartition class of WMI
mountpoint	Physical location in the partition used as a root filesystem	Output from hares	From MSCluster_DiskPartition class of WMI
total_space	Total available space	Output from df	From MSCluster_DiskPartition class of WMI

Status function for clusters

The Status function gathers information of the cluster. The Status function returns the following information:

- [cluster_status](#)
- [cluster_host_status](#)
- [cluster_filesystem_status](#)

cluster_status

The fields described in the following table are returned.

Table 68. Cluster status

Field	Description	VCS	MSCS
clustername	Logical name of the cluster	Output from haclus	From MSCluster_Cluster class of WMI
active_host	Name of the active node in the cluster	Output from vxdctl	From MSCluster_NodeToActiveResource class of WMI
state	Cluster state	Output from haclus	From MSCluster_Cluster class of WMI

cluster_host_status

The fields described in the following table are returned.

Table 69. Cluster node status

Field	Description	VCS	MSCS
clustername	Logical name of the cluster	Output from haclus	From MSCluster_Cluster class of WMI
name	Host name for a cluster node	Output from hasys	From MSCluster_Node class of WMI

Table 69. Cluster node status (continued)

Field	Description	VCS	MSCS
state	State of a cluster node	Output from haclus	From MSCluster_Node class of WMI

cluster_filesystem_status

The fields described in the following table are returned.

Table 70. Cluster filesystem status

Field	Description	VCS	MSCS
clustername	Logical name of the cluster	Output from haclus	From MSCluster_Cluster class of WMI
state	State of a resource	Output from haclus	From MSCluster_Resource class of WMI
mountpoint	Physical location in the partition used as a root filesystem	Output from hares	From MSCluster_DiskPartition class of WMI
free_space	Free space available	Output from df	From MSCluster_DiskPartition class of WMI
total_space	Total available space	Output from df	From MSCluster_DiskPartition class of WMI

CommVault Module

The CommVault module monitors the status of CommVault servers. Data Protection Advisor uses ODBC API calls and responses to gather Configuration, Status, Job Monitor, Volume Status and Occupancy information. The CommVault module consists of the following functions:

Topics:

- Configuration function for CommVault
- Status function for CommVault
- Volume Status function for CommVault
- Job Monitor function for CommVault
- Client Occupancy function for CommVault

Configuration function for CommVault

The Configuration function of the CommVault module gathers information about the configuration of the backup server including information about clients, policies, pools, and devices. The function includes the following options:

- dbserver — Specifies the database server instance

The Configuration function gathers the following data:

- bkup_server_config for CommVault
- bkup_server_mapping for CommVault
- group_config for CommVault
- client_config for CommVault
- schedule_config for CommVault
- job_config for CommVault
- jukebox_config for CommVault
- device_config for CommVault
- bkup_pool_config for CommVault

bkup_server_config for CommVault

The fields described in the following table are returned.

Table 71. bkup_server_config

Field	Description	From
backup_servername	Backup server name	name field from APP_Client table
application	Application name	Hard Coded as <i>Commvault</i>
version	Application version	<i>Client Version</i> attribute from APP_ClientProp table
Install Date	Installation date of the server software	installTime field from simClientAppsV2 table
os_type	Application operating system	Type field from simOperatingSystem table
Operation System version	Operating system version	release field from simOS table

bkup_server_mapping for CommVault

The fields described in the following table are returned.

Table 72. bkup_server_mapping

Field	Description	From
client_name	Client name	name field from client table
group_name	Group name	name field from AppClientGroup table
schedule_name	Schedule name	name field from schedTemplate table
job_name	Job name	Constructed from data in the application table. If no data is returned from the id field, the value in the subclientName field is used.
backup_set	Backup set	name field from APP_BackupSetName or backupSetName tables

group_config for CommVault

The fields described in the following table are returned.

Table 73. group_config

Field	Description	From
group_name	Group name	name field from AppClientGroup table
active	Indicates if the group is active: 1 (active)	Hard coded to 1

client_config for CommVault

The fields described in the following table are returned.

Table 74. client_config

Field	Description	From
client_name	Client name	name field from APP_Client table
active	Indicates if the client is active: 1 (active)	offlineEntity field from APP_Client table
version	Client version	<i>Client Version</i> attribute from APP_ClientProp table
os_type	Client operating system	Type field from simOperatingSystem table
os_version	Client operating system version	<i>Sim OS Info</i> attribute from APP_ClientProp table
client_identifier	Client ID. Physical name of client	same as Client name

schedule_config for CommVault

The fields described in the following table are returned:

Table 75. schedule_config

Field	Description	From
schedule_name	Schedule name	name field from schedTemplate table
group_name	Name of the group with which the schedule is associated	name field from AppClientGroup table

job_config for CommVault

The fields described in the following table are returned:

Table 76. job_config

Field	Description	From
job_name	Job name. Name of the entry in the file list	Constructed from data in the application table. If no data is returned from the id field, the value in the subclientName field is used.
client_name	Client name	name field from client table
backup_set	Backup set	name field from APP_BackupSetName or backupSetName table
group_name	Name of the group in which the client is located	name field from AppClientGroup table

jukebox_config for CommVault

The fields described in the following table are returned.

Table 77. jukebox_config

Field	Description	From
jukebox_host	Host from which the jukebox is controlled	name field from client or APP_Client table
jukebox_name	Jukebox logical name	AliasName field from MMS2Library table. If no data is returned from this field, the value in the DriveName field in the MMS2Library table is used.
num_devices	Number of devices in the jukebox	TotalDrives field from MMS2MasterPool table
num_slots	Number of slots in the jukebox	Sum of entries of SlotID field in MMS2Slot table

device_config for CommVault

The fields described in the following table are returned.

Table 78. device_config

Field	Description	From
device_host	Host referred to by ClientId	From (MMS2HostToDrivePool INNER JOIN MMS2Host ON MmHostId)
device_name	Device name	DriveName field from MMS2Drive table
device_alias	Alternate device name. Alias for the drive, if it exists	AliasName field from MMS2Drive
hardware_id	Hardware ID	SerialNumber field from MMS2Drive table
device_path	Path used to access the device	AccessPath field from MMS2DriveToDriveController table
device_class	Class of device: Tape, Disk, Optical	TypeofDrive field from MMS2DriveType table
device_type	Specific type of device. For example, LTO	DriveTypeName field from MMS2DriveType
jukebox_name	Name of the jukebox on the device	AliasName field from MMS2Library table. If no data is returned from this field, the value in the DriveName field in the MMS2Library table is used.
firmware	Device firmware revision	FirmwareRevision field from MMS2Drive table

bkup_pool_config for CommVault

The fields described in the following table are returned.

Table 79. bkup_pool_config

Field	Description	From
masterservername	Name of the node that is monitored	Node name as defined in the Data Protection Advisor Navigation tree
poolname	Pool name	name field from archGroup table

Status function for CommVault

The Status function gathers information from the CommVault server on the status of devices. The function includes the following options:

- dbserver — Specifies the database server instance

device_status for CommVault

The fields described in the following table are returned.

Table 80. device_status

Field	Description	From
Media Server	Media server name	name field client table
device_host	Host referred to by ClientId	From (MMS2HostToDrivePool INNER JOIN MMS2Host ON MmHostId)
device_name	Device name	DriveName field from MMS2Drive table
status	Device status: Up, Down	DriveNumber field and DriveEnabled field from MMS2Drive table
errors	Current error count of the device	NumHardErrsLifeTime field from table
volume_id	Volume ID	VolumeName field from MMS2Volume or MMVolume table
Mounted Volume	Name of the volume currently mounted in the device	VolumeName field from MMS2Volume table
throughput	Throughput of the drive (MB/second)	ReadThroughputMBsec field and WriteThroughputMBsec field from MMS2Drive table

Volume Status function for CommVault

The Volume Status function gathers data on the status of volumes in the CommVault server. The function includes the following options:

- dbserver — Specifies the database server instance

volume_status for CommVault

The fields described in the following table are returned.

Table 81. volume_status

Field	Description	From
pool	Pool in which a volume is located	name field from archGroup table
state	Volume state: Empty, Partial, Full, Frozen, Suspended	VolumeState field from MMS2Volume table
used	Amount written to tape (in MB)	combination of TotalSpaceMB and FreeBytesMB fields from MMS2Volume or MMVolume table
expdate	Expiration date	retentionExpireTime field from MMS2Volume , MMS2Media, or MMVolume, MMMedia table
online	Indicates if the volume is online	Medialocation field from MMS2Media table
jukebox	Indicates if jukebox tape is in	LibraryName or AliasName field from MMS2Library or MMLibrary table
slot	Slot that a volume is in if it is online	SlotName field from MMS2Slot table

Table 81. volume_status (continued)

Field	Description	From
lastwritten	Indicates the last time volume was written	LastBackupTime field from MMS2Media or MMMedia table
nummounts	Number of times that a volume has been mounted	NumberOfMounts field from MMS2MediaSide table
firstlabelled	Indicates when a volume was first labelled	CreationTime field from MMS2Volume or MMVolume table
cartridge_type	Media type	TypeOfMedia field in MMS2MediaType table
capacity	Media capacity (in MB)	TotalSpaceMB field of MMS2Volume or MMVolume table
barcode	Barcode	BarCode field from MMS2Media or MMMedia table

Job Monitor function for CommVault

The Job Monitor function gathers information about backup and restore jobs that have occurred on the CommVault server. The function includes the following options:

- Application Version — CommVault version
- Max data time range each request will gather from — Changes the maximum amount of time the request gathers job data in one run of Jobmonitor. Default is 86400, which is one day in seconds. The value is configurable.
- dbserver — Specifies the database server instance
- setBackupJobsWithErrsToSuccess — If set to *true*, Data Protection Advisor reports CommVault backup jobs that were completed with *Completed w/one or more errors* status as successful jobs.

The Job Monitor function gathers the following data:

- [backupjob](#) for CommVault
- [backupevent](#) for CommVault
- [backuperror](#) for CommVault
- [restorejob](#) for CommVault
- [restoreevent](#) for CommVault
- Backup media for CommVault

backupjob for CommVault

The fields that are described in the following table are returned.

Table 82. backupjob

Field	Description	From
backup_servername	Backup server name	Name of the node as defined in the Data Protection Advisor Navigation tree
media_server	Name of the Media Server on which the backup occurred	shortMediaAgent field from jobInfoTable table
group_name	Group that scheduled the backup	name field from AppClientGroup table
client_name	Name of the client that was backed up.	name field from client table
job_name	Name of the file system that was backed up.	Constructed from data in the application table.

Table 82. backupjob (continued)

Field	Description	From
		If no data is returned from the id field, the value in the subclientName field is used.
status	Job status	status field from JMBkpStats table
level	Backup level	bkpLevel field from JMBkpJobInfo table
size	Amount backed up	sizeOnMedia field from JMJobDataStats table
sizescanned	Total size of the data scanned (in MB).	totalUncompBytes field from JMBkpStats table
sizeoffset	Number of bytes (positive or negative) that should be added to the size field to return the Job size (in bytes)	Amount of bytes backed up minus the total size of the data scanned
sizescannedoffset	Byte offset of scanned size	totalUncompBytes field from JMBkpStats table
nfiles	Number of files backed up	totalNumOfFiles field from JMBkpStats table
nfilesnot	Number of files not backed up	backupFileFailures field from JMBkpStats table
expiry	Expiry of data backed up by this job	retentionDays field from archAgingRule table
jobid	Application specific ID for the job	jobId field from JMBkpStats table
pool	Pool name	name field from ArchGroup table
queuestart	Queue time	servStartDate field from JMBkpStats table
backup_set	Name of the group of subclients in CommVault	name field from backupsetname table
schedule_name	Name of schedule that was backed up.	name field from schedTemplate table
error	Error associated with backup	failureReason field from JMBkpStats table
sizetransferred	Size that is transferred from client to server. If dedupe is at client, then size that is scanned is greater than transferred. If dedupe is at server, then transferred and scanned is greater than size	nwTransBytes field from JMBkpStats table
sizetransferredoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	nwTransBytes field from JMBkpStats table

backupevent for CommVault

The fields described in the following table are returned.

Table 83. backupevent

Field	Description	From
backup_servername	Backup server name	Name of the node as defined in the Data Protection Advisor Navigation tree

Table 83. backupevent (continued)

Field	Description	From
media_server	Name of the media server on which the backup occurred	shortMediaAgent field from jobInfoTable table
group_name	Group that scheduled the backup	name field from AppClientGroup table
schedule_name	Name of the schedule that was backed up	name field from schedTemplate table
client_name	Name of the client that was backed up	name field from client table
job_name	Name of the file system that was backed up	Constructed from data in the application table. If no data is returned from the id field, the value in the subclientName field is used.
errorcode	Error associated with backup	failureReason field from JMBkpStats table
queuestart	Queue time	servStartDate field from JMBkpStats table

backuperror for CommVault

The fields described in the following table are returned.

Table 84. backuperror

Field	Description	From
backupjod_id	Backup job ID	Value of id_h and id_l fields in the jobInfoTable table
client_name	Client name on which the error took place	name field from client table
errorstring	Error message	failureReason field from JMBkpStats table

restorejob for CommVault

The fields described in the following table are returned.

Table 85. restorejob

Field	Description	From
backup_servername	Backup server on which the restore occurred	Name of the node as defined in the Data Protection Advisor Navigation tree
media_server	Media Server on which the restore occurred	shortMediaAgent field in the JobInfoTable table
client_name	Name of the client that was restored	name field of the client table
job_name	Name of the file system that is restored	Constructed from data in the application table. If no data is returned from the id field, the value in the subclientName field is used.
status	Job status	status field from JMRestoreStats table

Table 85. restorejob (continued)

Field	Description	From
errcode	Error associated with backup	failureReason field from JMBkpStats table
size	Amount backed up	totUncompBytes_h and totUncompBytes_l fields from JMRestoreStats table
nfiles	Number of files backed up	totSuccess_h and totSuccess_l fields from JMRestoreStats table
queuestart	Queue time	servStartTime field from JMRestoreStats table
sizeoffset	Byte offset of size	totUncompBytes_h and totUncompBytes_l fields from JMRestoreStats table
jobid	Job ID	jobId field from JMRestoreStats table

restoreevent for CommVault

The fields described in the following table are returned.

Table 86. restoreevent

Field	Description	From
backup_servername	Backup server on which the restore occurred	Name of the node as defined in the Data Protection Advisor Navigation tree
media_server	Media server on which the restore occurred	shortMediaAgent field in the JobInfoTable table
client_name	Name of the client that was restored	name field of the client table
job_name	Name of the file system that is restored	Constructed from data in the application table. If no data is returned from the id field, the value in the subclientName field is used.
status	Job status	state field from JMJobinfo table
queuestart	Queue time	jobStartTime field from JMJobinfo table
job_id	Job ID	jobId field from JMJobinfo table

Backup media for CommVault

The fields described in the following table are returned.

Table 87. Backup media

Field	Description	From
volume_id	Name of the backup media	Volumeld of the MMVolume table.

Client Occupancy function for CommVault

The Client Occupancy function gathers information about overall data protected for clients that is available from the CommVault server. The function includes the following options:

- dbserver — Specifies the database server instance

The Client Occupancy function gathers the following data:

- [client_occupancy for CommVault](#)

client_occupancy for CommVault

The fields described in the following table are returned:

Table 88. Client occupancy

Field	Description	From
client_name	Client Name	name field of the APP_Client table
filespace	Backup set name	name field of the APP_BackupSetName table
pool	Backup pool name	name field of the archGroup table
files	Number of files	Sum of totalNumOfFiles and totalNumOfFolders fields of JMBkpStats table
physical	Physical size of data stored	physicalSize field of the archFileCopy table
logical	Logical size of data stored	logicalSize field of the archFileCopy table

Enterprise Apps for DB2, Oracle RMAN, SQL Server, and SAP HANA

Data Protection Advisor supports DD Boost for Enterprise Applications (DDBEA) for DB2, Oracle RMAN, Microsoft SQL Server, and SAP HANA. Data Protection Advisor does not support Oracle in a RAC setup which is using scan. Data Protection Advisor uses ODBC API calls to gather data for Enterprise Application Job Monitor requests. The module consists of the following functions:

Topics:

- Job Monitor function for DB2
- Job Monitor Recovery Catalog function for Oracle RMAN
- Job Monitor Control File function for Oracle RMAN
- Backup Sets Recovery Catalog function for Oracle RMAN
- Backup Sets Control File function for Oracle RMAN
- Microsoft SQL Server Job Monitor function
- SAP HANA Job Monitor function

Job Monitor function for DB2

The Job Monitor function information about backup and restore. The credentials that Data Protection Advisor uses to log into DB2 must access the **DB_HISTORY** administrative view of the DB2 database to retrieve data.

The function includes the following options:

- database port — Port on which to access the database. The default value is 50000.
- Max data time range each request will gather from - Sets the max amount of data to gather in one request run. Defaults to one day.

The Job Monitor function gathers the following data:

- Backupjob for DB2
- Backup event for DB2
- Backupmedia for DB2
- Backupmedia for DB2
- Restorejob for DB2
- Restoreevent for DB2

Backupjob for DB2

The fields described in the following table are returned.

Table 89. Backupjob

Field	Description	From
Backup_servername	Backup server name	Name of the DB2 database server
client_name	Client_name is the hostname	Name of the DB2 database server
job_id	Backup job ID	EID column
queuestart	Time the backup went into the queue	START_TIME column
starttime	Time the backup started to write into the destination device	START_TIME column

Table 89. Backupjob (continued)

Field	Description	From
endtime	Time the backup finished writing into the destination device	END_TIME column
level	Backup level is mapped as: F, N = Full I, O = Incr D, E = Delta	OPERATIONTYPE column DB2 Operation types are: D = delta offline E = delta online F= offline I = incremental offline N = online O= incremental online
app_type	App type is mapped as: D, F, I = Offline E, N, O = Online	OPERATIONTYPE column
Status	Indicates if the backup was Successful or Failed.	SQLCODE column SQLCODE = 0: execution was successful (successful state) SQLCODE > 0: execution was successful with a warning (successful state) SQLCODE < 0: execution was not successful (failed state)

Backup event for DB2

The fields described in the following table are returned.

Table 90. Backupevent

Field	Description	From
backup_servername	Name of the backup server	Name of the DB2 database server
client_name	Host name	Name of the DB2 database server
queuestart	Time the backup went into the backup queue	START_TIME column
starttime	Time the backup started to write into the destination device	START_TIME column
endtime	Time the backup finished writing into the destination device	END_TIME column
status	Indicates if the backup is Started or Completed	SQLCODE column On start of backup, <i>started</i> entry is created. When backup is successful or failed, <i>completed</i> entry is created.

Backupmedia for DB2

The fields described in the following table are returned.

Table 91. Backupmedia

Field	Description	From
backupjob_id	ID of the backup job	Foreign key to backup_job table
volume_id	Full path name for files, such as backup images	LOCATION column
type	Identifier for the device type	DEVICETYPE column

backup_error for DB2

The fields described in the following table are returned.

Table 92. backup_error

Field	Description	From
backupjob_id	ID of the backup job	Foreign key to the backup_job table
errorstring	Error message	SQLCODE column; populated when SQLCODE < 0 (execution failed)

Restorejob for DB2

The fields described in the following table are returned:

Table 93. Restorejob

Field	Description	From
backup_servername	Backup Server name	Name of the DB2 database server
client_name	Host name	Name of the DB2 database server
jobid	Restore identifier	EID column
Queuestart	Time the restore went into the queue	START_TIME column
Starttime	Time the restore session started to write into the destination device	START_TIME column
Endtime	Time the restore session finished writing into the destination device	END_TIME column
Status	Indicates if the restore was Successful or Failed	SQLCODE column SQLCODE = 0: Execution was successful (successful state) SQLCODE > 0: Execution was successful with a warning (successful state) SQLCODE < 0: Execution was not successful (failed state)

Restoreevent for DB2

The fields described in the following table are returned:

Table 94. Restoreevent

Field	Description	From
backup_servername	Backup server name	Name DB2 database server
client_name	Host name	Name DB2 database server
queuestart	Time the restore went into the queue.	START_TIME column
starttime	Time the restore started to write into the destination device	START_TIME column
endtime	Time the restore finished writing into the destination device	END_TIME column
Status	Indicates if the restore is Successful or Completed	SQLCODE column On start of restore, <i>started</i> entry is created. When restore is successful or failed, <i>completed</i> entry is created.

Job Monitor Recovery Catalog function for Oracle RMAN

The Job Monitor Recovery Catalog function of the RMAN module gathers information about backup and restores completing from an RMAN recovery catalog. The function includes the following options:

- Oracle TNS Listener Port—Port of the database to connect to if you are not using tnsnames. The default is 1521.
- RMAN schema—User of DB Objects owner from the RMAN database.
- Single DB query—Collects all data at once instead of separate call per DB.
- Max data time range each request will gather from — Sets the maximum amount of time the request gathers job data in one run of Jobmonitor. Default is 86400, which is one day in seconds. The value is configurable.

The function is valid for the following: Group, Database

The Job Monitor Recovery function gathers the following data:

- [restoreJob for Oracle RMAN for Recovery Catalog function](#)
- [Backup Job Job Monitor Recovery for Oracle RMAN](#)
- [Backup event Job Monitor Recovery for Oracle RMAN](#)
- [Media Job Monitor Recovery for Oracle RMAN](#)

The *Data Protection Advisor Installation and Administration Guide* provides information on credentials required to collect data from Oracle databases and RMAN.

restoreJob for Oracle RMAN for Recovery Catalog function

The fields described in the following table are returned:

Table 95. restoreJob

Field	Description	From
f_backup_servername	Backup Server name	user specified SID in Oracle rc_rman_status view
f_client_name	Name of the database that was restored	db_id :db_name in Oracle rc_rman_status view
f_job_name	The name of the RMAN job.	operation in Oracle rc_rman_status view

Table 95. restoreJob (continued)

Field	Description	From
f_status	<p>The status of the operation. Possible values are:</p> <ul style="list-style-type: none"> • COMPLETED - Job completed successfully - no warnings or errors during execution. • COMPLETED WITH WARNINGS- Job completed successfully, but there were some warning messages during execution. For example, a warning message like the following: RMAN-05019: WARNING: no channel of required type allocated to recover copy of data file1 • COMPLETED WITH ERRORS - Job completed successfully, but there were some errors which were overcome using failover features. For example, RESTORE FAILOVER or BACKUP FAILOVER was used to schedule the job on another channel. • FAILED - Job failed. • RUNNING - Job is executing and there are no errors or warnings during execution so far. • RUNNING WITH ERRORS - Job is executing with error messages. • RUNNING WITH WARNINGS - Job is executing with warning messages. 	status (converted to Data Protection Advisor style - "success"/"failed") in Oracle rc_rman_status view
f_size_scanned	Total size of the backup	output_bytes rounded to MB in Oracle rc_rman_status view
f_offset	Number of bytes that should be added or subtracted from the Sizescanned field to return the Job size (in bytes)	offset in bytes for MB rounded size scanned in Oracle rc_rman_status view
f_queuestart	Time the restore Job went into the queue	start_time in Oracle rc_rman_status view
f_starttime	Time the restore session started	start_time in Oracle rc_rman_status view
f_endtime	Time the restore session completed	end_time in Oracle rc_rman_status view
f_session	Session ID of the session which is running this RMAN operation	job_key/session_recid in Oracle rc_rman_status view
f_size	Amount of data that was backed up (in MB)	input_bytes rounded to MB in Oracle rc_rman_status view
f_size_scanned_offset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	offset in bytes for MB rounded size in Oracle rc_rman_status view
f_mbytes_scanned	If the operation represented by this row performed some data transfer (such as backing up or restoring data), then this column contains the number of megabytes processed in this operation. Otherwise this row contains NULL.	mbytes_processed in Oracle rc_rman_status view

Backup Job Job Monitor Recovery for Oracle RMAN

The fields described in the following table are returned.

Table 96. Backup Job

Field	Description	From
Server	Name of the backup server	Name of the node in the Navigation tree
client_name	Name of the client that was backed up	Combination of the database ID within the recovery catalog and the SID of the database in the database table
Job	Name of the file system that was backed up	name field in the datafile table
Status	Indicates the status of the backup: NULL, Success, Failure (not Oracle 9)	status field in the backup_set table
Media server	Backup host information only for DDBEA backups	Backup host as a part of channel information in rc_rman_configuration
level	Level of the backup	backup_type field in the backup_set table
size	Amount of data that was backed up (in MB)	Combination of the block field and block_size field in the backup_set table
sizescannedboffset	Byte offset of scanned size	Combination of the block field and block_size field in the backup_set table
expiry	Indicates if a Job has expired	keep_until field in the backup_set table or the protection policy setting from rman configuration
queuestart	Time the backup went into the backup applications queue	start_time field in the backup_set table
Plugin Name	Combination of default device type and SBT driver information only for DDBEA backups	Default device type value and as a part of channel information in the rc_rman_configuration table
sizescanned	The backup protected size in MB	bkupprotsize field of the v\$backup_controlfile_details view.
sizescannedboffset	The backup protected size bytes offset	bkupprotsize field of the rc_backup_controlfile_details view or rc_backup_spfile_details view
session	Backup session identifier	session_key field in the rc_backup_datafile_details table, rc_backup_controlfile_details table, rc_backup_archivelog_details table, and rc_backup_spfile_details
app_type	RMAN backup type	backup_type field in the backup_set table
storage id	The filename of the backup piece	handle field in the rc_backup_piece view.

Backup event Job Monitor Recovery for Oracle RMAN

The fields described in the following table are returned.

Table 97. Backup event

Field	Description	From
Server	Name of the backup server	Name of the node in the Navigation tree
client_name	Name of the client that was backed up	Combination of the database ID within the recovery catalog and the SID of the database in the database table
Job	Name of the file system that was backed up	name field in the datafile table
Status	Indicates the status of the backup: NULL, Success, Failure	status field in the backup_set table
queuestart	Time the backup went into the backup applications queue	start_time field in the backup_set table

Media Job Monitor Recovery for Oracle RMAN

The fields described in the following table are returned.

Table 98. Media

Field	Description	From
Job ID	Job ID in the activity log	name field in the datafile table
volume	Volume to which the Job was backed up	handle or media field in the backup_piece table

Job Monitor Control File function for Oracle RMAN

The Job Monitor Control File function gathers information about backup and restores completing from a control file. The function includes the following options:

- Oracle TNS Listener Port—Port of the database to connect to if you are not using tnsnames. The default is 1521.
- RMAN schema—User of DB Objects owner from the RMAN database.
- Single DB query—Collects all data at once instead of separate call per DB.
- Max data time range each request will gather from—Sets the maximum amount of time the request gathers job data in one run of Jobmonitor. Default is 86400, which is one day in seconds. The value is configurable.

The function is valid for the following: Group, Database

The Job Monitor Control File function gathers the following data:

- [Backup Job Job Monitor Control File for Oracle RMAN](#)
- [Backup event Job Monitor Control File for Oracle RMAN](#)
- [Media Job Monitor Control File for Oracle RMAN](#)

The *Data Protection Advisor Installation and Administration Guide* provides information on credentials required to collect data from Oracle databases and RMAN.

restoreJob for Oracle RMAN for Control File function

The fields described in the following table are returned:

Table 99. restoreJob

Field	Description	From
f_backup_servername	Backup Server name	user specified SID in Oracle rc_/_v\$rman_status view
f_client_name	Name of the client that was restored	db_id :db_name in Oracle rc_/_v\$rman_status view
f_job_name	The name of the RMAN job.	operation in Oracle rc_/_v\$rman_status view
f_status	<p>The status of the operation. Possible values are:</p> <ul style="list-style-type: none"> • COMPLETED - Job completed successfully - no warnings or errors during execution. • COMPLETED WITH WARNINGS - Job completed successfully, but there were some warning messages during execution. For example, a warning message like the following: RMAN-05019: WARNING: no channel of required type allocated to recover copy of data file1 • COMPLETED WITH ERRORS - Job completed successfully, but there were some errors which were overcome using failover features. For example, RESTORE FAILOVER or BACKUP FAILOVER was used to schedule the job on another channel. • FAILED - Job failed. • RUNNING - Job is executing and there are no errors or warnings during execution so far. • RUNNING WITH ERRORS - Job is executing with error messages. • RUNNING WITH WARNINGS - Job is executing with warning messages. 	status (converted to Data Protection Advisor style - "success"/"failed") in Oracle rc_/_v\$rman_status view
f_size_scanned	Total size of the backup	output_bytes rounded to MB in Oracle rc_/_v\$rman_status view
f_offset	Number of bytes that should be added or subtracted from the Sizescanned field to return the Job size (in bytes)	offset in bytes for MB rounded size scanned in Oracle rc_/_v\$rman_status view
f_queuestart	Time the restore Job went into the queue	start_time in Oracle rc_/_v\$rman_status view
f_starttime	Time the restore session started	start_time in Oracle rc_/_v\$rman_status view
f_endtime	Time the restore session completed	end_time in Oracle rc_/_v\$rman_status view
f_session	Session ID of the session which is running this RMAN operation	job_key/session_recid in Oracle rc_/_v\$rman_status view
f_size	Amount of data that was backed up (in MB)	input_bytes rounded to MB in Oracle rc_/_v\$rman_status view

Table 99. restoreJob (continued)

Field	Description	From
f_sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	offset in bytes for MB rounded size in Oracle rc_/_v\$rmn_status view
f_mbytesscanned	Percentage of the job completed; null if not applicable for the operation	mbytes_processed in Oracle rc_/_v\$rmn_status view

Backup Job Job Monitor Control File for Oracle RMAN

The fields described in the following table are returned.

Table 100. Backup Job

Field	Description	From
Server	Name of the backup server	Name of the node in the Navigation tree
client_name	Name of the client that was backed up	Combination of the name of the node in the Navigation tree and the name field in the v\$database view
Job	Name of the file system that was backed up	name field in the v\$datafile view
Status	Indicates the status of the backup: NULL, Success, Failure (not Oracle 9)	status field in the v\$backup_set view
level	Level of the backup	backup_type field in the v\$backup_datafile view
size	Amount of data that was backed up (in MB)	Combination of the block field and block_size field in the v\$backup_datafile view
sizescannedoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	Combination of the block field and block_size field in the v\$backup_datafile view
expiry	Indicates if a Job has expired	keep_until field in the v\$backup_set view or the protection policy setting from rman configuration
queuestart	Time the backup went into the backup applications queue	start_time field in the v\$backup_set view
sizescanned	The backup protected size in MB	bkupprotsize field of the v\$backup_datafile_details view.
sizescannedoffset	The backup protected size bytes offset	bkupprotsize field of the v\$backup_datafile_details view
storage id	The filename of the backup piece	handle field of the v\$backup_piece view

Backup event Job Monitor Control File for Oracle RMAN

The fields described in the following table are returned.

Table 101. Backup event

Field	Description	From
Server	Name of the backup server	Name of the node in the Navigation tree

Table 101. Backup event (continued)

Field	Description	From
client_name	Name of the client that was backed up	Combination of the name of the node in the Navigation tree and the name field in the v\$database table
Job	Name of the file system that was backed up	name field in the v\$datafile table
Status	Indicates the status of the backup: NULL, Success, Failure	status field in the v\$backup_set table
queuestart	Time the backup went into the backup applications queue	start_time field in the v\$backup_set table

Media Job Monitor Control File for Oracle RMAN

The fields described in the following table are returned.

Table 102. Media

Field	Description	From
Job ID	Job ID in the activity log	name field in the v\$datafile table
volume	Volume to which the Job was backed up	handle or media field in the v\$backup_piece table

Backup Sets Recovery Catalog function for Oracle RMAN

The Backup Sets Recovery Catalog function of the RMAN module gathers information about backup sets and corresponding backup pieces from an RMAN recovery catalog. The function includes the following options:

- Oracle TNS Listener Port — Port of the database to connect to if you are not using tnsnames. The default is 1521.
- Max data time range each request will gather from — Sets the maximum amount of data to gather in one request run. Defaults to one day.

The Backup Sets Recovery Catalog functions gathers the following data:

- [Backup set Recovery for Oracle RMAN](#)
- [Backup piece Recovery for Oracle RMAN](#)

Backup set Recovery for Oracle RMAN Recovery catalog

The fields described in the following table are returned.

Table 103. Backup set

Field	Description	From
device_type	Device type on which the backup is stored	device_type field in the rman_backup_set_detail table
compressed	Indicates whether the backup piece is compressed. The agent will return a number value: 0 - No, 1 - Yes	compressed field in the rman_backup_set_detail table
num_copies	Number of identical copies	num_copies field in the rman_backup_set_detail table

Table 103. Backup set (continued)

Field	Description	From
output_size	Size of the backup set (in MB)	output_bytes field in the rman_backup_set_detail table
output_size_offset	Number of bytes that should be added or subtracted from the output_size field to return the size of the backup set (in bytes)	output_bytes field in the rman_backup_set_detail table
input_size	Amount of data backed up when the backup set was created (in MB)	original_input_bytes field in the rman_backup_set_detail table
input_size_offset	Number of bytes that should be added or subtracted from the input_size field to return the amount of data backed up when the backup set was created (in bytes)	original_input_bytes field in the rman_backup_set_detail table
compression_ratio	The ratio between the total blocks in the datafile and the blocks that RMAN backed up	compression_ratio field in the rman_backup_set_detail table
input_rate	Number of bytes read per second when backup set was initially created (in MB)	original_inprate_bytes field in the rman_backup_set_detail table
input_rate_offset	Number of bytes that should be added or subtracted from the input_rate field to return the number of bytes read per second when backup set was initially created (in bytes)	original_inprate_bytes field in the rman_backup_set_detail table
output_rate	Number of bytes written per second when the backup set was initially created (in MB)	output_rate_bytes field in the rman_backup_set_detail table
output_rate_offset	Number of bytes that should be added or subtracted from the input_rate field to return the number of bytes written per second when the backup set was initially created (in bytes)	output_rate_bytes field in the rman_backup_set_detail table
encrypted	Indicates if backupset is encrypted: 0 - No, 1 - Yes	output_rate_bytes field in the rman_backup_set_detail table
backed_by_osb	Indicates if backup was done to Oracle Secure Backup: 0 - for otherwise, 1 - for Oracle Secure Backup	backed_by_osb field in the rman_backup_set_detail table. the field appears in rman since version 11.
db_name	The DB_NAME of the database incarnation to which this record belongs	db_name field in the rman_backup_set_detail table
backup_set_recid	Backup set record ID	bs_key field in the rman_backup_set table
backup_type	Type of files that are in this backup. The value L meant for archived redo logs, D meant for datafile full backup and the value I meant for incremental backup	backup_type field in the rman_backup_set table
controlfile_included	Indicates if there is a control file included in this backup set: 0 - No, 1 - Yes	controlfile_included field in the rman_backup_set table
controlfile_type	Control file type in this backup set: NONE - backup set does not include a backup control file, BACKUP - backup set includes a normal backup control	controlfile_included field in the rman_backup_set table

Table 103. Backup set (continued)

Field	Description	From
	file, STANDBY - backup set includes a standby control file	
incremental_level	Location where this backup set fits into the database's backup strategy. Possible values are: "full datafile" or "incremental" or "archivelog"	incremental_level field in the rman_backup_set table
pieces	Number of distinct backup pieces in the backup set	pieces field in the rman_backup_set table
starttime	Time the backup set started	start_time field in the rman_backup_set table
endtime	Time the backup set completed	completion_time field in the rman_backup_set table
block_size	Block size of the backup set	block_size field in the rman_backup_set table
input_file_scan_only	Indicates if actual backup is performed : 1 - indicates no actual backup is performed, but the datafiles are read. 0 - indicates a normal backup is performed	input_file_scan_only field in the rman_backup_set table
keep	Indicates whether this backup set has a retention policy that is different than the value for the configure retention policy : 0 - No, 1 - Yes	keep field in the rman_backup_set table
keep_until	Indicates the date after which the backup becomes obsolete. If this column is not specified, then the backup never expires	keep_until field in the rman_backup_set table
keep_options	Additional retention options for this backup set. Possible values are: LOGS - the logs need to recover this backup are kept, NOLOGS - the logs needed to recover this backup will not be kept	keep_options field in the rman_backup_set table

Backup piece Recovery for Oracle RMAN Recovery catalog

The fields described in the following table are returned.

Table 104. Backup piece

Field	Description	From
backup_piece_recid	The primary key for the backup piece in the recovery catalog	bp_key field in the rman_backup_piece table
backup_set_recid	Backup set record ID	bs_key field in the rman_backup_set table
handle	Backup piece handle identifies the backup piece on restore	handle field in the rman_backup_piece table
media	Name of the media on which the backup piece resides	media field in the rman_backup_piece table
compressed	Indicates whether the backup piece is compressed or not: 0 - No, 1 - Yes	compressed field in the rman_backup_piece table

Table 104. Backup piece (continued)

Field	Description	From
piece_number	Backup piece number (1-N)	piece_number field in the rman_backup_piece table
starttime	Time the backup piece started	start_time field in the rman_backup_piece table
endtime	Time the backup piece completed	completion_time field in the rman_backup_piece table
size	Size of the backup piece (in MB)	size field in the rman_backup_piece table
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return size of the backup piece	size field in the rman_backup_piece table
media_pool	The media pool in which the copy resides. This is the same value that was entered in the POOL operand of the Recovery Manager backup command	media_pool field in the rman_backup_piece table
comments	Comment returned by the operating system or storage subsystem	comments field in the rman_backup_piece table
concur	Indicates whether the piece on a media that can be accessed concurrently: 0 - No, 1 - Yes	concur field in the rman_backup_piece table
tag	TAG - Backup piece tag. The tag is specified at backup set level but stored at piece level	tag field in the rman_backup_piece table
is_recovery_dest_file	Indicates whether the file was created in the flash recovery area or not: 0 - No, 1 - Yes	is_recovery_dest_file field in the rman_backup_piece table
encrypted	Indicates whether this backup piece is encrypted or not: 0 - No, 1 - Yes (version 11.2 or later only)	encrypted field in the rman_backup_piece table
backed_by_osb	Indicates whether this backup piece was done to Oracle Secure Backup: 0 - No, 1 - Yes (version 11.2 or later only)	backed_by_osb field in the rman_backup_piece table
same_endian	Indicates whether this backup piece has the same endianess as the current database or not: 0 - No, 1 - Yes (version 12.1.0.2 or later only)	same_endian field in the rman_backup_piece table
con_id	The ID of the container to which the data pertains. Possible values include: <ul style="list-style-type: none">• 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs• 1: This value is used for rows containing data that pertain to only the root• n: Where n is the applicable container ID for the rows containing data (version 12.1.0.2 or later only)	con_id field in the rman_backup_piece table

Backup Sets Control File function for Oracle RMAN

The Backup Sets Control File function of the RMAN module gathers information about backup sets and corresponding backup pieces from a control file. The function includes the following options:

- Oracle TNS Listener Port — Port of the database to connect to if you are not using tnsnames. The default is 1521.
- Max data time range each request will gather from — Sets the maximum amount of data to gather in one request run. Defaults to one day.

The Backup Sets Control File functions gathers the following data:

- [Backup set Control File for Oracle RMAN](#)
- [Backup piece Control File for Oracle RMAN](#)

Backup set Control File for Oracle RMAN Recovery catalog

The fields described in the following table are returned.

Table 105. Backup Set

Field	Description	From
device_type	Device type on which the backup is stored	device_type field in the v\$backup_set_detail table
compressed	Indicates whether the backup piece is compressed. The agent will return a number value: 0 - No, 1 - Yes	compressed field in the v\$backup_set_detail table
num_copies	Number of identical copies	num_copies field in the v\$backup_set_detail table
output_size	Size of the backup set (in MB)	output_bytes field in the v\$backup_set_detail table
output_size_offset	Number of bytes that should be added or subtracted from the output_size field to return the size of the backup set (in bytes)	output_bytes field in the v\$backup_set_detail table
input_size	Amount of data backed up when the backup set was created (in MB)	original_input_bytes field in the v\$backup_set_detail table
input_size_offset	Number of bytes that should be added or subtracted from the input_size field to return the amount of data backed up when the backup set was created (in bytes)	original_input_bytes field in the v\$backup_set_detail table
compression_ratio	The ratio between the total blocks in the datafile and the blocks that rman backed up	compression_ratio field in the v\$backup_set_detail table
input_rate	Number of bytes read per second when backup set was initially created (in MB)	original_inprate_bytes field in the v\$backup_set_detail table
input_rate_offset	Number of bytes that should be added or subtracted from the input_rate field to return the number of bytes read per second when backup set was initially created (in bytes)	original_inprate_bytes field in the v\$backup_set_detail table
output_rate	Number of bytes written per second when the backup set was initially created (in MB)	output_rate_bytes field in the v\$backup_set_detail table
output_rate_offset	Number of bytes that should be added or subtracted from the input_rate field to	output_rate_bytes field in the v\$backup_set_detail table

Table 105. Backup Set (continued)

Field	Description	From
	return the number of bytes written per second when the backup set was initially created (in bytes)	
encrypted	Indicates if backupset is encrypted: 0 - No, 1 - Yes	output_rate_bytes field in the v\$backup_set_detail table
backed_by_osb	Indicates if backup was done to oracle secure backup: 0 - for otherwise, 1 - for Oracle secure backup	backed_by_osb field in the v\$backup_set_detail table. The field appears in rman since version 11
db_name	The db_name of the database incarnation to which this record belongs	db_name field in the v\$backup_set_detail table
backup_set_recid	Backup set record ID	bs_key field in the v\$backup_set table
backup_type	Type of files that are in this backup. The value L meant for archived redo logs, D meant for datafile full backup and the value I meant for incremental backup	backup_type field in the v\$backup_set table
controlfile_included	Indicates if there is a control file included in this backup set: 0 - No, 1 - Yes.	controlfile_included field in the v\$backup_set table
controlfile_type	Control file type in this backup set: NONE - backup set does not include a backup control file, BACKUP - backup set includes a normal backup control file, STANDBY - backup set includes a standby control file	controlfile_included field in the v\$backup_set table
incremental_level	Location where this backup set fits into the database's backup strategy Possible values are: "full datafile" or "incremental" or "archivelog".	incremental_level field in the v\$backup_set table
pieces	Number of distinct backup pieces in the backup set	pieces field in the v\$backup_set table
starttime	Time the backup set started	start_time field in the v\$backup_set table
endtime	Time the backup set completed	completion_time field in the v\$backup_set table
block_size	Block size of the backup set	block_size field in the v\$backup_set table
input_file_scan_only	Indicates if actual backup is performed : 1 - indicates no actual backup is performed, but the datafiles are read. 0 - indicates a normal backup is performed	input_file_scan_only field in the v\$backup_set table
keep	Indicates whether this backup set has a retention policy that is different than the value for the configure retention policy : 0 - No, 1 - Yes	keep field in the v\$backup_set table
keep_until	Indicates the date after which the backup becomes obsolete. If this column is not specified, then the backup never expires	keep_until field in the v\$backup_set table
keep_options	Additional retention options for this backup set. Possible values are: LOGS - the logs need to recover this backup	keep_options field in the v\$backup_set table

Table 105. Backup Set (continued)

Field	Description	From
	are kept, NOLOGS - the logs needed to recover this backup will not be kept	
con_id	The ID of the container to which the data pertains. Possible values include: <ul style="list-style-type: none"> • 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs • This value is used for rows containing data that pertain to only the root • n: Where n is the applicable container ID for the rows containing data (version 12.1.0.2 or later only) 	con_id field in the v\$backup_set_details table
multi_section	Indicates whether this backupset is a multi-section backup : 0 - No, 1 - Yes (version 10.2 or later only)	multi_section field in the v\$backup_set table

Backup piece Control File for Oracle RMAN Recovery catalog

The fields described in the following table are returned.

Table 106. Backup Piece

Field	Description	From
backup_piece_recid	Backup piece record ID	bp_key field in the v\$backup_piece table
backup_set_recid	Backup set record ID	bs_key field in the v\$backup_set table
handle	Backup piece handle identifies the backup piece on restore	handle field in the v\$backup_piece table
media	Name of the media on which the backup piece resides. This value is informational only; not needed for restore	media field in the v\$backup_piece table
compressed	Indicates whether the backup piece is compressed or not: 0 - No, 1 - Yes	compressed field in the v\$backup_piece table
piece_number	Backup piece number (1-N)	piece_number field in the v\$backup_piece table
starttime	Time the backup piece started	start_time field in the v\$backup_piece table
endtime	Time the backup piece completed	completion_time field in the v\$backup_piece table
size	Size of the backup piece (in MB)	size field in the v\$backup_piece table
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return size of the backup piece	size field in the v\$backup_piece table
media_pool	The media pool in which the copy resides. This is the same value that was entered in the POOL operand of the Recovery Manager backup command	media_pool field in the v\$backup_piece table
comments	Comment returned by the operating system or storage subsystem	comments field in the v\$backup_piece table

Table 106. Backup Piece (continued)

Field	Description	From
concur	Indicates whether the piece on a media that can be accessed concurrently: 0 - No, 1 - Yes	concur field in the v\$backup_piece table
tag	TAG - Backup piece tag. The tag is specified at backup set level but stored at piece level	tag field in the v\$backup_piece table
is_recovery_dest_file	Indicates whether the file was created in the flash recovery area or not: 0 - No, 1 - Yes	is_recovery_dest_file field in the v\$backup_piece table
backed_by_vss	Indicates whether the file has been backed up by Volume Shadow Copy Service (VSS): 0 - No, 1 - Yes (version 11.2 or later only)	backed_by_vss field in the v\$backup_piece table
encrypted	Indicates whether this backup piece is encrypted or not: 0 - No, 1 - Yes (version 11.2 or later only)	encrypted field in the v\$backup_piece table
backed_by_osb	Indicates whether this backup piece was done to Oracle Secure Backup: 0 - No, 1 - Yes (version 11.2 or later only)	backed_by_osb field in the v\$backup_piece table
for_xtts	Indicates whether this backup piece is a cross platform: 0 - No, 1 - Yes (version 12.1.0.2 or later only)	for_xtts field in the v\$backup_piece table
same_endian	Indicates whether this backup piece has the same endianess as the current database or not: 0 - No, 1 - Yes (version 12.1.0.2 or later only)	same_endian field in the v\$backup_piece table
con_id	The ID of the container to which the data pertains. Possible values include: <ul style="list-style-type: none"> • 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs • 1: This value is used for rows containing data that pertain to only the root • n: Where n is the applicable container ID for the rows containing data (version 12.1.0.2 or later only) 	con_id field in the v\$backup_piece table

Microsoft SQL Server Job Monitor function

Data Protection Advisor uses API calls and responses to gather Job Monitor information. The credentials that the module uses to log into Microsoft SQL server need to access the following tables of msdb database:

- backupset
- backupfile
- restorehistory
- restorefile

Perform the following steps before running the job monitor data collection request:

1. Select the Microsoft SQL instance and click on the job monitor request.
2. Click **Gather historical data** and edit the port number.
3. Run the job monitor data collection request.

To find the port number for a particular Microsoft SQL instance:

1. Run Microsoft SQL Server Configuration Manager.
2. Expand **SQL Server Network Configuration**.
3. Select the instance's protocol (for example, Protocols for Lab_02).
4. On the right pane, select **TCP/IP**.
5. Right-click **TCP/IP**, and select **Properties**.
6. In the **Properties** window, click **IP Addresses** and scroll to **IPAll** to view the port number.

The Job Monitor function returns the following information:

- Backupjob for Microsoft SQL Server
- Backupevent for Microsoft SQL Server
- restoreJob for Microsoft SQL Server
- Restoreevent for Microsoft SQL Server

Backupjob for Microsoft SQL Server

The fields described in the following table are returned:

Table 107. Backupjob

Field	Description	From
Backup_servername	Backup server name	Name of node on which SQL server is running.
client_name	Name of the client that was backed up from the column	database_name of the table msdb.dbo.Backupset
job_name	Backup set name from the column	For successful jobs: name of the table msdb.dbo.Backupset For failed jobs: Database name from xp_readerrorlog - Message field containing text "BACKUP DATABASE."
jobid	Backup job ID	Logtime in the MSSQL timestamp
queuestart	Time the backup went into the queue.	For successful jobs: backup_start_date column of the table msdb.dbo.Backupset For failed jobs: Database name from xp_readerrorlog - Message field containing text "BACKUP DATABASE."
starttime	Time the backup started to write into the destination device.	For successful jobs: backup_start_date column of the table msdb.dbo.Backupset For failed jobs: Database name from xp_readerrorlog - Message field containing text "BACKUP DATABASE."
endtime	Time the backup finished writing into the destination device.	For successful jobs: backup_finish_date column of the table msdb.dbo.Backupset For failed jobs: Database name from xp_readerrorlog - Message field containing text "BACKUP DATABASE."
expiry	Expiry of the data backed up by this job	expiration_date column of the table msdb.dbo.Backupset
level	Backup level	type column of the table msdb.dbo.Backupset

Table 107. Backupjob (continued)

Field	Description	From
		value D'meant for Full; F, L, or P meant for Incremental; and I, G, or Q meant for Differential Incr
size	Amount of data that was backed up (in MB)	compressed_backup_size column of the table msdb.dbo.Backupset. size is the compressed_backup_size in bytes, be divided with MB value. The remainder is written into sizeoffset.
Sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	compressed_backup_size column of the table msdb.dbo.Backupset. size is the compressed_backup_size in bytes, be divided with MB value. The remainder is written into sizeoffset.
sizescanned	The backup protected size in MB	file_size column of the msdb.dbo.backupfile table is the protected size in bytes, scaled to MB. The remainder is written into sizeoffset.
sizescannedoffset	The backup protected size bytes offset	file_size column of the msdb.dbo.backupfile table is the protected size in bytes, scaled to MB. The remainder is written into sizeoffset.
Nfiles	Number of files that were backed up	Number of rows in the msdb.dbo.backupfiles
Status	Indicates if the backup was successful: Success, Failed	Successful Not Successful

Backupevent for Microsoft SQL Server

The fields described in the following table are returned:

Table 108. Backupevent

Field	Description	From
Backup_servername	Backup server name	Name of node on which SQL server is running.
client_name	Name of the client that was backed up	database_name column of the msdb.dbo.Backupset table
job_name	Backup set name	name column of the msdb.dbo.Backupset table
Queuestart	Time the backup went into the queue.	backup_start_date column of the msdb.dbo.Backupset table
Starttime	Time the backup started to write into the destination device.	backup_start_date column of the msdb.dbo.Backupset table
Status I	Indicates if the backup is started, Completed.	started and completed are hard coded.

restoreJob for Microsoft SQL Server

The fields described in the following table are returned:

Table 109. restoreJob

Field	Description	From
backup_servername	Backup Server name	Name of node on which SQL server is running.
Client_name	Name of the client that was restored	destination_database_name column of the msdb.dbo.restorehistory table
Status	Status of the restore job: Success, Failed	All jobs are hardcoded as successful
Queuestart	Time the restore Job went into the queue	restore_date column of the msdb.dbo.restorehistory table
Starttime	Time the restore session started	restore_date column of the msdb.dbo.restorehistory table
Endtime	Time the restore session completed	Starttime + 1 sec
Nfiles	Number of files restored	Number of rows in msdb.dbo.Restorefile table
Size	Amount of data that was backed up (in MB)	backup_size column of the msdb.dbo.Backupset table. size is the compressed_backup_size in bytes divided by the MB value. The remainder is written into sizeoffset.
Sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	backup_size column of the msdb.dbo.Backupset table. size is the compressed_backup_size in bytes divided by the MB value. The remainder is written into sizeoffset.

Restoreevent for Microsoft SQL Server

The fields described in the following table are returned:

Table 110. Restoreevent

Field	Description	From
Backup_servername	Backup server name	Name of node on which SQL server is running.
client_name	Name of the client that was restored	destination_database_name column of the msdb.dbo.restorehistory table
Queuestart	Time the backup went into the queue.	restore_date column of the msdb.dbo.restorehistory table
Starttime	Time the restore session started	restore_date column of the msdb.dbo.restorehistory table
Status	Indicates if the backup is started, Completed.	started and completed are hard coded.

Table 110. Restoreevent (continued)

Field	Description	From
job_name	Restore set name	name column of the msdb.dbo.Restoreset table

SAP HANA Job Monitor function

Data Protection Advisor uses ODBC API calls and responses to gather Job Monitor information. The Job Monitor function gathers information about backup and restore Jobs that have occurred on the SAP HANA database. The credentials that the module uses to log into SAP HANA server need to access the following tables of SAP HANA database:

- M_BACKUP_CATALOG view
- M_BACKUP_CATALOG_FILES view

The function includes the following options:

- database port — Port on which to access the database. The default value is 30115.
- Max data time range each request will gather from - Sets the max amount of data to gather in one request run. Defaults to one day.

The Job Monitor function gathers the following data:

- Backupjob for SAP HANA
- Backupevent for SAP HANA
- Backup_media for SAP HANA
- Backup_error for SAP HANA

Backupjob for SAP HANA

The fields described in the following table are returned.

Table 111. Backupjob

Field	Description	From
Backup_servername	Backup server name	Name of the SAP HANA database server
client_name	Client_name/node_id is the hostname	Name of the SAP HANA database server
job_name	Type of database service: indexserver, nameserver, statisticsserver	SERVICE_TYPE_NAME column in the M_BACKUP_CATALOG_FILES view
App_type	Type of persistence to be backed up: 'volume', 'topology', 'catalog'	SOURCE_TYPE_NAME column in the M_BACKUP_CATALOG_FILES view
queuestart	Time the backup went into the queue	UTC_START_TIME column in M_BACKUP_CATALOG view
starttime	Time the backup started to write into the destination device	UTC_START_TIME column in M_BACKUP_CATALOG view
endtime	Time the backup finished writing into the destination device	UTC_END_TIME column in M_BACKUP_CATALOG view
level	Backup level f_level map as: complete data backup = Full complete data snapshot = Full log backup = Full log missing = Incr	ENTRY_TYPE_NAME column in M_BACKUP_CATALOG view Classification of backup catalog entries. The following types are supported: complete data backup, complete data snapshot, Log backup, log missing

Table 111. Backupjob (continued)

Field	Description	From
size	Amount of data that was backed up (in MB)	BACKUP_SIZE column in M_BACKUP_CATALOG_FILES view
Status	Indicates if the backup was Successful or Failed. successful = success failed=failed cancelled =failed	STATE_NAME column in M_BACKUP_CATALOG view

Backupevent for SAP HANA

The fields described in the following table are returned.

Table 112. Backupevent

Field	Description	From
Backup_servername	Backup server name	Name of the SAP HANA database server
client_name	Client_name/node_id is the hostname	Name of the SAP HANA database server
job_name	Type of database service: indexserver, nameserver, statisticsserver	SERVICE_TYPE_NAME column in the M_BACKUP_CATALOG_FILES view
queuestart	Time the backup went into the queue	UTC_START_TIME column in M_BACKUP_CATALOG view
starttime	Time the backup started to write into the destination device	UTC_START_TIME column in M_BACKUP_CATALOG view
endtime	Time the backup finished writing into the destination device	UTC_END_TIME column in M_BACKUP_CATALOG view
status	Indicates if the backup is started or Completed.	STATE_NAME column in M_BACKUP_CATALOG view On start of backup started entry is created. When backup is successful, failed, or canceled, completed entry is created.

Backup_media for SAP HANA

The fields described in the following table are returned.

Table 113. Backup_media

Field	Description	From
Volume_ID	Data or log backup was written to this location	DESTINATION_PATH column in M_BACKUP_CATALOG_FILES view
type	Type of backup location: file, backint	DESTINATION_TYPE_NAME column in M_BACKUP_CATALOG_FILES view

Backup_error for SAP HANA

The fields described in the following table are returned.

Table 114. Backup_error

Field	Description	From
errorstring	Displays the error message	MESSAGE column in M_BACKUP_CATALOG_FILES view Populated when STATE_NAME = failed or canceled.

Database Module

The Database module monitors the status of database components. The following databases are monitored by this module

- SQL Server - Data Protection Advisor uses ODBC API calls and responses to gather Configuration, Status and Jobmonitor information.
- Oracle - Data Protection Advisor uses ODBC API calls and responses to gather Configuration and Status information for Oracle database and to gather *jobmonitor*, *reccat* and *jobmonitor ctlfile* information for Oracle RMAN.
- PostgresSQL - Data Protection Advisor uses ODBC API calls and responses to gather Configuration and Status information.

Topics:

- Configuration function for database components
- Status function for database components

Configuration function for database components

The Configuration function of the Database module gathers information about the configuration of the database, including server configuration parameters and details of individual database components such as tablespaces, schemas, indexes, and datafiles. The function includes the following options:

- dbport — Port on which to access the database. The default value is 1521 (Microsoft SQL Server, Oracle) or 5432 (Postgres).
- dbparams — An optional xml file containing the credentials and parameters for the database connection.
- initialdb — Initial database to connect . The default value is postgres (Postgres only).

The Configuration function gathers the following data:

- db_server_config
- db_server_params
- db_database_config
- db_database_params
- db_schema_config
- db_table_config
- db_index_config
- db_partition_config
- db_tablespace_config
- db_datafile_config
- db_logfile_config

db_server_config

The fields described in the following table are returned.

Table 115. db_server_config

Field	Description	From
vendor	Database vendor	Oracle — Hard coded to Oracle SQL — Hard coded to Microsoft Postgres — Hard coded to Postgres
product	Database product (for example, SQL, Oracle)	Oracle — Hard coded to Oracle Database SQL — product column from sys.servers

Table 115. db_server_config (continued)

Field	Description	From
		Postgres — Hard coded to PostgreSQL
version	Database version	Oracle — version column from V\$INSTANCE SQL — From variable @@VERSION Postgres — setting column from pg_settings table where pg_settings.name = 'server_version'
maxconnections	Maximum number of simultaneous connections permitted to the database	Oracle — Not populated SQL — Not populated Postgres — setting column from pg_settings where pg_settings.name = 'max_connections'
hostname	SQL server hostname	SQL— Configuration parameter name

db_server_params

Each row represents a name and value pair of configuration parameters. The fields described in the following table are returned.

Table 116. db_server_params

Field	Description	From
name	Configuration parameter name	Oracle — name column of V\$SYSTEM_PARAMETER SQL — Not populated Postgres — name column from pg_settings table
value	Parameter value	Oracle — DISPLAY_NAME column of V\$SYSTEM_PARAMETER SQL — Not populated Postgres — setting column from pg_settings table

db_database_config

The fields described in the following table are returned.

Table 117. db_database_config

Field	Description	From
name	Server database name	Oracle — name column of V\$DATABASE SQL — name column from master.sys.databases Postgres — datname column from db table (version 8 or later)
creationdate	Database creation date timestamp	Oracle — created column of V\$DATABASE

Table 117. db_database_config (continued)

Field	Description	From
		SQL — create_date column from master.sys.databases Postgres — Not populated

db_database_params

Each row represents a name and value pair of configuration parameters. The fields described in the following table are returned.

Table 118. db_database_params

Field	Description	From
sub_name	Database name	Oracle — name column of V\$DATABASE SQL — name column from master.sys.databases Postgres — datname column from db table (version 8 or later)
name	Configuration parameter name	Oracle — name column of V\$PARAMETER SQL — Configuration parameter name Postgres — Not populated
value	Parameter value	Oracle — DISPLAY_NAME column of V\$PARAMETER SQL — Returned from DATABASEPROPERTYEX('f_database_name', 'f_name') Postgres — Not populated

db_schema_config

The fields described in the following table are returned.

Table 119. db_schema_config

Field	Description	From
name	Schema name	Oracle — username column of ALL_USERS SQL — name column from sys.schemas Postgres — schemaname column from pg_tables table (version 8 or later)
database_name	Database table name	SQL — name column from sys.objects

db_table_config

The fields described in the following table are returned.

Table 120. db_table_config

Field	Description	From
database_name	Database table name	Oracle — TABLE_NAME column of ALL_ALL_TABLES SQL — name column from sys.objects Postgres — tablename column from pg_tables table
schema_name	Schema name	Oracle — owner column of ALL_ALL_TABLES SQL — name column from sys.schemas Postgres — schemaname column from pg_tables table
tablespace_name	Tablespace name	Oracle — TABLESPACE_NAME column of ALL_ALL_TABLES SQL — name column from sys.dataspaces Postgres — tablespace column from pg_tables table (version 8 or later)
ispartitioned	Indicates if the table is partitioned or not	Oracle — partitioned column of ALL_ALL_TABLES SQL — type column from sys.dataspaces Postgres — Not populated
name	Configuration parameter name	SQL — Configuration parameter name

db_index_config

The fields described in the following table are returned.

Table 121. db_index_config

Field	Description	From
schema_name	Schema name	Oracle — owner column of ALL_INDEXES SQL — name column from sys.schemas Postgres — schemaname column from pg_tables table
index_name	Index name	Oracle — INDEX_NAME column of ALL_INDEXES SQL — name column from sys.indexes Postgres — indexname column from pg_tables table
table_name	Table name	Oracle — TABLE_NAME column of ALL_INDEXES SQL — name column from sys.objects

Table 121. db_index_config (continued)

Field	Description	From
		Postgres — tablename column from pg_tables table
ispartitioned	Indicates if index table is partitioned or not	Oracle — partitioned column of ALL_INDEXES SQL — type column from sys.dataspaces Postgres — Not populated
tablespace_name	Tablespace name	Oracle — TABLESPACE_NAME column of ALL_INDEXES SQL — name column from sys.dataspaces Postgres — tablespace column from pg_tables table (version 8 or later only)
database_name	Database table name	SQL — name column from sys.objects

db_partition_config

The fields described in the following table are returned.

 **NOTE:** Partition configuration information is not returned for Postgres.

Table 122. db_partition_config

Field	Description	From
schema_name	Schema name	Oracle — TABLE_OWNER column of ALL_TAB_PARTITIONS for partitioned tables, or INDEX_OWNER of ALL_IND_PARTITIONS for partitioned indexes SQL — name column from sys.schemas
name	Partition name	Oracle — PARTITION_NAME column of ALL_TAB_PARTITIONS for partitioned tables, or PARTITION_NAME of ALL_IND_PARTITIONS for partitioned indexes SQL — name column from sys.partition_schemes + partition_number from sys.partitions
table_name	Table name	Oracle — TABLE_OWNER column of ALL_TAB_PARTITIONS for partitioned tables, or NULL for partitioned indexes SQL — name column from sys.objects
index_name	Index name	Oracle — INDEX_OWNER column of ALL_IND_PARTITIONS for partitioned indexes, or NULL for partitioned tables SQL — name column from sys.indexes
tablespace_name	Tablespace name	Oracle — TABLESPACE_NAME column of ALL_TAB_PARTITIONS for partitioned tables,

Table 122. db_partition_config (continued)

Field	Description	From
		or TABLESPACE_NAME of ALL_IND_PARTITIONS for partitioned indexes SQL — name column from destination_ds

db_tablespace_config

The fields described in the following table are returned.

Table 123. db_tablespace_config

Field	Description	From
name	Tablespace name	Oracle — TABLESPACE_NAME column of USER_TABLESPACES SQL — name column from sys.data_spaces Postgres — tablespace column from pg_tables table (version 8 or later only)
type	Tablespace type: Undo, Temporary, Permanent	Oracle — contents column of USER_TABLESPACES SQL — type column from sys.data_spaces Postgres — Not populated
database_name	Database table name	SQL — name column from sys.objects

db_datafile_config

The fields described in the following table are returned.

Table 124. db_datafile_config

Field	Description	From
tablespace_name	Tablespace name	Oracle — TABLESPACE_NAME column of DBA_DATA_FILES and DPA_TEMP_FILES SQL — name column from sys.data_spaces Postgres — reltablespace column from pg_class table (version 8 or later only)
name	Datafile name	Oracle — DISPLAY_NAME column of DBA_DATA_FILES SQL — name column from sys.database_files Postgres — relname column from pg_class table
physical_name	File system path of datafile	Oracle — FILE_NAME column of DBA_DATA_FILES

Table 124. db_datafile_config (continued)

Field	Description	From
		SQL — filename column from sys.database_files Postgres — PATH + "/base/" if spclocation is NULL. Otherwise, spcname column from pg_tablespace table
maxsize	Maximum size of the datafile (NULL if there is no maximum size)	Oracle — maxbytes column of DBA_DATA_FILES SQL — max_size column from sys.database_files Postgres — Not populated
sizeincrement	Size in megabytes by which the datafile will grow (NULL if f_incrementtype is a percent)	Oracle — INCREMENT_BY column of DBA_DATA_FILES SQL — growth column from sys.database_files Postgres — Not populated
percentincrement	Size as a percentage by which the datafile will grow (NULL if f_incrementtype is absolute)	Oracle — Not populated SQL — growth column from sys.database_files Postgres — Not populated
incrementtype	Indicates if the datafile will grow by absolute size or percentage	Oracle — Hard coded to Absolute SQL — is_percent_growth column from sys.database_files Postgres — Hard coded to Absolute

db_logfile_config

The fields described in the following table are returned.

 **NOTE:** Log file information is not returned for PostgreSQL.

Table 125. db_logfile_config

Field	Description	From
database_name	Name of the database logged by the log file	Oracle — name column of V\$DATABASE SQL — name column from master.sys.databases
name	Logfile logical name	Oracle — member column of \$vlogfile SQL — name column from sys.database_files
Group Number	Group number associated with the log file (Oracle only)	Oracle — group# column of \$vlogfile
physical_name	Logfile name and path	Oracle — member column of \$vlogfile SQL — physical_name column from sys.database_files

Table 125. db_logfile_config (continued)

Field	Description	From
autoincrement	Indicates if the logfile is set to grow automatically	Oracle — type column of \$vlogfile SQL — growth column from sys.database_files
incrementtype	Growth type: Absolute, Percent	Oracle — Hard coded to Absolute SQL — is_percent_growth column from sys.database_files
sizeincrement	Size increment growth of logfile for type Absolute	Oracle — Not populated SQL — is_percent_growth column from sys.database_files
percentincrement	Percent increment growth of logfile for type Percent	Oracle — Not populated SQL — is_percent_growth column from sys.database_files
maxsize	Maximum permitted size of the logfile. -1 indicates unrestricted growth	Oracle — bytes column of \$vlog SQL — max_size column from sys.database_files

Status function for database components

The Status function gathers information about the runtime status of database instances. The function includes the following options:

- dbport — Port on which to access the database. The default value is 1521 (Microsoft SQL Server, Oracle) or 5432 (Postgres).
- dbparams — An optional xml file containing the credentials and parameters for the database connection.
- initialdb — Initial database to connect . The default value is postgres (Postgres only).

The Status function returns the following information:

- [db_connection_status](#)
- [db_server_status](#)
- [db_database_status](#)
- [db_table_status](#)
- [db_index_status](#)
- [db_partition_status](#)
- [db_tablespace_status](#)
- [db_datafile_status](#)
- [process_status for database components](#)
- [db_logfile_status](#)

db_connection_status

The fields described in the following table are returned.

Table 126. db_connection_status

Field	Description	From
connection_id	Connection database identifier	Oracle — SID column of V\$SESSION SQL — sbid column from master.sys.sysprocesses

Table 126. db_connection_status (continued)

Field	Description	From
		Postgres — Returned from pg_stat_get_backend_idset()
connecttime	Time connection was established	Oracle — LOGON_TIME column of V\$SESSION SQL — login_time column from master.sys.sysprocesses Postgres — Returned from pg_stat_get_backend_start()
status	Connection status: Active, Inactive, Killed	Oracle — status column of V\$SESSION SQL — status column from master.sys.sysprocesses Postgres — Returned from pg_stat_get_backend_activity()
command	Current or most recent command processed by the connection	Oracle — name column of AUDIT_ACTIONS SQL — cmd column from master.sys.sysprocesses Postgres — Not populated
clienthost	Originating host name for the connection	Oracle — machine column of V\$SESSION SQL — hostname column from master.sys.sysprocesses Postgres — Returned from pg_stat_get_backend_client_addr()
clientuser	Originating user name (operating system login name) for the connection	Oracle — osuser column of V\$SESSION SQL — nt_username column from master.sys.sysprocesses Postgres — rolname from pg_roles
clientpid	Originating client process ID (operating system process ID) for the connection	Oracle — process column of V\$SESSION SQL — hostprocess column from master.sys.sysprocesses Postgres — Returned from pg_stat_get_backend_pid()
clientapp	Originating application for the connection	Oracle — program column of V\$SESSION SQL — program_name column from master.sys.sysprocesses Postgres — Not populated
usedcpu	Total used CPU runtime for this connection (in seconds)	Oracle — CPU column of V\$SESSMETRIC SQL — cpu column from master.sys.sysprocesses Postgres — Not populated

Table 126. db_connection_status (continued)

Field	Description	From
usedmem	Total used memory for this connection (in MB)	Oracle — Not populated SQL — mem_usage column from master.sys.sysprocesses Postgres — Not populated
numlogicalreads	Number of logical reads by this connection	Oracle — LOGICAL_READS column of V\$SESSMETRIC SQL — Not populated Postgres — Not populated
numreads	Number of physical reads made by this connection	Oracle — (PHYSICAL_READS + LOGICAL_READS) columns of V\$SESSMETRIC SQL — Not populated Postgres — Not populated

db_server_status

The fields described in the following table are returned.

Table 127. db_server_status

Field	Description	From
status	Database server status: Started, Mounted, Open, Open Migrate	Oracle — status column of V\$INSTANCE SQL — Hard coded to Open Postgres — Hard coded to Open
statustime	Time of the last status change	Oracle — STARTUP_TIME column of V\$INSTANCE SQL — Not populated Postgres — Returned from pg_postmaster_start_time() (version 8 or later only)

db_database_status

The fields described in the following table are returned.

Table 128. db_database_status

Field	Description	From
database_name	Database name	Oracle — name column of V\$DATABASE SQL — name column from master.sys.databases Postgres — datname column from db table (version 8 or later)
status	Database status: Offline, Online, Restoring, Recovering, Recovery Pending, Suspect, Emergency	Oracle — OPEN_MODE column from V\$DATABASE

Table 128. db_database_status (continued)

Field	Description	From
		SQL — state_desc column from master.sys.databases Postgres — Hard coded to Online
statustime	Time the status last changed	Oracle — Not populated SQL — Not populated Postgres — Not populated

db_table_status

The fields described in the following table are returned.

Table 129. db_table_status

Field	Description	From
schema_name	Schema name	Oracle — owner column of ALL_ALL_TABLES SQL — name column from sys.schemas Postgres — schemaname column from pg_tables table
name	Table name	Oracle — TABLE_NAME column of ALL_ALL_TABLES SQL — name column from sys.objects Postgres — tablename column from pg_tables table
size	Size of data in the table (in MB)	Oracle — bytes column of user_segments SQL — SUM(used_page_count) from sys.dm_db_partition_stats Postgres — Returned from pg_relation_size()
numrows	Total number of rows in the table	Oracle — NUM_ROWS column of ALL_ALL_TABLES SQL — SUM(row_count) from sys.dm_db_partition_stats Postgres — reltuples column from pg_class table
database_name	Database table name	SQL — name column from sys.objects

db_index_status

The fields described in the following table are returned.

Table 130. db_index_status

Field	Description	From
schema_name	Schema name	Oracle — owner column of ALL_ALL_TABLES

Table 130. db_index_status (continued)

Field	Description	From
		SQL — name column from sys.schemas Postgres — nspname column from pg_namespace table
table_name	Table name	Oracle — TABLE_NAME column of ALL_ALL_TABLES SQL — name column from sys.objects Postgres — tablename column from pg_class table
index_name	Index name	Oracle — TABLE_NAME column of ALL_ALL_TABLES SQL — name column from sys.indexes Postgres — relname column from pg_class table
size	Size of data in the index (in MB)	Oracle — bytes column of user_segments SQL — used column from sys.indexes Postgres — Returned from pg_relation_size()
database_name	Database table name	SQL — name column from sys.objects

db_partition_status

The fields described in the following table are returned.

 **NOTE:** Partition status information is not returned for Postgres.

Table 131. db_partition_status

Field	Description	From
schema_name	Schema name	Oracle — TABLE_OWNER column of ALL_TAB_PARTITIONS for partitioned tables, or INDEX_OWNER of ALL_IND_PARTITIONS for partitioned indexes SQL — name column from sys.schemas
name	Partition name	Oracle — PARTITION_NAME column of ALL_TAB_PARTITIONS for partitioned tables, or PARTITION_NAME of ALL_IND_PARTITIONS for partitioned indexes SQL — name column from sys.partition_schemes + partition_number from sys.partitions
size	Size of data in the partition (in MB)	Oracle — (BLOCKS column of ALL_TAB_PARTITIONS x block size in bytes), or NULL for partitioned indexes SQL — used_page_count from sys.dm_db_partition_stats

Table 131. db_partition_status (continued)

Field	Description	From
numrows	Total number of rows in the partition	Oracle — NUM_ROWS column of ALL_TAB_PARTITIONS for partitioned tables, or NUM_ROWS of ALL_IND_PARTITIONS for partitioned indexes SQL — row_count from sys.dm_db_partition_stats

db_tablespace_status

The fields described in the following table are returned.

Table 132. db_tablespace_status

Field	Description	From
name	Tablespace name	Oracle — TABLESPACE_NAME column of USER_TABLESPACES SQL — name column from sys.filegroups Postgres — tablespace column from pg_tables table (version 8 or later only)
state	Tablespace state: Offline, Online, Read Only	Oracle — contents column of USER_TABLESPACES SQL — Hard coded to Online Postgres — Hard coded to Online
isreadonly	Indicates if tablespace is read only	Oracle — Not populated SQL — is_read_only column from sys.filegroups Postgres — Not populated
database_name	Database table name	SQL — name column from sys.objects

db_datafile_status

The fields described in the following table are returned.

Table 133. db_datafile_status

Field	Description	From
tablespace_name	Tablespace name	Oracle — TABLESPACE_NAME column of DBA_DATA_FILES SQL — name column from sys.dataspaces Postgres — reltablespace column from pg_class table (version 8 or later only)
name	Datafile name	Oracle — FILE_NAME column of DBA_DATA_FILES SQL — name column from sys.database_files

Table 133. db_datafile_status (continued)

Field	Description	From
		Postgres — rename column from pg_class table
size	Current size of the datafile (in MB)	Oracle — bytes column of DBA_DATA_FILES SQL — size column from sys.database_files Postgres — relpages column from pg_class
sizeused	Size of used space in the datafile (in MB)	Oracle — USER_BYTES column of DBA_DATA_FILES SQL — FILEPROPERTY(name, 'SpaceUsed') from sys.database_files Postgres — Not populated
state	Datafile state: Offline, Online, Recovery, Recovery Pending, Suspect, Defunct, System	Oracle — status column of V\$DATAFILE SQL — state_desc column from sys.database_files Postgres — Hard coded to Online

process_status for database components

The fields described in the following table are returned.

 **NOTE:** Process status information is not returned for SQL Server.

Table 134. process_status

Field	Description	From
pid	Process identifier	Oracle — SPID column of V\$PROCESS Postgres — Returned from pg_stat_get_backend_pid()
name	Full command line of process, including arguments	Oracle — program column of V\$PROCESS Postgres — Hard coded to Postgres
Mem	Current memory used by the process (in MB)	Oracle — PGA_USED_MEM column of V\$PROCESS Postgres — Not populated

db_logfile_status

The fields described in the following table are returned.

 **NOTE:** Log file status information is not returned for PostgreSQL.

Table 135. db_logfile_status

Field	Description	From
database_name	Name of the database logged by the logfile	Oracle — member column of \$vlogfile SQL — name column from master.sys.databases
name	Logfile logical name	Oracle — member column of \$vlogfile SQL — name column from sys.database_files
group_name	Group number associated with the log file (Oracle only)	Oracle — group# column of \$vlogfile SQL — name column from sys.database_files
size	Current size of the log file (in MB)	Oracle — bytes column of \$vlog SQL — size column from sys.database_files
sizeused	Size of used space in the log file (in MB)	Oracle — Not populated SQL — SpaceUsed FILEPROPERTY
state	Logfile state: Offline, Online, Recovering, Recovery Pending, Suspect, Defunct, System	Oracle — status column of \$vlog SQL — state_desc column from sys.database_files

Micro Focus Data Protector Module

The Micro Focus Data Protector module monitors the status of HP OpenView Storage Data Protector servers. Data Protection Advisor uses the HP OpenView Storage Data Protector command line tool to return and display Configuration, Volume Status, SVC Status, and idb Status information. It also uses ODBC API calls and responses to gather Job Monitor and Occupancy information. It consists of the following functions:

Topics:

- Configuration function for Micro Focus Data Protector servers
- Volume Status function for Micro Focus Data Protector servers
- Services Status for Micro Focus Data Protector servers
- Internal Database Status for Micro Focus Data Protector servers
- Job Monitor function for Micro Focus Data Protector servers
- Occupancy function for Micro Focus Data Protector servers

Configuration function for Micro Focus Data Protector servers

The Configuration function of the Data Protector module gathers information about the configuration of the backup server including information about clients, specifications, and pools. The function includes the following options:

- timeout — Determines how long the Data Protection Advisor Data Collection Agent waits for the results of running various Data Protector commands before terminating them. The default is 900 seconds

The Configuration function gathers the following data:

- bkup_server_config for Micro Focus Data Protector servers
- group_config for Micro Focus Data Protector servers
- client_config for Micro Focus Data Protector servers
- job_config for Micro Focus Data Protector servers
- bkup_pool_config for Micro Focus Data Protector servers
- bkup_server_mapping for Micro Focus Data Protector servers
- license_config for Micro Focus Data Protector servers
- device_config for Micro Focus Data Protector servers
- jukebox_config for Micro Focus Data Protector servers

bkup_server_config for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 136. bkup_server_config

Field	Description	From
backup_servername	Backup server name	Name of the backup server as defined in the Data Protection Advisor Navigation tree
application	Application name	Hard coded to Data Protector
version	Application version	Running omnirpt -version
os_type	Server operating system	Running omnicellinfo -cell brief

group_config for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 137. group_config

Field	Description	From
group_name	Name of the Data Protector Backup specification	specification field from omnirpt -report dl_info
specification_type	Backup specification type	type field from omnirpt -report dl_info
policy_type	Type of backup for the group (for example, full or incremental)	session type field from omnirpt -report dl_info
active	Indicates if the group is active: 1 (active)	Hard coded to 1
domain_name	Data Protector group name	group field from omnirpt -report

client_config for Micro Focus Data Protector servers

Data Protection Advisor gathers client configuration data for "active" clients returned through the omnicellinfo command. Active clients are effectively defined as those clients that appear in the omnicellinfo command.

Data Protection Advisor also reports on inactive clients that still have valid (backup) images but that are no longer active. Inactive clients will be reported only when the Job Monitor occupancy request option is enabled and assigned. Run the occupancy request to remove clients from the database once all corresponding backup images have expired or has otherwise been removed.

The fields described in the following table are returned.

Table 138. client_config

Field	Description	From
client_name	Client name	Running omnicellinfo -cell brief
active	Indicates if the client is active: 1 (active)	Hard coded to 1
version	Client version. This is not returned for inactive clients	Running omnicellinfo -cell brief
os_type	Client operating system. This is not returned for inactive clients	Running omnicellinfo -cell brief
client_identifier	Client ID. Physical name of client	Running omnicellinfo -cell brief

job_config for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 139. job_config

Field	Description	From
job_name	Job name. Name of the file system to be backed up	jobname field from omnirpt -report dl_info
client_name	Backup client name	client field from omnirpt -report dl_info
group_name	Name of the Data Protector backup specification	specification field from omnirpt -report dl_info
domain_name	Data Protector group name	group field from omnirpt -report dl_info

bkup_pool_config for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 140. bkup_pool_config

Field	Description	From
masterservername	Name of the node that is monitored	Name of the backup server as defined in the Data Protection Advisor Navigation tree
poolname	Pool name	Running omnirpt -report pool_list
description	Pool description	Running omnirpt -report pool_list

bkup_server_mapping for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 141. bkup_server_mapping

Field	Description	From
client_name	Name of the client	client field from omnirpt -report dl_info
group_name	Name of the Data Protector backup specification	specification field from omnirpt -report dl_info
job_name	Name of the file system backed up	jobname field from omnirpt -report dl_info
domain_name	Data Protector group name	group field from omnirpt -report dl_info

license_config for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 142. license_config

Field	Description	From
product	Name of product licensed	Hard coded to Data Protector
identifier	License identifier	category field from omnirpt -report licensing
instance	Data Protector instance licensed	Hard coded to 1
instances	Number of licenses of this type installed	value field from omnirpt -report licensing

device_config for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 143. device_config

Field	Description	From
device_host	Name of host device is attached to	host field from omnidownload -list_devices -detail
device_name	Logical name of device	name field from omnidownload -list_devices -detail

Table 143. device_config (continued)

Field	Description	From
device_class	Class of device: Tape, Disk	type field from omnidownload -list_devices -detail
jukebox_name	Name of the jukebox on the device	library field from omnidownload -list_devices -detail

jukebox_config for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 144. jukebox_config

Field	Description	From
jukebox_host	Name of the host controlling the tape library	host field from omnidownload -list_libraries -detail
jukebox_name	Jukebox name	name field from omnidownload -list_libraries -detail

Volume Status function for Micro Focus Data Protector servers

The Volume Status function gathers data on the status of volumes. The function includes the following options:

- timeout — Determines how long the Data Protection Advisor Data Collection Agent waits for the results of running various Data Protector commands before terminating them. The default is 300 seconds.

volume status for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 145. Volume Status

Field	Description	From
volume_id	Unique identifier for a volume	Label field from omnirpt -report -media_list
pool	Pool in which a volume is located	Pool field from omnirpt -report -media_list
state	Volume state: <ul style="list-style-type: none"> • Empty — No data written to tape • Partial — Some data written to tape 	Derived based on amount of data written to tape as specified in Used field from omnirpt -report media_list
used	Amount of data written to the tape (in MB)	Used field from omnirpt -report -media_list
cartridge_type	Cartridge type in the volume. For example, DLT, LTO	Type field from omnirpt -report -media_list
capacity	Cartridge capacity	Total field from omnirpt -report -media_list
expdate	Date the volume is due to expire	Protection field from omnirpt -report media_list
expiry_flag	Indicates if a volume has expired	Protection field from omnirpt -report media_list

Table 145. Volume Status (continued)

Field	Description	From
lastwritten	Time that a volume was last written	Last Used field from omnirpt -report media_list
condition	Condition of Volume: good, fair, poor	Status field from omnirpt -report -media_list

Services Status for Micro Focus Data Protector servers

The Services Status function gathers data on the status of Micro Focus Data Protector services running. The function includes the following options:

- timeout — Determines how long the Data Protection Advisor Data Collection Agent waits for the results of running various Data Protector commands before terminating them. The default is 300 seconds.

dp_services_status

The fields described in the following table are returned.

Table 146. dp_services_status

Field	Description	From
service_name	Name of the Data Protector service	Output from omnisv -status
status	Current status of the service	Output from omnisv -status
pid	Process identifier	Output from omnisv -status

Internal Database Status for Micro Focus Data Protector servers

The Internal Database Status (IDB) function gathers data on the status and usage of the Micro Focus Data Protector internal database. The function includes the following options:

- timeout — Determines how long the Data Protection Advisor Data Collection Agent waits for the results of running various Data Protector commands before terminating them. The default is 300 seconds.

The IDB status function gathers the following data:

- [dp_database_usage](#)
- [dp_record_file_usage](#)
- [dp_data_file_usage](#)
- [dp_system_dynamics](#)
- [dp_purge_preview](#)

dp_database_usage

The fields described in the following table are returned.

Table 147. dp_database_usage

Field	Description	From
database	Database name	Output from omnirpt -tab -report db_size

Table 147. dp_database_usage (continued)

Field	Description	From
table	Database table name	Output from omnirpt -tab -report db_size
size	Size of the table (in MB)	Output from omnirpt -tab -report db_size
used_records	Number of records in use	Output from omnirpt -tab -report db_size
total_records	Number of records allocated	Output from omnirpt -tab -report db_size
utilisation	Percentage of allocated records in use	Output from omnirpt -tab -report db_size

dp_record_file_usage

The fields described in the following table are returned.

Table 148. dp_record_file_usage

Field	Description	From
type	Type of record file	Output from omnirpt -tab -report db_size
directory	Path to record file in file system	Output from omnirpt -tab -report db_size
size	Used size of the record file	Output from omnirpt -tab -report db_size
max_size	Maximum allocated size of the record file	Output from omnirpt -tab -report db_size
utilisation	Percentage of maximum size in use	Output from omnirpt -tab -report db_size

dp_data_file_usage

The fields described in the following table are returned.

Table 149. dp_data_file_usage

Field	Description	From
type	Data file type	Output from omnirpt -tab -report db_size
directory	Path to data file in file system	Output from omnirpt -tab -report db_size
size	Data file size (in MB)	Output from omnirpt -tab -report db_size
files	Number of files in data file	Output from omnirpt -tab -report db_size

dp_system_dynamics

The fields described in the following table are returned.

(i) NOTE: As of Data Protector 8.0, the db_system report is no longer available and therefore the Data Protection Advisor System Dynamics table is not populated for Data Protector 8.0.

Table 150. dp_system_dynamics

Field	Description	From
client	Hostname of the Data Protector client	Output from omni rpt -tab -report db_system
filenames	Total number of filenames in the internal database	Output from omni rpt -tab -report db_system
active_filenames	Total number of active filenames in the database	Output from omni rpt -tab -report db_system
created_per_day	Average number of filenames created per day	Output from omni rpt -tab -report db_system
deleted_per_day	Average number of filenames deleted per day	Output from omni rpt -tab -report db_system
active_growth_per_year	Growth in active files over last year	Output from omni rpt -tab -report db_system
total_growth_per_year	Growth in total number of files over last year	Output from omni rpt -tab -report db_system
dynamics	Internal database dynamics indicator: Low, Medium, High, Critical	Output from omni rpt -tab -report db_system

dp_purge_preview

The fields described in the following table are returned.

(i) NOTE: As of Data Protector 8.0, the purge_preview report is no longer available and therefore the Data Protection Advisor Purge Preview table is not populated for Data Protector 8.0.

Table 151. dp_purge_preview

Field	Description	From
client	Hostname of the Data Protector client	Output from omni rpt -tab -report db_purge_preview
filenames	Total number of filenames in the internal database	Output from omni rpt -tab -report db_purge_preview
estimated_obsolete	Estimated number of obsolete filenames in the database	Output from omni rpt -tab -report db_purge_preview
estimated_duration	Estimated time taken to purge the database (in seconds)	Output from omni rpt -tab -report db_purge_preview

Job Monitor function for Micro Focus Data Protector servers

The Job Monitor function gathers information about backup and restore jobs that have occurred on the Data Protector server. Replication data is not gathered at present. Backup and restore job information is gathered by running two commands:

- omni rpt -report list_sessions — Returns information about all jobs.

- omnirpt -report session_objects -session \$sessionid — Returns information about each specific job.
- completederrorsuccess — If set to "true," then reports jobs with status Completed/Errors as Success.
- pollbatch — Sets the collection time interval to avoid big chunks of data. If set to "0", then window size is unlimited.

The function includes the following options:

- timeout — Determines how long the Data Protection Advisor Data Collection Agent waits for the results of running various Data Protector commands before terminating them. The default is 300 seconds.
- timeformat — Time format specified for the omnadb command.
- occupancy — Enables gathering of occupancy statistics. The Job Monitor occupancy request option must be enabled if you want historic data to be included in the occupancy calculations.

 **NOTE:** Enabling occupancy data gathering for Micro Focus Data Protector may have a significant performance impact on the Data Protector server.

- nojobmedia — If you select this value, the jobmonitor request does not attempt to gather information about media associated with each job (the following commands are no longer performed: omnadb {object} -session {sessionid} -copy {copyid} -media -detail omnimm -media_info {label} -detail). The default value is false.
- ignorefailedclones — If you select this value, the jobmonitor request does not attempt to gather details about the source objects for clone jobs that have failed (the following commands are no longer performed: omnadb {object} -session {sessionid} -copy {copyid} -list_copies -detail). The default value is false.

The Job Monitor function gathers the following data:

- backupjob for Micro Focus Data Protector servers
- backupevent for Micro Focus Data Protector servers
- backup_error for Micro Focus Data Protector servers
- restorejob for Micro Focus Data Protector servers
- restoreevent for Micro Focus Data Protector servers
- backup_openfile for Micro Focus Data Protector servers
- backup_media for Micro Focus Data Protector servers
- clonejob for Micro Focus Data Protector servers
- clone_object for Micro Focus Data Protector servers
- clone_media for Micro Focus Data Protector servers
- device_map for Micro Focus Data Protector servers
- groupevent for Micro Focus Data Protector servers
- groupjob for Micro Focus Data Protector servers

backupjob for Micro Focus Data Protector servers

The fields that are described in the following table are returned.

Table 152. backupjob

Field	Description	From
backup_servername	Backup server name	Name of the backup server as defined in the Data Protection Advisor Navigation tree
media_server	Name of the media server on which the backup occurred	Name of the backup server as defined in the Data Protection Advisor Navigation tree
group_name	Name of the Data Protector Backup specification	Specification field from omnadb -session -wo {interval} -detail
client_name	Name of the client that was backed up.	Object name field from omnadb -session {sessionid} -detail
job_name	Name of the file system that was backed up	Object name field from omnadb -session {sessionid} -detail
domain_name	Data Protector group name	group field from omnirpt -report

Table 152. backupjob (continued)

Field	Description	From
jobid	Backup job ID	Copyid field from omnldb -session {sessionid} -detail
status	Indicates if the backup was successful: Success, Failed	Object status field from omnldb -session {sessionid} -detail
level	Backup level	Backup type field from omnldb -session {sessionid} -detail
size	Amount of data that was backed up (in MB)	Without deduplication: Object size field from omnldb -session {sessionid} -detail rounded to nearest MB. With deduplication: Mbytes written to Disk from Deduplication Statistics message in omnldb -session {sessionid} -report
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	Without deduplication: Object size field from omnldb -session {sessionid} -detail rounded to nearest MB. With deduplication: Mbytes written to Disk from Deduplication Statistics message in omnldb -session {sessionid} -report
sizescanned	Size of backup on client (in MB)	Without deduplication: NULL With deduplication: Object size field from omnldb -session {sessionid} -detail
sizescannedboffset	Byte offset of scanned size	Without deduplication: NULL With deduplication: Object size field from omnldb -session {sessionid} -detail
sizetransferred	Size that is transferred from client to server. If dedupe is at client, then size that is scanned is greater than transferred. If dedupe is at server, then transferred and scanned is greater than size.	Without deduplication: NULL For client-side deduplication: equal to size For server-side and target-side deduplication: equal to sizescanned
sizetransferredboffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	Without deduplication: NULL For client-side deduplication: equal to sizeoffset For server-side and target-side deduplication: equal to sizescannedboffset
nfiles	Number of files that were backed up.	Number of files field from omnirpt -report session_objects -session
nfilesnot	Number of files that were not backed up.	Extracted from messages obtained from omnldb {spec} -session {sessionid} -report
pool	Backup pool of the backup job	Running command omnimm -media_info {label} -detail where {label} is obtained through command omnldb {spec} -session {sessionid} -copyid

Table 152. backupjob (continued)

Field	Description	From
session	Session ID for the session	Session ID field from omnidb -session -wo {interval} -detail
expiry	Expiry of data backed up by this job	Protection field from omnidb -session {sessionid} -detail
queuestart	The time the backup went into the backup applications queue.	session start time that is obtained from the Started field from omnidb -session -wo {interval} -detail
starttime	The time the backup started to write to tape.	object start time that is obtained from the Started field from omnidb -session {sessionid} -detail
endtime	The time the backup finished writing to tape.	object end time that is obtained from the Finished field from omnidb -session {sessionid} -detail

backupevent for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 153. backupevent

Field	Description	From
backup_servername	Backup server name	Name of the backup server as defined in the Data Protection Advisor Navigation tree
media_server	Name of the media server on which the backup occurred	Name of the backup server as defined in the Data Protection Advisor Navigation tree
group_name	Name of the Data Protector Backup specification	specification field from omnidb -session -wo {interval} -detail
client_name	Name of the client that was backed up	Object name field from omnidb -session {sessionid} -detail
job_name	Name of the file system that was backed up	Object name field from omnidb -session {sessionid} -detail
domain_name	Data Protector group name	group field from omnirpt -report
status	Indicates if the backup was successful: Success, Failed	Object status field from omnidb -session {sessionid} -detail
session	Session ID for the session	Session ID field from omnidb -session -wo {interval} -detail
queuestart	Time the backup went into the backup applications queue	session start time obtained from Started field from omnidb -session -wo {interval} -detail

backup_error for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 154. backup_error

Field	Description	From
backupjob_id	ID of the backup Job	Foreign key to backup_job table
client_name	Name of the client that was backed up	Object name field from omnidb -session {sessionid} -detail
severity	Severity of the error returned for the backup job	Extracted from messages obtained from omnidb {spec} -session {sessionid} -report
errorstring	Associated error message	Extracted from messages obtained from omnidb {spec} -session {sessionid} -report

restorejob for Micro Focus Data Protector servers

If no restore job data is displayed, it could be because the restore job data options are not configured in the Data Protector Manager UI.

See **Before starting the Discovery Wizard for monitoring Micro Focus Data Protector** section in the *Data Protection Advisor Installation and Administration Guide* for more information.

The fields that are described in the following table are returned.

Table 155. restorejob

Field	Description	From
backup_servername	Backup server name	Name of the backup server as defined in the Data Protection Advisor Navigation tree
media_server	Name of the media server on which the restore Job occurred	Name of the backup server as defined in the Data Protection Advisor Navigation tree
client_name	Name of the client that was restored	Object field from omnirpt -report single_session -restore_session -session {id}
job_name	Session ID of the restore session	Object field from omnirpt -report single_session -restore_session -session {id}
session	Session ID for the session	Session ID field from omnidb -session -wo {interval} -detail
status	Status of the restore job: Success, Failed	obtained from omnirpt -report "single_session" -restore-session -session {restoreid}
errcode	Error Code associated with the restore job	obtained from omnirpt -report "single_session" -restore-session -session {restoreid}
size	Size of restore job (in bytes)	obtained from omnirpt -report "single_session" -restore-session -session {restoreid}

Table 155. restorejob (continued)

Field	Description	From
sizeoffset	Number of bytes to add or subtract from the Size to obtain the restore job size	obtained from omniapt -report "single_session" -restore-session -session {restoreid}
nfiles	Number of files restored	obtained from omniapt -report "single_session" -restore-session -session {restoreid}
backuptime	Time of original backup	obtained from omniapt -report "single_session" -restore-session -session {restoreid}
queuestart	Time the restore Job went into the queue	Started field from omnadb -session -type restore -wo {interval} -detail This field is mapped to the Started Time field.
starttime	Time the restore session started	Started field from omnadb -session -type restore -wo {interval} -detail
endtime	Time the restore session completed	Finished field from omnadb -session -type restore -wo {interval} -detail

restoreevent for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 156. restoreevent

Field	Description	From
backup_servername	Backup server name	Name of the backup server as defined in the Data Protection Advisor Navigation tree
media_server	Name of the media server on which the restore event occurred	Name of the backup server as defined in the Data Protection Advisor Navigation tree
client_name	Client name	Object field from omniapt -report single_session -restore_session -session {id}
job_name	Job name of the restore session	Object field from omniapt -report single_session -restore_session -session {id}
session	Session ID of the restore session	SessionID field from omnadb -session -type restore -wo {interval} -detail
status	Restore event status	Status field from omnadb -session -type restore -wo {interval} -detail
queuestart	Time the restore event went into the queue	Started field from omnadb -session -type restore -wo {interval} -detail

backup_openfile for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 157. backup_openfile

Field	Description	From
backupjob_id	Backup Job ID	copyid from omnidb -session {sessionid} -detail
client_name	Name of the client that was backed up	Object name from omnidb -session {sessionid} -detail
filename	Open file name	Extracted from warning messages obtained from omnidb {specification} -session {sessionid} -report warning
errormsg	Error message for open file	Extracted from warning messages obtained from omnidb {specification} -session {sessionid} -report warning

backup_media for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 158. backup_media

Field	Description	From
backupjob_id	Backup Job ID	Foreign key to backup_job table
volume_id	ID of the volume in which the backup is located	Medium label from omnidb {specification} -session {sessionid} -copyid {copyid} -media -detail

clonejob for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 159. clonejob

Field	Description	From
backup_servername	Backup server name	Name of the backup server as defined in the Data Protection Advisor Navigation tree
media_servername	Name of the media server on which the Object Copy occurred	Name of the media server as defined in the Data Protection Advisor Navigation tree
clonename	Object Copy job name	Object name from omnidb -session {sessionid} -detail
cloneid	Unique identifier for the Object Copy job	copyid from omnidb -session {sessionid} -detail
session	Clone session ID	Session ID field from omnidb -session -wo {interval} -detail
client	Client from which the Object Copy ran	Object name from omnidb -session {sessionid} -detail
status	Object Copy job status: Succeeded, Failed	Object status from omnidb -session {sessionid} -detail

Table 159. clonejob (continued)

Field	Description	From
size	Amount of data backed up (in MB)	Object size from omnidb -session {sessionid} -detail
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size	Difference between true value of Object size and rounded value
policy_type	The type of the session that gave rise to the clone job; possible values are "Copy" and "Replication"	Session Type from omnidb -rpt {sessionid} -detail

clone_object for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 160. clone_object

Field	Description	From
clonejob_id	Identifier for the corresponding Object Copy job	Foreign key to clone_job table
backupjob_id	Identifier for the backup job being cloned	Value of copyid of Orig object from omnidb {specification} -session {sessionid} -copyid {copyid} -listcopies
status	Object Copy job status: Succeeded, Failed	Object status from omnidb -session {sessionid} -detail

clone_media for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 161. clone_media

Field	Description	From
clone_object_id	Identifier for the Backup Object that was cloned	copyid from omnidb -session {sessionid} -detail
volume_id	Identifier for the volume to which the Backup Object was cloned	Medium label from omnidb {specification} -session {sessionid} -copyid {copy_id} -media -detail

device_map for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 162. device_map

Field	Description	From
backup_servername	Data Protector server name	Node name as defined in Data Protection Advisor
media_server	Name of the media server on which the backup or restore event occurred	Name of the backup server as defined in the Data Protection Advisor Navigation tree
group_name	Name of the Data Protector Backup specification	specification field from omnidb -session -wo {interval} -detail

Table 162. device_map (continued)

Field	Description	From
session	Session ID for the session	Session ID field from omnidb -session -wo {interval} -detail
client_name	Name of the client that was backed up	Object name field from omnidb -session {sessionid} -detail
job_name	Name of the file system that was backed up	Object name field from omnidb -session {sessionid} -detail
device	Name of the backup device	Device name field from omnidb -session {sessionid} -detail

groupevent for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 163. groupevent

Field	Description	From
group_name	Name of the Data Protector Backup specification	specification field from omnidb -session -wo {interval} -detail
session	Session ID for the session	Session ID field from omnidb -session -wo {interval} -detail
status	Status	Status field from omnidb -session -wo {interval} -detail
groupstart	Group start	Started field from omnidb -session -wo {interval} -detail
groupend	Group end	Ended field from omnidb -session -wo {interval} -detail

groupjob for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 164. groupjob

Field	Description	From
group_name	Name of the Data Protector Backup specification	specification field from omnidb -session -wo {interval} -detail
session	Session ID for the session	Session ID field from omnidb -session -wo {interval} -detail
status	Status	Status field from omnidb -session -wo {interval} -detail
groupstart	Group start	Started field from omnidb -session -wo {interval} -detail

application_error for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 165. application_error

Field	Description	From
appid	Session ID or process ID that the error is associated with	Session ID field from omnidb -session -wo {interval} -detail
severity	Severity	Extracted from the message obtained from omnidb {spec} -session {sessionid} -report
client_name	Name of client on which error took place	Extracted from the message obtained from omnidb {spec} -session {sessionid} -report
source	Source of the error	Extracted from the message obtained from omnidb {spec} -session {sessionid} -report
infostring	Additional information related to the error	Extracted from the message obtained from omnidb {spec} -session {sessionid} -report
errorstring	Error String	Extracted from the message obtained from omnidb {spec} -session {sessionid} -report
starttime	Start time of the event	Time extracted from the message obtained from omnidb {spec} -session {sessionid} - report
endtime	End time of the event	Extracted from the message obtained from omnidb {spec} -session {sessionid} - report

Occupancy function for Micro Focus Data Protector servers

The Occupancy function gathers occupancy information for Micro Focus Data Protector clients. The occupancy option of the jobmonitor function must be enabled to gather occupancy data.

 **NOTE:** Gathering occupancy information for Micro Focus Data Protector may have a significant performance impact on the Data Protector server.

The first time the jobmonitor request is run with the occupancy option enabled, occupancy data in the database is initially populated by the following algorithm:

- A list all volumes known to the system is obtained from the command omnirpt -report media_list
- For each volume, information about each object on the volume is obtained from the command omnimm -list_media {label} -detail

client_occupancy for Micro Focus Data Protector servers

The fields described in the following table are returned.

Table 166. client_occupancy

Field	Description	From
client_name	Name of the Data Protector client from which the object was initially created	Object name from omnimm -list_media {label} -detail or omnidb -session {sessionid} -detail
filespace	Description uniquely specifying the filespace object, of the form: client:mountpoint 'label'	Object name from omnimm -list_media {label} -detail or omnidb -session {sessionid} -detail
pool	Pool to which the volumes containing the object belong	Pool from omni rpt -report media_list
physical	Total size occupied by all objects matching the values for {Client name, Filespace, Pool} (in MB)	Aggregate of the values of Object Size from omnimm -list_media {label} -detail or omnidb -session {sessionid} -detail
logical	Amount of logical storage used (in MB)	Always the same as Physical for Data Protector

EDL Classic Module

The EDL module gathers information about EDL Classic series, including configuration, status, and performance. Data is gathered from EDL Classic series using SNMP from the IPSTOR-MIB, except for the Network Interface configuration, status, and performance data. Network interface data is gathered from MIB-II. The module includes the following functions that gather different types of information:

Topics:

- Configuration function for EDL
- Status function for EDL
- Performance function for EDL

Configuration function for EDL

The Configuration function gathers configuration information about EDL. The function includes the following options:

- timeout — SNMP timeout value in seconds. The default is 10.

The Configuration function gathers the following data:

- [host_config for EDL](#)
- [processor_config for EDL](#)
- [memory_config for EDL](#)
- [netint_config for EDL](#)
- [fcport_config for EDL](#)
- [disk_config for EDL](#)
- [library_config for EDL](#)
- [tapedrive_config for EDL](#)
- [cdl_config for EDL](#)
- [vtl_config for EDL](#)
- [hwpsu_config for EDL](#)
- [hwtemp_config for EDL](#)
- [hwfan_config for EDL](#)

host_config for EDL

The fields described in the following table are returned.

Table 167. host_config

Field	Description	From
vendor	Host vendor	Hard coded to Dell
osclass	OS device type	Hard coded to Appliance
product	Product name	Hard coded to EDL
version	Server version	Object ID field of Address 1.3.6.1.4.1.7368.3.1.3.0
hostid	Host ID	loginMachineName 1.3.6.1.4.1.7368.3.1.2.0

processor_config for EDL

The fields described in the following table are returned.

Table 168. processor_config

Field	Description	From
num	Number of the processor within the EDL unit	Instance of Processor Info 1.3.6.1.4.1.7368.3.1.6.1.2
make	Processor make	Instance of Processor Info 1.3.6.1.4.1.7368.3.1.6.1.2
model	Processor model	Instance of Processor Info 1.3.6.1.4.1.7368.3.1.6.1.2
speed	Speed at which the processor is running	Instance of Processor Info 1.3.6.1.4.1.7368.3.1.6.1.2

memory_config for EDL

The fields described in the following table are returned.

Table 169. memory_config

Field	Description	From
physical	Amount of physical memory	memory 1.3.6.1.4.1.7368.3.1.7.0
virtual	Amount of virtual memory	swap 1.3.6.1.4.1.7368.3.1.8.0

netint_config for EDL

This data is gathered from MIB-II. The fields described in the following table are returned.

Table 170. netint_config

Field	Description	From
name	Network interface identifier	ifTable field of ifDescr 1.3.6.1.2.1.2.1.2
ether_addr	Ethernet address of the EDL unit	ifPhysAddress 1.3.6.1.2.1.2.2.1.6
description	Interface description	ifDescr 1.3.6.1.2.1.2.2.1.2
mtu	Size of the largest packet that a network protocol can transmit	1.3.6.1.2.1.2.2.1.4. [interface number]
jumbo	Jumbo Packets Enabled	SNMP OID 1.3.6.1.2.1.2.2.1.4

fcport_config for EDL

The fields described in the following table are returned.

Table 171. fcport_config

Field	Description	From
port	Port identifier; for example, Port 1	instance of fcWWPN 1.3.6.1.4.1.7368.3.1.11.1.2
wwpn	Worldwide Port Name allocated to this port	value of instance of fcWWPN 1.3.6.1.4.1.7368.3.1.11.1.2
mode	Mode in which the Fibre Channel port is configured	fcMode 1.3.6.1.4.1.7368.3.1.11.1.3

disk_config for EDL

The fields described in the following table are returned.

Table 172. disk_config

Field	Description	From
device	Name of the device	deviceNo 1.3.6.1.4.1.7368.3.2.4.1.1
manufacturer	Manufacturer of the EDL unit	vendor 1.3.6.1.4.1.7368.3.2.4.1.3
model	Model of the EDL unit	productID 1.3.6.1.4.1.7368.3.2.4.1.4
size	Size of the EDL unit	totalSize 1.3.6.1.4.1.7368.3.2.4.1.12
firmware	Firmware version of the EDL unit	firmwareRev 1.3.6.1.4.1.7368.3.2.4.1.5

library_config for EDL

The fields described in the following table are returned.

Table 173. library_config

Field	Description	Physical Library EDL	Virtual Library EDL
libraryname	Library name	plibName 1.3.6.1.4.1.7368.3.3.8.4.2.1.2	vlibName 1.3.6.1.4.1.7368.3.3.8.1.2.1.2
vendor	Vendor that produces the tape library	plibVendor 1.3.6.1.4.1.7368.3.3.8.4.2.1.4	vlibVendor 1.3.6.1.4.1.7368.3.3.8.1.2.1.3
model	Library model	plibProduct 1.3.6.1.4.1.7368.3.3.8.4.2.1.5	vlibProduct 1.3.6.1.4.1.7368.3.3.8.1.2.1.4
firmware	Library firmware version	vlibRev	N/A

Table 173. library_config (continued)

Field	Description	Physical Library EDL	Virtual Library EDL
		1.3.6.1.4.1.7368.3.3.8.1.2.1.5	
serial	Library serial number	plibSerial 1.3.6.1.4.1.7368.3.3.8.4.2.1.8	vlibRevOID 1.3.6.1.4.1.7368.3.3.8.1.2.1.5
slots	Number of slots in the library	plibNumSlots 1.3.6.1.4.1.7368.3.3.8.4.2.1.9	vlibNumSlots 1.3.6.1.4.1.7368.3.3.8.1.2.1.6
drives	Number of drives in library	N/A	vlibNumDrives 1.3.6.1.4.1.7368.3.3.8.1.2.1.7
virtualtype	Indicates if the library is virtual (true) or physical (false)	Hard coded to False	Hard coded to True

tapedrive_config for EDL

The fields described in the following table are returned.

Table 174. tapedrive_config

Field	Description	Physical Drive EDL	Virtual Drive EDL
name	Tape drive name	pdriveName 1.3.6.1.4.1.7368.3.3.8.5.2.1.2	vdriveName 1.3.6.1.4.1.7368.3.3.8.2.2.1.2
make	Tape drive make	pdriveVendor 1.3.6.1.4.1.7368.3.3.8.5.2.1.4	vdriveVendor 1.3.6.1.4.1.7368.3.3.8.2.2.1.3
model	Tape drive model	pdriveProduct 1.3.6.1.4.1.7368.3.3.8.5.2.1.5	vdriveModel 1.3.6.1.4.1.7368.3.3.8.2.2.1.4
firmware	Tape drive firmware version	N/A	vdriveRevision 1.3.6.1.4.1.7368.3.3.8.2.2.1.5
serial	Tape drive serial number	pdriveSerial 1.3.6.1.4.1.7368.3.3.8.5.2.1.8	N/A
libraryname	Name of library in which the tape drive is located	N/A	vlibName 1.3.6.1.4.1.7368.3.3.8.1.2.1.2
virtualtype	Indicates if the library is virtual (true) or physical (false)	Hard coded to False	Hard coded to True

cdl_config for EDL

The fields described in the following table are returned.

Table 175. cdl_config

Field	Description	From
option	CDL option	nasOption 1.3.6.1.4.1.7368.3.1.12.1.0

Table 175. cdl_config (continued)

Field	Description	From
		fibreChannelOption 1.3.6.1.4.1.7368.3.1.12.2.0 replicationOption 1.3.6.1.4.1.7368.3.1.12.3.0 syncMirroringOption 1.3.6.1.4.1.7368.3.1.12.4.0 sanIpOption 1.3.6.1.4.1.7368.3.1.12.5.0 timemarkOption 1.3.6.1.4.1.7368.3.1.12.6.0 zeroImpactOption 1.3.6.1.4.1.7368.3.1.12.7.0
value	CDL value	Value of the Option field

vtl_config for EDL

The field described in the following table is returned.

Table 176. vtl_config

Field	Description	From
capacity	Virtual tape library capacity	Summing all the SCSI device totalSize values for LUNs other than 0-3 and 200-203

hwpsu_config for EDL

The field described in the following table is returned.

Table 177. hwpsu_config

Field	Description	From
name	Power supply unit name	SensorName 1.3.6.1.4.1.7368.3.9.1.2

hwtemp_config for EDL

The field described in the following table is returned.

Table 178. hwtemp_config

Field	Description	From
name	Temperature sensor name	SensorName 1.3.6.1.4.1.7368.3.9.1.2

hwfan_config for EDL

The field described in the following table is returned.

Table 179. hwfan_config

Field	Description	From
name	Hardware fan name	SensorName 1.3.6.1.4.1.7368.3.9.1.2

Status function for EDL

The Status function gathers status information regarding the connectivity of the port. The function includes the following options:

- timeout — SNMP timeout value in seconds. The default is 10.

The Status function gathers the following data:

- disk_status for EDL
- library_status for EDL
- library_slotstatus for EDL
- tapedrive_status for EDL
- library_volstatus for EDL
- vtl_status for EDL
- hwpsu_status for EDL
- hwtemp_status for EDL
- hwfan_status for EDL
- edl_failover
- netint_status for EDL

disk_status for EDL

The fields described in the following table are returned.

Table 180. disk_status

Field	Description	From
device	Device name	deviceNo 1.3.6.1.4.1.7368.3.2.4.1.1
state	Indicates if the EDL disk is online or offline	configStatus 1.3.6.1.4.1.7368.3.2.4.1.13

library_status for EDL

The fields described in the following table are returned.

Table 181. library_status

Field	Description	Physical Library EDL	Virtual Library EDL
status	Tape library status	plibStatus 1.3.6.1.4.1.7368.3.3.8.4.2.1.6	Hard coded to OK
libraryname	Library name	plibName	vlibName

Table 181. library_status (continued)

Field	Description	Physical Library EDL	Virtual Library EDL
		1.3.6.1.4.1.7368.3.3.8.4.2.1.2	1.3.6.1.4.1.7368.3.3.8.1.2.1.2
virtualtype	Indicates if the library is virtual (true) or physical (false)	Hard coded to False	Hard coded to True

library_slotstatus for EDL

The fields described in the following table are returned.

Table 182. library_slotstatus

Field	Description	Physical Slot EDL	Virtual Slot EDL
address	Slot address	ptapeSlot 1.3.6.1.4.1.7368.3.3.8.6.2.1.1	vtapeLocationID 1.3.6.1.4.1.7368.3.3.8.3.2.1.13
status	Slot status	Hard coded to Loaded	Hard coded to Loaded
volume	Volume ID of the volume in the slot	ptapeBarcode 1.3.6.1.4.1.7368.3.3.8.6.2.1.2	vtapeBarcode 1.3.6.1.4.1.7368.3.3.8.3.2.1.7
type	Type of cartridge in the slot	N/A	vtapeMediaType 1.3.6.1.4.1.7368.3.3.8.3.2.1.8
libraryname	Name of library in which the library slot is located	plibName 1.3.6.1.4.1.7368.3.3.8.6.2.1.2	vlibName 1.3.6.1.4.1.7368.3.3.8.1.2.1.2
virtualtype	Indicates if the library slot is virtual (true) or physical (false)	Hard coded to False	Hard coded to True

tapedrive_status for EDL

The fields described in the following table are returned.

Table 183. tapedrive_status

Field	Description	Physical Drive EDL	Virtual Drive EDL
name	Tape drive name	pdriveName 1.3.6.1.4.1.7368.3.3.8.5.2.1.2	vdriveName 1.3.6.1.4.1.7368.3.3.8.2.2.1.2
status	Current state of the drive	pdriveStatus 1.3.6.1.4.1.7368.3.3.8.5.2.1.6	Hard coded to OK
state	Additional drive state information	pdriveDriveStatus 1.3.6.1.4.1.7368.3.3.8.5.2.1.9	N/A
libraryname	Library in which the tape drive is located	N/A	vlibName 1.3.6.1.4.1.7368.3.3.8.1.2.1.2
virtualtype	Indicates if the tape drive is virtual (true) or physical (false)	Hard coded to False	Hard coded to True

library_volstatus for EDL

The fields described in the following table are returned.

Table 184. library_volstatus

Field	Description	Physical Volume EDL	Virtual Volume EDL
libraryname	Library in which the library volume is located	plibName 1.3.6.1.4.1.7368.3.3.8.4.2.1.2	vlibName 1.3.6.1.4.1.7368.3.3.8.1.2.1.2
volumeid	Identifier of the volume loaded in the drive	ptapeBarcode 1.3.6.1.4.1.7368.3.3.8.6.2.1.2	vtapeBarcode 1.3.6.1.4.1.7368.3.3.8.3.2.1.7
size	Amount of space on the library volume (in MB)	N/A	vtapeUsedSz 1.3.6.1.4.1.7368.3.3.8.3.2.1.6
virtualtype	Indicates if the library volume is virtual (true) or physical (false)	Hard coded to False	Hard coded to True
type	Media type		1.3.6.1.4.1.7368.3.3.8.3.2.1.1
location	Location of the library volume within the EDL unit	ptapeSlot 1.3.6.1.4.1.7368.3.3.8.6.2.1.1	vtapeLocation 1.3.6.1.4.1.7368.3.3.8.3.2.1.13
location_type	Type of location the volume is in. For example, slot, storage	Hard coded to Slot	vtapeLocationType 1.3.6.1.4.1.7368.3.3.8.3.2.1.12

vtl_status for EDL

The field described in the following table is returned.

Table 185. vtl_status

Field	Description	From
used	Amount of virtual tape library space used	Summing all the vtapeTotalSz of all virtual tapes defined on the system

hwpsu_status for EDL

The fields described in the following table are returned.

Table 186. hwpsu_status

Field	Description	From
name	Power supply unit name	SensorName 1.3.6.1.4.1.7368.3.9.1.2
active	Indicates if the power supply unit is active: 1 (active)	SensorStatus 1.3.6.1.4.1.7368.3.9.1.3

hwtemp_status for EDL

The fields described in the following table are returned.

Table 187. hwtemp_status

Field	Description	From
name	Temperature sensor name	SensorName 1.3.6.1.4.1.7368.3.9.1.2
active	Indicates if the temperature sensor is active: 1 (active)	SensorStatus 1.3.6.1.4.1.7368.3.9.1.3
temp	Sensor temperature	SensorReading 1.3.6.1.4.1.7368.3.9.1.4
hot	Indicates the sensor is hot if the reading goes above a certain number	SensorUpperCritical 1.3.6.1.4.1.7368.3.9.1.8

hwfan_status for EDL

The fields described in the following table are returned.

Table 188. hwfan_status

Field	Description	From
name	Hardware fan name	SensorName 1.3.6.1.4.1.7368.3.9.1.2
active	Indicates if the fan is active: 1 (active)	SensorStatus 1.3.6.1.4.1.7368.3.9.1.3
speed	Speed at which the fan is operating	SensorReading 1.3.6.1.4.1.7368.3.9.1.4

edl_failover

The fields described in the following table are returned.

Table 189. edl_failover

Field	Description	From
secondary	Hostname or IP address of the EDL failover partner	From OID .1.3.6.1.4.1.7368.3.1.10.1.2.2
type	Failover configuration type	From OID 1.3.6.1.4.1.7368.3.1.10.1.2.1
self_check_interval	Self-check interval (in seconds)	FromOID 1.3.6.1.4.1.7368.3.1.10.1.2.88
heartbeat_interval	Heart-beat interval (in seconds)	From OID 1.3.6.1.4.1.7368.3.1.10.1.2.9
recovery_setting	Recovery setting	From OID 1.3.6.1.4.1.7368.3.1.10.1.2.10

Table 189. edl_failover (continued)

Field	Description	From
state	Failover state	From OID 1.3.6.1.4.1.7368.3.1.10.1.2.11

netint_status for EDL

The fields described in the following table are returned.

Table 190. netint_status

Field	Description	From
name	Network interface name	From MIB-II Interfaces table
linkup	Indicates if the interface has an active link	From MIB-II Interfaces table
speed	Speed at which the network interface is running (in MB)	From MIB-II Interfaces table

Performance function for EDL

The Performance function gathers information regarding the performance of the port, network interface, and fibre channel port for virtual tape drives. The function includes the following options:

- timeout — SNMP timeout value in seconds. The default is 10.

The Status function gathers the following data:

- [tapedrive_perf](#) for EDL
- [netint_perf](#) for EDL

tapedrive_perf for EDL

The fields described in the following table are returned.

Table 191. tapedrive_perf

Field	Description	From
name	Tape drive name	vdriveName 1.3.6.1.4.1.7368.3.3.8.2.2.1.2
read_speed	Speed at which the tape drive reads data	vdriveMBRead 1.3.6.1.4.1.7368.3.3.8.2.2.1.9
write_speed	Speed at which the tape drive writes data	vdriveMBWritten 1.3.6.1.4.1.7368.3.3.8.2.2.1.10
libraryname	Name of the library in which the tape drive is located	vlibName 1.3.6.1.4.1.7368.3.3.8.1.2.1.2
virtualtype	Indicates if the library is virtual (true) or physical (false)	Hard coded to True

netint_perf for EDL

The fields described in the following table are returned.

Table 192. netint_perf

Field	Description	From
data_in	Amount of data in to the interface (KB/second)	From MIB-II interfaces table
data_out	Amount of data out of the interface (KB/second)	From MIB-II interfaces table
packets_in	Number of packets in to the interface (thousands/second)	From MIB-II interfaces table
packets_out	Number of packets out of the interface (thousands/second)	From MIB-II interfaces table
errors_in	Number of bad packets in to the interface (/second)	From MIB-II interfaces table
errors_out	Number of bad packets out of the interface (/second)	From MIB-II interfaces table
discards_in	Number of discards in to the interface (/second)	From MIB-II Interfaces table
discards_out	Number of discards out of the interface (/second)	From MIB-II interfaces table

Dell Celerra Module

The Dell Celerra module (Dell File Storage module) gathers information about Celerra Network Control Stations, Data Movers, and Virtual Data Movers. Data Protection Advisor gathers data from Dell Celerra by connecting to the Dell Celerra Control Station through the Dell Celerra XML API (v2). For Configuration and Status data, 1.3.6.1.4.1.7368.3.1.3.0 uses HTTPS to gather data. For Performance information, 1.3.6.1.4.1.7368.3.1.3.0 gathers information over SSH by running server CLI commands remotely.

Certain data that is returned for Celerra depends on whether the underlying storage engine is Dell VNX Block/CLARiiON or Dell Symmetrix. The underlying block storage information is collected using Solutions Enabler. This chapter describes where data is not collected for one type, or where the data source differs.

(i) **NOTE:** Celerra may as be cited to as File Storage throughout this document.

The module includes the following functions that gather different types of information:

Topics:

- Configuration function for Celerra
- Status function for Celerra
- Performance function for Celerra

Configuration function for Celerra

The Configuration function gathers configuration information about Celerra components. The function includes the following options:

- secure — Send requests through HTTPS instead of HTTP. The default value is true.
- port — HTTP/HTTPS port on Celerra Control Station to connect.
- timeout — HTTP request timeout. The default value is 1800.

The Configuration function gathers the following data:

- host_config for Celerra
- datamover_config for Celerra
- celerra_vdm_config
- filesystem_config for Celerra
- celerra_mount for Celerra
- memory_config for Celerra
- processor_config for Celerra
- netint_config for Celerra
- netint_ip for Celerra
- fcport_config for Celerra
- iscsi_config for Celerra
- iscsiportal_config for Celerra
- fileserver_config for Celerra
- enclosure_config for Celerra
- disk_config for Celerra
- lun_config for Celerra
- hwcard_config for Celerra
- monitoredarray_config for Celerra
- celerra_volume
- celerra_vol_linkage
- celerra_storage_pool
- celerra_tree_config

- celerra_quota_config

host_config for Celerra

The fields described in the following table are returned.

Table 193. host_config

Field	Description	From
hostname	Name or IP Address of the Celerra managing host	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Data Mover identifier	Not set for Control Station. Name attribute of the <Mover> element for Data Movers
vendor	Product vendor	Hard coded to Dell
osclass	Device type	Hard coded to Fileserver
product	Product name	Control Station — ProductName attribute of <FileStorageSystem> Data Mover — Hard coded to Celerra Data Mover
version	Product version	Control Station — Version attribute of <FileStorageSystem> Data Mover — Version attribute of <MoverStatus>
hostid	Unique identifier for Control Station host	Control Station — wwCid attribute of <FileStorageSystem> Not set for Data Movers

datamover_config for Celerra

The fields described in the following table are returned.

Table 194. datamover_config

Field	Description	From
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor
datamover_name	Data Mover logical name	Name attribute of <Mover>
slot	Slot on Celerra unit	Slot attribute of <MoverHost>
role	Data Mover role	Role attribute of <Mover>
unicode	Internationalisation mode of the server if Unicode (or otherwise ASCII)	il8Nmode attribute of <Mover>
ntp_servers	IP addresses of NTP server hosts that mover uses to synchronise with	ntpServer attribute of <Mover>
failover_policy	Failover policy: none, manual, auto, retry	FailoverPolicy attribute of <Mover>
standby_fors	List of movers for which this mover is a standby	StandbyFors attribute <Mover>
standbys	List of standbys for this mover	Standbys attribute of <Mover>

celerra_vdm_config

The fields described in the following table are returned.

Table 195. celerra_vdm_config

Field	Description	From
hostname	Celerra — Name or IP Address of the Celerra managing host	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Identifier for the physical Data Mover (on which the Virtual Data Mover resides)	Name attribute of the <Mover> element
vdm	Virtual Data Mover name	Name attribute of <vdm>

filesystem_config for Celerra

The fields described in the following table are returned.

Table 196. filesystem_config

Field	Description	From
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor
mountpoint	File system name	Name attribute of <FileSystem> element
filesystem_id	File system internal identifier	filesystem attribute of <FileSystem>
device	Name of the primary volume or storage pool for the file system	volume attribute of <FileSystem>
type	File system type: NFS, CIFS	Type attribute of <FileSystem>
save_volume	Indicates if the volume is a save volume	savvolume attribute of <FileSystem>
total_snap	Total snap size	Spacetotal attribute of <FileSystemCheckpointInfo>
volume_size	Volume size	Volumesize attribute of <FileSystemCapacityInfo>
total_files	Total number of files	Filestotal attribute of <ResourceUsage>
total_space	Total space (in GB)	Spacetotal attribute of <ResourceUsage>

celerra_mount for Celerra

The fields described in the following table are returned.

Table 197. celerra_mount

Field	Description	From
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in referred
sub_name	Identifier for the Data Mover or Virtual Data Mover	Name attribute of either the <Mover> element or the <Vdm> element for Virtual Data Movers (Data Mover)
mountpoint	File system mount point	Path attribute of <Mount>

Table 197. celerra_mount (continued)

Field	Description	From
filesystem	File system name	Name attribute of <FileSystem>
disabled	File system is temporarily unavailable	Disabled attribute of <Mount>
nt_credential	Use NT credentials (where system matches UNIX UID/GID to Windows SID to create single common credential called an NT credential)	ntCredential attribute of <Mount>
nfs_prefetch	Perform read-ahead processing	Prefetch attribute of <NFSTOptions>
nfs_READONLY	File system is read-only	ro attribute of <NFSTOptions>
nfs_uncached	Allow (well-formed) writes to be sent directly to disk without being cached on the server	Uncached attribute of <NFSTOptions>
nfs_virusscan	Virus checker protocol is enabled	Virusscan attribute of <NFSTOptions>
cifs_accesspolicy	Access checking policy: NT, UNIX, SECURE, NATIVE, MIXED, MIXED_COMPAT	Accesspolicy attribute of <CIFSTOptions>
cifs_syncwrite	All writes (via CIFS) to Celerra are synchronous	CifsSyncwrite attribute of <CIFSTOptions>
cifs_lockpolicy	Lock policy: nolock, wlock, rlock	LockingPolicy attribute of <CIFSTOptions>
cifs_notify	Notify client of changes made to directory structure	Notify attribute of <CIFSTOptions>
cifs_notifyonaccess	Notify client when file system is accessed	NotifyonAccess attribute of <CIFSTOptions>
cifs_notifyonwrite	Notify client when file system is modified	NotifyonWrite attribute of <CIFSTOptions>
cifs_oplock	Opportunistic locks are enabled	Oplock attribute of <CIFSTOptions>
cifs_triggerlevel	Number of subdirectories where change notification is applied	TriggerLevel attribute of <CIFSTOptions>

memory_config for Celerra

The fields described in the following table are returned.

Table 198. memory_config

Field	Description	From
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Name of the Data Mover	Name attribute of the <Mover> element
physical	Amount of physical memory on the data mover	MemorySize attribute of <MoverMotherboard>

processor_config for Celerra

The fields described in the following table are returned.

Table 199. processor_config

Field	Description	From
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Data Mover identifier	Name attribute of the <Mover> element
num	Processor identifier	Hard coded to 0
model	Processor type	cpuType attribute of <MoverMotherboard>
speed	Processor speed	cpuSpeed attribute of <MoverMotherboard>
bus_speed	Processor bus speed	busSpeed attribute <MoverMotherboard>

netint_config for Celerra

The fields described in the following table are returned.

Table 200. Network interface configuration

Field	Description	From
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Data Mover identifier	Name attribute of the <Mover> element
name	Unique identifier for the network interface	Device attribute of <MoverInterface>
ether_addr	MAC address	macaddr attribute of <MoverInterface>
autoneg	Indicates if auto-negotiation is configured	Speed attribute of <LogicalNetworkDevice>
description	Interface description	Description attribute of <PhysicalDevice>
mtu	Maximum transmission unit for the interface	mtu attribute of <MoverInterface>

netint_ip for Celerra

The fields described in the following table are returned.

Table 201. netint_ip

Field	Description	From
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Data Mover name	Name attribute of the <Mover> element
name	Physical network interface name	Device attribute of <MoverInterface>
ipaddr	Host IP address	ipAddress attribute of <MoverInterface>

Table 201. netint_ip (continued)

Field	Description	From
netmask	Interface netmask	netMask attribute of <MoverInterface>
broadcast	Interface broadcast address	broadcastAddress attribute of <MoverInterface>

fcport_config for Celerra

The fields described in the following table are returned.

Table 202. fcport_config

Field	Description	From
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Data Mover identifier	Name attribute of the <Mover> element
port	Port number	port attribute of <FibreChannelDeviceData>
wwpn	Fibre channel port wwpn	portWWN attribute of <FibreChannelDeviceData>

iscsi_config for Celerra

The fields described in the following table are returned.

Table 203. iscsi_config

Field	Description	From
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Data Mover identifier	Name attribute of the <Mover> element
name	iSCSI Name	Name attribute of <iscsiTarget>

iscsiportal_config for Celerra

The fields described in the following table are returned.

Table 204. iscsiportal_config

Field	Description	From
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Data Mover identifier	Name attribute of the <Mover> element
adapter_id	iSCSI Name	Name attribute of <iscsiTarget>
ipaddr	iSCSI portal IP address	Address attribute of <Portal>
port	Port number	port attribute of <Portal>

fileserver_config for Celerra

The fields described in the following table are returned.

Table 205. fileserver_config

Field	Description	From
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Data Mover name	Name attribute of the <Mover> element
name	Export logical name	Name attribute of <CifsShare> or path attribute of <NFSExport>
export	Export path	Path attribute of <NFSExport> or path attribute of <CifsShare>
type	Export type: CIFS, NFS	Hard coded to either CIFS or NFS
permission	Indicates if read only or not (NFS only)	ReadOnly attribute of <NFSExport>

enclosure_config for Celerra

The fields described in the following table are returned.

Table 206. enclosure_config

Field	Description	From
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Storage array identifier	Name attribute of <StorageSystem>
name	Enclosure ID	enclosureNumber attribute of <VNX/ClariionDiskConfig>

disk_config for Celerra

The fields described in the following table are returned.

Table 207. disk_config

Field	Description	Sourced from VNX/CLARiiON	Sourced from Symmetrix
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Storage array identifier	Name attribute of <StorageSystem>	Name attribute of <StorageSystem>
device	Identifier for the device	name attribute of <VNX/ClariionDiskConfig>	<director>_<interface>_<scsidi>
system_type	Underlying storage system type	Hard coded to CLARiiON	Hard coded to Symmetrix
manufacturer	Disk manufacturer	vendorID attribute of <VNX/ClariionDiskConfig>	vendorID attribute of <PhysicalDisk>
model	Product model	ProductID attribute of <VNX/ClariionDiskConfig>	ProductID attribute of <PhysicalDisk>

Table 207. disk_config (continued)

Field	Description	Sourced from VNX/ CLARiiON	Sourced from Symmetrix
serial_number	Serial number	serialNumber attribute of <VNX/ClariionDiskConfig>	serialNumber attribute of <PhysicalDisk>
firmware	Disk firmware revision	Revision attribute of <VNX/ClariionDiskConfig>	productRevision attribute of <PhysicalDisk>
size	Disk capacity (in GB)	Capacity attribute of <VNX/ClariionDiskConfig>	ProductID attribute of <PhysicalDisk> diskCapacity attribute of <PhysicalDisk>
bus	Bus that the disk enclosure is attached to	bus attribute of <VNX/ClariionDiskConfig>	N/A
enclosure_name	Name (ID) of the enclosure that the disk is in	enclosureNumber attribute of <VNX/ClariionDiskConfig>	N/A
disk_number	Identifier of the disk within the enclosure	diskNumber attribute of <VNX/ClariionDiskConfig>	N/A
director	Symmetrix Director identifier	N/A	director attribute of <PhysicalDisk>
interface	Interface identifier	N/A	interface attribute of <PhysicalDisk>
scsi_id	SCSI interface identifier	N/A	scsiid attribute of <PhysicalDisk>

lun_config for Celerra

The fields described in the following table are returned.

Table 208. lun_config

Field	Description	Sourced from VNX/ CLARiiON	Sourced from Symmetrix
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Identifier for storage array identifier	name attribute of <StorageSystem>	name attribute of <StorageSystem>
name	Name of disk volume presented to Celerra	name attribute of <Volume>	name attribute of <Volume>
system_type	Underlying storage system type	Hard coded to CLARiiON	Hard coded to Symmetrix
lun_id	LUN unique identifier	device attribute of <VNX/ClariionDeviceConfig>	device attribute of <SymmetrixDeviceConfig>
serial	LUN serial number	deviceUID attribute of <VNX/ClariionDeviceConfig>	N/A
size	LUN capacity	capacity attribute of <VNX/ClariionDeviceConfig>	capacity attribute of <SymmetrixDeviceConfig>
type	LUN type	type attribute of <VNX/ClariionDeviceConfig>	type attribute of <SymmetrixDeviceConfig>

Table 208. lun_config (continued)

Field	Description	Sourced from VNX/ CLARiiON	Sourced from Symmetrix
description	LUN description	userDefinedName attribute of <VNX/ClariionDeviceConfig> element	N/A
idledelaytime	Time spent idle waiting for task	idleDelaytime attribute of <VNX/ClariionDeviceConfig>	N/A
idlethreshold	Maximum time spent idle before action	idleThreshold attribute of <VNX/ClariionDeviceConfig>	N/A
maxprefetch	Maximum number of pages read ahead	maxPrefetch attribute of <VNX/ClariionDeviceConfig>	N/A
prefetchdisable	Read ahead is disabled	prefetchDisable attribute of <VNX/ClariionDeviceConfig>	N/A
prefetchidlecount	Maximum number of pages read ahead while idle	prefetchIdleCount attribute of <VNX/ClariionDeviceConfig>	N/A

hwcard_config for Celerra

Hardware card configuration is not gathered if the underlying storage system is Symmetrix. The fields described in the following table are returned.

Table 209. hwcard_config

Field	Description	Sourced from VNX/CLARiiON
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Storage array identifier	Name attribute of <StorageSystem>
adaptername	Card unique name. For storage processor, probably a combination of the hostname and the following key	id attribute of <VNX/ClariionSPCconfig>
serial	Card serial number	serialNumber attribute of <VNX/ClariionSPConfig>
type	Card type	Hard coded to storage processor
firmware	Storage processor firmware revision	microcodeRev attribute of <VNX/ClariionSPConfig>
signature	Card signature	signature attribute of <VNX/ClariionSPConfig>
memoriesize	Card memory size	physicalMemorySize attribute of <VNX/ClariionSPConfig>
readcachesize	Read cache size	readCacheSize attribute of <VNX/ClariionSPConfig>
writecachesize	Write cache size	writeCacheSize attribute of <VNX/ClariionSPConfig>
buffersize	System buffer size	systemBufferSize attribute of <VNX/ClariionSPConfig>

monitoredarray_config for Celerra

The fields described in the following table are returned.

Table 210. monitoredarray_config

Field	Description	Sourced from VNX/ CLARiiON	Sourced from Symmetrix
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor	Name of the Celerra host node as defined in Data Protection Advisor
name	Storage array identifier	Name attribute of <StorageSystem>	Name attribute of <StorageSystem>
system_type	Underlying storage system type	Hard coded to CLARiiON	Hard coded to Symmetrix
model	Array model number	model attribute of <VNX/ClariionSystemData>	model attribute of <SymmetrixSystemData>
firmware	Array firmware version	softwareVersion attribute of <VNX/ClariionSystemData>	softwareVersion attribute of <SymmetrixSystemData>
cachepagesize	Cache page size(in KB)	cachePageSize attribute of <VNX/ClariionConfig	N/A
numdevices	Number of logical devices	clariionDevices attribute of <VNX/ClariionConfig>	logicalDisks attribute of <SymmetrixConfig>
highwatermark	Percentage of dirty pages to trigger a cache flush	highWaterMark attribute of <VNX/ClariionConfig>	N/A
lowwatermark	Percentage of dirty pages to stop a cache flush	lowWaterMark attribute of <VNX/ClariionConfig>	N/A
numdisks	Number of physical disks array holds	physicalDisks attribute of <VNX/ClariionConfig>	physicalDisks attribute of <SymmetrixConfig>
numraidgroups	Number of RAID groups array holds	raidGroups attribute of <VNX/ClariionConfig>	N/A
numstoragegroups	Number of storage groups	storageGroups attribute of <VNX/ClariionConfig>	N/A
unassignedcachepages	Number of unassigned cache pages	unassignedCachePages attribute of <VNX/ClariionConfig>	N/A
numvisibledevices	Total number of visible devices	visibleDevices attribute of <VNX/ClariionConfig>	N/A

celerra_volume

The fields described in the following table are returned.

Table 211. celerra_volume

Field	Description	From
hostname	Hostname or IP address of the Celerra being monitored	Name of the Celerra as defined in Data Protection Advisor
name	Name of the Celerra volume as displayed in the Celerra Manager	name attribute of <Volume>
volume_id	Volume identifier	volume attribute of <Volume>

Table 211. celerra_volume (continued)

Field	Description	From
type	One of the following: Disk, Slice, Stripe, meta, pool	type attribute of <Volume>
volume_size	Volume size(in MB)	size attribute of <Volume>
storage_pool	Storage pool associated with the volume	storagepool attribute of <Volume>
storage_system	Storage System on which the volume resides	storageSystem attribute of <DiskVolumeData>
lun	Name of the LUN on the Storage System that the disk based volume is mapped to. Only populated for disk-based volumes	lun attribute of <DiskVolumeData>
disk_type	If a disk volume, the type of disk volume. If a volume type other than disk, the type of the underlying disk volumes	diskType attribute of <DiskVolumeData>
stripe_size	Stripe size. Only populated for stripe volumes	stripeSize attribute of <StripeVolumeData>

celerra_vol_linkage

The fields described in the following table are returned.

Table 212. celerra_vol_linkage

Field	Description	From
source_name	Source object name	Dependent on the source type
source_type	Source type: File system, Volume	N/A
dest_name	Identifier for the object that the source is connected to	Dependent on the destination type
dest_type	Destination type: Volume, Storage Pool, Storage System, Read Only Host, Read Write Host, Data Mover, Volume	N/A

celerra_storage_pool

The fields described in the following table are returned.

Table 213. celerra_storage_pool

Field	Description	From
hostname	Hostname or IP address of the Celerra being monitored	Name of the Celerra as defined in Data Protection Advisor
name	Storage Pool name	name attribute of <StoragePool>
pool_id	Pool identifier	pool attribute of <StoragePool>
description	Pool description	description attribute of <StoragePool>
disk type	Disk type used by the storage pool	diskType attribute of <StoragePool>
capacity	Potential capacity of the storage pool (in MB)	size attribute of <StoragePool>.

Table 213. celerra_storage_pool (continued)

Field	Description	From
used_size	Amount of storage used by the pool (in MB)	usedSize attribute of <StoragePool>
auto_size	Indicates if the storage pool is set to extend automatically. If enabled, the pool automatically extends with the unused disk volumes of the same profile, if available, whenever needed	autoSize attribute of <StoragePool>
dynamic	Indicates if a storage pool automatically attempts to grow or shrink member volumes	dynamic attribute of <StoragePool>
greedy	Indicates if a storage pool attempts to create new member volumes before using existing space from current member volumes	greedy attribute of <StoragePool>

celerra_tree_config

The fields described in the following table are returned.

Table 214. celerra_tree_config

Field	Description	From
hostname	Hostname or IP address of the Celerra being monitored	Name of the Celerra as defined in Data Protection Advisor
filesystem	File system description	filesystem attribute of <FileSystem>
tree_id	Tree identifier	tree attribute of <QuotaOptions>
path	Tree path	path attribute of <QuotaOptions>
group_quotas_enabled	Indicates group quotas are enabled for the tree	enablegroupquotas attribute of <QuotaOptions>
user_quotas_enabled	Indicates user quotas are enabled for the tree	enableuserquotas attribute of <QuotaOptions>
hardlimit_enforced	Indicates hardlimit quotas are enforced on the tree	hardlimitenforced attribute of <QuotaOptions>
soft_exceeded_event	Indicates an event is generated if a softlimit quota has been exceeded on the tree	crossedsoftevent attribute of <QuotaOptions>
hard_exceeded_event	Indicates an event is generated if a hardlimit quota has been exceeded on the tree	exceededhardevent attribute of <QuotaOptions>
check_start_event	Indicates an event is generated when a quota check starts	checkstartevent attribute of <QuotaOptions>
check_end_event	Indicates an event is generated when a quota check ends	checkendevent attribute of <QuotaOptions>
files_grace_period	Grace period after a Files softlimit is exceeded before the hardlimit is triggered. The grace period allows users to bring file usage back below the softlimit	files attribute of <QuotaGracePeriod>

Table 214. celerra_tree_config (continued)

Field	Description	From
space_grace_period	Grace period after a Space softlimit is exceeded before the hardlimit is triggered. The grace period allows users to bring disk usage back below the softlimit	space attribute of <QuotaGracePeriod>
user_files_softlimit	File count at which the soft limit for users is exceeded	filesSoftLimit attribute of <UserLimits>
user_files_hardlimit	File count at which the hard limit for users is exceeded	filesHardLimit attribute of <UserLimits>
user_space_softlimit	Usage size at which the soft limit for a user is exceeded (in MB)	spaceSoftLimit attribute of <UserLimits>
user_space_hardlimit	Usage size at which the hard limit for a user is exceeded (in MB)	spaceHardLimit attribute of <UserLimits>
group_files_softlimit	File count at which the soft limit for a user's primary group is exceeded	filesSoftLimit attribute of <GroupLimits>
group_files_hardlimit	File count at which the hard limit for a user's primary group is exceeded	filesHardLimit attribute of <GroupLimits>
group_space_softlimit	Usage size at which the soft limit for a user's primary group is exceeded (in MB)	spaceSoftLimit attribute of <GroupLimits>
group_space_hardlimit	Usage size at which the hard limit for a user's primary group is exceeded (in MB)	spaceHardLimit attribute of <GroupLimits>

celerra_quota_config

The fields described in the following table are returned.

Table 215. celerra_quota_config

Field	Description	From
Server name	Hostname or IP address of the Celerra being monitored	Name of the Celerra as defined in Data Protection Advisor
filesystem	File system description	filesystem attribute of <Filesystem>
tree_id	Tree identifier	tree attribute of <QuotaOptions>
path	Path of the tree associated with the quota	path attribute of <QuotaOptions>
type	One of: Tree, User, Group	tree attribute of <QuotaOptions>
comment	User comments for the quota	comment attribute of <QuotaOptions>
uid	User identifier	uid attribute of <UserQuota>
windows_sids	Windows Security Identifier(s)	winSecurityIds attribute of <UserQuota>
files_softlimit	Soft file usage quota for the file system. If exceeded, a warning is sent to Windows clients	filesoftlimit attribute of <Limits>
files_hardlimit	Hard file usage quota for the file system. If exceeded, user requests for additional files (for example, creating a new file) are denied	fileshardlimit attribute of <Limits>

Table 215. celerra_quota_config (continued)

Field	Description	From
space_softlimit	Soft space usage quota for the file system. If exceeded, a warning is sent to Windows clients	spacesoftlimit attribute of <Limits>
space_hardlimit	Hard space usage quota for the file system. If exceeded, user requests for additional space (for example, saving a file) are denied	spacehardlimit attribute of <Limits>

Status function for Celerra

The Status function gathers status information regarding the status of Celerra components. The function includes the following options:

- secure — Send requests through HTTPS instead of HTTP. The default value is true.
- port — HTTP/HTTPS port on Celerra Control Station to connect
- timeout — HTTP request timeout. The default value is 1800.

The Status function gathers the following data:

- [host_status for Celerra](#)
- [memory_status for Celerra](#)
- [processor_status for Celerra](#)
- [filesystem_status for Celerra](#)
- [disk_status for Celerra](#)
- [lun_status for Celerra](#)
- [hwcard_status for Celerra](#)
- [celerra_quota_usage](#)
- [checkpoint_status for Celerra](#)
- [checkpoint_mnt_hosts for Celerra](#)

host_status for Celerra

The fields described in the following table are returned.

Table 216. host_status

Field	Description	From
hostname	Name or IP Address of the Celerra managing host	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Data Mover name	Name attribute of the <Mover> element
lastboot	Last time a data mover rebooted. Not returned for Control Station	uptime attribute of <MoverStatus>
status	Device status	maxSeverity attribute of <Status>

memory_status for Celerra

The fields described in the following table are returned.

Table 217. memory_status

Field	Description	From
hostname	Name or IP Address of the Celerra managing host	Name of the Celerra host node as defined in Data Protection Advisor

Table 217. memory_status (continued)

Field	Description	From
sub_name	Data Mover name	Name attribute of the <Mover> element
used	Amount of memory in use	mem attribute of <MoverResourceUsage><Sample> element and memorySize attribute of <MoverMotherboard> element

processor_status for Celerra

The fields described in the following table are returned.

Table 218. processor_status

Field	Description	From
hostname	Name or IP Address of the Celerra managing host	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Data Mover name	Name attribute of the <Mover> element
num	Processor Number	Hard coded to 0
utilisation	Processor utilisation	cpu attribute of <MoverResourceUsage><Sample> element
online	Indicates if the processor is online	Hard coded to 1

filesystem_status for Celerra

The fields described in the following table are returned.

Table 219. filesystem_status

Field	Description	From
hostname	Name or IP Address of the Celerra managing host	Name of the Celerra host node as defined in Data Protection Advisor
mountpoint	Device mount point	Path attribute of <Mount>
used_space	Amount of space used in the file system (in MB)	spaceUsed attribute of <ResourceUsage>
used_files	Number of files used in the file system	filesUsed attribute of <ResourceUsage>
used_snap	Amount of snap space used in the file system (in MB)	SpaceUsed attribute of <FileSystemCheckpointInfo>
cleanable	Cleanable space	.1.3.6.1.4.1.,19746.1.3.2.1.1.7

disk_status for Celerra

The fields described in the following table are returned.

Table 220. disk_status

Field	Description	Sourced from VNX/ CLARiiON	Sourced from Symmetrix
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Storage array identifier	Name attribute of <StorageSystem>	Name attribute of <StorageSystem>
device	Disk identifier	Name attribute of <VNX/ClariionDiskConfig>	<director>_<interface>_<scsi_id>
state	State: Online, Offline, Failed	State attribute of <VNX/ClariionDiskConfig>	N/A
allocated	How much of the capacity is used (in GB)	usedCapacity attribute of <VNX/ClariionDiskConfig>	usedCapacity attribute of <PhysicalDisk>
remapped_blocks	Number of remapped_blocks on a disk	remappedBlocks attribute of <VNX/ClariionDiskConfig>	N/A

lun_status for Celerra

The fields described in the following table are returned.

Table 221. lun_status

Field	Description	Sourced from VNX/ CLARiiON	Sourced from Symmetrix
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Storage array identifier	Name attribute of <StorageSystem>	Name attribute of <StorageSystem>
name	Unique identifier for the LUN on the Celerra	Name attribute of <Volume>	Name attribute of <Volume>
state	LUN online status	State attribute of <VNX/ClariionDeviceStatus>	Status attribute of <SymmetrixDeviceStatus>
autoassignment	Indicates if auto_assignment is configured on the LUN	autoAssignment attribute of <VNX/ClariionDeviceStatus>	N/A
autotrespass	Indicates if auto_trespass is configured on the LUN	autoTrespass attribute of <VNX/ClariionDeviceStatus>	N/A
isprivate	Indicates if the LUN is private or not	isPrivate attribute of <VNX/ClariionDeviceStatus>	N/A
readcache	Indicates if the read cache on a LUN is enabled	readCache attribute of <VNX/ClariionDeviceStatus>	N/A
varlengthprefetch	Indicates if variable length pre-fetch is enabled	variableLengthPrefetch attribute of <VNX/ClariionDeviceStatus>	N/A
writecache	Indicates if a write cache is enabled	writeCache attribute of <VNX/ClariionDeviceStatus>	N/A

hwcard_status for Celerra

Hardware card status is not gathered if the underlying storage system is Symmetrix. The fields described in the following table are returned.

Table 222. hwcard_status

Field	Description	From
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Storage array identifier	Name attribute of <StorageSystem>
adaptorname	Unique name for the card. For storage processor, probably a combination of the hostname and the following key	id attribute of <VNX/ClariionSPConfig>
state	Storage processor state	state attribute of <VNX/ClariionSPStatus>
usedmemoriesize	Size of memory in use	physicalMemorySize attribute of <VNX/ClariionSPConfig> freeMemorySize attribute of <VNX/ClariionSPConfig>
readcachestate	Read cache status	readCacheState attribute of <VNX/ClariionSPStatus>
writecachestate	Write cache state	writeCacheState attribute of <VNX/ClariionSPStatus>

celerra_quota_usage

The fields described in the following table are returned.

Table 223. celerra_quota_usage

Field	Description	From
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor
filesystem	File system name	filesystem attribute of <Quota>
tree_id	Tree identifier	tree attribute of <Quota>
path	Tree path	path attribute of <Quota>
type	One of: Tree, User, Group	tree attribute of <QuotaUsage>
uid	User identifier	uid attribute of <UserQuota>
files_used	Number of files used on the tree	filesUsed attribute of <TreeQuotaUsage> or <UserQuotaUsage> element
space_used	Amount of space used on the tree	spaceUsed attribute of <TreeQuotaUsage> or <UserQuotaUsage> element
files_timeleft	Amount of grace period remaining after a File Softlimit breach before the File Hardlimit condition is triggered	files attribute of <TimeRemains>
space_timeleft	Amount of grace period remaining after a Space Softlimit breach before the Space Hardlimit condition is triggered	space attribute of <TimeRemains>

checkpoint_status for Celerra

The fields described in the following table are returned.

Table 224. checkpoint_status

Field	Description	From
Host Name	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor
checkpoint_name	Checkpoint name	name attribute of <Checkpoint>
checkpoint_id	Checkpoint identifier	checkpoint attribute of <Checkpoint>
time	Time at which the checkpoint was taken	time attribute of <Checkpoint>
state	Checkpoint state: active, inactive, pending, restoring, other	state attribute of <Checkpoint>
filesystem	Source file system for the checkpoint	checkpointOf attribute of <Checkpoint>
filesystem_size	Size of file system at the time checkpoint was taken	fileSystemSize attribute of <Checkpoint>

checkpoint_mnt_hosts for Celerra

The fields described in the following table are returned.

Table 225. checkpoint_mnt_hosts

Field	Description	From
hostname	Name or IP Address of the Celerra	Name of the Celerra host node as defined in Data Protection Advisor
checkpoint_name	Checkpoint name	name attribute of <Checkpoint>
checkpoint_id	Checkpoint identifier	checkpoint attribute of <Checkpoint>
readonly_host	Mover (VDM) on which this checkpoint is mounted read-only	roFileSystemHosts attribute of <Checkpoint>

Performance function for Celerra

The performance function gathers status information regarding the status of for Celerra components by connecting to the Celerra Control Station through SSH. The function includes the following options:

- port — SSH port on Celerra Control Station to connect.
- timeout — SSH command timeout. The default value is 600.

The Status function gathers the following data:

- [netint_perf for Celerra](#)
- [filesystem_perf for Celerra](#)
- [lun_perf for Celerra](#)
- [fileservers_perf for Celerra](#)

netint_perf for Celerra

The fields described in the following table are returned.

Table 226. netint_perf

Field	Description	From
hostname	Hostname or IP address of the Celerra Control Station being monitored	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Data Mover name	Name attribute of the <Mover> element
name	Network interface name	From the output of server_stats -table net
data_in	Amount of data received by the network interface (KB/second)	From the output of server_stats -table net
data_out	Amount of data sent out of the network interface (KB/second)	From the output of server_stats -table net
packets_in	Number of packets received by the NIC	From the output of server_stats -table net
packets_out	Number of packets sent by the NIC	From the output of server_stats -table net
errors_in	Number of packets received with errors (packets/second)	From the output of server_stats -table net
errors_out	Number of packets sent with errors (packets/second)	From the output of server_stats -table net
Percentage utilization in	Utilization of the network interface by incoming traffic	Calculated from the above
Percentage utilization out	Utilization of the network interface by outgoing traffic	Calculated from the above

filesystem_perf for Celerra

The fields described in the following table are returned.

Table 227. filesystem_perf

Field	Description	From
name	Hostname or IP address of the Celerra Control Station	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Data Mover name	Name attribute of the <Mover> element
mountpoint	File system name	From the output of server_stats -table fsvol
data_in	Amount of data written to the file system (KB/second)	From the output of server_stats -table fsvol
data_out	Amount of data read from the file system (KB/second)	From the output of server_stats -table fsvol
reqs_in	Number of write requests made to the file system (requests/second)	From the output of server_stats -table fsvol
reqs_out	Number of read requests made to the file system (requests/second)	From the output of server_stats -table fsvol

Table 227. filesystem_perf (continued)

Field	Description	From
avg_read_size	Average size of a read request (in bytes)	From the output of server_stats -table fsvol
avg_write_size	Average size of a write request (in bytes)	From the output of server_stats -table fsvol

lun_perf for Celerra

The fields described in the following table are returned.

Table 228. lun_perf

Field	Description	From
name	Hostname or IP address of the Celerra Control Station	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Data Mover name	Name attribute of the <Mover> element
name	Celerra Disk Volume name. For example, d41	From the output of server_stats -tab dvol
read_data	Amount of data being written to the disk volume (MB/second)	From the output of server_stats -tab dvol.
write_data	Amount of data being read from the disk volume (MB/second)	From the output of server_stats -tab dvol
read_ops	Number of read requests to the LUN	From the output of server_stats -tab dvol
write_ops	Number of write requests to the LUN	From the output of server_stats -tab dvol
queue_depth	IO queue depth	From the output of server_stats -tab dvol
average_read_size	Average size of read operations to the disk (in bytes)	From the output of server_stats -tab dvol
average_write_size	Average size of write operations to the disk (in bytes)	From the output of server_stats -tab dvol

fileserver_perf for Celerra

The fields described in the following table are returned.

Table 229. fileserver_perf

Field	Description	From
Server name	Hostname or IP address of the Celerra Control Station	Name of the Celerra host node as defined in Data Protection Advisor
sub_name	Data mover name	From the output of nas_server -list
nfsops	Total number of NFS operations per second through the data mover	From the output of server_stats (server) summary nfs
cifsops	Total number of CIFS operations per second through a data mover	From the output of server_stats (server) summary cifs
cifs_readops	Total number of CIFS read operations per second through the data mover	From the output of server_stats (server) summary cifs

Table 229. fileserver_perf (continued)

Field	Description	From
cifs_writeops	Total number of CIFS write operations per second through the data mover	From the output of server_stats (server) summary cifs
cifs_datain	Total amount of CIFS data written to the data mover (KB/second)	From the output of server_stats (server) summary cifs
cifs_dataout	Total amount of CIFS data read from the data mover (KB/second)	From the output of server_stats (server) summary cifs
cifs_avg_readsize	Average size of CIFS read operations (in KB)	From the output of server_stats (server) summary cifs
cifs_avg_writesize	Average size of CIFS write operations (in KB)	From the output of server_stats (server) summary cifs
cifs_avg_readop_duration	Average duration of CIFS read calls (microseconds/call)	From the output of server_stats (server) summary cifs
cifs_avg_writeop_duration	Average duration of CIFS write calls (microseconds/call)	From the output of server_stats (server) summary cifs
cifs_connections	Number of CIFS connections open to the Data Mover	From the output of server_stats (server) summary cifs
cifs_openfiles	Number of CIFS open files	From the output of server_stats (server) summary cifs
nfs_readops	Total amount of NFS read operations per second through the data mover (ops/second)	From the output of server_stats (server) summary cifs
nfs_writeops	Total amount of NFS write operations per second through the data mover (ops/second)	From the output of server_stats (server) summary nfs
nfs_datain	Total amount of NFS data written to the data mover (KB/second)	From the output of server_stats (server) summary nfs
nfs_dataout	Total amount of NFS data read from the data mover (KB/second)	From the output of server_stats (server) summary nfs
nfs_avg_readsize	Average size of NFS reads from the data mover (in bytes)	From the output of server_stats (server) summary nfs
nfs_avg_writesize	Average size of NFS writes to the data mover (in bytes)	From the output of server_stats (server) summary nfs
nfs_avg_readop_duration	Average duration of NFS read calls (microseconds/call)	From the output of server_stats (server) summary cifs
nfs_avg_writeop_duration	Average duration of NFS write calls (microseconds/call)	From the output of server_stats (server) summary cifs

PowerProtect DD Module

The PowerProtect DD module gathers information about the configuration, status, and performance of PowerProtect DD backup appliance components. Data Protection Advisor uses SNMP to gather data from the PowerProtect DD MIB. It also uses SSH to run CLI commands to gather additional Performance, Configuration, and Status data about the performance about PowerProtect DD components. The module includes the following functions that gather different types of information:

Topics:

- Analysis function for PowerProtect DD
- Configuration function for PowerProtect DD
- PowerProtect DD compression
- Status function for PowerProtect DD
- Performance function for PowerProtect DD
- SSH Physical Capacity Reporting for PowerProtect DD
- SSH Performance for PowerProtect DD
- SSH Configuration for PowerProtect DD
- SSH Status for PowerProtect DD

Analysis function for PowerProtect DD

The PowerProtect DD Analysis request works on Windows x64 or Linux x64 Agents only.

The Analysis function gathers data from PowerProtect DD files to:

- Provide metrics on the number and size of files on the PowerProtect DD.
- Map the files back to backup clients, and to provide metrics on the space and dedup ratios for them.

The Data Protection Advisor Agent performs the PowerProtect DD analysis. Data Protection Advisor assigns the PowerProtect DD Analysis request by default during the discovery of new PowerProtect DD instance, with the frequency set to Manual. You can configure the frequency Period or Schedule, but you must choose intervals equal to or greater than one week.

i **NOTE:** If security role is enabled, ensure that you provide the security role credentials during discovery or when editing the data collection request for successful data collection.

The Analysis function gathers the following data:

- [dd_analysis for PowerProtect DD](#)
- [ddup_status for PowerProtect DD](#)

dd_analysis for PowerProtect DD

The fields described in the following table are returned.

Table 230. dd_analysis

Field	Description	From
day_count	Number of files on the PowerProtect DD with an age of less than a day	The output of the <code>se_sfs_dump</code> command.
day_size	Total size of files on the PowerProtect DD with an age of less than a day	The output of the <code>se_sfs_dump</code> command.
ddhost_name	Name of the PowerProtect DD host	Host
mmtree_name	Name of the PowerProtect DD MTree	MTree

Table 230. dd_analysis (continued)

Field	Description	From
greater_than_year_count	Number of files on the PowerProtect DD with an age of more than a year	The output of the se_sfs_dump command.
greater_than_year_size	Total size of files on the PowerProtect DD with an age of more than a year	The output of the se_sfs_dump command.
month_count	Number of files on the PowerProtect DD with an age of more than 2 weeks but less than a month	The output of the se_sfs_dump command.
month_size	Total size of files on the PowerProtect DD with an age of more than 2 weeks but less than a month	The output of the se_sfs_dump command.
six_months_count	Number of files on the PowerProtect DD with an age of more than 3 months but less than 6 months	The output of the se_sfs_dump command.
six_months_size	Total size of files on the PowerProtect DD with an age of more than 3 months but less than 6 months	The output of the se_sfs_dump command.
three_months_count	Number of files on the PowerProtect DD with an age of more than 2 months but less than 3 months	The output of the se_sfs_dump command.
three_months_size	Total size of files on the PowerProtect DD with an age of more than 2 months but less than 3 months	The output of the se_sfs_dump command.
two_months_count	Number of files on the PowerProtect DD with an age of more than a month but less than 2 months	The output of the se_sfs_dump command.
two_months_size	Total size of files on the PowerProtect DD with an age of more than a month but less than 2 months	The output of the se_sfs_dump command.
two_weeks_count	Number of files on the PowerProtect DD with an age of more than a week but less than 2 weeks	The output of the se_sfs_dump command.
two_weeks_size	Total size of files on the PowerProtect DD with an age of more than a week but less than 2 weeks	The output of the se_sfs_dump command.
week_count	Number of files on the PowerProtect DD with an age of more than a day but less than a week	The output of the se_sfs_dump command.
week_size	Total size of files on the PowerProtect DD with an age of more than a day but less than a week	The output of the se_sfs_dump command.
year_count	Number of files on the PowerProtect DD with an age of more than 6 months but less than a year	The output of the se_sfs_dump command.
year_size	Total size of files on the PowerProtect DD with an age of more than 6 months but less than a year	The output of the se_sfs_dump command.

ddup_status for PowerProtect DD

The fields described in the following table are returned.

Table 231. ddup_status

Field	Description	From
ddhost_name	Name of the PowerProtect DD host	Host
seg_bytes	Its all the bytes that were ever written to that	The output of the se_sfs_dump command.
seg_count	Number of segments in the file	The output of the se_sfs_dump command.
redund_seg_count	Number of redundant segments that already exist on the DDR	The output of the se_sfs_dump command.
pre_lc_size	Size before local compression	The output of the se_sfs_dump command.
post_lc_size	Size after local compression	The output of the se_sfs_dump command.

Configuration function for PowerProtect DD

The Configuration function gathers information about the configuration of PowerProtect DD components. The function includes the following options:

- timeout — SNMP timeout value. The default value is 10 seconds.

The Configuration function gathers the following data:

- ntp_config for PowerProtect DD
- enclosure_config for PowerProtect DD
- network_dns for PowerProtect DD
- host_config for PowerProtect DD
- netinit_config for PowerProtect DD
- netint_ip for PowerProtect DD
- disk_config for PowerProtect DD
- hwpsu_config for PowerProtect DD
- hwfan_config for PowerProtect DD
- hwtemp_config for PowerProtect DD
- ss_storage_config for PowerProtect DD
- hwbattery_config for PowerProtect DD
- filesystem_config for PowerProtect DD
- filesrvr_config for PowerProtect DD
- library_config for PowerProtect DD
- tapedrive_config for PowerProtect DD
- fcport_config for PowerProtect DD
- fcport_initiator_config for PowerProtect DD
- dd_sys_license for PowerProtect DD
- dd_sys_cap_license for PowerProtect DD
- tenantunit_config for PowerProtect DD
- mtree_tenantunit_map for PowerProtect DD
- su_tenantunit_map for PowerProtect DD

ntp_config for PowerProtect DD

For DD Operating System versions earlier than 6.0, Data Protection Advisor retrieves data using the command `ntp show config` through the SSH Configuration request. For DDoS versions 6.0 and later, Data Protection Advisor retrieves the same data through SNMP in the Configuration request. The fields that are described in the following table are returned.

Table 232. ntp_config

Field	Description	From
server	NTP Server name	1.3.6.1.4.1.19746.1.24.2.2.1.2

enclosure_config for PowerProtect DD

The fields described in the following table are returned.

Table 233. enclosure_config

Field	Description	From
name	Enclosure number	.1.3.6.1.4.1.19746.1.17.1.1.1.2
model	Enclosure model	.1.3.6.1.4.1.19746.1.17.1.1.1.3
serial	Enclosure serial number	.1.3.6.1.4.1.19746.1.17.1.1.1.4
slots	Enclosure slot capacity	.1.3.6.1.4.1.19746.1.17.1.1.1.7

network_dns for PowerProtect DD

The fields described in the following table are returned.

Table 234. network_dns

Field	Description	From
dns	DNS server name	.1.3.6.1.4.1.19746.1.18.1.1.1.2

host_config for PowerProtect DD

The fields described in the following table are returned.

Table 235. host_config

Field	Description	From
vendor	Vendor of the product	Hard coded to PowerProtect DD
osclass	Type of PowerProtect DD appliance	Hard coded to PowerProtect DD
product	Product name	Hard coded to PowerProtect DD
version	DDOS version	1.3.6.1.2.1.1.1.0
hostid	Host ID of the appliance	1.3.6.1.2.1.1.5.0
serial	Serial number of the host	.1.3.6.1.4.1.19746.1.13.1.1.0
model	PowerProtect DD model number	.1.3.6.1.4.1.19746.1.13.1.4.0
location	Host location	.1.3.6.1.2.1.1.6.0
mailserver	mail server	config show mailserver command in the ssh config function; Data Protection Advisor populates the

Table 235. host_config (continued)

Field	Description	From
		value in SNMP config function through pstore.
location	Hardware location	.1.3.6.1.2.1.1.6.0

netinit_config for PowerProtect DD

The fields described in the following table are returned.

Table 236. netint_config

Field	Description	From
name	Network interface identifier	1.3.6.1.2.1.2.2.1.2
ether_addr	Ethernet Address of the Interface	1.3.6.1.2.1.2.2.1.6
description	Interface description	1.3.6.1.2.1.2.2.1.2
mtu	Maximum Transfer/Transmission Unit (MTU) of the Interface	1.3.6.1.2.1.2.2.1.4
f_jumbo	Jumbo Packets Enabled	SNMP OID .1.3.6.1.2.1.2.2.1.4

netint_ip for PowerProtect DD

The fields described in the following table are returned.

Table 237. netint_ip

Field	Description	From
name	Network interface identifier	.1.3.6.1.2.1.2.2.1.2
ipaddr	Network IP address	.1.3.6.1.2.1.4.20.1.1 after verifying ifIndex (.1.3.6.1.2.1.2.2.1.1) matches ipAdEntIfIndex (.1.3.6.1.2.1.4.20.1.2)
netmask	Network mask	.1.3.6.1.2.1.4.20.1.3
broadcast	Broadcast address of the IP address	.1.3.6.1.2.1.4.20.1.4
gateway	Gateway of IP address	.1.3.6.1.2.1.4.21.1.7 if the value of 1.3.6.1.2.1.4.21.1.1 is 0.0.0.0
Hostname	Hostname of IP address	Hardcode to target value

disk_config for PowerProtect DD

The fields described in the following table are returned.

Table 238. disk_config

Field	Description	From
device	Disk identifier	.1.3.6.1.4.1.19746.1.6.1.1.1.1 (DiskPropEnclosureID) + .1.3.6.1.4.1.19746.1.6.1.1.1.2 (DiskPropIndex)

Table 238. disk_config (continued)

Field	Description	From
serial_number	Disk serial number	.1.3.6.1.4.1.19746.1.6.1.1.1.5 (diskSerialNumber)
model	Disk model	.1.3.6.1.4.1.19746.1.6.1.1.1.3 (diskModel)
size	Storage size of disk (in GB)	.1.3.6.1.4.1.19746.1.6.1.1.1.6 (diskCapacity)
firmware	Disk firmware version	.1.3.6.1.4.1.19746.1.6.1.1.1.4 (diskFirmwareVersion)

hwpsu_config for PowerProtect DD

The fields described in the following table are returned.

Table 239. hwpsu_config

Field	Description	From
name	Power supply unit name	.1.3.6.1.4.1.19746.1.1.1.1.1.1 (enclosure id) + .1.3.6.1.4.1.19746.1.1.1.1.1.3

hwfan_config for PowerProtect DD

The fields described in the following table are returned.

Table 240. hwfan_config

Field	Description	From
name	Fan name	.1.3.6.1.4.1.19746.1.1.3.1.1.1.1 (fanEnclosureID) + .1.3.6.1.4.1.19746.1.1.3.1.1.1.3 (fanDescription)

hwtemp_config for PowerProtect DD

The fields described in the following table are returned.

Table 241. hwtemp_config

Field	Description	From
name	Thermometer name	.1.3.6.1.4.1.19746.1.1.2.1.1.1.1 (tempEnclosureID) + .1.3.6.1.4.1.19746.1.1.2.1.1.1.2 (tempSensorDescription)

ss_storage_config for PowerProtect DD

The fields described in the following table are returned.

Table 242. ss_storage_config

Field	Description	From
size	NVRAM memory size (in MB)	.1.3.6.1.4.1.19746.1.2.1.1.0 (nvMemorySize)

Table 242. ss_storage_config (continued)

Field	Description	From
windowsize	NVRAM window size (in MB)	.1.3.6.1.4.1.19746.1.2.1.2.0 (nvWindowSize)

hwbattery_config for PowerProtect DD

The fields described in the following table are returned.

Table 243. hwbattery_config

Field	Description	From
name	Battery name	.1.3.6.1.4.1.19746.1.2.3.1.1.1 (nvramBatteryIndex)
type	Battery type	Hard coded to NVRAM

filesystem_config for PowerProtect DD

The fields described in the following table are returned.

Table 244. filesystem_config

Field	Description	From
mountpoint	Mountpoint of the file system	.1.3.6.1.4.1.19746.1.3.2.1.1.2 (resourceName)
total_space	Total capacity of the file system (in GB)	.1.3.6.1.4.1.19746.1.3.2.1.1.3 (FileSystemSpaceSize)

library_config for PowerProtect DD

The fields described in the following table are returned.

Table 245. library_config

Field	Description	From
libraryname	Library name	vtLibraryName(.1.3.6.1.4.1.19746.1.11.2.1.1.2)
vendor	Tape library manufacturer	vtLibraryVendor(.1.3.6.1.4.1.19746.1.11.2.1.1.3)
model	Tape library model	vtLibraryModel(.1.3.6.1.4.1.19746.1.11.2.1.1.4)
firmware	Tape library firmware revision	vtLibraryRevision(.1.3.6.1.4.1.19746.1.11.2.1.1.5)
serial	Tape library serial number	vtLibrarySerial(.1.3.6.1.4.1.19746.1.11.2.1.1.6)
slots	Number of storage elements	vtLibraryTotalSlots(.1.3.6.1.4.1.19746.1.11.2.1.1.8)
caps	Number of import and export elements	vtLibraryTotal Caps (.1.3.6.1.4.1.19746.1.11.2.1.1.9)
drives	Number of data transfer elements	vtLibraryTotalDrives(.1.3.6.1.4.1.19746.1.1.2.1.1.7)

Table 245. library_config (continued)

Field	Description	From
virtualtype	Indicates if the library is virtual (true) or physical (false)	Hard coded to true

tapedrive_config for PowerProtect DD

The fields described in the following table are returned.

Table 246. tapedrive_config

Field	Description	From
name	Tape drive identifier	vtlDriveName(.1.3.6.1.4.1.19746.1.11.2.2.1.1.2)
make	Tape drive make	vtlDriveVendor(.1.3.6.1.4.1.19746.1.11.2.2.1.1.3)
model	Tape drive model	vtlDriveModel(.1.3.6.1.4.1.19746.1.11.2.2.1.1.4)
firmware	Tape drive firmware	vtlDriveRevision(.1.3.6.1.4.1.19746.1.11.2.2.1.1.5)
serial	Tape drive serial number	vtlDriveSerial(.1.3.6.1.4.1.19746.1.11.2.2.1.1.6)
libraryname	Library this drive is attached to. Name of the VTL containing the drive	vtlDriveLibraryName(.1.3.6.1.4.1.19746.1.11.2.2.1.1.7)
virtualtype	Indicates if the tape drive is virtual (true) or physical (false)	Hard coded to true

fileserver_config for PowerProtect DD

The fields described in the following table are returned.

Table 247. fileserver_config

Field	Description	NFS	CIFS
name	Name of the NFS export or CIFS share	nfsClientPath(.1.3.6.1.4.1.19746.1.9.2.1.1.2)	cifsShareName(.1.3.6.1.4.1.19746.1.10.3.1.1.2)
export	Exported filesystem. Path of the NFS export or CIFS share	nfsClientPath(.1.3.6.1.4.1.19746.1.9.2.1.1.2)	cifsSharePath(.1.3.6.1.4.1.19746.1.10.3.1.1.3)
type	Type of exported filesystem: NFS, CIFS	Hard coded to NFS	Hard coded to CIFS
permission	Credentials of the exported filesystem: Read-only (r), Read-Write (rw)	Interpreted from nfsClient's options(.1.3.6.1.4.1.19746.1.9.2.1.1.4)	cifsShareWritable(.1.3.6.1.4.1.19746.1.10.3.1.1.8)

 **NOTE:** Data Protection Advisor supports NFS export name or NFS path character length up to 255 characters.

fcport_config for PowerProtect DD

In PowerProtect DD 4.8 and later, data is retrieved through SNMP tables. The fields described in the following table are returned.

Table 248. fcport_config

Field	Description	From
port	Fibre Channel port identifier	1.3.6.1.4.1.19746.1.11.2.3.1.1.2
wwnn	World Wide Node Number	1.3.6.1.4.1.19746.1.11.2.3.1.1.6
wwpn	Underlaying hardware identifier	1.3.6.1.4.1.19746.1.11.2.3.1.1.7
virtualtype	Indicates if the library is virtual (true or 1) or physical (false)	Hard coded to 0

fcport_initiator_config for PowerProtect DD

In PowerProtect DD 5.1 and earlier, data is retrieved by running the command vtl initiator Show. In PowerProtect DD 5.2 and later, data is retrieved through the SNMP tables. The fields described in the following table are returned.

Table 249. fcport_initiator_config

Field	Description	From
initiator	Fibre channel initiator identifier	<ul style="list-style-type: none">● For PowerProtect DD 5.1 and earlier, Initiator section.● For PowerProtect DD 5.2 and later, .1.3.6.1.4.1.19746.1.11.2.8.1.1.2
port	Fibre channel port identifier	<ul style="list-style-type: none">● For PowerProtect DD 5.1 and earlier, Port● For PowerProtect DD 5.2 and later: .1.3.6.1.4.1.19746.1.11.2.8.1.1.7
wwnn	Initiator World Wide Node Name	<ul style="list-style-type: none">● For PowerProtect DD 5.1 and earlier, wwnn● For PowerProtect DD 5.2 and later: .1.3.6.1.4.1.19746.1.11.2.8.1.1.5
wwpn	Initiator World Wide Port Name	<ul style="list-style-type: none">● For PowerProtect DD 5.1 and earlier, wwpn● For PowerProtect DD 5.2 and later: .1.3.6.1.4.1.19746.1.11.2.8.1.1.6

dd_sys_license for PowerProtect DD

The fields described in the following table are returned.

Table 250. dd_sys_license

Field	Description	From
key	Key name	.1.3.6.1.4.1.19746.1.13.4.1.1.2
feature	Feature for the license. For example, DDBOOST, REPLICATION, VTL	.1.3.6.1.4.1.19746.1.13.4.1.1.3

dd_sys_cap_license for PowerProtect DD

The fields described in the following table are returned.

Table 251. dd_sys_cap_license

Field	Description	From
key	Key name	.1.3.6.1.4.1.19746.1.13.4.2.1.1.2
feature	Feature for the license. For example, DDBOOST, REPLICATION, VTL	.1.3.6.1.4.1.19746.1.13.4.2.1.1.3
model	Model for the feature of the license	.1.3.6.1.4.1.19746.1.13.4.2.1.1.4
capacity	Capacity of the model	.1.3.6.1.4.1.19746.1.13.4.2.1.1.5

tenantunit_config for PowerProtect DD

This is applicable to DDOS 5.5 and later. The fields described in the following table are returned.

Table 252. tenantunit_config

Field	Description	From
Tenantunit	Tenant unit name	1.3.6.1.4.1.19746.1.20.2.1.1.2
num_sus	number of storage units	1.3.6.1.4.1.19746.1.20.2.1.1.5
num_mtrees	number of mtrees	1.3.6.1.4.1.19746.1.20.2.1.1.4
num_mgmt_users	number of management users	1.3.6.1.4.1.19746.1.20.2.1.1.3

mtree_tenantunit_map for PowerProtect DD

This is applicable to DDOS 5.5 and later. The fields described in the following table are returned.

Table 253. mtree_tenantunit_map

Field	Description	From
Tenantunit	Tenant unit name	Get the tenant unit instance from the OID "1.3.6.1.4.1.19746.1.20.4.1.1.2" and get the name of the tenant unit associated with the instance from the OID 1.3.6.1.4.1.19746.1.20.2.1.1.2
Mtree	mtree which is part of tenantunit	Get the list of all Mtrees from the OID 1.3.6.1.4.1.19746.1.20.4.1.1.2 and 1.3.6.1.4.1.19746.1.20.5.1.1.2

su_tenantunit_map for PowerProtect DD

This is applicable to DDOS 5.5 and later. The fields described in the following table are returned.

Table 254. su_tenantunit_map

Field	Description	From
Tenantunit	Tenant unit name	Get the tenant unit instance from the OID "1.3.6.1.4.1.19746.1.20.5.1.1.2" and get the name of the tenant unit associated with the instance from the OID 1.3.6.1.4.1.19746.1.20.2.1.1.2

Table 254. su_tenantunit_map (continued)

Field	Description	From
su_name	storage unit which is part of tenantunit	1.3.6.1.4.1.19746.1.20.5.1.1.2

tenant_tenantunit_map for PowerProtect DD

This is applicable to DDOS 5.5 and later. The fields described in the following table are returned.

Table 255. tenant_tenantunit_map

Field	Description	From
tenantunit	Tenant-unit which belongs to Tenant	Get the tenant unit instance from the OID 1.3.6.1.4.1.19746.1.20.2.1.1.7 and get the name of the tenant unit associated with the instance from the OID 1.3.6.1.4.1.19746.1.20.2.1.1.2
tenant	Tenant name	1.3.6.1.4.1.19746.1.20.2.1.1.7

PowerProtect DD compression

The PowerProtect DD compression function gathers information about the compression data. Data is collected either by ssh or by snmp. It depends on the selected credential in the request properties. The default value is 7200 seconds.

The PowerProtect DD compression function gathers the following data:

[ddboost_su_comp for PowerProtect DD](#)

ddboost_su_comp for PowerProtect DD

The fields described in the following table are returned.

Table 256. ddboost_su_comp

Field	Description	From
su_name	Storage unit name	Data is collected either by ssh or by snmp. It depends on the selected credential in the request properties.
pre-size	Storage unit original size (in MB)	Data is collected either by ssh or by snmp. It depends on the selected credential in the request properties.
post_ddsize	Size after global deduplication (in MB)	Data is collected either by ssh or by snmp. It depends on the selected credential in the request properties.
post_size	Size after deduplication + local compression (in MB)	Data is collected either by ssh or by snmp. It depends on the selected credential in the request properties.
metadata_size	Size of metadata (in MB)	Data is collected either by ssh or by snmp. It depends on the selected credential in the request properties.

Status function for PowerProtect DD

The Status function gathers information about the status of PowerProtect DD components. The function includes the following options:

- timeout — SNMP timeout value. The default value is 10 seconds.

The Status function gathers the following data:

- [dd_tier_status for PowerProtect DD](#)
- library_status for PowerProtect DD
- mtree_daily_comp for PowerProtect DD
- mtree_quota for PowerProtect DD
- dd_filesystem_clean
- netint_status for PowerProtect DD
- disk_status for PowerProtect DD
- hwtemp_status for PowerProtect DD
- hwfan_status for PowerProtect DD
- hwpsu_status for PowerProtect DD
- ss_storage_status for PowerProtect DD
- hwbattery_status for PowerProtect DD
- filesystem_status for PowerProtect DD
- processor_status for PowerProtect DD is moved to [SSH Status for PowerProtect DD](#) pertaining to DCE-3796 .
- vtl_status for PowerProtect DD
- tapedrive_status for PowerProtect DD
- fileserver_status for PowerProtect DD
- library_errors for PowerProtect DD
- library_volstatus for PowerProtect DD
- repl_status for PowerProtect DD
- data_daily_comp for PowerProtect DD
- mtree_relock for PowerProtect DD
- fcport_status for PowerProtect DD
- fcport_initiator_status for PowerProtect DD
- dd_fs_options
- dd_fs_archiveunit
- ddboost_fr_stats
- ddboost_option
- dd_sys_user

[dd_tier_status for PowerProtect DD](#)

In PowerProtect DD 5.7 and later, data is retrieved through SNMP tables. The fields described in the following table are returned.

Table 257. dd_tier_status

Field	Description	From
name	PowerProtect DD Tier Name	1.3.6.1.4.1.19746.1.3.2.1.1.9
capacity	Total storage space	1.3.6.1.4.1.19746.1.3.2.1.1.4 if 1.3.6.1.4.1.19746.1.3.2.1.1.3 value is "/" data: post-comp"
pre_size	Size before compression	1.3.6.1.4.1.19746.1.3.2.1.1.5 if 1.3.6.1.4.1.19746.1.3.2.1.1.3 value is "/" data: pre-comp"
post_size	Size after compression, that is dedupe plus local compression	1.3.6.1.4.1.19746.1.3.2.1.1.5 if 1.3.6.1.4.1.19746.1.3.2.1.1.3 value is "/" data: post-comp"

Table 257. dd_tier_status (continued)

Field	Description	From
cleanable	Amount of cleanable space	1.3.6.1.4.1.19746.1.3.2.1.1.8

library_status for PowerProtect DD

For PowerProtect DD version 6.0 and later, Data Protection Advisor retrieves data through SNMP. For PowerProtect DD version earlier than 6.0, the same data is retrieved through SSH in SSH status request. The fields described in the following table are returned.

Table 258. library_status

Field	Description	From
libraryname	VTL name	1.3.6.1.4.1.19746.1.11.2.1.1.1.2
status	VTL status	1.3.6.1.4.1.19746.1.11.2.1.1.1.10
state	VTL state	1.3.6.1.4.1.19746.1.11.2.1.1.1.10
virtualtype	Indicates if the VTL is virtual (true or 1) or physical (false or 2)	Hard coded to 1 or 2
compressratio	Average ratio of Compression	.1.3.6.1.4.1.19746.1.11.2.4.1.1.8
numvolumes	Number of volumes within the Tape library	.1.3.6.1.4.1.19746.1.11.2.4.1.1.1

mtree_daily_comp for PowerProtect DD

In PowerProtect DD 5.0 and earlier, data is retrieved by running the command mtree list and mtree show compression <mtree_name>. In PowerProtect DD 5.1 and later, data is retrieved through the SNMP tables. The fields described in the following table are returned.

Table 259. mtree_daily_comp

Field	Description	From SSH perf	From SNMP status
name	MTree name	mtree list or vtl show config	1.3.6.1.4.1.19746.1.15.1.1.1.2
pre_size	Size before compression	output of mtree show compression <mtree_name> under Pre-Comp (GiB)	1.3.6.1.4.1.19746.1.15.1.1.1.3
post_ddsize	Size after Deduplication. f_post_dd_size = f_pre_size/ Global compression factor Where Global compression factor is available in the From columns	output of mtree show compression <mtree_name> under Global Comp Factor	1.3.6.1.4.1.19746.1.15.1.1.1.5
post_size	Size after compression dedupe+local compression. f_post_size = f_post_dd_size/Local compression factor Where Local compression factor is available in the From columns	Output of mtree show compression <mtree_name> under Local Comp Factor	1.3.6.1.4.1.19746.1.15.1.1.1.6

mtree_quota for PowerProtect DD

For DDOS 5.7 and later, Data Protection Advisor collects data through SNMP. For DDOS versions earlier than 6.0 data is retrieved in the SSH status request. The fields described in the following table are returned.

Table 260. mtree_quota

Field	Description	From
name	Mtree name	1.3.6.1.4.1.19746.1.21.2.1.1.2
pre_csize	Pre-compression size (in MB)	1.3.6.1.4.1.19746.1.21.2.1.1.3
soft_limit	Soft limit value (in MB)	1.3.6.1.4.1.19746.1.21.2.1.1.4
hard_limit	Hard limit value (in MB)	1.3.6.1.4.1.19746.1.21.2.1.1.5
is_partof_tu	If the mtree is part of a tenant unit	1.3.6.1.4.1.19746.1.21.2.1.1.6

dd_filesystem_clean

The fields described in the following table are returned.

Table 261. dd_filesystem_clean

Field	Description	From
status	Last run status	.1.3.6.1.4.1.19746.1.3.5.1.1.2
schedule	Current schedule	.1.3.6.1.4.1.19746.1.3.5.1.1.3
throttle	Throttle percentage	.1.3.6.1.4.1.19746.1.3.5.1.1.4

netint_status for PowerProtect DD

The fields described in the following table are returned.

Table 262. netint_status

Field	Description	From
name	Network interface identifier	1.3.6.1.2.1.2.2.1.2
linkup	Indicates if the interface has a link to a switch. Link active	1.3.6.1.2.1.2.2.1.8
speed	Network speed (Mb/second)	1.3.6.1.2.1.2.2.1.5
fullduplex	Indicates if the interface is running at fullduplex	N/A

disk_status for PowerProtect DD

The fields described in the following table are returned.

Table 263. disk_status

Field	Description	From
device	Unique identifier for the disk	.1.3.6.1.4.1.19746.1.6.1.1.1.1(DiskPropEnclosureID) + .1.3.6.1.4.1.19746.1.6.1.1.1.2(DiskPropIndex)

Table 263. disk_status (continued)

Field	Description	From
state	Disk state	.1.3.6.1.4.1.19746.1.6.1.1.1.8(diskPropState)
use	Disk use. Populated if the state is "Online."	.1.3.6.1.4.1.19746.1.6.1.1.1.8(diskPropState)
temperature	Disk temperature	.1.3.6.1.4.1.19746.1.6.3.1.1.4(diskTemperature)
errors	Number of errors on the disk	.1.3.6.1.4.1.19746.1.6.3.1.1.6(diskreadFailC ount) + .1.3.6.1.4.1.19746.1.6.3.1.1.7(diskWriteFail Count) + .1.3.6.1.4.1.19746.1.6.3.1.1.8(diskMiscFailC ount) + .1.3.6.1.4.1.19746.1.6.3.1.1.9(diskoffTrack ErrCount) + .1.3.6.1.4.1.19746.1.6.3.1.1.10(disk SoftEccCount) + .1.3.6.1.4.1.19746.1.6.3.1.1.11(diskCrcErrCo unt) + .1.3.6.1.4.1.19746.1.6.3.1.1.12(disk Probational errors) + .1.3.6.1.4.1.19746.1.6.3.1.1.13(diskReallocC ount)

hwtemp_status for PowerProtect DD

The fields described in the following table are returned.

Table 264. hwtemp_status

Field	Description	From
name	Unique identifier for the temperature sensor	.1.3.6.1.4.1.19746.1.1.2.1.1.1.1(tempEnclosur eID) + .1.3.6.1.4.1.19746.1.1.2.1.1.1.2(tempSensor Description)
active	Indicates if the temperature sensor is active: 1 (active)	.1.3.6.1.4.1.19746.1.1.2.1.1.1.5 (tempSensorStatus)
temp	Current temperature according to the sensor	.1.3.6.1.4.1.19746.1.1.2.1.1.1.3(tempSensor CurrentValue)

hwfan_status for PowerProtect DD

The fields described in the following table are returned.

Table 265. hwfan_status

Field	Description	From
name	Unique identifier for the fan	.1.3.6.1.4.1.19746.1.1.3.1.1.1.1(fanEnclosure ID) + .1.3.6.1.4.1.19746.1.1.3.1.1.1.3(fanDescripti on)
active	Indicates if the fan is active: 1 (active)	.1.3.6.1.4.1.19746.1.1.3.1.1.1.5(fanStatus)
level	Current fan activity	.1.3.6.1.4.1.19746.1.1.3.1.1.1.4(fanLevel)

hwpsu_status for PowerProtect DD

The fields described in the following table are returned.

Table 266. hwpsu_status

Field	Description	From
name	Unique identifier for the power supply	.1.3.6.1.4.1.19746.1.1.1.1.1.1 (enclosure id) + .1.3.6.1.4.1.19746.1.1.1.1.1.3
active	Indicates if the power supply unit is active: 1 (active)	.1.3.6.1.4.1.19746.1.1.1.1.1.4 (Power Module Status)

ss_storage_status for PowerProtect DD

The fields described in the following table are returned.

Table 267. ss_storage_status

Field	Description	From
pcierrocount	Number of PCI errors in NVRAM	.1.3.6.1.4.1.19746.1.2.2.1.0(nvramPCIError Count)
errorcount	Error count on NVRAM	.1.3.6.1.4.1.19746.1.2.2.2.0(nvramMemory Error Count)

hwbattery_status for PowerProtect DD

The fields described in the following table are returned.

Table 268. hwbattery_status

Field	Description	From
name	Unique identifier for the battery	.1.3.6.1.4.1.19746.1.2.3.1.1.1(nvramBatteryIndex)
status	Battery status	.1.3.6.1.4.1.19746.1.2.3.1.1.2(BatteryStatus)
charge	Charge remaining on the battery	.1.3.6.1.4.1.19746.1.2.3.1.1.3(batteryCharge)

filesystem_status for PowerProtect DD

The fields described in the following table are returned.

Table 269. filesystem_status

Field	Description	From
mountpoint	Mountpoint of the file system	.1.3.6.1.4.1.19746.1.3.2.1.1.2(resourceName)
used_space	Total space used on the file system	.1.3.6.1.4.1.19746.1.3.2.1.1.4(FileSystemSpaceUsed)
cleanable	Amount of space that can be cleaned MB	.1.3.6.1.4.1.19746.1.3.2.1.1.8

library_errors for PowerProtect DD

The fields described in the following table are returned.

Table 270. library_errors

Field	Description	From
errorcode	Error code of error on the appliance	.1.3.6.1.4.1.19746.1.4.1.1.1.1 (AlertIndex)
error	Error message text	.1.3.6.1.4.1.19746.1.4.1.1.1.3 (CurrentAlertDescription)
count	Number of times the error has occurred	1 if Error is not NULL. Otherwise 0

library_volstatus for PowerProtect DD

In PowerProtect DD 4.8 and later, data is retrieved through the SNMP tables. The fields described in the following table are returned.

Table 271. library_volstatus

Field	Description	From
volumeid	Volume Identifier	.1.3.6.1.4.1.19746.1.11.2.4.1.1.2
size	Size of the volume in use (in MB)	1.3.6.1.4.1.19746.1.11.2.4.1.1.7
virtualtype	Indicates if the volume is virtual (true) or physical (false)	Hard coded to True or False
location	Location of the volume: either a slot number or a vault	1.3.6.1.4.1.19746.1.11.2.4.1.1.4
location_type	Location type: storage or vault	Hard coded to either storage or vault based on the Location, which is either <library name>, <slot number>, or <vault>
capacity	Capacity of the volume in use (in MB)	1.3.6.1.4.1.19746.1.11.2.4.1.1.6

repl_status for PowerProtect DD

The fields described in the following table are returned.

Table 272. repl_status

Field	Description	From
source	Unique identifier for the source of replication	1.3.6.1.4.1.19746.1.8.1.1.1.6 (replSource)
destination	Unique identifier for the destination in a replication	1.3.6.1.4.1.19746.1.8.1.1.1.7 (replDest)
state	Current state of the replication set	1.3.6.1.4.1.19746.8.1.1.1.2 (replState)
status	Current status of the replication set	.1.3.6.1.4.1.19746.1.8.1.1.1.3 (replStatus)
conntime	Time the connection was established	.1.3.6.1.4.1.19746.1.8.1.1.1.6 (replConnTime)
throttle	Amount of data that replication is throttled back to	.1.3.6.1.4.1.19746.1.8.1.1.1.13 (replThrottle)

vtl_status for PowerProtect DD

The fields described in the following table are returned.

Table 273. vtl_status

Field	Description	From
status	Current status of the VTL	.1.3.6.1.4.1.19746.1.3.1.1.0
dedupratio	Ratio of data size before deduplication to data size after deduplication. Amount of uncompression data that has been backed up the system divided by used space of the “data” file system	.1.3.6.1.4.1.19746.1.3.1.2.0 divided by .1.3.6.1.4.1.19746.1.3.2.1.1.[4 5]

tapedrive_status for PowerProtect DD

The fields described in the following table are returned.

Table 274. tapedrive_status

Field	Description	From
name	Tape drive identifier	.1.3.6.1.4.1.19746.1.11.2.2.1.1.2
volume	Name of the volume currently loaded in the drive	.1.3.6.1.4.1.19746.1.11.2.2.1.1.9
status	Current status of the drive: 0 (unknown), 1 (OK), 2 (warning)	.1.3.6.1.4.1.19746.1.11.2.2.1.1.8
state	Drive occupied state: 0 (offline), 1 (online)	.1.3.6.1.4.1.19746.1.11.2.2.1.1.8
libraryname	VTL drive library name	.1.3.6.1.4.1.19746.1.11.2.2.1.1.7
virtualtype	Indicates if the library is virtual (true 1) or physical (false)	Hard coded to 1

fileserver_status for PowerProtect DD

The fields described in the following table are returned.

Table 275. fileserver_status

Field	Description	From
cifs_status	CIFS File Server status	.1.3.6.1.4.1.19746.1.10.1.1.0
nfs_status	NFS File Server status	.1.3.6.1.4.1.19746.1.9.1.1.0

data_daily_comp for PowerProtect DD

The fields described in the following table are returned.

Table 276. data_daily_comp

Field	Description	From
pre_size	Size before compression (in MB)	.1.3.6.1.4.1.19746.1.3.3.1.1.5
post_ddsize	Size after deduplication (in MB)	Pre-Compression size / global compression factor (where the

Table 276. data_daily_comp (continued)

Field	Description	From
		global compression factor is 1.3.6.1.4.1.19746.1.3.3.1.1.7)
post_size	Size after deduplication + local compression (in MB)	Post Global Compression size / local compression factor (where the local compression factor is 1.3.6.1.4.1.19746.1.3.3.1.1.8)

mtree_relock for PowerProtect DD

The fields described in the following table are returned.

Table 277. mtree_relock

Field	Description	From
name	Mtree name	.1.3.6.1.4.1.19746.1.15.4.1.1.2
status	Mtree retention lock status	.1.3.6.1.4.1.19746.1.15.4.1.1.3
UUID	Mtree retention lock UUID	.1.3.6.1.4.1.19746.1.15.4.1.1.4
min_period	Minimum retention period	.1.3.6.1.4.1.19746.1.15.4.1.1.5
max_period	Maximum retention period	.1.3.6.1.4.1.19746.1.15.4.1.1.6

fcport_status for PowerProtect DD

In PowerProtect DD 4.8 and later, data is retrieved through SNMP tables. The fields described in the following table are returned.

Table 278. fcport_status

Field	Description	From
port	Fibre Channel port identifier	1.3.6.1.4.1.19746.1.11.2.3.1.1.2
linkup	Indicates if the link is active: 1 (online)	1.3.6.1.4.1.19746.1.11.2.3.1.1.11
speed	Speed of port (MB/second)	1.3.6.1.4.1.19746.1.11.2.3.1.1.9
virtualtype	Indicates if the port is a virtual port (true or 1) or physical (false)	For PowerProtect DD 5.1 and earlier, hard coded to 0

fcport_initiator_status for PowerProtect DD

In PowerProtect DD 5.1 and earlier, data is retrieved by running the command vtl initiator show. In PowerProtect DD 5.2 and later, data is retrieved through the SNMP tables. The fields described in the following table are returned.

Table 279. fcport_initiator_status

Field	Description	From
initiator	Fibre channel initiator identifier	<ul style="list-style-type: none"> • For PowerProtect DD 5.1 and earlier <ul style="list-style-type: none"> - Initiator section. • For PowerProtect DD 5.2 and later <ul style="list-style-type: none"> - .1.3.6.1.4.1.19746.1.11.2.8.1.1.2 .
online	Initiator online indication	<ul style="list-style-type: none"> • For PowerProtect DD 5.1 and earlier <ul style="list-style-type: none"> - Status.

Table 279. fcport_initiator_status (continued)

Field	Description	From
		<ul style="list-style-type: none"> For PowerProtect DD 5.2 and later - .1.3.6.1.4.1.19746.1.11.2.8.1.1.3

dd_fs_options

The fields described in the following table are returned.

Table 280. dd_fs_options

Field	Description	From
name	File system option name. For example, Local compression type, App optimized compression, Current global compression type	.1.3.6.1.4.1.19746.1.3.4.1.1.2
value	Option value. For example, lz, none, 9	.1.3.6.1.4.1.19746.1.3.4.1.1.3

dd_fs_archiveunit

The fields described in the following table are returned.

Table 281. dd_fs_archiveunit

Field	Description	From
name	File system archive unit name	.1.3.6.1.4.1.19746.1.3.6.1.1.2
state	State of the archive unit: New, Target, Sealed	.1.3.6.1.4.1.19746.1.3.6.1.1.3
status	Status of the archive unit: Ready, Disabled	.1.3.6.1.4.1.19746.1.3.6.1.1.4
ar_starttime	Archive unit start time	.1.3.6.1.4.1.19746.1.3.6.1.1.5
ar_endtime	Archive unit end time	.1.3.6.1.4.1.19746.1.3.6.1.1.6
unitsize	Size of the archive unit (in MB)	.1.3.6.1.4.1.19746.1.3.6.1.1.7
diskgroups	Disk groups	.1.3.6.1.4.1.19746.1.3.6.1.1.8

ddboost_fr_stats

The fields described in the following table are returned.

Table 282. ddboost_fr_stats

Field	Description	From
direction	File replication direction: inbound, outbound	.1.3.6.1.4.1.19746.1.12.5.1.1.2
nwbytes	Network bytes sent and received (in MB)	.1.3.6.1.4.1.19746.1.12.5.1.1.3
precompbytes	Pre-compression bytes sent and received (in MB)	.1.3.6.1.4.1.19746.1.12.5.1.1.4
filbytes	File replication bytes after filtering (in MB)	.1.3.6.1.4.1.19746.1.12.5.1.1.5

Table 282. ddboost_fr_stats (continued)

Field	Description	From
lboptbytes	File replication bytes after low bandwidth optimization (in MB)	.1.3.6.1.4.1.19746.1.12.5.1.1.6
locompbytes	File replication bytes after local compression (in MB)	.1.3.6.1.4.1.19746.1.12.5.1.1.7
compratio	File replication compression ratio (in MB)	.1.3.6.1.4.1.19746.1.12.5.1.1.8

ddboost_option

The fields described in the following table are returned.

Table 283. ddboost_option

Field	Description	From
name	Option name. For example, distributed-segment-processing, virtual-synthetics	.1.3.6.1.4.1.19746.1.12.9.1.1.2
status	Option value. For example, enabled	.1.3.6.1.4.1.19746.1.12.9.1.1.3

dd_sys_user

The fields described in the following table are returned.

Table 284. dd_sys_user

Field	Description	From
user	User name	.1.3.6.1.4.1.19746.1.13.5.1.1.2
uid	User identifier	.1.3.6.1.4.1.19746.1.13.5.1.1.3
role	User role	.1.3.6.1.4.1.19746.1.13.5.1.1.4
status	User status	.1.3.6.1.4.1.19746.1.13.5.1.1.5

Performance function for PowerProtect DD

The Performance function gathers information about the performance of PowerProtect DD components. The function includes the following options:

- timeout — SNMP timeout value. The default value is 10 seconds.

The Performance function gathers the following data:

- netint_perf for PowerProtect DD
- fileserver_perf for PowerProtect DD
- ss_storage_perf for PowerProtect DD
- disk_perf for PowerProtect DD
- repl_perf for PowerProtect DD
- dd_dataingest_usage
- ddboost_stats

netint_perf for PowerProtect DD

The fields described in the following table are returned.

Table 285. netint_perf

Field	Description	From
name	Network interface identifier	1.3.6.1.2.1.2.2.1.2
data_in	Amount of data coming into the interface (KB/second)	1.3.6.1.2.1.2.2.1.10
data_out	Amount of data leaving the interface (KB/second)	1.3.6.1.2.1.2.2.1.16
packets_in	Number of packets coming in to the interface (thousands/second)	1.3.6.1.2.1.2.2.1.11
packets_out	Number of packets leaving the interface (thousands/second)	1.3.6.1.2.1.2.2.1.17
errors_in	Number of errors coming in to the interface (/second)	1.3.6.1.2.1.2.2.1.14
errors_out	Number of errors leaving the interface (/second)	1.3.6.1.2.1.2.2.1.20
discards_in	Number of packets discarded coming in to the interface (/second)	1.3.6.1.2.1.2.2.1.13
discards_out	Number of packets discarded leaving the interface (/second)	1.3.6.1.2.1.2.2.1.19

fileserver_perf for PowerProtect DD

The fields described in the following table are returned.

Table 286. fileserver_perf

Field	Description	From
nfsoops	Number of NFS operations per second	.1.3.6.1.4.1.19746.1.5.1.1.1.4 (nfsOpsPerSecond)
cifsoops	Number of CIFS operations per second	.1.3.6.1.4.1.19746.1.5.1.1.1.9 (cifsOpsperSecond)
nfsidlepercentage	Percentage of time NFS was idle	.1.3.6.1.4.1.19746.1.5.1.1.1.5 (nfsidlePercetage)
nfsprocpercentage	Percentage of time NFS was processing	.1.3.6.1.4.1.19746.1.5.1.1.1.6 (nfsprocPercentage)
nfssendpercentage	Percentage of time NFS was sending data	.1.3.6.1.4.1.19746.1.5.1.1.1.7 (nfsSendPercentage)
nfsreceivepercentage	Percentage of time NFS was receiving data	.1.3.6.1.4.1.19746.1.5.1.1.1.8 (nfsReceivePercentage)
data_source	Source of the data	

ss_storage_perf for PowerProtect DD

The fields described in the following table are returned.

Table 287. ss_storage_perf

Field	Description	From
data_in	Amount of data moved in to NVRAM	.1.3.6.1.4.1.19746.1.5.1.1.1.13 (nvramreadKBytesPerSecond)
data_out	Amount of data moved out of NVRAM	.1.3.6.1.4.1.19746.1.5.1.1.1.14 (nvramWriteKBytesPerSecond)

disk_perf for PowerProtect DD

The fields described in the following table are returned.

Table 288. disk_perf

Field	Description	From
device	Unique identifier for the disk	.1.3.6.1.4.1.19746.1.6.2.1.1.1 (DiskPropEnclosureID) + .1.3.6.1.4.1.19746.1.6.2.1.1.2 (DiskPerfIndex)
sectors_in	Number of sectors moved in to the disk	.1.3.6.1.4.1.19746.1.6.2.1.1.3 (diskSectorsRead)
sectors_out	Number of sectors moved off the disk	.1.3.6.1.4.1.19746.1.6.2.1.1.4 (diskSectorsWritten)
totalkbytes	Total number of Kilobytes transferred	.1.3.6.1.4.1.19746.1.6.2.1.1.5 (diskTotalKBytes)
busy	Percentage of time that the disk is busy	.1.3.6.1.4.1.19746.1.6.2.1.1.6 (diskBusy)

repl_perf for PowerProtect DD

The fields described in the following table are returned.

Table 289. repl_perf

Field	Description	From
source	Unique identifier for the source of replication	.1.3.6.1.4.1.19746.1.8.1.1.1.6 (replSource)
destination	Unique identifier for the destination in a replication	.1.3.6.1.4.1.19746.1.8.1.1.1.7 (replDest)
lag	Delay in data being transferred	.1.3.6.1.4.1.19746.1.8.1.1.1.8 (replLag)
sent	Amount of data being sent	.1.3.6.1.4.1.19746.1.8.1.1.1.9 (replPreCompBytesSent)
sentcompressed	Amount of data being sent after compression	.1.3.6.1.4.1.19746.1.8.1.1.1.10 (replPostCompBytesSent)
remaining	Amount of data still to be sent	.1.3.6.1.4.1.19746.1.8.1.1.1.11 (replPreCompBytesRemaining)
received	Amount of data received	.1.3.6.1.4.1.19746.1.8.1.1.1.12 (replPostCompBytes received)

Table 289. repl_perf (continued)

Field	Description	From
synched	Indicates if data is synchronized	.1.3.6.1.4.1.19746.1.8.1.1.1.14 (replSyncedAsOfTime)
avgbytessent	Average number of Bytes sent per second (Mb/second)	.1.3.6.1.4.1.19746.1.8.1.1.1.9.[8 10]
avgbytesreceived	Average number of Bytes received per second (Mb/second)	.1.3.6.1.4.1.19746.1.8.1.1.1.12.[11 13]
desthost	Destination host name	

dd_dataingest_usage

The fields described in the following table are returned.

Table 290. dd_dataingest_usage

Field	Description	From
data_backedup	Uncompressed data backed up by the system	.1.3.6.1.4.1.19746.1.3.1.2.0
used_space	Used space of file system "data"	.1.3.6.1.4.1.19746.1.3.2.1.1.4

ddboost_stats

i **NOTE:** Due to DCE-1966 in relation to the SNMP agent, the information in the table below does not apply. Data Protection Advisor currently is not collecting ddboost__stats data in the Performance function and is now collecting ddboost__stats data in the SSH Performance function.

The fields described in the following table are returned.

Table 291. ddboost_stats

Field	Description	From
precomp	Number of pre-compression KB/second received	.1.3.6.1.4.1.19746.1.12.2.1.1.2.1
postcomp	Number of local compression KB/second received	.1.3.6.1.4.1.19746.1.12.2.1.1.3.1
nw_data	Number of physical network bytes/second received	.1.3.6.1.4.1.19746.1.12.2.1.1.4.1
read_data	Number of bytes/second read	.1.3.6.1.4.1.19746.1.12.2.1.1.5.1

SSH Physical Capacity Reporting for PowerProtect DD

The SSH PCR function gathers Physical capacity measurement information of each MTree, Tenant-unit, Tenant, and picks up the latest information. It then submits anonymous scheduled measurement task on each Tenants having MTree, and on the MTree which does not belong to any tenant-unit. (It does not submit the anonymous scheduled measurement task on the tenant-unit, which do not belong to any tenant.) Data for the SSH PCR function is gathered over SSH only with user credentials that has admin privileges. The function includes the following options:

- timeout — SSH timeout value. The default value is 10 seconds.

- dateformat — MTree measurement time date format. Default date format is "%Y/%m/%d %T". MTree measurement time is available in the output of the `compression physical-capacity-measurement sample show detailed-history` command.
- default frequency—24 hours
- PCM (Physical Capacity Measurement) — This feature must be enabled on the PowerProtect DD system to schedule the compression physical capacity measurement task.
- SMT (SecureMultiTenancy) — This feature must be enabled on the PowerProtect DD system, if a tenant is present and the tenant is associated with MTree information.

The SSH PCR function gathers the following data:

- `mmtree_pcr`
- `tenantunit_pcr` for PowerProtect DD
- `tenant_pcr` for PowerProtect DD

mmtree_pcr

In PowerProtect DD 5.7 and later, data is retrieved by running the `compression physical-capacity-measurement sample show detailed-history` command. The fields described in the following table are returned.

Table 292. mmtree_pcr

Field	Description	From
name	Mtree Name	output of the <code>compression physical-capacity-measurement sample show detailed-history last <N>days</code> command, where N is at least 2 days or twice the request polling period time, whichever is higher
pre_size	Size before compression	output of the <code>compression physical-capacity-measurement sample show detailed-history last <N>days</code> command, where N is at least 2 days or twice the request polling period time, whichever is higher
post_ddsize	Size after Deduplication is calculated by $f_{post_dd_size} = post_size * \text{local compression factor (LCF)}$, where local compression factor is available in the From columns	LCF and Post compression size values are available in the output of the <code>compression physical-capacity-measurement sample show detailed-history last <N>days</code> command, where N is at least 2 days or twice the request polling period time, whichever is higher
post_size	Post compression size	output of the <code>compression physical-capacity-measurement sample show detailed-history last <N>days</code> command, where N is at least 2 days or twice the request polling period time, whichever is higher
timestamp	time at which the above statistics were taken from the mtree snapshot	output of the <code>compression physical-capacity-measurement sample show detailed-history last <N>days</code> command, where N is at least 2 days or twice the request polling period time, whichever is higher

tenantunit_pcr for PowerProtect DD

In PowerProtect DD 5.7 and later, data is retrieved by running the `compression physical-capacity-measurement sample show detailed-history` command. The fields described in the following table are returned.

Table 293. tenantunit_pcr

Field	Description	From
name	Tenant-unit name	Output of the <code>compression physical-capacitymeasurement sample show detailed-history last N days</code> command, where N is at least 2 days or twice the request polling period time, whichever is higher.
pre_size	Size before compression	Output of the <code>compression physical-capacitymeasurement sample show detailed-history last N days</code> command, where N is at least 2 days or twice the request polling period time, whichever is higher.
post_ddsize	Size after Deduplication is calculated by $f_{post_dd_size} = post_size * \text{local compression factor (LCF)}$, where local compression factor is available in the From columns	Output of the <code>compression physical-capacitymeasurement sample show detailed-history last N days</code> command, where N is at least 2 days or twice the request polling period time, whichever is higher.
post_size	Post compression size	Output of the <code>compression physical-capacitymeasurement sample show detailed-history last N days</code> command, where N is at least 2 days or twice the request polling period time, whichever is higher.
timestamp	Time at which the above statistics were taken from the Tenant-unit snapshot	Output of the <code>compression physical-capacitymeasurement sample show detailed-history last N days</code> command, where N is at least 2 days or twice the request polling period time, whichever is higher.

tenant_pcr for PowerProtect DD

In PowerProtect DD 5.7 and later, data is retrieved by running the `compression physical-capacity-measurement sample show detailed-history` command. Any updates, addition, or removal of tenants and tenant units on a PowerProtect DD system is reflected in the report and scope only after a few minutes of a successful run of the Physical Capacity SSH data collection request. The fields described in the following table are returned.

Table 294. tenant_pcr

Field	Description	From
name	Tenant name	Output of the <code>compression physical-capacitymeasurement sample show detailed-history last N days</code> command, where N is at least 2 days or twice the request polling period time, whichever is higher.
pre_size	Size before compression	Output of the <code>compression physical-capacitymeasurement sample</code>

Table 294. tenant_pcr (continued)

Field	Description	From
		show detailed-history last days command, where N is at least 2 days or twice the request polling period time, whichever is higher.
post_ddsize	Size after Deduplication is calculated by $f_post_dd_size = post_size * \text{local compression factor (LCF)}$, where local compression factor is available in the From columns	Output of the compression physical-capacitymeasurement sample show detailed-history last days command, where N is at least 2 days or twice the request polling period time, whichever is higher.
post_size	Post compression size	Output of the compression physical-capacitymeasurement sample show detailed-history last days command, where N is at least 2 days or twice the request polling period time, whichever is higher.
timestamp	Time at which the above statistics were taken from the Tenant snapshot	Output of the compression physical-capacitymeasurement sample show detailed-history last days command, where N is at least 2 days or twice the request polling period time, whichever is higher.

SSH Performance for PowerProtect DD

The SSH Performance function gathers information about the performance of PowerProtect DD components. Data for the SSH performance function is gathered over SSH only, using user credentials that has admin privileges. The function includes the following options:

timeout — SSH timeout value. The default value is 10 seconds.

The SSH Performance function gathers the following data:

- [clientgroup_stats](#)
- [ddboost_stats](#)
- host_config is moved to [SSH Configuration for PowerProtect DD](#)
- [fcport_perf for PowerProtect DD](#)
- [fileserver_perf for PowerProtect DD](#)
- [tapedrive_perf for PowerProtect DD](#)
- [dd_astreams](#)

clientgroup_stats

The fields described in the following table are returned.

Table 295. clientgroup_stats

Field	Description	From
group_name	Group name	Group-Name of the command output
pre_size	Original bytes in MB	Write_GiB of the command output
post_ddsize	Size after global dd in MB	Filtered_GiB of the command output
post_size	Size after dedupe+local comp in MB	Post_lc_GiB of the command output
read_size	Read size in MB	Read_GiB of the command output

Table 295. clientgroup_stats (continued)

Field	Description	From
network_size	Network size in MB	Network GiB of the command output
client_maxstreams	Maximum count seen for a client	Client Stream Max-count of the command output
group_maxstreams	Maximum count seen for group	Group Stream Max-count of the command output
group_activestreams	Active running streams on group	Group Stream Max-count of the command output
rejected_streams	Rejected streams due to limits exceeded	Recent Stream Rejected of the command output

ddboost_stats

(i) NOTE: Due to DCE-1966 in relation to the SNMP agent, the information in the table is temporarily collected in this function. It is normally collected in the Performance function.

The fields described in the following table are returned.

Table 296. ddboost_stats

Field	Description	From
precomp	Number of pre-compression KB/second received	.1.3.6.1.4.1.19746.1.12.2.1.1.2.1
postcomp	Number of local compression KB/second received	.1.3.6.1.4.1.19746.1.12.2.1.1.3.1
nw_data	Number of physical network bytes/second received	.1.3.6.1.4.1.19746.1.12.2.1.1.4.1
read_data	Number of bytes/second read	.1.3.6.1.4.1.19746.1.12.2.1.1.5.1

fcport_perf for PowerProtect DD

Data is retrieved by running the command vtl port show stats interval 5 count 1. The fields described in the following table are returned.

Table 297. fcport_perf

Field	Description	From
port	Fibre Channel port identifier	Port
sub_name	Name of the PowerProtect DD	PowerProtect DD name(target)
data_in	Data size going into the port (KB/second)	Read KiB/s
data_out	Data size coming out of the port (KB/second)	Write KiB/s
virtualtype	Indicates if the library is virtual (true) or physical (false)	Hard coded to True or False

fileserver_perf for PowerProtect DD

Data is retrieved by running the command cifs show stats and averaging the results. The fields described in the following table are returned.

Table 298. fileserver_perf

Field	Description	From
cifs_readops	Number of CIFS read operations per second	Average of cifs read operations from cifs show stats
cifs_writeops	Number of CIFS write operations per second	Average of cifs write operations from cifs show stats
data_source	Returned data is "SSH"	Preset from code
nfs_readops	Number of NFS read operations per second	Average of nfs read operations from nfs show stats
nfs_writeops	Number of WRITE write operations per second	Average of nfs write operations from nfs show stats

tapedrive_perf for PowerProtect DD

The fields described in the following table are returned.

Table 299. tapedrive_perf

Field	Description	From
name	Tape drive identifier	Drive
port	Port name	Output of vtl show stats <vtl> drive all port all interval <interval> count <count> command
read_speed	Amount of data read form tape (KB/second)	Read KiB/s
write_speed	Amount of data written to tape (KB/second)	Write KiB/s
libraryname	Library this drive is attached to	As part of command line option. Get vtl list from vtl show config command.
virtualtype	Indicates if the drive is virtual (true) or physical (false)	Hardcoded to 1.

dd_astreams

Data is retrieved using the command system show performance. The fields described in the following table are returned.

Table 300. dd_astreams

Field	Description	From
aread	Active read streams. Its value collected is (Read Seq + Read Rand)/2.	Rd or 'read' section
awrite	Active write streams. Its value collected is (Read Seq + Read Rand)/2.	Wr or 'write' section
roread	Re-opened read file streams in the past 30 seconds	R+ or 'read+' section

Table 300. dd_astreams (continued)

Field	Description	From
rowrite	Re-opened write file streams in the past 30 seconds	W+ or 'write+' section
repl_in	Number of incoming replications	repl-in of the command output
repl_out	Number of outgoing replications	repl-out of the command output

SSH Configuration for PowerProtect DD

The SSH Configuration function gathers information about the configuration of PowerProtect DD components. Data for the SSH configuration function is gathered over SSH only, using user credentials that has admin privileges. The function includes the following options:

timeout — SSH timeout value. The default value is 10 seconds.

The SSH Configuration function gathers the following data:

- [clientgroup_config](#)
- [clientgroup_client_map](#)
- [clientgroup_mtree_map](#)
- [dd_replication_config](#)
- [fcport_initiator_config for PowerProtect DD](#)
- [access_group_config for PowerProtect DD](#)
- [ddboost_files](#)
- [host_config for PowerProtect DD](#)
- [ntp_config for PowerProtect DD](#)
- [dd_tier_cloud_profile for PowerProtect DD](#)
- [dd_tier_cloud_unit for PowerProtect DD](#)
- [dd_boost_config](#)

clientgroup_config

The fields in the following table are returned:

Table 301. clientgroup_config

Field	Description	From
group_name	Client group name	Group-Name of the command output
clientstream_limit	Client stream limit	Client Stream Limit of the command output
groupstream_limit	Group stream limit	Group Stream Limit of the command output
client_count	Number of clients in the group	Hosts Count of the command output
mtree_count	Number of MTrees in the group	MTree Count of the command output

clientgroup_client_map

The fields in the following table are returned:

Table 302. clientgroup_client_map

Field	Description	From
client_name	Client name	Host-Name of the command output

Table 302. clientgroup_client_map (continued)

Field	Description	From
group_name	Client group name	Group-Name of the command output

clientgroup_mtree_map

The fields in the following table are returned:

Table 303. clientgroup_mtreetemap

Field	Description	From
mtree	MTree name	Mtree-Name of the command output
group_name	Client group name	Group-Name of the command output

dd_replication_config

The fields in the following table are returned:

Table 304. dd_replication_config

Field	Description	From
ctx	The Context number	Output replication show config command
source	The replication Source context	Output replication show config command
destination	The replication Destination context	Output replication show config command
connection_host_port	The replication Connection Host and Port	Output replication show config command
low_bw_optim	Whether Low Bandwidth Optimization is enabled	Output replication show config command
encryption	Whether Encryption Over the Wire is enabled	Output replication show config command
enabled	Whether this replication entry is enabled	Output replication show config command

fcport_initiator_config for PowerProtect DD

In PowerProtect DD 5.1 and earlier, data is retrieved by running the command vtl initiator Show. In PowerProtect DD 5.2 and later, data is retrieved through the SNMP tables. The fields described in the following table are returned.

Table 305. fcport_initiator_config

Field	Description	From
initiator	Fibre channel initiator identifier	For PowerProtect DD and earlier: Initiator section For PowerProtect DD and later .1.3.6.1.4.1.19746.1.11.2.8.1.1.2
port	Fibre channel port identifier	For PowerProtect DD 5.1 and earlier:

Table 305. fcport_initiator_config (continued)

Field	Description	From
		Port For PowerProtect DD 5.2 and later: .1.3.6.1.4.1.19746.1.11.2.8.1.1.7
wwnn	Initiator World Wide Node Name	For PowerProtect DD 5.1 and earlier: wwnn For PowerProtect DD 5.2 and later: .1.3.6.1.4.1.19746.1.11.2.8.1.1.5
wwpn	Initiator World Wide Port Name	For PowerProtect DD 5.1 and earlier: wwpn For PowerProtect DD 5.2 and later: .1.3.6.1.4.1.19746.1.11.2.8.1.1.6

access_group_config for PowerProtect DD

Data is retrieved by running the commands vtl group show and vtl group show <group-name>. The fields described in the following table are returned.

Table 306. access_group_config

Field	Description	From
grp_name	Group name	Group
initiator	Client Initiator	Initiator Alias
vtl_name	Target VTL	VTL from Device Name
drive_name	Target drive	Device Name
changer	VTL Changer	Changer from Device Name
lun_id	Target device's LUN number	LUN
primary_port	Primary port configured	Primary Ports
inuse_port	Port currently in use	In-use Ports

ddboost_files

Data is retrieved by running the command ddboost storage-unit show and ddboost storage-unit show <su_name>. The fields described in the following table are returned.

Table 307. ddboost_files

Field	Description	From
filename	Name of the file that could not be backed up	Output in ddboost storage-unit show <su_name>
su_name	Storage unit the policy is configured to use	Given name from ddboost storage-unit show

host_config for PowerProtect DD

The fields described in the following table are returned.

Table 308. host_config

Field	Description	From
mailserver	Mail server name	config show mailserver

ntp_config for PowerProtect DD

For DDOS versions earlier than 6.0, Data Protection Advisor retrieves data using the command `ntp show config` through the SSH Configuration request. For DDOS versions 6.0 and later, Data Protection Advisor retrieves the same data through SNMP in the Configuration request. The fields described in the following table are returned.

Table 309. ntp_config

Field	Description	From
server	NTP server name/address	<code>ntp show config dd ssh</code> command

dd_tier_cloud_profile for PowerProtect DD

For DD OS versions 6.2 and later, with cloud feature enabled, Data Protection Advisor retrieves data using the `cloud profile show all` command through the SSH Configuration request. If the cloud feature is not enabled, the `dd_tier_cloud_profile` information is not available for PowerProtect DD. The fields described in the following table are returned.

Table 310. dd_tier_cloud_profile

Field	Description	From
tier	Cloud Tier	<code>cloud profile show all dd</code> SSH command
name	Cloud profile name	<code>cloud profile show all dd</code> SSH command
provider	Cloud provider name	<code>cloud profile show all dd</code> SSH command
endpoint	Endpoint name (Not collected for all cloud service providers. Currently, only applicable for ECS)	<code>cloud profile show all dd</code> SSH command
version	Version (Not collected for all cloud service providers. Currently, only applicable for ECS)	<code>cloud profile show all dd</code> SSH command
storage_class	Storage class (Not collected for all cloud service providers. Currently, only applicable for AWS, GCP, S3, and Alibaba)	<code>cloud profile show all dd</code> SSH command
region	Storage region (Not collected for all cloud service providers. Currently, only applicable for AWS, GCP, S3, and Alibaba)	<code>cloud profile show all dd</code> SSH command
account_name	Account Name (Not collected for all cloud service providers. Currently, only applicable for Azure)	<code>cloud profile show all dd</code> SSH command
account_type	Account Type (Not collected for all cloud service providers. Currently, only applicable for Azure)	<code>cloud profile show all dd</code> SSH command

Table 310. dd_tier_cloud_profile (continued)

Field	Description	From
real_name	Real Name (Not collected for all cloud service providers. Currently, only applicable for Alibaba)	cloud profile show all dd SSH command
proxy_host	Proxy host name (Not collected for all cloud service providers. Currently, only applicable for Azure, AWS, GCP, S3, Alibaba, and ECS)	cloud profile show all dd SSH command
proxy_port	Proxy port number (Not collected for all cloud service providers. Currently, only applicable for Azure, AWS, GCP, S3, Alibaba, and ECS)	cloud profile show all dd SSH command
proxy_username	Proxy username (Not collected for all cloud service providers. Currently, only applicable for Azure, AWS, GCP, S3, Alibaba, and ECS)	cloud profile show all dd SSH command

dd_tier_cloud_unit for PowerProtect DD

For DD OS versions 6.2 and later, with cloud feature enabled, Data Protection Advisor retrieves data using the `cloud unit list` command through the SSH Configuration request. If the cloud feature is not enabled, the `dd_tier_cloud_unit` information is not available for PowerProtect DD. The fields described in the following table are returned.

Table 311. dd_tier_cloud_unit

Field	Description	From
tier	Cloud Tier	cloud unit list dd SSH command
name	Cloud unit name	cloud unit list dd SSH command
profile	Cloud profile name	cloud unit list dd SSH command
status	Cloud unit status	cloud unit list dd SSH command

mtree_dm_policy for PowerProtect DD

For DD OS versions 6.2 and later, with cloud feature enabled, Data Protection Advisor retrieves data using the `data-movement policy show` command through the SSH Configuration request. If the cloud feature is not enabled, the `mtree_dm_policy` information is not available for PowerProtect DD. The fields described in the following table are returned.

Table 312. mtree_dm_policy

Field	Description	From
name	Policy name	data-movement policy show dd SSH command
mtree	Mtree name	data-movement policy show dd SSH command
target	Cloud unit	data-movement policy show dd SSH command
value	Threshold value	data-movement policy show dd SSH command

dd_boost_config

The fields described in the following table are returned.

Table 313. dd_boost_config

Field	Description	From
client_name	Client name	Client of the command output
plugin_version	DD Boost plugin version	Plugin Version of the command output
os_version	Client OS version	OS Version of the command output
app_version	Client application version	Application Version of the command output

SSH Status for PowerProtect DD

The SSH Status function gathers information about the status of PowerProtect DD components. Data for the SSH status function is gathered over SSH only, using user credentials that has admin privileges. The function includes the following options:

timeout — SSH timeout value. The default value is 10 seconds.

The SSH Status function gathers the following data:

- dd_lun_props
- device_group_config
- lun_config
- replication_image
- storage_pool_config
- fcport_status for PowerProtect DD
- library_status for PowerProtect DD
- mtree_daily_comp for PowerProtect DD
- mtree_quota for PowerProtect DD
- dd_modes
- ntp_config for PowerProtect DD
- processor_status for PowerProtect DD
- mtree_dm_status for PowerProtect DD

dd_lun_props

i | NOTE: The fields below are only collected for PowerProtect DD 5.5 and up only with a special license enabled. This license is currently used in ProtectPoint environments.

The fields described in the following table are returned.

Table 314. dd_lun_props

Field	Description	From
lun_name	Name of the vDisk device	device of vdisk device show detailed output
primary_sym	Name of the primary VMAX3 storage array that the host is writing to	__SYM-ID__ from the device properties section of vdisk device show detailed output
primary_symdev	Name of the primary VMAX3 device that the host is writing to	__SYMDEV-ID__ from the device properties section of vdisk device show detailed output

Table 314. dd_lun_props (continued)

Field	Description	From
mapped_sym	Name of the VMAX3 storage array that is mapped to the vDisk device	_ELUN-SYM-ID_ from the device properties section of vdisk device show detailed output
mapped_symdev	Name of the VMAX3 encapsulated device that is mapped to the vDisk device	_ELUN-SYMDEV-ID_ from the device properties section of vdisk device show detailed mapped_symdev output in vdisk device show detailed output

device_group_config

i | NOTE: The fields below are only collected for PowerProtect DD 5.5 and up only with a special license enabled. This license is currently used in ProtectPoint environments.

The fields described in the following table are returned.

Table 315. device_group_config

Field	Description	From
name	Name of the vDisk device group	device-group of vdisk device-group show detailed output
dg_id	ID of the vDisk device group	GUID of vdisk device-group show detailed output
pool	Pool of the vDisk device group	pool of vdisk device-group show detailed output
device_count	Number of devices in the group	device-count of vdisk device-group show detailed output
host_name	Host name that is mapped to the vDisk device group	In the vdisk device-group show detailed output, _HOSTNAME_ of device-group properties section, if it exists.
application	Application mapped to the vDisk device group	In the vdisk device-group show detailed output, _APPLICATION_ of device-group properties section, if it exists.

lun_config

i | NOTE: The fields below are only collected for PowerProtect DD 5.5 and up only with a special license enabled. This license is currently used in ProtectPoint environments.

The fields described in the following table are returned.

Table 316. lun_config

Field	Description	From
name	Name of the vDisk device	device of vdisk device show detailed output
lun_name	Name of the vDisk device	device-group of vdisk device show detailed output

Table 316. lun_config (continued)

Field	Description	From
device_group	Group the vDisk device belongs to	device of vdisk device show detailed output
poolname	Pool name of the vDisk device	pool of vdisk device show detailed output
size	Size of the vDisk device (gb)	capacity of vdisk device show detailed output
wwn	Unique identifier of the vDisk device	SCSI ID of vdisk device show detailed output

replication_image

i **NOTE:** The fields below are only collected for PowerProtect DD 5.5 and up only with a special license enabled, - only if __BACKUP-END-TS__ or __BACKUP-TS__ exist. This license is currently used in ProtectPoint environments.

The fields described in the following table are returned.

Table 317. replication_image

Field	Description	From
src_engine	Source PowerProtect DD of the replication	PowerProtect DD name
src_device	Source PowerProtect DD vDisk device of the replication	Device of vdisk static-image show detailed output
facility	Type of the replication (for example, StaticImage)	Hard coded to StaticImage
dest_engine	Target PowerProtect DD of the replication	PowerProtect DD name
dest_device	Target PowerProtect DD vDisk device of the replication	static-image of vdisk static-image show detailed output
image_id	Unique identifier for the image from src_device to dest_device	GUID of vdisk static-image show detailed output
timestamp	Time the image was taken (epoch)	__BACKUP-END-TS__ or __BACKUP-TS__ from the static image properties section of vdisk static-image show detailed output
status	Status of the image	Hard coded to Valid
size	Size of the replication (gb)	Size of vdisk static-image show detailed output
description	Description of the image	__BACKUP-DESC__ from the static image properties section of vdisk static-image show detailed output

storage_pool_config

i **NOTE:** The fields below are only collected for PowerProtect DD 5.5 and up only with a special license enabled. This license is currently used in ProtectPoint environments.

The fields described in the following table are returned.

Table 318. storage_pool_config

Field	Description	From
name	Name of the storage pool	pool of vdisk pool show detailed output
pool	ID of the pool	GUID of vdisk pool show detailed output
description	Name of application group associated to the pool	In the vdisk pool show detailed output, Application Group of the pool properties section, if it exists

fcport_status for PowerProtect DD

In PowerProtect DD 5.1 and earlier, data is retrieved by running the command vtl initiator show. In PowerProtect DD 5.2 and later, data is retrieved through the SNMP tables. The fields described in the following table are returned.

Table 319. fcport_status

Field	Description	From
port	Fibre Channel port identifier	For PowerProtect DD 5.1 and earlier: Port For PowerProtect DD 5.2 and later: 1.3.6.1.4.1.19746.1.11.2.3.1.1.2
linkup	Indicates if the link is active: 1 (online)	For PowerProtect DD 5.1 and earlier: Status For PowerProtect DD 5.2 and later: 1.3.6.1.4.1.19746.1.11.2.3.1.1.11
speed	Speed of port (MB/second)	For PowerProtect DD 5.1 and earlier: N/A For PowerProtect DD 5.2 and later: 1.3.6.1.4.1.19746.1.11.2.3.1.1.9
virtualtype	Indicates if the port is a virtual port (true or 1) or physical (false)	For PowerProtect DD 5.1 and earlier: Hard coded to 1 For PowerProtect DD 5.2 and later: Hard coded to True or False
subname	Location	For PowerProtect DD 5.1 and earlier: Initiator section For PowerProtect DD 5.2 and later: Target hostname

library_status for PowerProtect DD

For PowerProtect DD version 6.0 and later, Data Protection Advisor retrieves data through SNMP in the Status request. For PowerProtect DD version earlier than 6.0, Data Protection Advisor retrieves data by running the command `vtl tape show <vtl>`. The fields described in the following table are returned.

Table 320. library_status

Field	Description	From
libraryname	VTL name	As part of command line option. Get vtl list from vtl show config command
status	OK if the command returns data	Hard coded to ok
virtualtype	Indicates if the VTL is virtual (true or 1) or physical (false or 2)	Hard coded to 1 or 2
compressratio	Average ratio of Compression	Average Compression

mtree_daily_comp for PowerProtect DD

In PowerProtect DD 5.0 and earlier, data is retrieved by running the command `mtree list` and `mtree show compression <mtree_name>`. In PowerProtect DD 5.1 and later, data is retrieved through the SNMP tables. The fields described in the following table are returned.

Table 321. mtree_daily_comp

Field	Description	From SSH perf	From SNMP status
name	MTree name	mtree list or vtl show config	1.3.6.1.4.1.19746.1.15.1.1.1.2
pre_size	Size before compression	output of <code>mtree show compression <mtree_name></code> under Pre-Comp (GiB)	1.3.6.1.4.1.19746.1.15.1.1.1.3
post_ddsize	Size after Deduplication. $f_{post_dd_size} = f_{pre_size} / \text{Global compression factor}$ Where Global compression factor is available in the From columns	output of <code>mtree show compression <mtree_name></code> under Global Comp Factor	1.3.6.1.4.1.19746.1.15.1.1.1.5
post_size	Size after compression dedupe+local compression. $f_{post_size} = f_{post_dd_size} / \text{Local compression factor}$ Where Local compression factor is available in the From columns	Output of <code>mtree show compression <mtree_name></code> under Local Comp Factor	1.3.6.1.4.1.19746.1.15.1.1.1.6

mtree_quota for PowerProtect DD

For DDOS 5.7 and later, Data Protection Advisor collects data through SNMP in Status request. For DDOS versions between 5.5 and 5.6, Data Protection Advisor collects data using the `quota capacity show mtrees all` command. For DDOS 5.4 and earlier, Data Protection Advisor collects data using the `quota show all` command. The fields described in the following table are returned.

Table 322. mtree_quota

Field	Description	From
name	Mtree name	Mtree section
pre_csize	Pre-compression size (in MB)	Pre-Comp
soft_limit	Soft limit value (in MB)	Soft-Limit (MiB)
hard_limit	Hard limit value (in MB)	Hard-Limit (MiB)

processor_status for PowerProtect DD

The fields described in the following table are returned.

Table 323. processor_status

Field	Description	From
num	Unique identifier for the CPU	0 (cpu number)
utilisation	Percentage utilization for the CPU	system shows stats custom-view cpu aggr
online	Indicates if the CPU is online	Hard coded to 1
max_util	Percentage Maximum utilization for the CPU	system shows stats custom-view cpu aggr

dd_modes

Data is retrieved using the commands nfs status, cifs status, archive show config, or vtl show config. The fields described in the following table are returned.

Table 324. dd_modes

Field	Description	From
backup_mode	Indicates if backup mode is enabled or disabled	If enabled, the output of the nfs status and cifs status commands will specify enabled and running
archive_mode	Indicates if archive mode is enabled or disabled	If enabled, the output of the archive show config command will specify enabled
vtl_mode	Indicates if VTL mode is enabled or disabled	If enabled, the output of the vtl show config command will specify enabled

mtree_dm_status for PowerProtect DD

For DDOS versions 6.2 and later, with cloud feature enabled, Data Protection Advisor retrieves data using the data-movement status to-tier cloud detailed command through the SSH Configuration request. If the cloud feature is not enabled, the mtree_dm_status information is not available for PowerProtect DD. The fields described in the following table are returned.

Table 325. mtree_dm_status

Field	Description	From
name	Mtree name	data-movement status to-tier cloud detailed dd SSH command
status	Mtree data movement status	data-movement status to-tier cloud detailed dd SSH command

Table 325. mtree_dm_status (continued)

Field	Description	From
files_inspected	Number of files inspected	data-movement status to-tier cloud detailed dd SSH command
files_eligible	Number of files eligible	data-movement status to-tier cloud detailed dd SSH command
files_moved	Number of files moved	data-movement status to-tier cloud detailed dd SSH command
files_failed	Number of files failed	data-movement status to-tier cloud detailed dd SSH command
precomp	Bytes moved pre-compression	data-movement status to-tier cloud detailed dd SSH command
postcomp	Bytes moved post-compression	data-movement status to-tier cloud detailed dd SSH command
destination_cloud_unit	Destination cloud unit name	data-movement status to-tier cloud detailed dd SSH command

Fibre Channel Switch Module

The Fibre Channel Switch module gathers information about ports on Fibre Channel switches, including configuration, connectivity status, and throughput. Data Protection Advisor uses SNMP to gather Performance, Status, and Configuration data from the Fibre Channel Switch MIB. The module includes the following functions that gather different types of information:

Topics:

- Configuration function for Fibre Channel switches
- Status function for Fibre Channel switches
- Performance function for Fibre Channel switches

Configuration function for Fibre Channel switches

The Configuration function gathers configuration information about Fibre Channel ports, including Brocade, Cisco, and other switches supporting the Fibre Alliance MIB. The function includes the following options:

- timeout — SNMP timeout value in seconds. The default is 10.

The Configuration function gathers the following data:

- host_config for Fibre Channel switches
- fcport_config for Fibre Channel switches
- hwpsu_config for Fibre Channel switches
- hwtemp_config for Fibre Channel switches
- hwfan_config for Fibre Channel switches
- netint_config for Fibre Channel switches

host_config for Fibre Channel switches

The fields described in the following table are returned.

Table 326. host_config

Field	Description	Brocade	Fibre Alliance
vendor	Host vendor	Hard coded to Brocade	1.3.6.1.2.1.1.2.0
osclass	Type of host operating system	Hard coded to Fabric OS	ASN OS or Fabric OS
version	Version of operating system that is running on the host	swFirmwareVersion 1.3.6.1.4.1.1588.2.1.1.1.6.0	N/A
hostid	Serial number	swSnn OID 1.3.6.1.4.1.1588.2.1.1.1.10.0	connUnitSn 1.3.6.1.3.94.1.6.1.8

fcport_config for Fibre Channel switches

The fields described in the following table are returned.

Table 327. fcport_config

Field	Description	Brocade	Fibre Alliance
port	Port identifier. For example, Port 1	swFCPortName 1.3.6.1.4.1.1588.2.1.1.1.6.2.1.36	connUnitPortName 1.3.6.1.3.94.1.10.1.17
wwpn	Port Worldwide Port Name	swFCPortWWN 1.3.6.1.4.1.1588.2.1.1.1.6.2.1.34	connUnitPortWWN 1.3.6.1.3.94.1.10.1.10

hwpsu_config for Fibre Channel switches

The field described in the following table is returned.

Table 328. hwpsu_config

Field	Description	Brocade	Fibre Alliance
name	Power supply unit name	swSensorInfo 1.3.6.1.4.1.1588.2.1.1.1.1.22.1.5	N/A

hwtemp_config for Fibre Channel switches

The field described in the following table is returned.

Table 329. hwtemp_config

Field	Description	Brocade	Fibre Alliance
name	Temperature sensor name	swSensorInfo 1.3.6.1.4.1.1588.2.1.1.1.1.22.1.5	N/A

hwfan_config for Fibre Channel switches

The field described in the following table is returned.

Table 330. hwfan_config

Field	Description	Brocade	Fibre Alliance
name	Hardware fan name	swSensorInfo 1.3.6.1.4.1.1588.2.1.1.1.1.22.1.5	N/A

netint_config for Fibre Channel switches

The fields described in the following table are returned.

Table 331. netint_config

Field	Description	Brocade	Fibre Alliance
ether_addr	Ethernet address of the underlying network card	etheraddr 1.3.6.1.2.1.2.2.1.6	etheraddr 1.3.6.1.2.1.2.2.1.6

Table 331. netint_config (continued)

Field	Description	Brocade	Fibre Alliance
description	Network interface description	ifDescr 1.3.6.1.2.1.2.2.1.2	ifDescr 1.3.6.1.2.1.2.2.1.2
mtu	Size of the largest packet that a network protocol can transmit	1.3.6.1.2.1.2.2.1.4.[interface number]	1.3.6.1.2.1.2.2.1.4.[interface number]
f_jumbo	Jumbo Packets Enabled	SNMP OID 1.3.6.1.2.1.2.2.1.4	SNMP OID 1.3.6.1.2.1.2.2.1.4

Status function for Fibre Channel switches

The Status function gathers status information regarding the connectivity of the ports, including Brocade, Cisco, and other switches supporting the Fibre Alliance MIB. The function includes the following options:

- timeout — SNMP timeout value in seconds. The default is 10.

The Status function gathers the following data:

- host_status for Fibre Channel switches
- fcport_status for Fibre Channel switches
- hwpsu_status for Fibre Channel switches
- hwfan_status for Fibre Channel switches
- netint_status for Fibre Channel switches

host_status for Fibre Channel switches

The field described in the following table is returned.

Table 332. host_status

Field	Description	Brocade	Fibre Alliance
lastboot	Time the host last booted stored as a timestamp	sysUpTime 1.3.6.1.2.1.1.3.0	N/A

fcport_status for Fibre Channel switches

The fields described in the following table are returned.

Table 333. fcport_status

Field	Description	Brocade	Fibre Alliance
port	Port identifier	swFCPortName 1.3.6.1.4.1.1588.2.1.1.1.6.2.1.36	connUnitPortName 1.3.6.1.3.94.1.10.1.17
linkup	Indicates if the link is active	swFCPortPhysState 1.3.6.1.4.1.1588.2.1.1.1.6.2.1.3	connUnitPortStateLinkUp 1.3.6.1.3.94.1.10.1.6
speed	Speed of the port (MB/second)	swFCPortSpeed 1.3.6.1.4.1.1588.2.1.1.1.6.2.1.35	connUnitPortSpeed 1.3.6.1.3.94.1.10.1.15
speed	Cisco port speed	N/A	ifHighSpeed 1.3.6.1.2.1.31.1.1.1.15

hwpsu_status for Fibre Channel switches

The fields described in the following table are returned.

Table 334. hwpsu_status

Field	Description	Brocade	Fibre Alliance
name	Power supply unit name	swSensorInfo 1.3.6.1.4.1.1588.2.1.1.1.1.22.1.5	N/A
active	Indicates if the power supply unit is active	swSensorStatus 1.3.6.1.4.1.1588.2.1.1.1.1.22.1.3	N/A

hwfan_status for Fibre Channel switches

The fields described in the following table are returned.

Table 335. hwfan_status

Field	Description	Brocade	Fibre Alliance
name	Temperature sensor name	swSensorInfo 1.3.6.1.4.1.1588.2.1.1.1.1.22.1.5	N/A
active	Indicates if the fan is active	swSensorStatus 1.3.6.1.4.1.1588.2.1.1.1.1.22.1.3	N/A
speed	Speed at which the fan is operating	swSensorValue 1.3.6.1.4.1.1588.2.1.1.1.1.22.1.4	N/A

netint_status for Fibre Channel switches

The fields described in the following table are returned.

Table 336. netint_status

Destination	Description	Brocade	Fibre Alliance
name	Network Interface Identifier	1.3.6.1.2.1.31.1.1.1.1	1.3.6.1.2.1.31.1.1.1
linkup	Indicates if the link is currently active	Linkup 1.3.6.1.21.2.2.1.8	Linkup 1.3.6.1.21.2.2.1.8
speed	Port speed(MB/second)	Speed 1.3.6.1.2.1.2.2.1.5	Speed 1.3.6.1.2.1.2.2.1.5

Performance function for Fibre Channel switches

The Performance function gathers information regarding the performance of the port. The function includes the following options:

- timeout — SNMP timeout value in seconds. The default is 10.

The Performance function gathers the following data:

- [fcport_perf](#) for Fibre Channel switches
- [netint_perf](#) for Fibre Channel switches

fcport_perf for Fibre Channel switches

The fields described in the following table are returned.

Table 337. fcport_perf

Field	Description	Brocade	Fibre Alliance
port	Port identifier. For example, Port 1	swFCPortName 1.3.6.1.4.1.1588.2.1.1.1.6.2.1.36	2.2 MIB <ul style="list-style-type: none"> • connUnitPortNamePort 1.3.6.1.3.94.1.10.1.17 2.2 Crossroads • connUnitPortNamePort 1.3.6.1.3.94.1.10.1.17 3.1 MIB • connUnitPortNamePort 1.3.6.1.3.94.1.10.1.17
data_in	Amount of data that has entered this port (MB/second)	swFCPortRxWords 1.3.6.1.4.1.1588.2.1.1.1.6.2.1.12	2.2 <ul style="list-style-type: none"> • connUnitPortStatFabricCountRxOctcts 1.3.6.1.3.9.4.4.2.1.7 2.2 Crossroads • connUnitPortStatSCSICountRxBytes 1.3.6.1.3.94.4.3.1.7 3.1 MIB • connUnitPortStatCountRxElements 1.3.6.1.3.9.4.4.5.1.7
data_out	Amount of data that has left this port (MB/second)	swFCPortTxWords 1.3.6.1.4.1.1588.2.1.1.1.6.2.1.11	2.2 MIB <ul style="list-style-type: none"> • connUnitPortStatFabricCountTxOctcts 1.3.6.1.3.9.4.4.2.1.6 2.2 Crossroads • connUnitPortStatSCSICountTxBytes 1.3.6.1.3.94.4.3.1.6 3.1 MIB • connUnitPortStatCountTxElements 1.3.6.1.3.9.4.4.5.1.6
frames_in	Number of frames that have entered this port	swFCPortRxFrames 1.3.6.1.4.1.1588.2.1.1.1.6.2.1.14	2.2 MIB <ul style="list-style-type: none"> • connUnitPortStatFabricCountRxFrames 1.3.6.1.3.9.4.4.2.1.5 2.2 Crossroads

Table 337. fcport_perf (continued)

Field	Description	Brocade	Fibre Alliance
			<ul style="list-style-type: none"> • connUnitPortStatSCSICountRx10 1.3.6.1.3.94.4.3.1.5 3.1 MIB • connUnitPortStatSCSICountRxObjects 1.3.6.1.3.9.4.4.5.1.5
frames_out	Number of frames that have left this port	swFCPortTxFrames 1.3.6.1.4.1.1588.2.1.1.1.6.2.1.13	<p>2.2 MIB</p> <ul style="list-style-type: none"> • connUnitPortStatFabricCountTxFrames 1.3.6.1.3.94.4.2.1.4 2.2 Crossroads • connUnitPortStatSCSICountTx10 1.3.6.1.3.94.4.3.1.4 3.1 MIB • connUnitPortStatSCSICountTxObjects 1.3.6.1.3.9.4.4.5.1.4
errors	Number of errors that this port has suffered when receiving data	Combination of the following values: <ul style="list-style-type: none"> • swFCPortRXEnclnFrs 1.3.6.1.4.1.1588.2.1.1.1.6.2.1.21 2.2 Crossroads • swFCPortRxCrcs 1.3.6.1.4.1.1588.2.1.1.1.6.2.1.22 • swFCPortRxTruncs 1.3.6.1.4.1.1588.2.1.1.1.6.2.1.23 • swFCPortRxTooLongs 1.3.6.1.4.1.1588.2.1.1.1.6.2.1.24 • swFCPortRxBadEofs 1.3.6.1.4.1.1588.2.1.1.1.6.2.1.25 	<p>2.2 MIB</p> <ul style="list-style-type: none"> • connUnitPortStatFabricCountError 1.3.6.1.3.9.4.4.2.1.3 • connUnitPortStatSCSICountError 1.3.6.1.3.94.4.2.1.3
nocredits	Number of times that the port has been unable to transmit data due to a lack of buffer-to-buffer credits	swFCPortNoTxCredits 1.3.6.1.4.1.1588.2.1.1.1.6.2.1.20	<p>2.2 MIB</p> <ul style="list-style-type: none"> • N/A 2.2 Crossroads • N/A 3.1 MIB • connUnitPortStatSCSICountBBCreditZero

Table 337. fcport_perf (continued)

Field	Description	Brocade	Fibre Alliance
			1.3.6.1.3.9.4.4.5.1.8

netint_perf for Fibre Channel switches

The fields described in the following table are returned.

Table 338. netint_perf

Field	Description	Brocade	Fibre Alliance
name	Network Interface Identifier	ifDescr 1.3.6.1.2.1.2.2.1.2	ifDescr 1.3.6.1.2.1.2.2.1.2
data_in	Amount of data into the interface (KB/second)	datain 1.3.6.1.2.1.2.2.1.10	datain 1.3.6.1.2.1.2.2.1.10
data_out	Amount of data out of the interface (KB/second)	dataout 1.3.6.1.2.1.2.2.1.16	dataout 1.3.6.1.2.1.2.2.1.16
packets_in	Number of packets in to the interface	Combination of packetsin 1.3.6.1.2.1.2.2.1.11 nonupacketsin 1.3.6.1.2.1.2.2.1.12	Combination of packetsin 1.3.6.1.2.1.2.2.1.11 nonupacketsin 1.3.6.1.2.1.2.2.1.12
packets_out	Number of packets out of the interface	Combination of packetsout 1.3.6.1.2.1.2.2.1.17 nonupacketsout 1.3.6.1.2.1.2.2.1.18	Combination of packetsout 1.3.6.1.2.1.2.2.1.17 nonupacketsout 1.3.6.1.2.1.2.2.1.18
errors_in	Number of errors in to the interface	Combination of errorsin 1.3.6.1.2.1.2.2.1.14 unknownprotosin 1.3.6.1.2.1.2.2.1.15	Combination of errorsin 1.3.6.1.2.1.2.2.1.14 unknownprotosin 1.3.6.1.2.1.2.2.1.15
errors_out	Number of errors out of the interface	Combination of errorsout 1.3.6.1.2.1.2.2.1.19 errorsout 1.3.6.1.2.1.2.2.1.20	Combination of errorsout 1.3.6.1.2.1.2.2.1.19 errorsout 1.3.6.1.2.1.2.2.1.20

Host Module

The Host Module gathers different aspects of host system configuration, status and performance information. Data Protection Advisor uses HBA API, WMI, and OS-specific commands to gather Configuration, Status, and Performance data. The information gathered are as follows:

Topics:

- Host System Monitoring overview
- Host Information
- Configuration function for Host Systems
- Status function for Host Systems
- File system Information for Host Systems
- Configuration function file system information for Host Systems
- Status function file system information for Host Systems
- Performance function file system information for Host Systems
- Disk Information for Host Systems
- Configuration function disk information for Host Systems
- Status function disk information for Host Systems
- Performance function disk information for Host Systems
- Processor Information for Host Systems
- Configuration function processor information for Host Systems
- Status function processor information for Host Systems
- Process Information for Host Systems
- Status function process information for Host Systems
- Memory Information for Host Systems
- Configuration function memory information for Host Systems
- Status function memory information for Host Systems
- Performance function memory information for Host Systems
- Network Interface Information for Host Systems
- Configuration function network interface information for Host Systems
- Status function network interface information for Host Systems
- Performance function network interface information for Host Systems
- Fibre Channel HBA Information for Host Systems
- Configuration function Fibre Channel HBA information for Host Systems
- Status function Fibre Channel HBA information for Host Systems
- Tape Drive Information for Host Systems
- Performance function tape drive information for Host Systems

Host System Monitoring overview

The different aspects of the Host module are:

- Host Information — Gathers basic information about the configuration and status of the operating system
- File system Information — Gathers information about file systems on the machine
- Disk Information — Gathers information about physical disks on the machine
- Processor Information — Gathers information about CPUs on the machine
- Process Information — Gathers information about processes running on the machine
- Memory Information — Gathers information about memory on a machine
- Network Interface Information — Gathers information about network interfaces on a machine
- Fibre Channel HBA Information — Gathers information about Fibre Channel HBAs on a machine
- Tape Drive Information — Gathers information about tape drives on a machine

The information returned from each aspect of the Host Module may differ slightly from one platform to another. The following sections detail the information returned by each aspect of the Host module.

The following options are available for the Configuration, Status, and Performance requests to control the data gathering behavior of each aspect of the Host module:

- host — Includes basic host information. The default value is true.
- memory — Includes host memory information. The default value is true.
- disk — Includes host disk information. The default value is true.
- fs — Includes host file system information. The default value is true.
- remote — Includes remotely mounted file systems. Determines if network-attached file systems are included by the Data Protection Advisor Data Collection Agent. The default value is false.
- netint — Includes host network interface information. The default value is true.
- logical — Includes logical network interfaces. The default value is false.
- fchba — Includes fibre channel host bus adaptor information. The default value is true.
- srm — Utilizes the SRM libraries for disk or file system information. The default value is true.

Host Information

Host gathers information about the host operating system. This consists of the following functions that gather different aspects of host information.

- [Configuration function for Host Systems](#)
- [Status function for Host Systems](#)

Configuration function for Host Systems

The Configuration function gathers basic information about the operating system version of a host. The Configuration function gathers the following data:

- [host_config](#)
- [iscsi_isns_config for Host Systems](#)

host_config

The fields described in the following table are returned.

Table 339. host_config

Field	Description	From
vendor	Operating system vendor name	AIX — Hard coded to company that provides the operating system HP-UX — Hard coded to company that provides the operating system Linux — Hard coded to company that provides the operating system Windows — Hard coded to company that provides the operating system Solaris — Hard coded to company that provides the operating system
hostid	Host serial number or ID	AIX — Machine ID from uname Windows — Using Name from Win32_ComputerSystem WMI class Linux — System call gethostid

Table 339. host_config (continued)

Field	Description	From
		HP-UX — confstr system call with _CS_PARTITION_IDENT parameter name Solaris — System call gethostid
osclass	Operating system type: Windows, UNIX	AIX — Hard coded to UNIX HP-UX — Hard coded to UNIX Linux — Hard coded to UNIX Windows — Hard coded to Windows Solaris — Hard coded to UNIX
product	Operating system vendor. For example, Microsoft Windows Server 2008	AIX — Operating system function call HP-UX — Operating system function call Linux — Operating system configuration file Windows — WMI Solaris — Operating system function call
version	Operating system version	AIX — Uname function HP-UX — Uname function Linux — Uname function Windows — WMI Solaris — Uname function
iscsiname	Host iSCSI name	AIX — Operating system configuration file HP-UX — Operating system configuration file Linux — Operating system configuration file Windows — WMI Solaris — Operating system configuration file

iscsi_isns_config for Host Systems

The field described in the following table is returned.

Table 340. isci_isns_config

Field	Description	From
name	iSNS client name	AIX — Operating system configuration file HP-UX — Operating system configuration file Linux — Operating system configuration file Windows — WMI

Table 340. isci_isns_config

Field	Description	From
		Solaris — Operating system configuration file

Status function for Host Systems

The Status function gathers information regarding the last time the host was rebooted.

host_status

The field described in the following table is returned.

Table 341. host_status

Field	Description	From
lastboot	Time the host last booted stored as a timestamp	AIX — Operating system configuration file HP-UX — pstat Linux — /etc/mtab operating system configuration file Windows — WMI Solaris — kstat

File system Information for Host Systems

File system gathers information about the host file systems using the following functions that gather different aspects of file system information.

- Configuration function file system information for Host Systems
- Status function file system information for Host Systems
- Performance function file system information for Host Systems
- Disk mirroring for Host Systems

Configuration function file system information for Host Systems

The Configuration function gathers information regarding the file systems that exist on a host, the types of the file system, and the capacity of the file system.

The Configuration function gathers the following data:

- filesystem_config for Host Systems
- filesysc_diskc_r for Host Systems

filesystem_config for Host Systems

The fields described in the following table are returned.

Table 342. filesystem_config

Field	Description	From
mountpoint	File system mount point. For example, /usr, C:\	AIX — Operating system configuration file HP-UX — mounted file system table (etc/mnttab) Operating system configuration file Linux — Operating system configuration file Windows — WMI Solaris — Operating system configuration file
device	Underlying hardware device name	AIX — Operating system configuration file HP-UX — Operating system configuration file Linux — Operating system configuration file Windows — WMI Solaris — Operating system configuration file
type	File system type. For example, ext2, vxfs	AIX — Operating system configuration file HP-UX — Operating system configuration file Linux — Operating system configuration file Windows — WMI Solaris — Operating system configuration file
total_space	File system total capacity (in MB)	AIX — Operating system configuration file HP-UX — Operating system configuration file Linux — Operating system configuration file Windows — WMI Solaris — Operating system configuration file
total_files	Total number of files that the file system can support	AIX — Operating system configuration file HP-UX — Operating system configuration file Linux — Operating system configuration file

Table 342. filesystem_config (continued)

Field	Description	From
		Windows — WMI Solaris — Operating system configuration file
device_host	Underlying hardware device name	AIX — Operating system function call HP-UX — Operating system configuration file Linux — Operating system configuration file Windows — WMI Solaris — Operating system configuration file

filescsc_diskc_r for Host Systems

The fields described in the following table are returned.

Table 343. filescsc_diskc_r

Field	Description	From
device	Underlying hardware device name	AIX — Operating system configuration file and odm Linux — Operating system configuration file /proc/mdstat Windows — WMI Solaris — Operating system configuration file
dsk_node	Node associated with the disk	AIX — Operating system configuration file and odm Linux — Operating system configuration file /proc/mdstat Windows — WMI Solaris — Operating system configuration file
disk	Disk	AIX — Operating system configuration file and odm Linux — Operating system configuration file /proc/mdstat Windows — WMI Solaris — Operating system configuration file

Status function file system information for Host Systems

The Status function gathers information about the current state of file system usage on a host.

filesystem_status for Host Systems

The fields described in the following table are returned.

Table 344. filesystem_status

Field	Description	From
mountpoint	File system mount point	AIX — Operating system configuration file and operating system function call HP-UX — Operating system configuration file and operating system function call Linux — Operating system configuration file /etc/mtab Windows — WMI Solaris — Operating system configuration file and operating system function call
used_space	Amount of used storage space (in MB)	AIX — Operating system configuration file and operating system function call HP-UX — Operating system configuration file and operating system function call Linux — Operating system configuration file /etc/mtabll Windows — WMI Solaris — Operating system configuration file and operating system function call
used_files	Total number of files on the file system	AIX — Operating system configuration file and operating system function call HP-UX — Operating system configuration file and operating system function call Linux — Operating system configuration file /etc/mtabll Windows — N/A Solaris — Operating system configuration file and operating system function call

Performance function file system information for Host Systems

The Performance function gathers performance metrics for file system activity on the host.

filesystem_perf for Host Systems

The fields described in the following table are returned.

Table 345. filesystem_perf

Field	Description	From
mountpoint	Mountpoint name	HP-UX — Operating system file /etc/mnttab Linux — Operating system configuration file /proc/partitions Windows — WMI Solaris — Operating system file and kstat
data_in	Data transferred from file system to memory (KB/second)	HP-UX — Operating system file /etc/mnttab Linux — Operating system configuration file /proc/partitions Windows — WMI Solaris — Operating system file and kstat
data_out	Data transferred to file system from memory (KB/second)	HP-UX — Operating system file /etc/mnttab Linux — Operating system configuration file /proc/partitions Windows — WMI Solaris — Operating system file and kstat
reqs_in	Number of requests to transfer from file system to memory (/second)	HP-UX — Operating system file /etc/mnttab Linux — Operating system configuration file /proc/partitions Windows — WMI Solaris — Operating system file and kstat
reqs_out	Number of requests to transfer to file system from memory (/second)	HP-UX — Operating system file /etc/mnttab Linux — Operating system configuration file /proc/partitions Windows — WMI Solaris — Operating system file and kstat

Disk mirroring for Host Systems

The fields described in the following table are returned.

Table 346. Disk mirroring

Field	Description	From
Mirror	Mirror name	Solaris — Operating system configuration file
Mirror type	Mirror type	Solaris — Operating system configuration file
Disk	Name of disk node associated with mirror	Solaris — Operating system configuration file
Disk type	Disk type	Solaris — Operating system configuration file

Disk Information for Host Systems

Disk gathers information about fixed disks connected using IDE, CCISS, or SCSI using the following functions.

- Configuration function disk information for Host Systems
- Status function disk information for Host Systems
- Performance function disk information for Host Systems

Configuration and performance information is available for all hosts. Status information is not available for Windows platforms or for IDE disks on any platform.

Configuration function disk information for Host Systems

The Configuration function gathers information about fixed disk configuration.

disk_config for Host Systems

The fields described in the following table are returned.

Table 347. disk_config

Field	Description	From
device	Device name of the disk. For example, /dev/dsk/c0t0d0s0	AIX — odm HP-UX — pstat Linux — /proc and scsi Windows — WMI Solaris — kstat
manufacturer	Disk vendor. For example, SEAGATE	AIX — odm HP-UX — pstat Linux — /proc and scsi Windows — WMI Solaris — kstat
model	Disk model	AIX — odm

Table 347. disk_config (continued)

Field	Description	From
		HP-UX — pstat Linux — /proc and scsi Windows — WMI Solaris — kstat
serial_number	Disk serial number	AIX — odm HP-UX — pstat Linux — /proc and scsi Windows — WMI Solaris — kstat
firmware	Disk firmware version	AIX — odm
size	Disk capacity (in GB)	AIX — odm HP-UX — pstat Linux — /proc and scsi Windows — WMI Solaris — kstat

Status function disk information for Host Systems

The Status function gathers information about disk status.

disk_status for Host Systems

The fields described in the following table are returned.

Table 348. disk_status

Name	Description	From
device	Device name. For example /dev/dsk/c0t0d0s0	Linux — /proc/partitions file Solaris — kstat
errors	Number of read and write errors on the disk	Linux — /proc/partitions file Solaris — kstat
state	Disk state	Solaris — kstat

 **NOTE:** Disk status information is available only for SCSI disks.

Performance function disk information for Host Systems

The Performance function gathers information regarding disk performance.

disk_perf for Host Systems

The fields described in the following table are returned.

Table 349. disk_perf

Field	Description	From
device	Device name of the disk	AIX — odm Linux — /proc/diskstats file Windows — WMI Solaris — kstat
data_in	Amount of data transferred from disk to memory (KB/second)	AIX — odm Linux — /proc/diskstats file Windows — WMI Solaris — kstat
data_out	Amount of data transferred from memory to disk (KB/second)	AIX — odm Linux — /proc/diskstats file Windows — WMI Solaris — kstat
reqs_in	Number of read operations (/second)	Linux — /proc/diskstats file Windows — WMI Solaris — kstat
reqs_out	Number of write operations (/second)	Linux — /proc/diskstats file Windows — WMI Solaris — kstat
busy	Indicates if the file system is transferring data	Windows — WMI Solaris — kstat

Processor Information for Host Systems

Processor gathers CPU statistics from the host on which it is running using the following functions that allow different types of data to be gathered at different intervals.

- [Configuration function processor information for Host Systems](#)
- [Status function processor information for Host Systems](#)

Configuration function processor information for Host Systems

The Configuration function returns information about the types and speeds of CPU installed on the host that is monitored.

processor_config for Host Systems

The fields described in the following table are returned.

Table 350. processor_config

Field	Description	From
num	Internal processor number	AIX — odm command HP-UX — pstat Linux — /proc/cpuinfo file Windows — WMI query Solaris — kstat
make	Processor manufacturer name	AIX — odm command HP-UX — pstat Linux — /proc/cpuinfo file Windows — WMI query Solaris — kstat
model	Processor model	AIX — odm command HP-UX — pstat Linux — /proc/cpuinfo file Windows — WMI query Solaris — kstat
speed	Processor speed (in MHz)	AIX — odm command HP-UX — pstat Linux — /proc/cpuinfo file Windows — WMI query Solaris — kstat

Status function processor information for Host Systems

The Status function returns information about current CPU utilization status.

processor_status for Host Systems

The fields described in the following table are returned.

Table 351. processor_status

Field	Description	From
num	Internal processor number	AIX — perfstat HP-UX — pstat Linux — /proc/stat file Windows — WMI system call to the \\root\\cimv2 namespace Solaris — kstat
utilisation	Processor utilization as a percentage	AIX — perfstat HP-UX — pstat Linux — /proc/stat file Windows — WMI system call to the \\root\\cimv2 namespace Solaris — kstat
online	Indicates if the process is online	AIX — perfstat HP-UX — pstat Linux — /proc/stat file Windows — WMI system call to the \\root\\cimv2 namespace Solaris — kstat

Process Information for Host Systems

Process gathers information about processes running on a host using the following function that gathers information about all processes that are running on a host.

Status function process information for Host Systems

The Status function returns information about current process status.

process_status for Host Systems

The fields described in the following table are returned.

Table 352. process_status

Field	Description	From
pid	Process id name	AIX — getprocs64 HP-UX — pstat Linux — /stats dir file for each directory in the /proc sub-directory Windows — WMI Solaris — /psinfo dir file for each directory in the /proc sub-directory
name	Process name	AIX — getprocs64 HP-UX — pstat Linux — /stats dir file for each directory in the /proc sub-directory Windows — WMI Solaris — /psinfo dir file for each directory in the /proc sub-directory
cmd	Full process name with arguments	AIX — getprocs64 HP-UX — pstat Linux — /stats dir file for each directory in the /proc sub-directory Windows — WMI Solaris — /psinfo dir file for each directory in the /proc sub-directory
cpu	CPU Utilization of process (as a percentage)	AIX — getprocs64 HP-UX — pstat Linux — /stats dir file for each directory in the /proc sub-directory Windows — WMI Solaris — /psinfo dir file for each directory in the /proc sub-directory
mem	Memory utilization of process (in MB)	AIX — getprocs64 HP-UX — pstat

Table 352. process_status (continued)

Field	Description	From
		Linux — /stats dir file for each directory in the /proc sub-directory Windows — N/A Solaris — /psinfo dir file for each directory in the /proc sub-directory

Memory Information for Host Systems

Memory gathers information regarding memory configuration, usage, and performance on a host operating system. This consists of the following functions that allow each of these different aspects of memory to be gathered on different timing intervals.

- Configuration function memory information for Host Systems
- Status function memory information for Host Systems
- Performance function memory information for Host Systems

Configuration function memory information for Host Systems

The Configuration function gathers information regarding memory configuration on a host machine.

memory_config for Host Systems

The fields described in the following table are returned.

Table 353. memory_config

Field	Description	From
physical	Total amount of physical memory (in MB)	AIX — perfstat HP-UX — pstat Linux — /proc/meminfo file Windows — WMI system call to the \root\cimv2 namespace Solaris — swapctl and sysconf system calls
virtual	Total amount of virtual memory (in MB)	AIX — perfstat HP-UX — pstat Linux — /proc/meminfo file Windows — WMI system call to the \root\cimv2 namespace Solaris — swapctl and sysconf system calls
shm_seg_size	System-wide maximum allowable shared memory segment size (in MB)	AIX — All values are hard coded. AIX does not allow these values to be modified HP-UX — All the values are taken from kctune (HP-UX 11.23)

Table 353. memory_config (continued)

Field	Description	From
		Linux — All values are taken from the shmctl system call Solaris — All values are taken from prctl (Solaris 10)
shm_system_segs	System-wide maximum allowable number of shared memory segments	AIX — All values are hard coded. AIX does not allow these values to be modified HP-UX — All the values are taken from kctune (HP-UX 11.23) Linux — All values are taken from the shmctl system call Solaris — All values are taken from prctl (Solaris 10)
shm_process_segs	Maximum number of shared memory segments that can be simultaneously attached to a single process. Not available on Solaris platforms	AIX — All values are hard coded. AIX does not allow these values to be modified HP-UX — All the values are taken from kctune (HP-UX 11.23) Linux — All values are taken from the shmctl system call Solaris — All values are taken from prctl (Solaris 10)
msg_free_space_map	Size of the free-space resource map used for assigning locations for new messages in shared memory. Not available on Solaris and AIX platforms	AIX — All values are hard coded. AIX does not allow these values to be modified HP-UX — All the values are taken from kctune (HP-UX 11.23) Linux — All values are taken from the msgctl system call Solaris — All values are taken from prctl (Solaris 10)
msg_message_size	Maximum total size of all messages that can be queued simultaneously on a message queue (in bytes)	AIX — All values are hard coded. AIX does not allow these values to be modified HP-UX — All the values are taken from kctune (HP-UX 11.23) Linux — All values are taken from the msgctl system call Solaris — All values are taken from prctl (Solaris 10)
msg_queue_size	Maximum number of message queues that can exist simultaneously on the system	AIX — All values are hard coded. AIX does not allow these values to be modified HP-UX — All the values are taken from kctune (HP-UX 11.23) Linux — All values are taken from the msgctl system call

Table 353. memory_config (continued)

Field	Description	From
		Solaris — All values are taken from prctl (Solaris 10)
msg_system_queues	System-wide maximum total number of message segments that can exist in all message queues at any given time. Not available on Solaris and AIX platforms	AIX — All values are hard coded. AIX does not allow these values to be modified HP-UX — All the values are taken from kctune (HP-UX 11.23) Linux — All values are taken from the msgctl system call Solaris — All values are taken from prctl (Solaris 10)
msg_segment_size	Message segment size that is to be used when allocating message space in message queues. Not available on Solaris and AIX platforms	AIX — All values are hard coded. AIX does not allow these values to be modified HP-UX — All the values are taken from kctune (HP-UX 11.23) Linux — All values are taken from the msgctl system call Solaris — All values are taken from prctl (Solaris 10)
msg_system_msgs	Maximum number of messages that are allowed to exist on the system at any given time	AIX — All values are hard coded. AIX does not allow these values to be modified HP-UX — All the values are taken from kctune (HP-UX 11.23) Linux — All values are taken from the msgctl system call Solaris — All values are taken from prctl (Solaris 10)
sem_system_sems	Maximum number of sets of IPC semaphores that can exist simultaneously on the system	AIX — All values are hard coded. AIX does not allow these values to be modified HP-UX — All the values are taken from kctune (HP-UX 11.23) Linux — All values are taken from the semctl system call Solaris — All values are taken from prctl (Solaris 10)
sem_user_sems	System-wide maximum number of individual IPC semaphores that can be allocated for users. Not available on AIX	AIX — All values are hard coded. AIX does not allow these values to be modified HP-UX — All the values are taken from kctune (HP-UX 11.23) Linux — All values are taken from the semctl system call Solaris — All values are taken from prctl (Solaris 10)

Table 353. memory_config (continued)

Field	Description	From
sem_set_sems	Maximum number of semaphores per semaphore set	AIX — All values are hard coded. AIX does not allow these values to be modified HP-UX — All the values are taken from kctune (HP-UX 11.23) Linux — All values are taken from the semctl system call Solaris — All values are taken from prctl (Solaris 10)
sem_semop_sems	Number of semaphore operations that can be performed per semop call. Not available on HP-UX	AIX — All values are hard coded. AIX does not allow these values to be modified HP-UX — All the values are taken from kctune (HP-UX 11.23) Linux — All values are taken from the semctl system call Solaris — All values are taken from prctl (Solaris 10)
sem_process_undos	Maximum number of IPC semaphores that a given process can have undo operations pending on	AIX — All values are hard coded. AIX does not allow these values to be modified HP-UX — All the values are taken from kctune (HP-UX 11.23) Linux — All values are taken from the semctl system call Solaris — All values are taken from prctl (Solaris 10)

Status function memory information for Host Systems

The Status function returns information about current memory status.

memory_status for Host Systems

The field described in the following table is returned.

Table 354. memory_status

Field	Description	From
used	Total amount of memory used (in MB)	AIX — perfstat HP-UX — pstat Linux — /proc/meminfo configuration file Windows — WMI system call to the \\root\\cimv2 namespace

Table 354. memory_status

Field	Description	From
		Solaris — sysconf and swapctl system calls

Performance function memory information for Host Systems

The Performance function returns information regarding memory performance.

memory_perf for Host Systems

The fields described in the following table are returned.

Table 355. memory_perf

Field	Description	From
data_in	Amount of data moved into memory from disk (KB/second)	AIX — perfstat HP-UX — pstat Linux — for kernel version 2.6 and later, the contents of the /proc/vmstat configuration file are read. Previous to kernel versions 2.6, the contents of the /proc/stat configuration file Windows — WMI system call to the \\root\\cimv2 namespace Solaris — kstat system calls
data_out	Amount of data moved out of memory to disk (KB/second)	AIX — perfstat HP-UX — pstat Linux — for kernel version 2.6 and later, the contents of the /proc/vmstat configuration file are read. Previous to kernel versions 2.6, the contents of the /proc/stat configuration file Windows — WMI system call to the \\root\\cimv2 namespace Solaris — kstat system calls

Network Interface Information for Host Systems

Network Interface gathers information regarding the network interfaces that are present on a host or IP switch. This consists of the following functions that gather different aspects of network interface information in order that they can be scheduled at different intervals.

- Configuration function network interface information for Host Systems
- Status function network interface information for Host Systems
- Performance function network interface information for Host Systems

Configuration function network interface information for Host Systems

The Configuration function gathers information regarding Network Interface configuration. The Configuration function gathers the following data:

- [netint_config for Host Systems](#)
- [netint_ip for Host Systems](#)

netint_config for Host Systems

The fields described in the following table are returned.

Table 356. netint_config

Field	Description	From
name	Network interface identifier	AIX — perfstat HP-UX — /dev/dlpi file Linux — ioctl calls on an open socket Windows — \\root\cimv2 namespace Solaris — /usr/sbin/no command on the PdDv and CuDv interface classes
ether_addr	Underlying network card ethernet address	AIX — perfstat HP-UX — /dev/dlpi file Linux — ioctl calls on an open socket Windows — \\root\cimv2 namespace Solaris — /usr/sbin/no command on the PdDv and CuDv interface classes
autoneg	Indicates if auto-negotiation is enabled on this interface	AIX — perfstat HP-UX — /dev/dlpi file Linux — ioctl calls on an open socket Windows — \\root\cimv2 namespace Solaris — /usr/sbin/no command on the PdDv and CuDv interface classes
description	Network interface description	AIX — perfstat HP-UX — /dev/dlpi file Linux — ioctl calls on an open socket Windows — N/A Solaris — /usr/sbin/no command on the PdDv and CuDv interface classes
mtu	Size of the largest packet that a network protocol can transmit	AIX — getkerninfo system call HP-UX — request to the driver using DL_HP_PPA_REQ Linux — SIOCGIFMTU ioctl call Windows — MTU from Win32_NetworkAdapterConfiguration using WMI

Table 356. netint_config (continued)

Field	Description	From
		Solaris — /usr/sbin/no command on the PdDv and CuDv interface classes
failover	Standby if the primary interface goes down	AIX — N/A HP-UX — N/A Linux — N/A Windows — N/A Solaris — /usr/sbin/no command on the PdDv and CuDv interface classes
multicast	If enabled, the interface can send data to more than one address at the same time	AIX — getkerninfo system call HP-UX — SIOCGIFFLAGS ioctl call Linux — SIOCGIFFLAGS ioctl call Windows — N/A Solaris — /usr/sbin/no command on the PdDv and CuDv interface classes
promiscuous	If enabled, all traffic is passed to the interface rather than just packets addressed to it	AIX — getkerninfo system call HP-UX — SIOCGIFFLAGS ioctl call Linux — SIOCGIFFLAGS ioctl call Windows — N/A Solaris — /usr/sbin/no command on the PdDv and CuDv interface classes
sendbuffer	Amount of data that can be sent before receiving a reply	AIX — getAdapterODMAttribute system call HP-UX — N/A Linux — SIOCGIFTXQLEN ioctl call Windows — TcpWindowSize from Win32_NetworkAdapterConfiguration using WMI Solaris — N/A Note: If size is not specified on the interface, then the system-wide settings are used.
recvbuffer	Amount of data that can be received before sending a reply	AIX — getkerninfo system call HP-UX — N/A Linux — N/A Windows — N/A Solaris — N/A Note: If size is not specified on the interface, then the system-wide settings are used.
simplex	If enabled, the interface messages are filtered and not displayed	AIX — getkerninfo system call HP-UX — N/A Linux — N/A Windows — N/A

Table 356. netint_config (continued)

Field	Description	From
		Solaris — N/A

netint_ip for Host Systems

The fields described in the following table are returned.

Table 357. netint_ip

Field	Description	From
name	Network interface identifier	AIX — odm_get_obj system call HP-UX — DL_HP_PPA_REQ Linux — /proc/net/dev Windows — InstanceName from MSNdis_EnumerateAdapter Solaris — SIOCGIFCONF system call
ipaddr	Interface IP address. There may be multiple IP addresses for each interface	AIX — SIOCGIFCONF system call HP-UX — SIOCGIFCONF system call Linux — getifaddrs system call Windows — IPAddress from Win32NetworkAdapterConfiguration from WMI Solaris -SIOCGIFCONF system call
netmask	Interface netmask	AIX — SIOCGIFNETMASK ioctl call HP-UX — SIOCGIFNETMASK ioctl call Linux — getifaddrs system call Windows — ISubnet from Win32NetworkAdapterConfiguration from WMI Solaris — SIOCGIFNETMASK ioctl call
hostname	Network interface hostname	AIX — nslookup command HP-UX — nslookup command Linux — nslookup command Windows — nslookup.exe command Solaris — nslookup command
gateway	Interface gateway	AIX — N/A HP-UX — N/A Linux — N/A Windows — DefaultIPGateway from Win32NetworkAdapterConfiguration from WMI Solaris — N/A
broadcast	Message can be sent with no address and is sent to everyone listening	AIX — SIOCGIFBRDADDR ioctl call HP-UX — SIOCGIFBRDADDR ioctl call

Table 357. netint_ip (continued)

Field	Description	From
		Linux — getifaddrs system call Windows — N/A Solaris — SIOCGIFBRDADDR ioctl call

Status function network interface information for Host Systems

The Status function gathers the following data:

- `netint_status` for Host Systems
- Network interface routing for Host Systems

`netint_status` for Host Systems

The fields described in the following table are returned.

 **NOTE:** For BGE interfaces on the Solaris platform and ipge gigabit and ixge 10gigabit Ethernet interfaces, status information is gathered from kstat only

Table 358. netint_status

Field	Description	From
name	Network interface identifier	AIX — perfstat HP-UX — /dev/dlpi file Linux — /proc/net/dev file Windows — WMI calls to the \\root\\cimv2 namespace Solaris — kstat
speed	Speed at which the network interface is running (MB/second)	AIX — perfstat HP-UX — /dev/dlpi file Linux — ioctl calls on an open socket Windows — WMI calls to the \\root\\cimv2 namespace Solaris — kstat
fullduplex	Indicates if the interface is running in full duplex	AIX — perfstat HP-UX — /dev/dlpi file Linux — ioctl calls on an open socket Windows — WMI calls to the \\root\\cimv2 namespace Solaris — kstat
linkup	Indicates if the interface has an active link	AIX — perfstat HP-UX — /dev/dlpi file Linux — /proc/net/dev file Windows — WMI calls to the \\root\\cimv2 namespace

Table 358. netint_status (continued)

Field	Description	From
		Solaris — kstat

Network interface routing for Host Systems

The fields described in the following table are returned.

Table 359. Network interface routing

Field	Description	From
source	Network interface hostname	AIX — perfstat HP-UX — DLPI interface Linux — ioctl calls on an open socket Windows — N/A Solaris — kstat
source port	Ethernet port name	AIX — perfstat HP-UX — DLPI interface Linux — ioctl calls on an open socket Windows — N/A Solaris — kstat
Destination	Network interface hostname	AIX — perfstat HP-UX — DLPI interface Linux — ioctl calls on an open socket Windows — N/A Solaris — kstat
Destination port	Ethernet port name	AIX — perfstat HP-UX — DLPI interface Linux — ioctl calls on an open socket Windows — N/A Solaris — kstat

Performance function network interface information for Host Systems

The performance function interface information for host systems gathers the following data:

netint_perf for Host Systems

The fields described in the following table are returned.

Table 360. netint_perf

Field	Description	From
name	Network Interface Identifier	AIX — perfstat_netinterface system call

Table 360. netint_perf (continued)

Field	Description	From
		HP-UX — /dev/dlpi file Linux — /proc/net/dev file Windows — WMI calls to the \\root\cimv2 namespace Solaris — kstat
data_in	Amount of data into the interface (KB/second)	AIX — perfstat_netinterface system call HP-UX — /dev/dlpi file Linux — /proc/net/dev file Windows — WMI calls to the \\root\cimv2 namespace Solaris — kstat
data_out	Amount of data out of the interface (KB/second)	AIX — perfstat_netinterface system call HP-UX — /dev/dlpi file Linux — /proc/net/dev file Windows — WMI calls to the \\root\cimv2 namespace Solaris — kstat
packets_in	Number of packets into the interface	AIX — perfstat_netinterface system call HP-UX — /dev/dlpi file Linux — /proc/net/dev file Windows — WMI calls to the \\root\cimv2 namespace Solaris — kstat
packets_out	Number of packets out of the interface	AIX — perfstat_netinterface system call HP-UX — /dev/dlpi file Linux — /proc/net/dev file Windows — WMI calls to the \\root\cimv2 namespaces Solaris — kstat
errors_in	Number of errors into the interface	AIX — perfstat_netinterface system call HP-UX — /dev/dlpi file Linux — /proc/net/dev file Windows — WMI calls to the \\root\cimv2 namespace Solaris — kstat
errors_out	Number of errors out of the interface	AIX — perfstat_netinterface system call HP-UX — /dev/dlpi file Linux — /proc/net/dev file Windows — WMI calls to the \\root\cimv2 namespace Solaris — kstat

Table 360. netint_perf (continued)

Field	Description	From
discards_in	Number of discards into the interface	AIX — perfstat_netinterface system call HP-UX — i/dev/dlpi file Linux — /proc/net/dev file Windows — WMI calls to the \\root\cimv2 namespace Solaris — norcvbuf from kstat
discards_out	Number of discards out of the interface	AIX — perfstat_netinterface system call HP-UX — /dev/dlpi file Linux — /proc/net/dev file Windows — WMI calls to the \\root\cimv2 namespace Solaris — noxmtbuf from kstat

Fibre Channel HBA Information for Host Systems

Fibre Channel HBA gathers information about HBAs attached to the machine. This consists of the following functions that gather different aspects of HBA information in order that they can be scheduled at different intervals.

- Configuration function Fibre Channel HBA information for Host Systems
- Status function Fibre Channel HBA information for Host Systems
- Performance function Fibre Channel HBA information for Host Systems

i **NOTE:** All data for the operating systems is returned from HBAAPILIB.

Configuration function Fibre Channel HBA information for Host Systems

The Configuration function gathers information about Fibre Channel ports and hardware cards. The Configuration function gathers the following data:

- fcport_config for Host Systems
- fcport_host_mapping for Host Systems
- hwcard_config Fibre Channel HBA information for Host Systems

fcport_config for Host Systems

The fields described in the following table are returned.

Table 361. fcport_config

Field	Description	From
port	Adapter and Port identifier. For example, 0 - port1	HBAAPILIB
wwpn	Port Worldwide Port Name	HBAAPILIB
type	HBA port type	HBA_GetAdapterPortAttributes()

fcport_host_mapping for Host Systems

The fields described in the following table are returned. This is applicable to HP-UX only.

Table 362. fcport_host_mapping

Field	Description	From
osdevicename	Device name from which fibre channel port is visible on the operating system	HBA_GetAdapterPortAttributes()
tgt_port	Mapping of operating system identifiers of SCSI logical units to fibre channel port identifiers of logical units for the HBA	HBA_GetFcpTargetMapping()

hwcard_config Fibre Channel HBA information for Host Systems

The fields described in the following table are returned.

Table 363. hwcard_config

Field	Description	From
serial	Hardware card serial number	HBAAPILIB
type	Hardware card type	HBAAPILIB
manufacturer	Hardware card manufacturer	HBAAPILIB
model	Hardware card model	HBAAPILIB
name	Hardware card name	HBAAPILIB
description	Hardware card description	HBAAPILIB
hardware	Hardware card version	HBAAPILIB
firmware	Hardware card firmware version	HBAAPILIB
driver_name	Hardware card driver name	HBAAPILIB
driver	Hardware card driver version	HBAAPILIB
adaptorname	Hardware card adapter name	HBAAPILIB

Status function Fibre Channel HBA information for Host Systems

The Status function gathers information regarding Fibre Channel port status.

fcport_status for Host Systems

The fields described in the following table are returned.

Table 364. fcport_status

Field	Description	From
port	Adapter and Port identifier. For example, 0 - port1	HBAAPILIB
speed	Speed at which the port is running (MB/second)	HBAAPILIB

Table 364. fcport_status (continued)

Field	Description	From
linkup	Indicates if the link is currently active	HBAAPILIB

Performance function Fibre Channel HBA information for Host Systems

The Performance function gathers information regarding Fibre Channel port performance.

fcport_status performance for Host Systems

The fields described in the following table are returned.

i | NOTE: Data Protection Advisor retrieves performance information using the SNIA API function call *HBA_GetPortStatistics* and extracting the RxWords, TxWords, RxFrames, and TxFrames values. Your HBA firmware version must support this function call for Data Protection Advisor to retrieve Fibre Channel port performance data.

Table 365. fcport_status

Field	Description	From
port	Adapter and Port identifier. For example, 0 - port1	HBAAPILIB
data_in	Amount of data that has entered this port (MB/second)	HBAAPILIB
data_out	Amount of data that has left this port (MB/second)	HBAAPILIB
frames_in	Number of frames that have entered this port	HBAAPILIB
frames_out	Number of frames that have left this port	HBAAPILIB
errors	Number of errors that this port has suffered when receiving data	HBAAPILIB

Tape Drive Information for Host Systems

Tape Drive gathers information about tape drives using the following function.

Performance function tape drive information for Host Systems

The Performance function gathers information regarding the performance of the tape drives.

Performance tape drive for Host Systems

The fields described in the following table are returned.

i | NOTE: Performance function data is returned only for Data Protection Advisor in a Solaris environment.

Table 366. Performance

Field	Description	From
name	Device name of the tape drive	prtconf command output
read_speed	Speed at which the tape drive is reading data (KB/second)	kstat system call
write_speed	Speed at which the tape drive is writing data (KB/second)	kstat system call

HP Disk Array Module

The HP Disk array module gathers information about HP EVA disk arrays. The Data Protection Advisor Data Collection Agent connects to HP Command View and gathers data using SMI-S. The module includes the following functions that gather different types of information:

Topics:

- Configuration function for HP disk arrays
- Status function for HP disk arrays

Configuration function for HP disk arrays

The Configuration function gathers configuration information about the configuration of HP disk arrays. The function includes the following options:

- port — Port of the CIM provider to connect. The default value is 5989.

The Configuration function gathers the following data:

- monitoredarray_config for HP disk arrays
- fcport_config for HP disk arrays
- disk_config for HP disk arrays
- lun_config for HP disk arrays
- license_config for HP disk arrays
- hwcard_config for HP disk arrays

monitoredarray_config for HP disk arrays

The fields described in the following table are returned.

Table 367. monitoredarray_config

Field	Description	From
name	Monitored array name	ElementName attribute of HPEVA_StorageSystem class
size	Total capacity of the array (in GB)	TotalStorageSpace attribute of HPEVA_StorageSystem class
manufacturer	Disk array manufacturer	HPEVA_StorageSystem class
model	Disk array make	HPEVA_StorageSystem class
firmware	Disk array firmware version	FirmwareVersion attribute of HPEVA_StorageSystem class
volumedelay	Repair shutdown delay parameter	VolumeReplacementDelay attribute of HPEVA_StorageSystem class

fcport_config for HP disk arrays

The fields described in the following table are returned.

Table 368. fcport_config

Field	Description	From
agent_name	Name of the disk array on which the FC port sits	Name of array as configured in Data Protection Advisor
port	Port identifier. For example, port1	ElementName attribute of HPEVA_DiskFCPort class
internal	Indicates if the fibre channel port is internal (if the port is connected to internal hardware, and not a SAN)	Set to 1 if port is not outward facing. Otherwise 0
wwpn	Port Worldwide Port Name	PermanentAddress attribute of HPEVA_DiskFCPort class
type	Fibre Channel port type	PortType attribute of HPEVA_DiskFCPort class

disk_config for HP disk arrays

The fields described in the following table are returned.

Table 369. disk_config

Field	Description	From
agent_name	Name of the disk array on which the FC port sits	Name of array as configured in Data Protection Advisor
device	Disk identifier	ElementName attribute of HPEVA_DiskDrive class
manufacturer	Disk manufacturer	Manufacturer attribute of HPEVA_DiskDrive class
model	Disk make	Model attribute of HPEVA_DiskDrive class
serial_number	Disk serial number	DeviceID attribute of HPEVA_DiskDrive class
firmware	Disk firmware revision	FirmwareRevision attribute of HPEVA_DiskDrive class
size	Capacity of the disk (in GB)	FormattedCapacity attribute of HPEVA_DiskDrive class

lun_config for HP disk arrays

The fields described in the following table are returned.

Table 370. lun_config

Field	Description	From
agent_name	Name of the disk array on which the FC port sits	Name of array as configured in Data Protection Advisor
name	LUN name	DeviceID attribute of HPEVA_StorageVolume class

Table 370. lun_config (continued)

Field	Description	From
size	LUN capacity	NumberOfBlocks and BlockSize attributes of HPEVA_StorageVolume class
volume	Volume on which the LUN resides	Volume attribute of HPEVA_StorageVolume class
type	LUN type: iSCSI, Fibre Channel	VDiskType attribute of HPEVA_StorageVolume class
createtime	Time the LUN was created	CreatedTime attribute of HPEVA_StorageVolume class
raidlevel	LUN RAID level	RaidLevel attribute of HPEVA_StorageVolume class

license_config for HP disk arrays

The fields described in the following table are returned.

Table 371. license_config

Field	Description	From
agent_name	Name of the disk array on which the FC port sits	Name of array as configured in Data Protection Advisor
product	Product licensed	Licenses attribute of HPEVA_StorageSystem class
identifier	License code	Licenses attribute of HPEVA_StorageSystem class
instance	Product instance licensed if more than one copy of the product is installed	Licenses attribute of HPEVA_StorageSystem class
instances	Number of instances permitted by the license	Licenses attribute of HPEVA_StorageSystem class

hwcard_config for HP disk arrays

The fields described in the following table are returned.

Table 372. hecard_config

Field	Description	From
agent_name	Name of the disk array on which the FC port sits	Name of array as configured in Data Protection Advisor
adaptorname	Adaptor name	Tag attribute of HPEVA_StorageProcessorCard class
serial	Card serial number	SerialNumber attribute of HPEVA_StorageProcessorCard class.
name	Card identifier	ElementName attribute of HPEVA_StorageProcessorCard class
manufacturer	Card manufacturer	Manufacturer attribute of HPEVA_StorageProcessorCard class
model	Card model	Model attribute of HPEVA_StorageProcessorCard class

Table 372. hecard_config (continued)

Field	Description	From
firmware	Card firmware revision	FirmwareVersion attribute of HPEVA_StorageProcessorCard class
type	Card type	attribute of HPEVA_StorageProcessorCard class

Status function for HP disk arrays

The Status function gathers status information about HP disk array components. The function includes the following options:

- port — Port of the CIM provider to connect. The default is 5989.

The Status function gathers the following data:

- monitoredarray_status for HP disk arrays
- fcport_status for HP disk arrays
- disk_status for HP disk arrays
- lun_status for HP disk arrays
- hwcard_status for HP disk arrays

monitoredarray_status for HP disk arrays

The fields described in the following table are returned.

Table 373. monitoredarray_status

Field	Description	From
name	Array identifier	ElementName attribute of HPEVA_StorageSystem class
status	Array status	HealthState attribute of HPEVA_StorageSystem class
state	Array state	OperationalStatus attribute of HPEVA_StorageSystem class
used	Total amount of space used on the array (in GB)	UsedStorageSpace attribute of HPEVA_StorageSystem class

fcport_status for HP disk arrays

The fields described in the following table are returned.

Table 374. fcport_status

Field	Description	From
agent_name	Name of the disk array on which the FC port sits	Name of array as configured in Data Protection Advisor
port	Port identifier	ElementName attribute of HPEVA_DiskFCPort class
linkup	Indicates if there is a link on the port	OperationalStatus attribute of HPEVA_DiskFCPort class
speed	Port speed	Speed attribute of HPEVA_DiskFCPort class

disk_status for HP disk arrays

The fields described in the following table are returned.

Table 375. disk_status

Field	Description	From
agent_name	Name of the disk array on which the FC port sits	Name of array as configured in Data Protection Advisor
device	Disk identifier	ElementName attribute of HPEVA_DiskDrive class
state	Disk operational state: online, offline	OperationalStatus attribute of HPEVA_DiskDrive class
allocated	Amount of space used on the disk (in GB)	Occupancy attribute of HPEVA_DiskDrive class
status	Disk status	Status attribute of HPEVA_DiskDrive class

lun_status for HP disk arrays

The fields described in the following table are returned.

Table 376. lun_status

Field	Description	From
agent_name	Name of the disk array on which the FC port sits	Name of array as configured in Data Protection Advisor
name	LUN identifier	DeviceID attribute of HPEVA_StorageVolume class
online	Indicates if the LUN is online	OperationalStatus attribute of HPEVA_StorageVolume class
used	Amount of space used on the LUN (in GB)	AllocatedBlocks attribute of HPEVA_StorageVolume class
ncopies	Number of copies existing of the LUN	DataRedundancy attribute of HPEVA_StorageVolume class
state	LUN state	HealthState attribute of HPEVA_StorageVolume class
access	Access parameter of the LUN	Access attribute of HPEVA_StorageVolume class
nosinglepointoffailure	Indicates if there is no single point of failure for the LUN	NoSinglePointOfFailure attribute of HPEVA_StorageVolume class

hwcard_status for HP disk arrays

The fields described in the following table are returned.

Table 377. hwcard_status

Field	Description	From
agent_name	Name of the disk array on which the FC port sits	Name of array as configured in Data Protection Advisor

Table 377. hwcard_status (continued)

Field	Description	From
adaptorname	Adaptor name	Tag attribute of HPEVA_StorageProcessorCard class
state	Adaptor state	Status attribute of HPEVA_StorageProcessorCard class

IP Switch Module

The IP Switch module gathers all aspects of information regarding the network interfaces that are present on a host or IP switch. Generic IP switches using SNMP use MIB-II to gather data. For ipge and ixge gigabit Ethernet interfaces, all data is gathered from kstat. The IP switch module consists of the following functions that can be scheduled at different intervals that gather different aspects of network interface information:

Topics:

- Configuration function for IP switches
- Status function for IP switches
- Performance function for IP switches

Configuration function for IP switches

The Configuration function gathers information regarding network interface configuration. The function includes the following options:

- timeout — SNMP timeout value. The default is 10.

The Configuration function gathers the following data:

- netint_config for IP switches
- host_config for IP switches

netint_config for IP switches

The fields described in the following table are returned.

Table 378. netint_config

Field	Description	Generic	Cisco 2900s	Cisco Other
name	Network interface identifier	ifDescr 1.3.6.1.2.1.2.2.1.2	ifName 1.3.6.1.2.1.31.1.1.1	ifDescr 1.3.6.1.2.1.2.2.1.2
ether_addr	Ethernet address of the underlying network card	etheraddr 1.3.6.1.2.1.2.2.1.6	etheraddr 1.3.6.1.2.1.2.2.1.6	etheraddr 1.3.6.1.2.1.2.2.1.6
autoneg	Indicates if auto-negotiation is enabled on this interface	N/A	Cisco 2900s c2900PortDuplex 1.3.6.1.4.1.9.9.87.1.4.1.1. 31	cStackPortDuplex 1.3.6.1.4.1.9.5.1.4.1.1.10
description	Network interface description	ifDescr 1.3.6.1.2.1.2.2.1.2	ifName 1.3.6.1.2.1.31.1.1.1	ifDescr 1.3.6.1.2.1.2.2.1.2
mtu	Size of the largest packet that a network protocol can transmit	1.3.6.1.2.1.2.2.1.4. [interface number]	1.3.6.1.2.1.2.2.1.4. [interface number]	1.3.6.1.2.1.2.2.1.4. [interface number]
jumbo	Jumbo Packets Enabled	SNMP OID .1.3.6.1.2.1.2.2.1.4	SNMP OID .1.3.6.1.2.1.2.2.1.4	SNMP OID .1.3.6.1.2.1.2.2.1.4

host_config for IP switches

The fields described in the following table are returned.

Table 379. host_config

Field	Description	Generic	Cisco 2900s	Cisco Other
vendor	Host vendor	N/A	Hard coded to Cisco	Hard coded to Cisco
osclass	Host operating system	N/A	Hard coded to IOS	Hard coded to IOS
product	Product name	N/A	sysDescr 1.3.6.1.2.1.1.1.0	sysDescr 1.3.6.1.2.1.1.1.0
version	Operating system version	N/A	sysDescr 1.3.6.1.2.1.1.1.0	sysDescr 1.3.6.1.2.1.1.1.0
hostid	Host ID	N/A	globalDeviceId 1.3.6.1.4.1.9.9.23.1.3.4.0	globalDeviceId 1.3.6.1.4.1.9.9.23.1.3.4.0

Status function for IP switches

The Status function gathers information regarding network interface status. The function includes the following options:

- timeout — SNMP timeout value. The default is 10.

The Status function gathers the following data:

- [netint_status for IP switches](#)
- [host_status for IP switches](#)
- [netintc_netintc_r for IP switches](#)

netint_status for IP switches

The fields described in the following table are returned.

Table 380. netint_status

Field	Description	Generic	Cisco 2900s	Cisco Other
name	Network interface identifier	ifDescr 1.3.6.1.2.1.2.2.1.2	ifName 1.3.6.1.2.1.31.1.1.1	ifName 1.3.6.1.2.1.31.1.1.1
linkup	Indicates if the interface has an active link	Linkup 1.3.6.1.21.2.2.1.8	Linkup 1.3.6.1.21.2.2.1.8	Linkup 1.3.6.1.21.2.2.1.8
speed	Speed at which the Network Interface is running (MB/second)	Speed 1.3.6.1.2.1.2.2.1.5	Speed 1.3.6.1.2.1.2.2.1.5	Speed 1.3.6.1.2.1.2.2.1.5
fullduplex	Indicates if the interface is running in full duplex	N/A	c2900PortDuplexStatus 1.3.6.1.4.1.9.9.87.1.4.1.1. 32	cStackPortDuplex 1.3.6.1.4.1.9.5.1.4.1.1.10

host_status for IP switches

The fields described in the following table are returned.

Table 381. host_status

Field	Description	Generic	Cisco 2900s	Cisco Other
lastboot	Time that the host last booted (in seconds)	sysUpTime OID .1.3.6.1.2.1.1.3.0	sysUpTime OID .1.3.6.1.2.1.1.3.0	sysUpTime OID .1.3.6.1.2.1.1.3.0

netintc_netintc_r for IP switches

The fields described in the following table are returned.

Table 382. netintc_netintc_r

Field	Description	Generic	Cisco 2900s	Cisco Other
src_name	Hostname of the network interface	N/A	name of IP switch node ifName .1.3.6.1.2.1.31.1.1.1.1	name of IP switch node ifName .1.3.6.1.2.1.31.1.1.1.1
src_port	Name of the Ethernet port	N/A	dot1dBasePortIfIndex .1.3.6.1.2.1.17.1.4.1.2	dot1dBasePortIfIndex .1.3.6.1.2.1.17.1.4.1.2
dst_name	Hostname of the network interface	N/A	dot1dTpFdbAddress .1.3.6.1.2.1.17.4.3.1.1	dot1dTpFdbAddress .1.3.6.1.2.1.17.4.3.1.1
dst_port	Name of the Ethernet port	N/A	dot1dTpFdbPort .1.3.6.1.2.1.17.4.3.1.2	dot1dTpFdbPort .1.3.6.1.2.1.17.4.3.1.2

Performance function for IP switches

The Performance function gathers information regarding the performance of the port. The function includes the following options:

- timeout — SNMP timeout value. The default is 10.

netint_perf for IP switches

The fields described in the following table are returned.

Table 383. netint_perf

Field	Description	Generic	Cisco 2900s	Cisco Other
name	Network Interface Identifier	ifDescr 1.3.6.1.2.1.2.1.2	ifDescr 1.3.6.1.2.1.2.1.2	ifDescr 1.3.6.1.2.1.2.1.2
data_in	Amount of data into the interface (KB/second)	datain 1.3.6.1.2.1.2.2.1.10	datain 1.3.6.1.2.1.2.2.1.10	datain 1.3.6.1.2.1.2.2.1.10
data_out	Amount of data out of the interface (KB/second)	dataout 1.3.6.1.2.1.2.2.1.16	dataout 1.3.6.1.2.1.2.2.1.16	dataout 1.3.6.1.2.1.2.2.1.16
packets_in	Number of packets into the interface	Combination of packetsin 1.3.6.1.2.1.2.2.1.11	Combination of packetsin 1.3.6.1.2.1.2.2.1.11	Combination of packetsin 1.3.6.1.2.1.2.2.1.11

Table 383. netint_perf (continued)

Field	Description	Generic	Cisco 2900s	Cisco Other
		nonupacketsin 1.3.6.1.2.1.2.2.1.12	nonupacketsin 1.3.6.1.2.1.2.2.1.12	nonupacketsin 1.3.6.1.2.1.2.2.1.12
packets_out	Number of packets out of the interface	Combination of packetsout 1.3.6.1.2.1.2.2.1.17 nonupacketsout 1.3.6.1.2.1.2.2.1.18	Combination of packetsout 1.3.6.1.2.1.2.2.1.17 nonupacketsout 1.3.6.1.2.1.2.2.1.18	Combination of packetsout 1.3.6.1.2.1.2.2.1.17 nonupacketsout 1.3.6.1.2.1.2.2.1.18
errors_in	Number of bad packets in	Combination of errorsin 1.3.6.1.2.1.2.2.1.14 unknownprotosin 1.3.6.1.2.1.2.2.1.15	Combination of errorsin 1.3.6.1.2.1.2.2.1.14 unknownprotosin 1.3.6.1.2.1.2.2.1.15	Combination of errorsin 1.3.6.1.2.1.2.2.1.14 unknownprotosin 1.3.6.1.2.1.2.2.1.15
errors_out	Number of bad packets out	Combination of discardsout 1.3.6.1.2.1.2.2.1.19 errorsout 1.3.6.1.2.1.2.2.1.20	Combination of discardsout 1.3.6.1.2.1.2.2.1.19 errorsout 1.3.6.1.2.1.2.2.1.20	Combination of discardsout 1.3.6.1.2.1.2.2.1.19 errorsout 1.3.6.1.2.1.2.2.1.20

NearStore Module

The NearStore module gathers information about NearStore virtual tape libraries, including configuration, status, and performance. Data Protection Advisor uses SNMP to gather data from the NearStore MIB. The module includes the following functions that gather different types of information:

Topics:

- Configuration function for NearStore
- Status function for NearStore
- Performance function for NearStore

Configuration function for NearStore

The Configuration function gathers configuration information about NearStore virtual tape libraries. The function includes the following options:

- timeout — SNMP timeout value. The default is 10.

The Configuration function gathers the following data:

- host_config for NearStore
- netint_config for NearStore
- library_config for NearStore
- vtl_config for NearStore

host_config for NearStore

The fields described in the following table are returned.

Table 384. host_config

Field	Description	From
vendor	Host vendor	Hard coded to NetApp
osclass	Host operating system	Hard coded to NearStore
product	Product name	1.3.6.1.4.1.11489.1.2.0
hostid	Host ID	1.3.6.1.4.1.11489.1.1.0

netint_config for NearStore

The fields described in the following table are returned.

Table 385. netint_config

Field	Description	From
name	Network interface identifier	ifDescr 1.3.6.1.2.1.2.2.1.2
ether_addr	Ethernet address of the network interface on the virtual tape library	etheraddr 1.3.6.1.2.1.2.2.1.6

Table 385. netint_config (continued)

Field	Description	From
description	Network interface description	ifDescr 1.3.6.1.2.1.2.2.1.2
mtu	Size of the largest packet that a network protocol can transmit	1.3.6.1.2.1.2.2.1.4.[interface number]
jumbo	Jumbo Packets Enabled	SNMP OID .1.3.6.1.2.1.2.2.1.4

library_config for NearStore

The fields described in the following table are returned.

Table 386. library_config

Field	Description	From
libraryname	Library name	1.3.6.1.4.1.11489.1.8.1.2.[virtual library number]
slots	Number of slots in the library	1.3.6.1.4.1.11489.1.8.1.6.[virtual library number]
drives	Number of drives in library	1.3.6.1.4.1.11489.1.8.1.5.[virtual library number]
virtualtype	Indicates if the library is virtual (true) or physical (false)	Hard coded to True

vtl_config for NearStore

The field described in the following table is returned.

Table 387. vtl_config

Field	Description	From
capacity	Virtual tape library capacity	1.3.6.1.4.1.11489.1.5.0

Status function for NearStore

The Status function gathers status information regarding the connectivity of the port. The function includes the following options:

- timeout — SNMP timeout value. The default is 10.

The Status function gathers the following data:

- [host_status for NearStore](#)
- [netint_status for NearStore](#)
- [vtl_status for NearStore](#)

host_status for NearStore

The fields described in the following table are returned.

Table 388. host_status

Field	Description	From
lastboot	Time the host last booted stored as a timestamp	1.3.6.1.2.1.1.3.1

netint_status for NearStore

The fields described in the following table are returned.

Table 389. netint_status

Field	Description	From
name	Network interface name	ifDescr 1.3.6.1.2.1.2.2.1.2
linkup	Indicates if the interface has an active link	Linkup 1.3.6.1.2.1.2.2.1.8
speed	Speed at which the Network Interface is running (MB/second)	Speed 1.3.6.1.2.1.2.2.1.5

vtl_status for NearStore

The field described in the following table is returned.

Table 390. vtl_status

Field	Description	From
used	Amount of virtual tape library space used	1.3.6.1.4.1.11489.1.6.0
status	VTL operational status. For example, Okay, Warning, and Error	1.3.6.1.4.1.11489.1.4.0

Performance function for NearStore

The function includes the following options:

- timeout — SNMP timeout value. The default is 10.

netint_perf for NearStore

The fields described in the following table are returned.

Table 391. netint_perf

Field	Description	From
name	Virtual tape library name	ifDescr 1.3.6.1.2.1.2.2.1.2

Table 391. netint_perf (continued)

Field	Description	From
data_in	Data transferred from file system to memory (KB/second)	datain 1.3.6.1.2.1.2.2.1.10
data_out	Data transferred to file system from memory (KB/second)	dataout 1.3.6.1.2.1.2.2.1.16
packets_in	Number of packets into the interface	Combination of: packetsin 1.3.6.1.2.1.2.2.1.11 nonupacketsin 1.3.6.1.2.1.2.2.1.12
packets_out	Number of packets out of the interface	Combination of packetsout 1.3.6.1.2.1.2.2.1.17 nonupacketsout 1.3.6.1.2.1.2.2.1.18
errors_in	Number of bad packets in	Combination of errorsin 1.3.6.1.2.1.2.2.1.14 unknownprotosin 1.3.6.1.2.1.2.2.1.15
errors_out	Number of bad packets out	Combination of discardsout 1.3.6.1.2.1.2.2.1.19 errorsout 1.3.6.1.2.1.2.2.1.20

NetBackup Module

The NetBackup module monitors the status of Veritas NetBackup servers. Data Protection Advisor uses the Veritas NetBackup command line tool to return and display Configuration, Status, Job Monitor, Volume Status, and Occupancy information. It also uses WMI commands to gather Performance information. The NetBackup module contains the following functions:

Topics:

- NetBackup Job Types in Data Protection Advisor
- Configuration function for NetBackup
- SLP Job Status function for NetBackup
- Status function for NetBackup
- Volume Status function for NetBackup
- Job Monitor function for NetBackup
- Performance function for NetBackup
- Occupancy function for NetBackup
- Media Server Status function for NetBackup
- Vault Status function for NetBackup
- Software Distribution function for NetBackup

NetBackup Job Types in Data Protection Advisor

Data Protection Advisor categorizes NetBackup Jobs by the following NetBackup display type names and numbers.

Table 392. NetBackup Job Types in Data Protection Advisor

Data Protection Advisor Job Category	NetBackup Display Type in Data Protection Advisor	NetBackup Job Number
Maintenance	Import	5
	Verify	3
	Label	8
	Erase	9
	Tape Request	10
	Tape Clean	11
	Format Tape	12
	Physical Inventory	13
	Qualification Test	14
	Catalogue Recovery	15
	Media Contents	16
	Image Delete	17
	Live Update	18
	Unused	19
	Auto Image Replication	20
	Auto Image Import	21
	Snapshot Replication	23

Table 392. NetBackup Job Types in Data Protection Advisor (continued)

Data Protection Advisor Job Category	NetBackup Display Type in Data Protection Advisor	NetBackup Job Number
	Snapshot Import	24
	Application State Capture	25
	Indexing	26
	Index Cleanup	27
	Snapshot Index	29
	Activate Instant Recovery	30
	Deactivate Instant Recovery	31
	Reactivate Instant Recovery	32
	Stop Instant Recovery	33
	Instant Recovery	34
Backup	Backup	0
	Archive	1
	Catalogue Backup	6
	Backup from Snapshot	22
	Snapshot	28
Restore	Restore	2
Clone	Duplicate	4
Vault	Vault	7

Configuration function for NetBackup

The Configuration function of the NetBackup module gathers information about the configuration of the backup server, including the following: Clients, Policies, Pools, Devices, Robots. The function includes the following options:

- timeout — Determines how long the Data Protection Advisor Data Collection Agent waits for the results of running various NetBackup commands before terminating them. If you experience timeouts in your environment, then you may need to increase this number. The default value is 3600.
- timeformat — bpdbjobs time format

The Configuration function gathers the following data:

- nbu_bpconfig for NetBackup
- nbu_drconfig for NetBackup
- nbu_vmrule_config for NetBackup
- bkup_server_config for NetBackup
- bkup_server_mapping for NetBackup
- group_config for NetBackup
- client_config for NetBackup
- Schedule configuration for NetBackup
- schedule_config_dates for NetBackup
- job_config for NetBackup
- jukebox_config for NetBackup
- device_config for NetBackup
- bkup_pool_config for NetBackup
- storage_unit_config for NetBackup
- storage_unit_group for NetBackup

- license_config for NetBackup
- netbackup_config for NetBackup
- storage_server_config for NetBackup
- disk_pool_config for NetBackup
- disk_volume_config for NetBackup
- lc_policy_config for NetBackup
- lc_policy_destination for NetBackup

nbu_bpconfig for NetBackup

The fields described in the following table are returned.

Table 393. nbu_bpconfig

Field	Description	From
mail_admin	Mail admin	Output of the bpconfig -l command
job_retrydelay	Job Retry Delay	Output of the bpconfig -l command
max_jobsclient	Max Jobs/Client	Output of the bpconfig -l command
bk_triesperiod	Backup tries time period (in hours)	Output of the bpconfig -l command
bk_triesinperiod	Backup tries per period	Output of the bpconfig -l command
keep_logs	Keep Logs	Output of the bpconfig -l command
max_drivesmaster	Max drives/master	Output of the bpconfig -l command
comp_db_int	Compress DB Files Interval in seconds, 0 means no compression	Output of the bpconfig -l command
media_mnt_timeout	Media Mount Timeout, 0 means unlimited	Output of the bpconfig -l command
shared_timeout	Multi-hosted media mount timeout, 0 means unlimited	Output of the bpconfig -l command
display_reports	Display Reports in hours	Output of the bpconfig -l command
keep_tir_info	Keep TIR Info in days	Output of the bpconfig -l command
prep_int	Prep interval in hours	Output of the bpconfig -l command
max_backup_copies	Max Backup Copies	Output of the bpconfig -l command
db_clean_int	DB Clean Interval in hours	Output of the bpconfig -l command
db_clean_waittime	DB Clean Wait Time in minutes	Output of the bpconfig -l command
policy_update_int	Policy Update Interval in minutes	Output of the bpconfig -l command

nbu_drconfig for NetBackup

The fields described in the following table are returned.

Table 394. nbu_drconfig

Field	Description	From
group_name	Name of the catalogue policy	Output of the bppllist command
email	Email address to send DR details	Output of the bppllist command
path	Disk path where DR details are stored	Output of the bppllist command
media_id	DR media ID	Output of the bppllist command

Table 394. nbu_drconfig (continued)

Field	Description	From
user	Name of user with access to the DR disk path	Output of the bpplist command
password	Whether password is enabled	Output of the bpplistl command
critical_policy	List of critical policies for DR	Output of the bpplist command
density	DR media density	Output of the bpplist command

nbu_vmrule_config for NetBackup

The fields described in the following table are returned.

Table 395. nbu_vmrule_config

Field	Description	From
barcode_tag	Barcode tag	Output of the vmrule -listall command
media_type	Media type	Output of the vmrule -listall command
pool_name	Volume pool	Output of the vmrule -listall command
max_mounts_cleanings	Max tape mounts or cleanings	Output of the vmrule -listall command
description	Description	Output of the vmrule -listall command

bkup_server_config for NetBackup

The fields described in the following table are returned.

Table 396. bkup_server_config

Field	Description	From
backup_servername	Hostname of the backup server	Name of the host as defined in Data Protection Advisor
application	Application name	Hard coded to NetBackup
version	Version of the server software	Either the Windows registry or /usr/openv/netbackup/bin/version. Version information is only returned if the Data Protection Advisor Data Collection Agent runs on NetBackup server
os_type	Server operating system	Not Applicable

bkup_server_mapping for NetBackup

The fields described in the following table are returned.

Table 397. bkup_server_mapping

Field	Description	From
client_name	Name of client	Returned by parsing information from the bpplist command
group_name	Name of group	Returned by parsing information from the bpplist command
schedule_name	Name of schedule	Returned by parsing information from the bpplist command
job_name	Name of Job	Returned by parsing information from the bpplist command

group_config for NetBackup

The fields described in the following table are returned.

Table 398. group_config

Field	Description	From
group_name	Group name	Returned by parsing information from the bpplist command
policy_id	Policy ID	Returned by parsing information from the bpplist command
policy_type	Policy type	Returned by parsing information from the bpplist command
active	Indicates if the policy is active	Returned by parsing information from the bpplist command
effective_date	Date that the policy went active	Returned by parsing information from the bpplist command
offhost_backup_method	Method used for performing offhost backups	Returned by parsing information from the bpplist command
storage_unit	Storage unit the policy is configured to use	Returned by parsing information from the bpplist command
volume_pool	Volume pool the policy is configured to use	Returned by parsing information from the bpplist command
remote_filesystems	Indicates if remote file systems are backed up by this policy	Returned by parsing information from the bpplist command
cross_mount_points	Indicates if backups cross mount points of the files in the file list	Returned by parsing information from the bpplist command
client_compression	Indicates if compression is used	Returned by parsing information from the bpplist command
client_encryption	Indicates if encryption is used	Returned by parsing information from the bpplist command
extended_security_info	Security attributes of the file for NTFS fileservers	Returned by parsing information from the bpplist command
multiple_data_streams	Indicates if the backup uses multiple data streams	Returned by parsing information from the bpplist command

Table 398. group_config (continued)

Field	Description	From
frozen_image_clients	Indicates if frozen image backups are enabled in this policy	Returned by parsing information from the bpplist command
true_image_restore_info	Indicates if true image restore information are stored during the backup	Returned by parsing information from the bpplist command
true_image_move_detect	Indicates if true image restore information with move detection is stored during the backup	Returned by parsing information from the bpplist command
disaster_recovery_info	Indicates if Disaster Recovery Information is stored during the backup	Returned by parsing information from the bpplist command
bare_metal_restore_info	Indicates if Bare Metal Restore Information is stored during the backup	Returned by parsing information from the bpplist command
file_restore_raw	Indicates if the File Restore Raw flag is set on a policy	Returned by parsing information from the bpplist command
max_fragment_size	Maximum size of fragment written to a tape	Returned by parsing information from the bpplist command
keyword_phrase	Keyword phrase associated with backups from this policy	Returned by parsing information from the bpplist command
proxy_client	Proxy host for the NetBackup server	Returned by parsing information from the bpplist command
checkpoint_restart	Indicates if checkpoints are enabled on this policy	Returned by parsing information from the bpplist command
checkpoint_interval	Interval that check points are taken if enabled	Returned by parsing information from the bpplist command
limit_jobs_per_policy	Indicates if the policy is limited to run a number of Jobs	Returned by parsing information from the bpplist command
max_jobs_per_policy	Maximum number of Jobs that can be run on the policy if Limit Jobs Per Policy is set	Returned by parsing information from the bpplist command
priority	Priority with which Jobs in this policy are run	Returned by parsing information from the bpplist command.
block_level_incremental	Indicates if block level incrementals are configured in this policy	Returned by parsing information from the bpplist command
snapshot_backup	Indicates if snapshot backups are configured in this policy	Returned by parsing information from the bpplist command
retain_snapshots	Indicates if snapshot information is retained	Returned by parsing information from the bpplist command
snapshot_method	Method used to perform snapshots	Returned by parsing information from the bpplist command
offhost_backup	Indicates if offhost backup is enabled	Returned by parsing information from the bpplist command
use_alternate_client	Indicates if an alternate client is used when performing offhost backup	Returned by parsing information from the bpplist command
alternate_client_name	Name of an alternate client to be used for off host backup if Use Alternate Client is set	Returned by parsing information from the bpplist command
use_data_mover	Indicates if a data mover is used for the backup	Returned by parsing information from the bpplist command

Table 398. group_config (continued)

Field	Description	From
data_mover_type	Type of data mover to use if the Use Data Mover flag is set	Returned by parsing information from the bpplist command

client_config for NetBackup

The fields described in the following table are returned.

Table 399. client_config

Field	Description	From
client_name	Name of the client	Returned by parsing information from the bpplist command
active	Indicates if the client is active	Flag set if the policy the client is associated with is active
os_type	Client operating system	Returned by parsing information from the bpplist command
client_identifier	Client identifier	Returned by parsing information from the bpplist command
hardware	Hardware type	Output from the bpplist-1 command

Schedule configuration for NetBackup

The fields described in the following table are returned.

Table 400. Schedule configuration

Field	Description	From
schedule_name	Schedule name	Returned by parsing information from the bpplist command
group_name	Name of the policy the with which the schedule is associated	Returned by parsing information from the bpplist command
type	Type of backup the schedule will perform. For example, Full and Incremental	Returned by parsing information from the bpplist command
Retention	Retention level used by Jobs using this schedule	Returned by parsing information from the bpplist command
Multiplexing	Value of the media multiplexing field	Returned by parsing information from the bpplist command
Frequency	Frequency of the schedule	Returned by parsing information from the bpplist command
Number of Copies	Number of copies of data that should be made	Returned by parsing information from the bpplist command
storage_unit override	Storage unit that should be used by Jobs using this schedule	Returned by parsing information from the bpplist command
pool override	Volume Pool that should be used by Jobs using this schedule	Returned by parsing information from the bpplist command
Copy 1 storage_unit	Storage unit that should be used by the first copy of data	Returned by parsing information from the bpplist command

Table 400. Schedule configuration (continued)

Field	Description	From
Copy 1 pool	Volume pool that should be used by the first copy of the data	Returned by parsing information from the bpplist command
Copy 1 Retrieval level	Retention level to be associated with the first copy of the data	Returned by parsing information from the bpplist command
Copy 1 Fail Action	Failure action to take for the first copy of the data	Returned by parsing information from the bpplist command
Copy 2 storage_unit	Storage unit that should be used by the second copy of data	Returned by parsing information from the bpplist command
Copy 2 pool	Volume pool that should be used by the second copy of the data	Returned by parsing information from the bpplist command
Copy 2 Retrieval level	Retention level to be associated with the second copy of the data	Returned by parsing information from the bpplist command
Copy 2 Fail Action	Failure action to take for the second copy of the data	Returned by parsing information from the bpplist command
Copy 3 storage_unit	Storage unit that should be used by the third copy of data	Returned by parsing information from the bpplist command
Copy 3 pool	Volume pool that should be used by the third copy of the data	Returned by parsing information from the bpplist command
Copy 3 Retrieval level	Retention level to be associated with the third copy of the data	Returned by parsing information from the bpplist command
Copy 3 Fail Action	Failure action to take for the third copy of the data	Returned by parsing information from the bpplist command
Copy 4 storage_unit	Storage unit that should be used by the fourth copy of data	Returned by parsing information from the bpplist command
Copy 4 pool	Volume pool that should be used by the fourth copy of the data	Returned by parsing information from the bpplist command
Copy 4 Retrieval level	Retention level to be associated with the fourth copy of the data	Returned by parsing information from the bpplist command
Copy 4 Fail Action	Failure action to take for the fourth copy of the data	Returned by parsing information from the bpplist command
Window Start Sunday	Time of day that the window starts on a Sunday (in seconds)	Returned by parsing information from the bpplist command
Window duration Sunday	Duration of the window on Sunday	Returned by parsing information from the bpplist command
Window Start Monday	Time of day that the window starts on a Monday (in seconds)	Returned by parsing information from the bpplist command
Window duration Monday	Duration of the window on Monday	Returned by parsing information from the bpplist command
Window Start Tuesday	Time of day that the window starts on a Tuesday (in seconds)	Returned by parsing information from the bpplist command
Window duration Tuesday	Duration of the window on Tuesday	Returned by parsing information from the bpplist command
Window Start Wednesday	Time of day that the window starts on a Wednesday (in seconds)	Returned by parsing information from the bpplist command
Window duration Wednesday	Duration of the window on Wednesday	Returned by parsing information from the bpplist command

Table 400. Schedule configuration (continued)

Field	Description	From
Window Start Thursday	Time of day that the window starts on a Thursday (in seconds)	Returned by parsing information from the bpplist command
Window duration Thursday	Duration of the window on Thursday	Returned by parsing information from the bpplist command
Window Start Friday	Time of day that the window starts on a Friday (in seconds)	Returned by parsing information from the bpplist command
Window duration Friday	Duration of the window on Friday	Returned by parsing information from the bpplist command
Window Start Saturday	Time of day that the window starts on a Saturday (in seconds)	Returned by parsing information from the bpplist command
Window duration Saturday	Duration of the window on Saturday	Returned by parsing information from the bpplist command
HAS Calendar	Calendar	Returned by parsing information from the bpplist command
HAS Calendar Tries	Indicates if retries are allowed after a run day	Returned by parsing information from the bpplist command
calendar_weekdays	Week days that have been selected if using a calendar schedule	Returned by parsing information from the bpplist command
calendar_monthdays	Month days that have been selected if using a calendar schedule	Returned by parsing information from the bpplist command

schedule_config_dates for NetBackup

The fields described in the following table are returned.

Table 401. schedule_config_dates

Field	Description	From
schedule_name	Name of the schedule on the backup server	schedcalidates attribute from the bpplist command
group_name	Name of the group associated with the schedule	schedcalidates attribute from the bpplist command
date	Date	schedcalidates attribute from the bpplist command
type	Indicates if the date is an inclusion or exclusion date	schedcalidates attribute from the bpplist command

job_config for NetBackup

The fields described in the following table are returned.

Table 402. job_config

Field	Description	From
job_name	Job name. Name of the entry in the file list	Returned by parsing information from the bpplist command
client_name	Client name	Returned by parsing information from the bpplist command

Table 402. job_config (continued)

Field	Description	From
group_name	Group name. Name of the policy in which the client is located	Returned by parsing information from the bpplist command

jukebox_config for NetBackup

The fields described in the following table are returned.

Table 403. jukebox_config

Field	Description	From
jukebox_host	Host from which the jukebox is controlled	Returned from the result of running vmglob
jukebox_name	Jukebox logical name	Returned from the result of running vmglob
num_devices	Number of devices in the jukebox	Returned from the result of running vmglob
num_slots	Number of slots available in the jukebox	Returned from the result of running vmchange
jukebox_number	NetBackup robot number. Unique identifier for the jukebox	Returned from the result of running vmglob
jukebox_controller	Jukebox controller host. Host that controls the jukebox if the jukebox is in a shared environment	Returned from the result of running vmglob

device_config for NetBackup

The fields described in the following table are returned.

Table 404. device_config

Field	Description	From
device_host	Name of the host that controls the device	Returned from the result of running vmglob
device_name	Device name	Returned from the result of running vmglob
device_path	Path used to access the device	Returned from the result of running tpconfig. Information returned only if the Data Protection Advisor Data Collection Agent is running on same host as the device
device_class	Device class: Tape, Disk	Returned from the result of running vmglob
device_type	Device type	Returned from the result of running vmglob
firmware	Device firmware version	Returned from the result of running vmglob
read_only	Indicates if the drive is configured as read only	Returned from the result of running vmglob

Table 404. device_config (continued)

Field	Description	From
hardware_id	Identifier that uniquely identifies the drive	Returned from the result of running vmglob
jukebox_name	Name of the jukebox in which the device is located	Returned from the result of running vmglob

bkup_pool_config for NetBackup

The fields described in the following table are returned.

Table 405. bkup_pool_config

Field	Description	From
masterservername	Name of the node that is monitored	Node name of the host that is monitored
poolname	Pool name	Returned from the result of running the vmpool command
description	Backup pool description	Returned from the result of running the vmpool command
pool_host	Name of the host that is permitted to request and use volumes in this volume pool	Returned from the result of running the vmpool command
pool_user	User ID of the user who is permitted to request and use volumes in the volume pool. The default is -1 (ANY) to allow any user to access volumes in this pool	Returned from the result of running the vmpool command
pool_group	Group ID of the group that is permitted to request and use volumes in this volume pool	Returned from the result of running the vmpool command

storage_unit_config for NetBackup

The fields described in the following table are returned.

Table 406. storage_unit_config

Field	Description	From
label	Storage unit label	Returned from the result of running bpstulist
storage_unit_type	Storage unit type	Returned from the result of running bpstulist
host	Host on which the storage unit is located	Returned from the result of running bpstulist.
robot_type	Type of robot on which the storage unit is located	Returned from the result of running bpstulist
robot_number	Number of the robot associated with the storage unit	Returned from the result of running bpstulist
density	Storage unit density	Returned from the result of running bpstulist
drives	Number of drives in the storage unit	Returned from the result of running bpstulist

Table 406. storage_unit_config (continued)

Field	Description	From
max_concurrent_jobs	Maximum number of concurrent jobs that can be processed in the storage unit	Returned from the result of running bpstulist
path	Path used to access the storage unit	Returned from the result of running bpstulist
on_demand_only	Indicates if the storage unit is available only on demand (that is, only when a policy or schedule is explicitly configured to use this storage unit)	Returned from the result of running bpstulist
maximum_mpx	Maximum multiplexing factor. Multiplexing sends concurrent, multiple backups from one or several clients to a single drive	Returned from the result of running bpstulist
max_fragment_size	Specifies how large a fragment for a NetBackup image can be	Returned from the result of running bpstulist
ndmp_host	Specifies the name of the NetBackup for NDMP server that will be backing up the NDMP host	Returned from the result of running bpstulist
media_subtype	Media sub type	N/A
disk_pool	Disk pool name	Returned from the result of running nbdevquery -listdv
high_water_mark	The specified highest capacity level for a disk storage unit	Returned from the result of running nbdevquery -listdp
low_water_mark	The specified lowest capacity level for a disk storage unit	Returned from the result of running nbdevquery -listdp
okay_on_root	Volume may reside on the root file system	Obtained from the output of command nbdevquery -listdp

storage_unit_group for NetBackup

The fields described in the following table are returned.

Table 407. storage_unit_group

Field	Description	From
backup_servername	Backup Server name	Returned from the result of running bpstulist
group_name	Storage Unit group name	Returned from the result of running bpstulist
storage_unit	Storage Unit name	Returned from the result of running bpstulist
selection_strategy	Indicates if the storage unit is On-Demand-Only or not	Returned from the result of running bpstulist

license_config for NetBackup

The fields described in the following table are returned.

Table 408. license_config

Field	Description	From
product	Backup application name	Hard coded to NetBackup
identifier	License name	Returned from the results of running the bpminlicense command.
code	License code	Returned from the results of running the bpminlicense command.
instance	License type instance	Always set to 1
instances	Number of instances provided by this license	Returned from the results of running the bpminlicense command.
tier	Tier to which this license applies, if any. If no value is found, None is returned	Returned from the results of running the bpminlicense command.
platform	Platform to which this license is restricted, if any. If no value is found, Any Platform is returned	Returned from the results of running the bpminlicense command.
valid	If the license is valid or not (True or False)	Returned from the result of running the bpminlicense command.
expires	Date and time for the license expiration	Returned from the result of running the bpminlicense command.

netbackup_config for NetBackup

The field described in the following table is returned.

Table 409. netbackup_config

Field	Description	From
parameter	Configuration setting name	Returned from the results of running the bpgetconfig command
value	Configuration setting value	Returned from the results of running the bpgetconfig command

storage_server_config for NetBackup

The field described in the following table is returned.

Table 410. storage_server_config

Field	Description	From
server_name	NetBackup Server name	Obtained from output of command nbdevquery -liststs
server_type	Server type: master, client	Obtained from output of command nbdevquery -liststs
storage_type	Storage unit type	Obtained from output of command nbdevquery -liststs
open_storage	Managed as an OpenStorage storage server	Obtained from output of command nbdevquery -liststs

Table 410. storage_server_config (continued)

Field	Description	From
roving_volumes	Allow active mounts / unmounts of disk volumes	Obtained from output of command nbdevquery -liststs
copy_extents	Allow optimized duplication	Obtained from output of command nbdevquery -liststs
span_images	Allow images to span disk volumes	Obtained from output of command nbdevquery -liststs
basic_staging	Allow basic image staging	Obtained from output of command nbdevquery -liststs
lifecycle_management	Allow image lifecycle management	Obtained from output of command nbdevquery -liststs
capacity_management	Allow capacity management	Obtained from output of command nbdevquery -liststs
fragment_images	Allow image fragmentation	Obtained from output of command nbdevquery -liststs
catalog_backup	Allow catalog backups	Obtained from output of command nbdevquery -liststs
checkpoint_restart	Allow checkpoint restart	Obtained from output of command nbdevquery -liststs
random_writes	Allow random write access	Obtained from output of command nbdevquery -liststs
ft_channel_transfer	Allow access through FT channel	Obtained from output of command nbdevquery -liststs
capacity_managed_retention	Allow capacity managed retention	Obtained from output of command nbdevquery -liststs
capacity_managed_queuing	Allow capacity managed job queuing	Obtained from output of command nbdevquery -liststs
optimized_image	Allow virtual image construction	Obtained from output of command nbdevquery -liststs
metadata	Describe client data during backup	Obtained from output of command nbdevquery -liststs
disk_groups	Aware of disk pools and enclosures	Obtained from output of command nbdevquery -liststs
active_disk_groups	Allow active management of disk groups	Obtained from output of command nbdevquery -liststs
active_servers	Allow active management of storage servers	Obtained from output of command nbdevquery -liststs
preferred_restore	Preferred use for restores	Obtained from output of command nbdevquery -liststs
required_restore	Preferred use for restores	Obtained from output of command nbdevquery -liststs
required_duplicate	Required use for duplications	Obtained from output of command nbdevquery -liststs
queue_if_down	Queue jobs when server status is down	Obtained from output of command nbdevquery -liststs

disk_pool_config for NetBackup

The field described in the following table is returned.

Table 411. disk_pool_config

Field	Description	From
pool_name	Disk pool name	Obtained from output of command nbdevquery -listdp
pool_id	Disk pool identifier	Obtained from output of command nbdevquery -listdp
server_type	NetBackup server type	Obtained from output of command nbdevquery -listdp
disk_storage_type	Storage unit type	Obtained from output of command nbdevquery -listdp
raw_size	Disk pool raw size	Obtained from output of command nbdevquery -listdp
capacity	Disk pool effective capacity	Obtained from output of command nbdevquery -listdp
low_water_mark	Percentage of dirty pages to trigger a cache flush	Obtained from output of command nbdevquery -listdp
high_water_mark	Percentage of dirty pages to stop a cache flush	Obtained from output of command nbdevquery -listdp
max_io_streams	Maximum number of I/O streams permitted	Obtained from output of command nbdevquery -listdp
volume_count	Number of volumes in the disk pool	Obtained from output of command nbdevquery -listdp
storage_servers	Pool is from multiple storage servers	Obtained from output of command nbdevquery -listdp
system_tag	System tag	Obtained from output of command nbdevquery -listdp
comment	Comment	Obtained from output of command nbdevquery -listdp
patchwork	Pool is associated with enclosure	Obtained from output of command nbdevquery -listdp
visible	Pool is visible and managed through the User Interface	Obtained from output of command nbdevquery -listdp
single_storage_server	Pool is limited to a single Storage Server	Obtained from output of command nbdevquery -listdp
open_storage	Managed as an Open Storage disk pool	Obtained from output of command nbdevquery -listdp
roving_volumes	Allow active mounts and unmounts of disk volumes	Obtained from output of command nbdevquery -listdp
copy_extents	Allow optimized duplication	Obtained from output of command nbdevquery -listdp
span_images	Allow images to span disk volumes	Obtained from output of command nbdevquery -listdp
basic_staging	Allow basic image staging	Obtained from output of command nbdevquery -listdp

Table 411. disk_pool_config (continued)

Field	Description	From
lifecycle_management	Allow image lifecycle management	Obtained from output of command nbdevquery -listdp
capacity_management	Allow capacity management	Obtained from output of command nbdevquery -listdp
fragment_images	Allow image fragmentation	Obtained from output of command nbdevquery -listdp
catalog_backup	Allow catalog backups	Obtained from output of command nbdevquery -listdp
checkpoint_restart	Allow checkpoint restart	Obtained from output of command nbdevquery -listdp
random_writes	Allow random write access	Obtained from output of command nbdevquery -listdp
ft_channel_transfer	Allow access through FT channel	Obtained from output of command nbdevquery -listdp
capacity_managed_retention	Allow capacity managed retention	Obtained from output of command nbdevquery -listdp
capacity_managed_queuing	Allow capacity managed job queuing	Obtained from output of command nbdevquery -listdp
optimized_image	Allow virtual image construction	Obtained from output of command nbdevquery -listdp
metadata	Describe client data during backup	Obtained from output of command nbdevquery -listdp

disk_volume_config for NetBackup

The field described in the following table is returned.

Table 412. disk_volume_config

Field	Description	From
volume_id	Volume identifier	Obtained from output of command nbdevquery -listdv
path	Path to the Volume	Obtained from output of command nbdevquery -listdp
pool_name	Name of the pool associated with the volume	Obtained from output of command nbdevquery -listdp
disk_type	If a disk volume, the type of disk volume. If a volume type other than disk, the type of the underlying disk volumes	Obtained from output of command nbdevquery -listdp
capacity	Volume capacity (in MB)	Obtained from output of command nbdevquery -listdp
system_tag	System tag	Obtained from output of command nbdevquery -listdp
okay_on_root	Volume may reside on root file system	Obtained from output of command nbdevquery -listdp
read_on_write	Allow reads on write mounted volumes	Obtained from output of command nbdevquery -listdp

lc_policy_config for NetBackup

The field described in the following table is returned.

Table 413. lc_policy_config

Field	Description	From
policy_name	Policy name	Obtained from the output of command nbstl -l
data_classification	Data classification	Obtained from the output of command nbstl -l
duplication_priority	Duplication priority	Obtained from the output of command nbstl -l
version	Version	Obtained from the output of command nbstl -l
state	State	Obtained from the output of command nbstl -l

lc_policy_destination for NetBackup

The field described in the following table is returned.

Table 414. lc_policy_destination

Field	Description	From
policy_name	Policy name	Obtained from the output of command nbstl -l
destination_index	Index identifying the operation/destination	Obtained from the output of command nbstl -l
destination_type	Destination of the object being copied	Obtained from the output of command nbstl -l
storage_unit	Destination Storage unit	Obtained from the output of command nbstl -l
volume_pool	Volume Pool Destination	Obtained from the output of command nbstl -l
server_group	Server group to which the storage unit belongs	Obtained from the output of command nbstl -l
parent_index	Index of the parent operation/destination	Obtained from the output of command nbstl -l
source	Parent operation/destination	Obtained from the output of command nbstl -l
operation_id	User defined (unique) identifier for this operation/destination	Obtained from the output of command nbstl -l
retention_type	Retention type	Obtained from the output of command nbstl -l
retention_level	Retention level	Obtained from the output of command nbstl -l
preserve_multiplexing	Indicates whether to preserve multiplexing	Obtained from the output of command nbstl -l
automatic_remote_import	Indicates if Automatic Remote Import is enabled	Obtained from the output of command nbstl -l

Table 414. lc_policy_destination (continued)

Field	Description	From
alternate_read_server	Alternate read server	Obtained from the output of command nbstl -l
state	State	Obtained from the output of command nbstl -l

SLP Job Status function for NetBackup

The SLP Job Status function of the NetBackup module gathers information about the status of SLP jobs on the backup server. The function includes the following options:

- timeout - Determines how long the Data Protection Advisor Data Collection Agent waits for the results of running various NetBackup commands before terminating them. If you experience timeouts in your environment, then you may need to increase this number. The default value is 300.
- timeformat - Specifies the format timestamps in the media database are returned. This is used to decode the start time/end time for a Job. By default, this option is disabled and the module attempts to automatically calculate this value.
- Max data time range each request will gather from - Changes the maximum amount of time the request gathers job data in one run of slpstatus. The default is 86400, which is one day in seconds. The value is configurable.

i **NOTE:** The NetBackup SLP Job Status request might take a long time to process, if there are high volume of SLP jobs on the NetBackup server.

The SLP Job Status function returns the following information:

- [nbu_slp_job for NetBackup](#)
- [nbu_slp_image for NetBackup](#)

nbu_slp_image for NetBackup

The fields described in the following table are returned.

Table 415. nbu_slp_image

Field	Description	From
image_id	Image ID	Output of nbstlutil -M nodename list -U
master_server	Primary hostname, on which the SLP is present	Output of nbstlutil -M nodename list -U
slp_name	SLP name	Output of nbstlutil -M nodename list -U
slp_version	SLP version	Output of nbstlutil -M nodename list -U
backup_client_name	Backup client name	Output of nbstlutil -M nodename list -U
backup_client_type	Backup client type	Output of nbstlutil -M nodename list -U
backup_policy	Backup policy name	Output of nbstlutil -M nodename list -U
backup_time	Backup time	Output of nbstlutil -M nodename list -U
data_classification	ID value corresponding to data classification selected	Output of nbstlutil -M nodename list -U

Table 415. nbu slp image (continued)

Field	Description	From
origin_master_server	The primary server that created the image	Output of nbstlutil -M nodename list -U and the output of bperror -l -d lastpoll -e curpoll -M nodename
created_time	Image creation time	Output of nbstlutil -M nodename list -U
completed_time	Image completed time	Output of nbstlutil -M nodename list -U
in_process_time	Image in-process time	Output of nbstlutil -M nodename list -U
state	State of the operation	Output of nbstlutil -M nodename list -U and the output of bperror -l -d lastpoll -e curpoll -M nodename
state_id	State code	Output of nbstlutil -M nodename list -U and the output of bperror -l -d lastpoll -e curpoll -M nodename

nbu_slp_job for NetBackup

The fields described in the following table are returned.

Table 416. nbu slp job

Field	Description	From
master_server	Primary hostname, on which the SLP is present	Output of nbstlutil -M nodename list -U
slp_name	SLP name	Output of nbstlutil -M nodename list -U
slp_version	SLP version	Output of nbstlutil -M nodename list -U
data_classification	ID value corresponding to data classification selected	Output of nbstlutil -M nodename list -U
policy_name	Policy name	Output of nbstlutil -M nodename list -U
schedule_name	Schedule name	Output of nbstlutil -M nodename list -U
client_name	Client name	Output of nbstlutil -M nodename list -U
image_id	Image ID	Output of nbstlutil -M nodename list -U
job_id	Job ID	Output of nbstlutil -M nodename list -U and the output of bperror -l -d lastpoll -e curpoll -M nodename
origin_master_server	The primary server that created the image	Output of nbstlutil -M nodename list -U and the output of bperror

Table 416. nbu slp job (continued)

Field	Description	From
		-l -d lastpoll -e curpoll -M nodename
operation	Operation type that the job carries out	Output of nbstlutil -M nodename list -U and the output of bperror -l -d lastpoll -e curpoll -M nodename
state	State of the operation	Output of nbstlutil -M nodename list -U and the output of bperror -l -d lastpoll -e curpoll -M nodename
format	Image data format	Output of nbstlutil -M nodename list -U
destination	Name of destination storage unit	Output of nbstlutil -M nodename list -U and the output of bperror -l -d lastpoll -e curpoll -M nodename
target_master_server	Target primary server	Output of nbstlutil -M nodename list -U
expiration_time	Expiration time	Output of nbstlutil -M nodename list -U
retry_last_time	Retry last time	Output of nbstlutil -M nodename list -U and the output of bperror -l -d lastpoll -e curpoll -M nodename
lag_time	lag time (is equal to Copy time - Backup time)	Output of nbstlutil -M nodename list -U and the output of bperror -l -d lastpoll -e curpoll -M nodename
copy_size	Completed copy size	Output of nbstlutil -M nodename list -U
copy_number	Copy number for image SLP	Output of nbstlutil -M nodename list -U and the output of bperror -l -d lastpoll -e curpoll -M nodename
operation_id	Operation code	Output of nbstlutil -M nodename list -U and the output of bperror -l -d lastpoll -e curpoll -M nodename
retention	Retention type	Output of nbstlutil -M nodename list -U and the output of bperror -l -d lastpoll -e curpoll -M nodename
retention_id	Retention code	Output of nbstlutil -M nodename list -U and the output of bperror -l -d lastpoll -e curpoll -M nodename
state_id	State code	Output of nbstlutil -M nodename list -U and the output of bperror -l -d lastpoll -e curpoll -M nodename

Table 416. nbu slp job (continued)

Field	Description	From
image_created_time	Image creation time	Output of nbstlutil -M nodename list -U
retry_count	Retry count	Output of nbstlutil -M nodename list -U and the output of bperror -l -d lastpoll -e curpoll -M nodename

Status function for NetBackup

The Status function gathers information from a NetBackup server about the status of devices and if the server is waiting for volumes to be mounted. The function includes the following options:

- Message Severity Level — Application error levels.
 - WARNING — Setting if you want to receive warning messages only
 - WARNING+ — Setting if you want to receive warnings message and all higher severities
 - ERROR — Setting if you want to receive error messages only
 - ERROR+ — Setting if you want to receive error messages and all higher severities; default value
 - CRITICAL — Setting if you want to receive critical messages only; the highest level severity message
- timeout — Specifies how long the module should wait for commands to return before aborting them. The default is 900 seconds.

The Status function returns the following information:

- application_error for NetBackup
- device_status for NetBackup
- pending_status for NetBackup
- device_cleaning for NetBackup
- storage_server_status for NetBackup
- disk_pool_status for NetBackup
- disk_volume_status for NetBackup

application_error for NetBackup

The fields described in the following table are returned.

Table 417. application_error

Field	Description	From
client_name	Name of the message originator	Returned from the output of bperror
errorstring	Message text	Returned from the output of bperror
severity	Message severity level	Returned from the output of bperror
source	The process which raised the message	Returned from the output of bperror
type	Message type	Returned from the output of bperror
starttime	Time when the message was created	Returned from the output of bperror
endtime	Time when the message was created	Returned from the output of bperror

device_status for NetBackup

The fields described in the following table are returned.

Table 418. device_status

Field	Description	From
device_host	Name of the device that controls the device	Returned from the output of vmglob -listall -java
device_name	Device name	Returned from the output of vmglob -listall -java
control	Robot/Drive control information	Returned from the output of vmoprcmd -xdraw ds
status	Device status: Up, Down	Returned from the output of vmoprcmd -d ds
volume_id	Name of the volume currently mounted in the device	Returned from the output of vmoprcmd -d ds

pending_status for NetBackup

The fields described in the following table are returned.

Table 419. pending_status

Field	Description	From
type	Mount request type: Read, Write	Returned from the results of vmoprcmd -d pr
vol	Name of the volume that is waited on	Returned from the results of vmoprcmd -d pr
num	Number of tapes that are required	Returned from the results of vmoprcmd -d pr
since	Time that the mount request occurred	Returned from the results of vmoprcmd -d pr

device_cleaning for NetBackup

The fields described in the following table are returned.

Table 420. device_cleaning

Field	Description	From
device_host	Host name	Returned from the results of vmoprcmd -h [mediaserver] -cleanlist
device_name	Device name	Returned from the results of vmoprcmd -h [mediaserver] -cleanlist
device_type	Device type	Returned from the results of vmoprcmd -h [mediaserver] -cleanlist
mount_time	Time the device was mounted	Returned from the results of vmoprcmd -h [mediaserver] -cleanlist
frequency	Frequency at which the devices are cleaned	Returned from the results of vmoprcmd -h [mediaserver] -cleanlist

Table 420. device_cleaning (continued)

Field	Description	From
last_cleaned	Date the device was last cleaned	Returned from the results of vmoprcmd -h [mediaserver] -cleanlist
comment	Comment about the cleaning	Returned from the results of vmoprcmd -h [mediaserver] -cleanlist
cleaning_required	Indicates if cleaning is required on the device	Returned from the results of vmoprcmd -h [mediaserver] -cleanlist

storage_server_status for NetBackup

The fields described in the following table are returned.

Table 421. storage_server_status

Field	Description	From
server_name	Storage server name	Returned from the results of nbdevquery -liststs
server_type	Storage server type	
status	Storage server status	Returned from the results of nbdevquery -liststs
admin_state	Administrative State: Up, Down	Returned from the results of nbdevquery -liststs
internal_state	Internal State: Up, Down	Returned from the results of nbdevquery -liststs

disk_pool_status for NetBackup

The fields described in the following table are returned.

Table 422. disk_pool_status

Field	Description	From
pool_name	Disk Pool name	Returned from the results of nbdevquery -listdp
status	Disk Pool status	Returned from the results of nbdevquery -listdp
admin_state	Administrative State: Up, Down	Returned from the results of nbdevquery -listdp
internal_state	Internal State: Up, Down	Returned from the results of nbdevquery -listdp

disk_volume_status for NetBackup

The fields described in the following table are returned.

Table 423. disk_volume_status

Field	Description	From
volume_id	Volume identifier	Returned from the results of nbdevquery -listdv

Table 423. disk_volume_status (continued)

Field	Description	From
used_space	Used volume space (in GB)	Returned from the results of nbdevquery -listdv
read_mounts	Number of read mounts	Returned from the results of nbdevquery -listdv
write_mounts	Number of write mounts	Returned from the results of nbdevquery -listdv
read_streams	Number of active read streams	Returned from the results of nbdevquery -listdv
write_streams	Number of active write streams	Returned from the results of nbdevquery -listdv
status	Disk volume status	Returned from the results of nbdevquery -listdv
admin_state	Administrative state: Up, Down	Returned from the results of nbdevquery -listdv
internal_state	Internal state: Up, Down	Returned from the results of nbdevquery -listdv

Volume Status function for NetBackup

The Volume Status function gathers data on the status of volumes in the media database. To gather information, the Volume Status function runs vmquery -a -w to query the volume database. The function then runs bpmedialist -l. The results of both commands are then merged. The function includes the following options:

- timeout — Specifies how long the module should wait for commands to return before aborting them. The default is 3600 seconds.

Volume Status for NetBackup

The fields described in the following table are returned.

Table 424. Volume Status

Field	Description	From
volume_id	Volume identifier	Output of running vmquery -a -w
barcode	Volume barcode	Output of running vmquery -a -w
volume_group	Group to which the volume belongs	
pool	Pool in which a volume is located	Output of running vmquery -a -w
state	Volume state: Empty, Partial, Full, Frozen, Suspended	Output of running bpmedialist -l
used	Amount of data written to the tape (in MB)	Output of running bpmedialist -l
retention	Retention period of the volume	Obtained by retrieving the retention period by running bpretlevel -l for the retention period of the volume specified in the output of bpmedialist -l
expiry_flag	Indicates if a volume has expired	Output of running bpmedialist -l
expdate	Date the volume is due to expire	Output of running bpmedialist -l

Table 424. Volume Status (continued)

Field	Description	From
online	Indicates if the volume is online	Output of running vmquery -a -w
cartridge_type	Cartridge type. For example, DLT, LTO	Output of running vmquery -a -w
capacity	Cartridge capacity	Output of running vmquery -a -w
jukebox	Name of the jukebox in which a volume is located, if online	Output of running vmquery -a -w
slot	Slot in which a volume is located, if online	Output of running vmquery -a -w
lastwritten	Time that a volume was last written	Output of running bpmedialist -l
firstwritten	Time that a volume was first written	Output of running vmquery -a -w
nummounts	Number of times that a volume has been mounted	Output of running vmquery -a -w
cleanings_left	Number of cleanings left on the tape. This data is retrieved for cleaning tapes	Output of running vmquery -a -w
created	Date and time volume was created	Output of running vmquery -a -w
assigned	Date and time volume was assigned in NetBackup	Output of running vmquery -a -w
firstmount	Date and time volume was first mounted	Output of running vmquery -a -w
lastmount	Date and time volume was last mounted	Output of running vmquery -a -w
status	Volume status	Output of running vmquery -a -w
vaultname	Name of the vault in which the volume resides	Output of running vmquery -a -w
vaultsentdate	Date and time sent to vault	Output of running vmquery -a -w
vaultreturndate	Date and time volume is to be returned from the vault	Output of running vmquery -a -w
vaultslot	Slot number occupied in vault	Output of running vmquery -a -w
vaultsession	Vault session ID	Output of running vmquery -a -w

Job Monitor function for NetBackup

The Job Monitor function gathers information about backup, restore, and vault Jobs that have occurred on the NetBackup server. The function includes the following options:

- **timeout** — Determines how long the module waits before terminating any commands it uses to gather data from the NetBackup server. The default is 300 seconds.
- **timeformat** — Specifies the format timestamps in the media database are returned. This is used to decode the start time/end time for a Job. By default, this option is disabled and the module attempts to automatically calculate this value.
- **partialasfailed** — Mark partially successful jobs as failed. The default is false.
- **forceerrors** — Gather errors for all jobs (not just failed jobs). The default is false.
- **includecontainerjobs** — Report "container" parent jobs that are responsible for handling any pre- and post-processing in addition to the child jobs that perform the actual backups. The default is false, in which case such container jobs are effectively ignored.

The following problem has been reported: If you run historic data gathering for a time period not covered by bpdbjobs, then jobs can be duplicated. This can occur because the jobmonitor request now gathers backup job data from bpimagerlist. The data from bpimagerlist is different from data from bpdbjobs, and this can result in duplicate jobs being written to the Data Protection Advisor datamine.

The Job Monitor function gathers the following data:

- ddup_status for NetBackup
- backupjob for NetBackup
- backup_attempt for NetBackup
- backupevent for NetBackup
- backup_error for NetBackup
- backup_openfile for NetBackup
- backup_media for NetBackup
- restorejob for NetBackup
- restore_attempt for NetBackup
- restoreevent for NetBackup
- restore_error for NetBackup
- restore_media for NetBackup
- vaultjob for NetBackup
- vault_attempt for NetBackup
- vaultevent for NetBackup
- clonejob for NetBackup
- clone_attempt for NetBackup
- cloneevent for NetBackup
- clone_object for NetBackup
- clone_media for NetBackup
- maintenancejob for NetBackup
- maintenance_attempt for NetBackup
- maintenance_error for NetBackup

ddup_status for NetBackup

The fields described in the following table are returned.

Table 425. ddup_status

Field	Description	From
seg_bytes	Its all the bytes that were ever written to that	The output of the se_sfs_dump command
seg_count	Number of segments in the file	The output of the se_sfs_dump command
redund_seg_count	Number of redundant segments that already exist on the DDR	The output of the se_sfs_dump command
pre_lc_size	Size before local compression	The output of the se_sfs_dump command
post_lc_size	Size after local compression	The output of the se_sfs_dump command

backupjob for NetBackup

Data about backup Jobs that have occurred is gathered by viewing at the contents of the NetBackup Activity log using the bpdbjobs command. The fields described in the following table are returned.

Table 426. backupjob

Field	Description	From
backup_servername	Backup server name	Name of the backup server as defined in the Data Protection Advisor Navigation tree

Table 426. backupjob (continued)

Field	Description	From
media_server	Name of the Media Server on which the backup occurred	Gathered from output of bpdbjobs -report -all_columns and the output of bpimagerelist -l
group_name	Group that scheduled the backup	Gathered from output of bpdbjobs -report -all_columns and the output of bpimagerelist -l
client_name	Name of the client that was backed up	Gathered from output of bpdbjobs -report -all_columns and the output of bpimagerelist -l
schedule_name	Schedule that triggered the backup	Gathered from output of bpdbjobs -report -all_columns and the output of bpimagerelist -l
job_name	Name of the file system that was backed up	Gathered from output of bpdbjobs -report -all_columns
status	Indicates if the backup was successful: Success, Failed	Gathered from output of bpdbjobs -report -all_columns and the output of bpimagerelist -l
errcode	Application error code associated with the Job	Gathered from output of bpdbjobs -report -all_columns and the output of bpimagerelist -l
level	Backup level	Gathered from output of bpdbjobs -report -all_columns and the output of bpimagerelist -l
size	<ul style="list-style-type: none"> • If acceleration is enabled: Total size of the data scanned • Otherwise: Amount of data that was backed up (in MB) 	Gathered from output of bpdbjobs -report -all_columns and the output of bpimagerelist -l
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	Gathered from output of bpdbjobs -report -all_columns and the output of bpimagerelist -l
nfiles	Number of files that were backed up	Gathered from output of bpdbjobs -report -all_columns and the output of bpimagerelist -l
nfilesnot	Number of files that were not backed up	Calculated by looking at the output of bperror for any missed files
expiry	Expiration date of this Job	Gathered from output of bpdbjobs -report -all_columns and the output of bpimagerelist -l
module	Application from which the backup originated	Hard coded to Netbackup
jobid	NetBackup Backup ID in the activity log	Gathered from output of bpdbjobs -report -all_columns and the output of bpimagerelist -l
jobid2	NetBackup Job ID in the activity log	Gathered from output of bpdbjobs -report -all_columns and the output of bpimagerelist -l
parentjobid	NetBackup Job ID of the parent job	Gathered from output of bpdbjobs -report -all_columns
pool	Pool name	Gathered from output of bpdbjobs -report -all_columns

Table 426. backupjob (continued)

Field	Description	From
owner	Backup job owner	Gathered from output of bpdbjobs -report -all_columns and the output of bpimagerelist -l
storage_unit	NetBackup storage unit	Gathered from output of bpdbjobs -report -all_columns
ntries	Number of attempts that took place before the Job completed	Gathered from output of bpdbjobs -report -all_columns
ncopies	Total number of secondary copies. Excludes the primary	Gathered from output of bpdbjobs -report -all_columns
queuestart	Time the backup went into the backup applications queue	Gathered from output of bpdbjobs -report -all_columns and the output of bpimagerelist -l
starttime	Time the backup started to write to tape	Gathered from output of bpdbjobs -report -all_columns and the output of bpimagerelist -l
endtime	Time the backup finished writing to tape	Gathered from output of bpdbjobs -report -all_columns and the output of bpimagerelist -l
success_copies	Number of successful copies	Gathered from output of bpdbjobs -report -all_columns
failed_copies	Number of failed copies	Gathered from output of bpdbjobs -report -all_columns
size_copies	Total size of all copies combined	Gathered from output of bpdbjobs -report -all_columns
sizescanned	<ul style="list-style-type: none">• If acceleration is enabled: Not reported• If deduplication is not enabled: Not Reported• Otherwise: Total size of the data scanned (in MB)	Gathered from output of bpdbjobs -report -all_columns
sizescannedboffset	Byte offset of scanned size	Gathered from output of bpdbjobs -report -all_columns
sizetransferred	<ul style="list-style-type: none">• If acceleration or client-side dedupe are enabled: Size transferred to server (in MB)• Otherwise: Total transferred size of the data (in MB)	Gathered from output of bpdbjobs -report -all_columns
sizetransferredboffset	Size transferred byte offset	Gathered from the output of bpdbjobs -report -all_columns
storage_id	Storage ID	Returned from the result of running bpdbjobs
pluginname	Name of the plugin	Not applicable
archive_flag	True or False	Not applicable

backup_attempt for NetBackup

The fields described in the following table are returned.

Table 427. backup_attempt

Field	Description	From
backupjob_id	Backup Job ID in the activity log	Gathered from output of bpdbjobs -report -all_columns
jobid	Job identifier	Gathered from output of bpdbjobs -report -all_columns
attempt	Attempt	Gathered from output of bpdbjobs -report -all_columns
storage_unit	NetBackup storage unit	Gathered from output of bpdbjobs -report -all_columns
media_server	Name of the media server on which the backup occurred	Gathered from output of bpdbjobs -report -all_columns
pid	Process identifier	Gathered from output of bpdbjobs -report -all_columns
status	Indicates if the backup was successful: Success, Failed	Gathered from output of bpdbjobs -report -all_columns
errcode	Application error code associated with the Job	Gathered from output of bpdbjobs -report -all_columns
description	Description	Gathered from output of bpdbjobs -report -all_columns
size	Size	Gathered from output of bpdbjobs -report -all_columns
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	Gathered from output of bpdbjobs -report -all_columns
nfiles	Number of files	Gathered from output of bpdbjobs -report -all_columns

backupevent for NetBackup

The fields described in the following table are returned.

Table 428. backupevent

Field	Description	From
backup_servername	Backup server name	Gathered from output of bpdbjobs -report -all_columns
media_server	Name of the media server on which the backup occurred	Gathered from output of bpdbjobs -report -all_columns
group_name	Group that scheduled the backup	Gathered from output of bpdbjobs -report -all_columns
client_name	Name of the client that was backed up	Gathered from output of bpdbjobs -report -all_columns
schedule_name	Schedule that triggered the backup	Gathered from output of bpdbjobs -report -all_columns

Table 428. backupevent (continued)

Field	Description	From
job_name	Name of the file system that was backed up	Gathered from output of bpdbjobs -report -all_columns
status	Indicates if the backup was successful: Success, Failed	Gathered from output of bpdbjobs -report -all_columns
errcode	Application error code associated with the Job	Gathered from output of bpdbjobs -report -all_columns
queuestart	Time the backup went into the backup applications queue	Gathered from output of bpdbjobs -report -all_columns
parentjobid	NetBackup job ID of the parent job	Gathered from output of bpdbjobs -report -all_columns
starttime	Time the backup started	Gathered from the output of bpdbjobs
jobid2	NetBackup job ID	Gathered from the output of bpdbjobs and the output of bpimagelist -l

backup_error for NetBackup

Data is retrieved by running bperror -jobid \$jobid. Only errors with a severity greater than 4 are reported. The fields described in the following table are returned.

Table 429. backup_error

Field	Description	From
backupjob_id	Backup Job ID in the activity log	Output of bperror -jobid
client_name	Name of the client that failed	Output of bperror -jobid
severity	Severity of the error message	Output of bperror -jobid
errorstring	Error message	Output of bperror -jobid
starttime	Time the backup started	Output of bperror -jobid
endtime	Time the backup ends	Output of bperror -jobid

backup_openfile for NetBackup

The open file data is gathered by analyzing the output of bperror -jobid \$jobid for each job. The fields described in the following table are returned.

Table 430. backup_openfile

Field	Description	From
backupjob_id	Backup Job ID in the activity log	Output of bperror -jobid
client_name	Name of the client that was not fully backed up	Output of bperror -jobid
filename	Name of the file that was not backed up	Output of bperror -jobid

backup_media for NetBackup

The fields described in the following table are returned.

Table 431. backup_media

Field	Description	From
backupjob_id	Backup Job ID in the activity log	Output of bpdbjobs
volume_id	Volume to which the Job was backed up	Output of bpdbjobs and the output of bpimagelist -l
type	Media type	Output of bpdbjobs
starttime	Time the backup started	Output of bpdbjobs
endtime	Time the backup ends	Output of bpdbjobs

restorejob for NetBackup

Restore information is gathered by parsing information in the NetBackup Activity log gathered by running bpdbjobs -report -all_columns. The fields described in the following table are returned.

Table 432. restorejob

Field	Description	From
backup_servername	Backup server on which the restore occurred	Name of the node in the Data Protection Advisor Navigation tree
media_server	Media server on which the restore occurred	Output of bpdbjobs
client_name	Name of the client that was restored	Output of bpdbjobs
job_name	Name of the file system that is restored	Output of bpdbjobs
owner	Administrator who created the job	Output of bpdbjobs
status	Restore status	Output of bpdbjobs
errcode	Any error code associated with a failed restore	Output of bpdbjobs
size	Amount of data restored	Output of bpdbjobs
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	Output of bpdbjobs
nfiles	Number of files restored	Output of bpdbjobs
queuestart	Time the restore was requested	Output of bpdbjobs
starttime	Time the restore started	Output of bpdbjobs
endtime	Time the restore completed	Output of bpdbjobs
parentjobid	NetBackup job ID of the parent job	Output of bpdbjobs
jobid	Job identifier	Output of bpdbjobs
backuptime	Date of the original backup	Output of bpdbjobs

restore_attempt for NetBackup

The fields described in the following table are returned.

Table 433. restore_attempt

Field	Description	From
sub_name	Name	Output of bpdbjobs
restorejob_id	Restore job identifier	Output of bpdbjobs
jobid	Job identifier	Output of bpdbjobs
attempt	Attempt	Output of bpdbjobs
storage_unit	Storage unit name	Output of bpdbjobs
media_server	Media server name	Output of bpdbjobs
pid	Process identifier	Output of bpdbjobs
status	Attempt status	Output of bpdbjobs
errcode	Error code	Output of bpdbjobs
description	Error description	Output of bpdbjobs
size	Size	Output of bpdbjobs
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	Output of bpdbjobs
nfiles	Number of files	Output of bpdbjobs

restore_media for NetBackup

Information about which media were used during a restore is extracted from the output of bpdbjobs. The fields described in the following table are returned.

Table 434. restore_media

Field	Description	From
restorejob_id	Restore Job identifier	Output of bpdbjobs
volume_id	Unique identifier of the volume to which the restore Job was written	Output of bpdbjobs
type	Media type	Output of bpdbjobs

restoreevent for NetBackup

The fields described in the following table are returned.

Table 435. restoreevent

Field	Description	From
backup_servername	Backup server on which the restore occurred	Name of the node in the Data Protection Advisor Navigation tree
media_server	Media server on which the restore occurred	Output of bpdbjobs
client_name	Name of the client that was restored	Output of bpdbjobs
job_name	Name of the file system that is restored	Output of bpdbjobs

Table 435. restoreevent (continued)

Field	Description	From
status	Restore status	Output of bpdbjobs
queuestart	Time the restore was requested	Output of bpdbjobs
parentjobid	NetBackup job ID of the parent job	Output of bpdbjobs
jobid	Job identifier	Output of bpdbjobs
starttime	Time the backup started	Output of bpdbjobs

restore_error for NetBackup

The fields described in the following table are returned.

Table 436. restore_error

Field	Description	From
restorejob_id	Restore job identifier	Output of bpdbjobs
client_name	Client name	Output of bpdbjobs
severity	Error severity	Output of bpdbjobs
errorstring	Error string	Output of bpdbjobs

vaultjob for NetBackup

The information about vault Jobs is extracted from the output of running bpdbjobs -report -all_columns. The fields described in the following table are returned.

Table 437. vaultjob

Field	Description	From
backup_servername	NetBackup primary server name	Name of the node in the Data Protection Advisor Navigation tree
media_server	Media server associated with the Job	Output of bpdbjobs and the output of bpimagedlist -l
storage_unit	Storage unit associated with the Job	Output of bpdbjobs
group_name	NetBackup policy name	Output of bpdbjobs and the output of bpimagedlist -l
client_name	Client associated with the Job	Output of bpdbjobs and the output of bpimagedlist -l
schedule_name	Schedule associated with the Job	Output of bpdbjobs and the output of bpimagedlist -l
owner	Vault job owner	Output of bpdbjobs and the output of bpimagedlist -l
status	Job status	Output of bpdbjobs and the output of bpimagedlist -l
errcode	Job error code	Output of bpdbjobs and the output of bpimagedlist -l
level	Vault job level	Output of bpdbjobs and the output of bpimagedlist -l

Table 437. vaultjob (continued)

Field	Description	From
nfiles	Number of files in Job	Output of bpdbjobs and the output of bpimagelist -l
expiry	Expiration date of the vault	Output of bpdbjobs and the output of bpimagelist -l
jobid	NetBackup Job ID in the activity log	Output of bpdbjobs and the output of bpimagelist -l
jobid2	NetBackup Job ID	Output of bpdbjobs and the output of bpimagelist -l
parentjobid	NetBackup Job ID of the parent job	Output of bpdbjobs
robot	Robot name	Output of bpdbjobs
vault	Vault name	Output of bpdbjobs
profile	Vault profile name	Output of bpdbjobs
queuestart	Time that the vault Job went into the activity log	Output of bpdbjobs and the output of bpimagelist -l
sessionid	Vault job session ID	sessionid field of bpdbjobs
ejectmedia	Eject media name	ejectmedia field of bpdbjobs
source media	Source media name	sourcemedia field of bpdbjobs
source storage unit	Source storage unit name	source storageunit field of bpdbjobs
source server	Source server name	sourceserver field of bpdbjobs
size	The size of the backup in MB	Output of bpdbjobs -report -all_columns and bpimagelist -l
sizeoffset	The remainder in bytes when the size has been scaled to the nearest MB value	Output of bpdbjobs -report -all_columns and bpimagelist -l

vault_attempt for NetBackup

The fields described in the following table are returned.

Table 438. vault_attempt

Field	Description	From
sub_name	Name	Output of bpdbjobs
vaultjob_id	Vault job identifier	Output of bpdbjobs
jobid	Job identifier	Output of bpdbjobs
attempt	Attempt	Output of bpdbjobs
storage_unit	Storage unit name	Output of bpdbjobs
media_server	Media server name	Output of bpdbjobs
pid	Process identifier	Output of bpdbjobs
status	Attempt status	Output of bpdbjobs
errcode	Error code	Output of bpdbjobs
description	Error description	Output of bpdbjobs
size	Size	Output of bpdbjobs

Table 438. vault_attempt (continued)

Field	Description	From
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	Output of bpdbjobs
nfiles	Number of files	Output of bpdbjobs

vaultevent for NetBackup

The fields described in the following table are returned.

Table 439. vaultevent

Field	Description	From
backup_servername	NetBackup primary server name	Name of the node in the Data Protection Advisor Navigation tree
media_server	Media server associated with the Job	Output of bpdbjobs
group_name	NetBackup policy name	Output of bpdbjobs
client_name	Client associated with the Job	Output of bpdbjobs
schedule_name	Schedule associated with the Job	Output of bpdbjobs
status	Job status	Output of bpdbjobs
errcode	Job error code	Output of bpdbjobs
profile	Vault profile name	Output of bpdbjobs
jobid2	NetBackup Job ID	Output of bpdbjobs
parentjobid	NetBackup Job ID of the parent job	Output of bpdbjobs
queuestart	Time that the vault Job went into the activity log	Output of bpdbjobs

clonejob for NetBackup

The fields described in the following table are returned.

Table 440. clonejob

Field	Description	From
backup_servername	NetBackup primary server name	Name of the node in the Data Protection Advisor Navigation tree
media_servername	Media server associated with the Job	Output of bpdbjobs
cloneid	Cloned backup job identifier	Output of bpdbjobs
parentjobid	NetBackup job ID of the parent job	Output of bpdbjobs
restarted_job	Restarted job	Output of bpdbjobs
owner	Clone job owner	Output of bpdbjobs
status	Job status	Output of bpdbjobs
errcode	Job error code	Output of bpdbjobs
starttime	Time the clonejob started	Output of bpdbjobs
endtime	Time the clonejob ends	Output of bpdbjobs

Table 440. clonejob (continued)

Field	Description	From
queuestart	Time the clone job went into the activity log	Output of bpdbjobs

clone_attempt for NetBackup

The fields described in the following table are returned.

Table 441. clone_attempt

Field	Description	From
sub_name	Name	Output of bpdbjobs
clonejob_id	Clone job identifier	Output of bpdbjobs
jobid	Job identifier	Output of bpdbjobs
attempt	Attempt	Output of bpdbjobs
storage_unit	Storage unit name	Output of bpdbjobs
media_server	Media server name	Output of bpdbjobs
pid	Process identifier	Output of bpdbjobs
status	Job status	Output of bpdbjobs
errcode	Error code	Output of bpdbjobs
description	Error description	Output of bpdbjobs
size	Size	Output of bpdbjobs
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	Output of bpdbjobs
nfiles	Number of files	Output of bpdbjobs

cloneevent for NetBackup

The fields described in the following table are returned.

Table 442. cloneevent

Field	Description	From
backup_servername	Name of the backup server that ran the job	Output of bpdbjobs
media_servername	Name of the Media Server on which the job took place	Output of bpdbjobs
cloneid	Clone job identifier	Output of bpdbjobs
parentjobid	NetBackup job ID of the parent job	Output of bpdbjobs
status	Job status	Output of bpdbjobs
queuestart	Time the clone job went into the activity log	Output of bpdbjobs
starttime	Time the clonejob started	Output of bpdbjobs

clone_object for NetBackup

The fields described in the following table are returned.

Table 443. clone_object

Field	Description	From
clonejob_id	Identifier for the cloned backup Job	Output of bpdbjobs
backupjob_id	Identifier that uniquely identifies the cloned Job on the backup server on which the Job ran	Output of bpdbjobs
status	Job status	Output of bpdbjobs
storageid	Storage ID	Output of bpdbjobs

clone_media for NetBackup

The fields described in the following table are returned.

Table 444. clone_media

Field	Description	From
clone_object_id	Cloned backup job identifier	Output of bpdbjobs
volume_id	Volume identifier	Output of bpdbjobs
type	Media type	Output of bpdbjobs
starttime	Time the clonejob started	Output of bpdbjobs
endtime	Time the clonejob ends	Output of bpdbjobs

maintenancejob for NetBackup

The fields described in the following table are returned.

Table 445. maintenancejob

Field	Description	From
client_name	Backup client name	Output of bpdbjobs
schedule_name	Schedule name	Output of bpdbjobs
job_name	Schedule that triggered the backup	Output of bpdbjobs
job_type	NetBackup maintenance job type	Output of bpdbjobs
object	NetBackup object associated with the maintenance job	Output of bpdbjobs
jobid	Job identifier	Output of bpdbjobs
parentjobid	NetBackup job ID of the parent job	Output of bpdbjobs
owner	Owner	Output of bpdbjobs
status	Indicates if the backup was successful: Success, Failed	Output of bpdbjobs
errcode	Application error code associated with the Job	Output of bpdbjobs
size	Amount of data that was backed up (in MB)	Output of bpdbjobs

Table 445. maintenancejob (continued)

Field	Description	From
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size	Output of bpdbjobs
queuestart	Time the job went into the activity log	Output of bpdbjobs
starttime	Time the maintenance started	Output of bpdbjobs
endtime	Time the maintenance ends	Output of bpdbjobs

maintenance_attempt for NetBackup

The fields described in the following table are returned.

Table 446. maintenance_attempt

Field	Description	From
sub_name	Name	Output of bpdbjobs
maintenancejob_id	Maintenance job identifier	Output of bpdbjobs
jobid	Job identifier	Output of bpdbjobs
attempt	Attempt	Output of bpdbjobs
storage_unit	Storage unit name	Output of bpdbjobs
media_server	Media server name	Output of bpdbjobs
pid	Process identifier	Output of bpdbjobs
status	Job status	Output of bpdbjobs
errcode	Error code	Output of bpdbjobs
description	Error description	Output of bpdbjobs
size	Size	Output of bpdbjobs
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	Output of bpdbjobs
nfiles	Number of files	Output of bpdbjobs

maintenance_error for NetBackup

The fields described in the following table are returned.

Table 447. maintenance_error

Field	Description	From
maintenancejob_id	Job identifier	Output of bpdbjobs
client_name	Name of the backup client on which the job took place	Output of bpdbjobs
severity	Maintenance job severity	Output of bpdbjobs
errorstring	Error string	Output of bpdbjobs
starttime	Time the maintenance started	Output of bpdbjobs
endtime	Time the maintenance ends	Output of bpdbjobs

Performance function for NetBackup

The NetBackup module performance request for tape libraries is deprecated from Data Protection Advisor 19.12 because there is no reliable data source available.

Occupancy function for NetBackup

The function includes the following options:

- timeout — Specifies how long the module should wait for commands to return before aborting them. The default is 3600.

client_occupancy for NetBackup

The fields described in the following table are returned.

Table 448. client_occupancy

Field	Description	From
client_name	NetBackup client name	Output from bppclients command
pool	Storage pool that contains the client filespace	Calculated from the Volume (as obtained from bpimagedlist) and depending on the type of storage pool, one of: <ul style="list-style-type: none">• Tape - vmquery• BasicDisk - bpstulist• AdvancedDisk - nbdevquery
type	Storage pool type: Tape, BasicDisk, AdvancedDisk, Unnamed	Determined from the output of bpimagedlist
files	Number of active files	Calculated using the output from bppclient, bpimagedlist, and one of the above commands
physical	Amount of physical storage used (in MB) Physical space is the total space taken up by data for the filespace. Physical space includes space that is no longer active itself, but is included in a set of data that is still active	Calculated using the output from bppclient, bpimagedlist, and one of the above commands For NetBackup, the physical field value is always the same as the logical field value
logical	Amount of logical storage used (in MB). Logical space is space used by active data	Calculated using the output from bppclient, bpimagedlist, and one of the above commands

client_utilization for NetBackup

The fields described in the following table are returned.

Table 449. client_utilization

Field	Description	From
client_name	NetBackup client name	Output of the NBU Licensing capacity REST API
protected_capacity	Front-end capacity protected for the selected object	Output of the NBU Licensing capacity REST API

NetBackup REST APIs are used to collect the front-end protected capacity data. Ensure that you create the credentials on the Data Protection Advisor application server to enable REST communication between the Data Protection Advisor agent and the NBU primary server. The NBU REST credentials must be selected for data collection.

(i) NOTE:

- Front-end protected capacity data collection is only supported from NetBackup version 8.1.2 and later.
- A multi-primary server NBU setup is not supported.

Media Server Status function for NetBackup

The Media Server Status function gathers information about the status of the Media Servers on NetBackup servers. The function includes the following options:

- timeout — Specifies how long the module should wait for commands to return before aborting them. The default is 900 seconds.

Media Server status information is only gathered if a Data Protection Advisor Data Collection Agent is running locally on the Media Server.

The Media Server Status function gathers the following data:

- nbu_media_svr_config for NetBackup
- device_errors for NetBackup

nbu_media_svr_config for NetBackup

The fields described in the following table are returned.

Table 450. nbu_media_svr_config

Field	Description	From
net_buffer_sz	Size of the buffer used when reading backup data from the network	Value of the file in the following location: Windows Program Files\VERITAS\NetBackup\NET_BUFFER_SZ Unix /usr/openv/netbackup/NET_BUFFER_SZ
net_buffer_sz_rest	Size of the buffer used when sending restore data to the network	Value of the file in the following location: Windows Program Files\VERITAS\NetBackup\NET_BUFFER_SZ_REST Unix /usr/openv/netbackup/NET_BUFFER_SZ_REST
size_data_buffers	Number of data buffers used when writing backups to tape	Value of the file in the following location: Windows Program Files\VERITAS\NetBackup\db\config\SIZE_DATA_BUFFERS Unix

Table 450. nbu_media_svr_config (continued)

Field	Description	From
		/urs/openv/db/config/ SIZE_DATA_BUFFERS
number_data_buffers	Number of data buffers used when writing backups to tape	Value of the file in the following location: Windows Program Files\VERITAS\NetBackup\db\config\NUMBER_DATA_BUFFERS Unix /urs/openv/db/config/ NUMBER_DATA_BUFFERS
number_data_buffers_rest	Number of data buffers used when reading data from tape	Value of the file in the following location: Windows Program Files\VERITAS\NetBackup\db\config\NUMBER_DATA_BUFFERS_RESTORE Unix /urs/openv/db/config/ NUMBER_DATA_BUFFERS_RESTORE
size_data_buffers_disk	Size of each data buffer used when writing to disk	Value of the file in the following location: Windows Program Files\VERITAS\NetBackup\db\config\SIZE_DATA_BUFFERS_DISK Unix /urs/openv/db/config/ SIZE_DATA_BUFFERS_DISK
number_data_buffers_disk	Number of data buffers used when writing backups to disk	Value of the file in the following location: Windows Program Files\VERITAS\NetBackup\db\config\NUMBER_DATA_BUFFERS_DISK Unix /urs/openv/db/config/ NUMBER_DATA_BUFFERS_DISK

device_errors for NetBackup

The fields described in the following table are returned.

Table 451. device_errors

Field	Description	From
device_host	NetBackup media sever name	Value of the file in the following location: Windows

Table 451. device_errors (continued)

Field	Description	From
		Program Files\VERITAS\NetBackup\db\media\errors Unix /usr/openv/netbackup/db/media/errors
device_name	Device name	Value of the file in the following location: Windows Program Files\VERITAS\NetBackup\db\media\errors Unix /usr/openv/netbackup/db/media/errors
timestamp	Time that the error occurred	Value of the file in the following location: Windows Program Files\VERITAS\NetBackup\db\media\errors Unix /usr/openv/netbackup/db/media/errors
error_type	Type of error that has occurred. For example, TAPE_ALERT, WRITE_ERROR	Value of the file in the following location: Windows Program Files\VERITAS\NetBackup\db\media\errors Unix /usr/openv/netbackup/db/media/errors
volume	Volume that was loaded in the drive at the time the error occurred	Value of the file in the following location: Windows Program Files\VERITAS\NetBackup\db\media\errors Unix /usr/openv/netbackup/db/media/errors
data	Additional information associated with the error	Value of the file in the following location: Windows Program Files\VERITAS\NetBackup\db\media\errors Unix /usr/openv/netbackup/db/media/errors

Vault Status function for NetBackup

The Vault Status function gathers information from a NetBackup server about the status of Vault operations. This information is only gathered if an agent is running locally on the Media Server.

The Vault Status function reports on the contents of files located in the %INSTALLDIR%/vault directory. On UNIX systems the full path of this directory by default is /usr/openv/netbackup/vault. On Windows systems the full path of this directory by default is %SystemDrive%\Program Files\Veritas\Netbackup\vault.

The Vault Status function returns the following information:

- vault_preview for NetBackup
- vault_ejects for NetBackup

vault_preview for NetBackup

This table contains the data found in each preview.list file on the local filesystem. There is one such file for each "session" of each configured "vault," located as follows %INSTALLDIR%/vault/sessions/{vault}/sid{session}/preview.list. The fields described in the following table are returned.

Table 452. vault_preview

Field	Description	From
media_server	Hostname of the media server	field 5 in record in file preview.list
Vault	Vault name	
Session	Session number	
Policy	Policy name	field 1 in record in file preview.list
Schedule	Schedule name	field 2 in record in file preview.list
Client	Client hostname	field 3 in record in file preview.list
Backupid	ID of original backup job	field 4 in record in file preview.list
Volume	Volume label	field 6 in record in file preview.list
Size	Size of backup image	field 7 in record in file preview.list
Starttime		field 0 in record in file preview.list

vault_ejects for NetBackup

This table contains the data found in each ejects.list file on the local filesystem. There is one such file for each "session" of each configured "vault," located as follows %INSTALLDIR%/vault/sessions/{vault}/sid{session}/ejects.list. The fields described in the following table are returned.

Table 453. vault_preview

Field	Description	From
Media_server	Hostname of the media server	field 5 in record in file eject.list
Type	Robot type	field 0 in header in file eject.list

Table 453. vault_preview (continued)

Field	Description	From
Robot	Robot name	field 1 in header in file eject.list
Vault	Vault name	
Session	Session number	
Volume_group	Group to which the volume belongs	field 3 in header in file eject.list
Volume	Volume Label	field 0 in record in file eject.list

Software Distribution function for NetBackup

The Software Distribution function retrieves NetBackup information about NetBackup clients software. Software Distribution function works with NetBackup version 7.5 and later. The Agent must be installed locally on the NetBackup media or primary server host. It does not work in remote mode. The Software Distribution function includes the following option:

- command timeout - Period of time to wait before killing the command gathering data from NetBackup. The default value is 600 seconds.

The Software Distribution function gathers the following data:

[software_managed for NetBackup](#)

software_managed for NetBackup

The `bppclients.exe -allunique -l` command is executed to get the list of NetBackup clients. The `bpgetconfig.exe -L -s clientname` command is executed on each client to obtain the software managed data. The software managed data contains information about the NetBackup software installed on one or more NetBackup client hosts (including media and primary servers). Both the commands are performed on the NetBackup server machine. The fields described in the following table are returned.

Table 454. software_managed

Field	Description	From
client_name	Name of the client where the software is installed	The output of the <code>bppclients.exe -allunique -l</code> command.
platform	Client's platform type	The output of the <code>bpgetconfig.exe -L -s clientname</code> command.
product	Software product name	The output of the <code>bpgetconfig.exe -L -s clientname</code> command.
version	Software version	The output of the <code>bpgetconfig.exe -L -s clientname</code> command.
package_name	Installed software package name	The output of the <code>bpgetconfig.exe -L -s clientname</code> command.

NetWorker Module

The NetWorker module monitors the status of NetWorker servers. Data Protection Advisor uses the NetWorker command line tool to return and display Configuration, Status, Job Monitor, Volume Status, Occupancy, Client Status, and Software Distribution information. The module includes the following functions:

Topics:

- Configuration function for NetWorker
- Status function for NetWorker
- Volume Status function for NetWorker
- Job Monitor function for NetWorker
- Performance function for NetWorker
- Occupancy function for NetWorker
- Client Status function for NetWorker
- Software Distribution function for NetWorker
- Sync function for NetWorker

Configuration function for NetWorker

The Configuration function of the NetWorker module gathers information about the configuration of the backup server including information about the following: Clients, Groups, Pools, Devices, Jukeboxes. The function includes the following options:

- Command timeout — Determines how long the Data Protection Advisor Data Collection Agent waits from the results of running nsradmin and mminfo before terminating the command. If you experience timeouts in your environment, then this number may need to be increased. The default value is 3600 seconds.
- Forces short client names — This forces Data Protection Advisor to just report the hostname of the client without the domain name part. The default is false. Set this to true to eliminate clients from being reported with both short and fully qualified names if you have a mixture of the 2 configured in your backup environment.
- Use server REST API — Determines whether to use NetWorker REST API to gather configuration information or use the command line interface queries using the nsradmin tool as in the previous implementations. The default value is false.

To use the REST API, you must first check if Java JRE cacerts keystore (on the primary server) contains Dell NetWorker Tomcat Authentication (emcauthctomcat) certificate. Use the keytool utility to check:

- Windows: keytool -list -storepass changeit -keystore ..\lib\security\cacerts | findstr emc
- Linux: keytool -storepass changeit -list -keystore ..\lib\security\cacerts | findstr emc

If the Dell NetWorker Tomcat Authentication certificate is not present, obtain it from the NetWorker administrator.

To import the certificate:

- Windows: C:\Program Files\Java\jre1.8.0.191\bin>keytool -importcert -storepass changeit -trustcacerts -alias emcauthctomcat -file
- Linux: "C:\Program Files\EMC NetWorker\nsr\authc-server\tomcat\conf\emcauthctomcat.cer" -keystore ..\lib\security\cacerts

(i) NOTE: Ensure that you use the NetWorker credentials while discovering.

The Configuration function gathers the following data:

- bkup_server_config for NetWorker
- bkup_server_mapping for NetWorker
- action_config for NetWorker
- group_config for NetWorker
- lc_policy_config for NetWorker
- workflow_config for NetWorker

- client_config for NetWorker
- schedule_config for NetWorker
- job_config for NetWorker
- jukebox_config for NetWorker
- device_config for NetWorker
- license_config for NetWorker
- license_conformance for NetWorker
- bkup_pool_config for NetWorker
- client_storage_nodes for NetWorker
- storage_node_config for NetWorker
- pool_group_map for NetWorker
- pool_device_map for NetWorker
- pool_client_map for NetWorker
- pool_job_map for NetWorker
- vba_config for NetWorker
- license_usage for NetWorker

bkup_server_config for NetWorker

The fields described in the following table are returned.

Table 455. bkup_server_config

Field	Description	From
backup_servername	Hostname of the backup server	Name of the host as defined in Data Protection Advisor
application	Application name	Hard coded to NetWorker
version	Application version	version attribute of NSR resource
os_type	Server operating system	OS type attribute of NSR resource
nsr_resource_id	Resource identifier for the NetWorker server	resource identifier attribute of the NSR resource

bkup_server_mapping for NetWorker

The fields that are described in the following table are returned.

Table 456. bkup_server_mapping

Field	Description	From
client_name	Client name	name attribute of the NSR client resource
group_name	Group name	group attribute of the NSR client resource
schedule_name	Schedule name	schedule attribute of the NSR client resource
job_name	Job name	job attribute of the NSR client resource
nsr_client_resource_id	Resource identifier of the NetWorker client	resource identifier attribute of the NSR client resource
nsr_directive	Directive files of the NetWorker server	directive attribute of the NSR client resource
nsr_command	Commands available in the NetWorker server	backup command attribute of the NSR client resource

Table 456. bkup_server_mapping (continued)

Field	Description	From
nsr_exec_path	Path for NetWorker server executable files	executable path attribute of the NSR client resource
nsr_browse_policy	Browse policy of the NetWorker server	browse policy attribute of the NSR client resource
nsr_retention_policy	Retention policy of the NetWorker server	retention policy attribute of the NSR client resource
nsr_scheduled_backup	Indicates if the client is enabled for scheduled backup	nsr scheduled backup attribute of the NSR client resource
nsr_comment	User remarks for the client	nsr comment attribute of the NSR client resource
nsr_save_operations	Save operation instructions in the form KEYWORD:TOKEN=STATE	nsr save operations attribute of the NSR client resource
nsr_file_inact_threshold	Number of days a file has not been accessed before it is counted as inactive. Zero indicates that no inactivity statistics were collected	nsr file inactive threshold attribute of the NSR client resource
nsr_file_inact_alert	Percentage of space that can be occupied by inactive files before a notification is generated. Zero indicates that no alert will be sent	nsr file inactive alert attribute of the NSR client resource
nsr_remote_user	The username used for remote commands on the client or to access application-specific data	nsr remote user attribute of the NSR client resource
nsr_app_info	Any application information for the client	nsr app info attribute of the NSR client resource
nsr_ndmp	Indicates if the client is an NDMP client	nsr ndmp attribute of the NSR client resource
nsr_ndmp_name	Logical name assigned to the array in NDMP NAS array configurations	nsr ndmp name attribute of the NSR client resource
nsr_dedup_backup	Indicates if the client is a deduplication client	nsr dedup backup attribute of the NSR client resource
nsr_dedup_node	Deduplication node name	nsr dedup node attribute of the NSR client resource
nsr_scsi	Indicates if the client is a SCSI backup client	nsr scsi attribute of the NSR client resource
nsr_vcb	Indicates if the client is a VCB backup client	nsr vcb attribute of the NSR client resource
nsr_proxy_node	Proxy client where the saves were run	nsr proxy node attribute of the NSR client resource
nsr_proxy_type	Proxy method used for backups	proxy backup type attribute of NSR client resource
nsr_vcclient	Indicates if the client is a virtual machine	virtual client attribute of NSR client resource
nsr_vcclientrealhost	Specifies the physical hostname, if this resource is for a virtual client. The hostname does not need to be fully qualified, and must be less than 64 bytes	virtual client physical hostname attribute of NSR client resource

Table 456. bkup_server_mapping (continued)

Field	Description	From
nsr_dd_boost	Indicates if DD Boost is enabled	PowerProtect DD backup attribute of the NSR client resource
block_based_backup	Block Based Backup	Block based backup attribute of the NSR client resource
client_direct	Indicates if NetWorker Client Direct is enabled per client per save set	Client direct attribute NSR client resource
nas_file_access_user	NAS file access user name	NAS file access user attribute NSR client resource
storage_repl_policy	Storage replication policy name	storage replication policy name attribute NSR client resource

action_config for NetWorker

The fields described in the following table are returned.

Table 457. action_config

Field	Description	From
action_name	Name of the action	NSR Protection Policy resource using nsradmin or REST API
workflow_name	Name of the workflow that the action is part of	NSR Protection Policy resource using nsradmin or REST API
policy_name	Name of the Protection Policy	NSR Protection Policy resource using nsradmin or REST API
previous	Name of the previous action	NSR Protection Policy resource using nsradmin or REST API
concurrent	Whether or not the current action runs concurrently	NSR Protection Policy resource using nsradmin or REST API
comment	action comment	NSR Protection Policy resource using nsradmin or REST API
enabled	true/false	NSR Protection Policy resource using nsradmin or REST API
type	backup/clone/vba	NSR Protection Policy resource using nsradmin or REST API
sub_type	traditional/vmware/snapshot	NSR Protection Policy resource using nsradmin or REST API
scheduled_period	week/monthly	NSR Protection Policy resource using nsradmin or REST API
schedule_activity	actions scheduled for the period full/incremental	NSR Protection Policy resource using nsradmin or REST API
schedule_overrides	Schedule overrides	NSR Protection Policy resource using nsradmin or REST API
retries	Number of retries that should occur if the action fails	NSR Protection Policy resource using nsradmin or REST API
retry delay	Delay in seconds before a failed action is retried	NSR Protection Policy resource using nsradmin or REST API

Table 457. action_config (continued)

Field	Description	From
parallelism	Maximum number of concurrent operations for the action	NSR Protection Policy resource using nsradmin or REST API
failure_impact	continue/abort action/abort workflow	NSR Protection Policy resource using nsradmin or REST API
soft_limit	After the action starts, the amount of time to stop the initiation of new activities	NSR Protection Policy resource using nsradmin or REST API
hard_limit	After the action starts, the amount of time required to begin terminating activities	NSR Protection Policy resource using nsradmin or REST API
notification	Notification mode when action is complete	NSR Protection Policy resource using nsradmin or REST API
succeed_after_all_clients_succeed	Success only after all clients succeed - check connectivity	NSR Protection Policy resource using nsradmin or REST API
discover_type	Discovery type, such as NAS Snapshot	NSR Protection Policy resource using nsradmin or REST API
start_backup_only_after_all_probes_succeed	Start backup action only after all probes are fine	NSR Protection Policy resource using nsradmin or REST API
destination_storageNode	Storage node with the devices on which to store the backup data	NSR Protection Policy resource using nsradmin or REST API
source_storage_node	Storage node from which savesets will be cloned	NSR Protection Policy resource using nsradmin or REST API
destination_pool	Media pool in which to store the backup data	NSR Protection Policy resource using nsradmin or REST API
retention	Amount of time to retain the cloned savesets	NSR Protection Policy resource using nsradmin or REST API
success_threshold	Backup status considered as successful Success/warning	NSR Protection Policy resource using nsradmin or REST API
client_override	yes/no	NSR Protection Policy resource using nsradmin or REST API
delete_source_savesets_after_clone_completes	retention	NSR Protection Policy resource using nsradmin or REST API
perform_cfi	Perform CFI (client file indexes)	NSR Protection Policy resource using nsradmin or REST API
perform_bootstrap	Perform Bootstrap	NSR Protection Policy resource using nsradmin or REST API
saveset_type	Saveset type for which to generate an index	NSR Protection Policy resource using nsradmin or REST API
filter_time_enabled	Filter On Time Range - true/false	NSR Protection Policy resource using nsradmin
filter_starttime	Filter Start Time	NSR Protection Policy resource using nsradmin
filter_endtime	Filter End Time	NSR Protection Policy resource using nsradmin
filter_clients_enabled	Filter On Clients - true/false	NSR Protection Policy resource using nsradmin

Table 457. action_config (continued)

Field	Description	From
filter_clients	Filter Clients	NSR Protection Policy resource using nsradmin
filter_levels_enabled	Filter On Levels- true/false	NSR Protection Policy resource using nsradmin
filter_levels	Filter Levels	NSR Protection Policy resource using nsradmin
filter_savesets_enabled	Filter on Saveset Type- true/false	NSR Protection Policy resource using nsradmin
filter_savesets	Filter Saveset Type	NSR Protection Policy resource using nsradmin

group_config for NetWorker

The fields described in the following table are returned.

Table 458. group_config

Field	Description	From
group_name	Group name	name attribute of the NSR group resource or the NSR data protection policy resource
active	Indicates if the group is active: 1 (active)	action enabled attribute of the NSR data protection policy resource
auto_restart	Indicates if the NetWorker group will automatically restart	autorestart attribute of the NSR group resource or enabled attribute of the NSR data protection policy resource
scheduled_start	Time the group is scheduled to run	start time attribute of the NSR group resource
parallelism	Indicates if groups can be run simultaneously	action concurrency attribute from the NSR data protection policy resource
client_retries	Number of times a client attempts to retry	client retries attribute of the NSR group resource
level	Level associated with a group	level attribute of the NSR group resource
schedule	Schedule associated with the group	schedule attribute of the NSR group resource
nsr_resource_id	Resource identifier for the NetWorker server	resource identifier attribute of the NSR group resource
interval	Group run interval	interval field of the NSR group resource
restartwin	Group restart window	restart window field of the NSR group resource
forceincr	Indicates if forced incremental backup is enabled	Force incremental field of the NSR group resource. Values are True (1) or False (0)
clones	Indicates if backup is cloned automatically	clones field of the NSR group resource. Values are True (1) or False (0)
clonepool	Pool for backup clones	clone pool field of the NSR group resource

Table 458. group_config (continued)

Field	Description	From
successthreshold	Backup status considered as successful	success threshold field of the NSR group resource
inactivity	File inactivity threshold	File inactivity threshold field of the NSR group resource
inactivityalert	File inactivity alert threshold	File inactivity alert threshold field of the NSR group resource
snapshotpolicy	Snapshot policy name	Snapshot Policy field of the NSR group resource
snapshotpool	Snapshot pool name	Snapshot pool field of the NSR group resource
policy_type	Group policy type	set to VMware Protection Policy if this is an NSR data protection policy resource
policy_description	Policy description	policy description attribute of the NSR data protection policy resource
policy_name	Name of the Projection Policy	NSR Protection Group resource using nsradmin
scheduled_start	Time the group is scheduled to run	start time attribute of the NSR data protection policy resource
policy_list	List of VBAs	VBA list attribute of the NSR data protection policy resource
policy_action	Policy action	policy action list attribute of the NSR data protection policy resource
preceding_action	Preceeding action	preceding action attribute of the NSR data protection policy resource
workflow_name	Name of the Workflow	NSR Protection Group resource using nsradmin

lc_policy_config for NetWorker

The fields described in the following table are returned.

Table 459. lc_policy_config

Field	Description	From
policy_name	Name of the Protection Policy	NSR Protection Policy resource using nsradmin or REST API
comment	Policy comment	NSR Protection Policy resource using nsradmin or REST API
notification	Notification mode when policy is complete	NSR Protection Policy resource using nsradmin or REST API

workflow_config for NetWorker

The fields described in the following table are returned.

Table 460. workflow_config

Field	Description	From
server	Name of the server	NSR Protection Policy resource using nsradmin or REST API
workflow_name	Name of the workflow	NSR Protection Policy resource using nsradmin or REST API
policy_name	Name of the workflow's Protection Policy	NSR Protection Policy resource using nsradmin or REST API
comment	Workflow comment	NSR Protection Policy resource using nsradmin or REST API
enabled	Whether the workflow is enabled or not	NSR Protection Policy resource using nsradmin or REST API
notification	Notification mode when action is complete	NSR Protection Policy resource using nsradmin or REST API
workflow_start_time	Workflow start time. The default value is 9:00 P.M.	NSR Protection Policy resource using REST API
start_interval	Defines how frequently to repeat the actions that are defined in the workflow over a 24 hour period	NSR Protection Policy resource using REST API
restart_time_window	The duration of time in which NetWorker can manually or automatically restart a failed or canceled workflow	NSR Protection Policy resource using REST API
auto_start	Determines whether the workflow runs automatically at the time that is specified in the Start time attribute or not	NSR Protection Policy resource using REST API

client_config for NetWorker

The fields described in the following table are returned.

Table 461. client_config

Field	Description	From
client_name	Name of the client	name attribute in the NSR client resource
active	Indicates if the client is active: 1 (active)	Flag set if client resource is a member of a group and the group is active (the group's Auto-Start parameter is set to Enabled)
version	Version of the backup software running on the client	NetWorker version attribute of the NSR client resource
os_type	Client operating system	client OS type attribute of the NSR client resource
client_identifier	Physical name of client	client id attribute of the NSR client resource

Table 461. client_config (continued)

Field	Description	From
nsr_server_net_if	Server network interface	server network interface attribute of the NSR client resource
nsr_priority	Priority of the client within the NetWorker server	priority attribute of the NSR client resource
nsr_parallelism	Indicates if clients can be run simultaneously	parallelism attribute of the NSR client resource
nsr_archive_services	Indicates if archive services are available for the client	nsr archive services attribute of the NSR client resource
nsr_remote_access	List of remote users permitted to recover files from the client	nsr remote access attribute of the NSR client resource
nsr_index_path	Path to the client's index directory on the server. The path is either an absolute path or NULL. If NULL, the index resides in the index/clientname subdirectory of the EMC home directory	nsr index path attribute of the NSR client resource
nsr_owner_notification	Notification action used to send status message contents to the client owner	nsr owner notification attribute of the NSR client resource
nsr_hard_links	Indicates if hard link processing is enabled on the Windows client	nsr hard links attribute of the NSR client resource
nsr_short_filenames	Indicates if short file name processing is enabled on the Windows client	nsr short filenames attribute of the NSR client resource
nsr_tags	Tags from the client. Applicable only to NetWorker version 9 and later.	tags attribute of the NSR client resource
nsr_bmr	Indicates if Bare Metal Recovery protection is enabled	nsr bmr attribute of the NSR client resource
nsr_bmr_options	List of Bare Metal Recovery option	nsr bmr options attribute of the NSR client resource
nsr_backup_type	Backup client type	nsr backup type attribute of the NSR client resource
nsr_cpus	Number of processors in the client machine	nsr cpus attribute of the NSR client resource
nsr_enabler_in_use	Indicates if the client is using up a license count	nsr enabler in use attribute of the NSR client resource
nsr_licensed_applications	List of licensed applications used by the client	nsr licensed applications attribute of the NSR client resource
nsr_licensed_psps	List of licensed Power Snap Platforms used by the client	nsr licensed psps attribute of the NSR client resource
nsr_resource_id	Resource ID	resource identifier attribute of the NSR client resource
nas_management_user	NAS management user name	NAS management user attribute NSR client resource
is_nas_device	If client is a NAS device	NAS device attribute NSR client resource
nas_device_manager	NAS device management name	NAS device management name attribute NSR client resource
nsr_scheduled_backup	Disables or enables this client for scheduled backups	nsr scheduled backup attribute of the NSR client resource

schedule_config for NetWorker

The fields described in the following table are returned.

Table 462. schedule_config

Field	Description	From
schedule_name	Schedule name	name attribute of the NSR schedule resource
comment	User comment	comment field of the NSR schedule resource
period	Indicates a weekly or monthly schedule	period field of the NSR schedule resource
action	Daily backup level for the schedule	action field of the NSR schedule resource
override	Override action for the schedule	override field of the NSR schedule resource

job_config for NetWorker

The fields described in the following table are returned.

Table 463. job_config

Field	Description	From
job_name	Job name	An entry in the Job attribute of the NSR client resource
client_name	Client name	name attribute of the NSR client resource
group_name	Name of the group that the client is in that causes the backup of this Job	group attribute of the NSR client resource
domain_name	Name of the domain associated with the group	Not applicable
backup_set	Backup set	Not applicable

device_config for NetWorker

The fields described in the following table are returned.

Table 464. device_config

Field	Description	From
device_host	Name of the host that controls the device	Hostname contained in the name attribute of the NSR device resource
device_name	Device name	name attribute contained in the in the NSR device resource
device_path	Path used to access the device	name attribute of the NSR device resource
device_class	Class of device: Disk, Tape	media family attribute of the NSR device resource
device_type	Specific type of device. For example, LTO	device_type attribute of the NSR device resource

Table 464. device_config (continued)

Field	Description	From
read_only	Indicates if the drive is configured as read-only: Yes, No	read only attribute of the NSR device resource
hardware_id	Identifier such as the device serial number that uniquely maps it to a physical device	hardware id attribute of the NSR device resource
nsr_resource_id	NetWorker Resource Identifier for the device in NetWorker	resource identifier attribute of the NSR device resource
targetsessions	Number of target sessions	target sessions field of the NSR device resource
maxsessions	Maximum number of sessions	max sessions field of the NSR device resource
sendrecvtimeout	Send and Receive timeout	Sent/Receive Timeout field of the NSR device resource This data is not gathered from NetWorker 18.1.
numretries	Number of retries	Number of Retries field of the NSR device resource This data is not gathered from NetWorker 18.1.
netretryint	Network failure retry interval (in seconds)	Network Failure Retry Interval field of the NSR device resource This data is not gathered from NetWorker 18.1.
compression	Indicates if compression is enabled	Compression field of the NSR device resource This data is not gathered from NetWorker 18.1.
encryption	Indicates if encryption is enabled	Encryption field of the NSR device resource This data is not gathered from NetWorker 18.1.
maxerrors	Max errors	max consecutive errors field of the NSR device resource
device_access	Device access information	device access information field of the NSR device resource
firmware	Device firmware revision	
jukebox_name	Jukebox logical name	name attribute of the NSR jukebox resource
device_alias	Alternate device name. Alias for the drive, if it exists.	
hardware_id	Hardware ID	

jukebox_config for NetWorker

The fields described in the following table are returned.

Table 465. jukebox_config

Field	Description	From
jukebox_host	Host from which the jukebox is controlled	hostname attribute of the NSR jukebox resource
jukebox_name	Jukebox logical name	name attribute of the NSR jukebox resource
num_devices	Number of devices in the jukebox	number devices attribute of the NSR jukebox resource
num_slots	Number of slots in the jukebox	available slots attribute of the NSR jukebox resource

license_config for NetWorker

The fields described in the following table are returned.

Table 466. license_config

Field	Description	From
product	Name of the backup application	Hard coded to NetWorker
identifier	Name of the license	name attribute of the NSR license resource
code	License code	enabler code attribute of the NSR license resource
instance	Number of licenses	Always set to 1
description	Description of details about the license	comment attribute of the NSR license resource
instances	Number of instances provided by this license	Always set to 1
valid	Indicates if the license is valid: t (true)	Always set to t
expires	Date that the license will expire	expiration date attribute of the NSR license resource

license_conformance for NetWorker

The fields described in the following table are returned.

Table 467. license_conformance

Field	Description	From
name	Name of the license	license conformance attribute of the NSR license resource
licensed	Number of licenses bought	license conformance attribute of the NSR license resource
used	Number of licenses used	license conformance attribute of the NSR license resource

Table 467. license_conformance (continued)

Field	Description	From
conformance	Conformance rating percentage	license conformance attribute of the NSR license resource
notes	Notes	license conformance attribute of the NSR license resource

bkup_pool_config for NetWorker

The fields described in the following table are returned.

Table 468. bkup_pool_config

Field	Description	From
masterservername	Name of the node that is monitored	returned from running mminfo -a -rpool
poolname	Pool name	pool field of volumes in the media database
pooltype	Pool type	pool type attribute from NSR pool resource
description	Pool description	comment attribute from NSR pool resource
enabled	Indicates if the pool is enabled and considered for selection	enabled attribute in NSR pool resource
archive_only	Indicates if the pool is set for archiving	archive attribute in NSR pool resource
label_template	Template that is to be used when labeling volumes in this pool	label template attribute in NSR pool resource
retention_policy	Retention policy associated with the backup pool. Retention policies determine how long a volume is protected from being overwritten	retention policy attribute in NSR pool resource
groups	Groups that are required to enter into the backup pool	groups attribute in NSR pool resource
clients	Clients that are required to enter into the backup pool	clients attribute in NSR pool resource
job_names	Jobs that are allowed in the backup pool	save sets attribute in NSR pool resource
levels	Levels that are required to enter into the backup pool	levels attribute in NSR pool resource
devices	Devices on which volumes are allowed to be mounted	devices attribute in NSR pool resource
store_index_entries	Indicates if file index entries are generated for the backup pool	store index entries attribute in NSR pool resource
auto_media_verify	Indicates if automated verification is performed while data is being written to a volume from the backup pool	auto media verify attribute in NSR pool resource
recycle_to_pools	Indicates if recyclable volumes can be used by other pools. This value is returned only for NetWorker	Recycle to other pools attribute in NSR pool resource
recycle_from_pools	Indicates if backup pool can recycle volumes from other pools	Recycle from other pools attribute in NSR pool resource

Table 468. bkup_pool_config (continued)

Field	Description	From
vol_type_pref	Selection factor when a request is made for a writable volume. Preferred type is considered first within a priority level	volume type preferences attribute in NSR pool resource
max_parallelism	Number of parallel sessions per device allowed when saving to this backup pool	max parallelism attribute in NSR pool resource
mount_class	Class of mount requests for media belonging to the pool or for media being added to this pool	mount class attribute in NSR pool resource
worm_pool	Indicates if this pool uses WORM tapes and only WORM tapes	WORM pool attribute in NSR pool resource
dlt_worm	Indicates if any tapes labelled in this WORM pool are initialized as DLWROM tapes, assuming that they are in DLWORM capable drives	create DLTWORM attribute in NSR pool resource
barcode_prefix	Barcodes with this prefix value are selected for the pool	barcode prefix attribute in NSR pool resource

client_storage_nodes for NetWorker

The fields described in the following table are returned.

Table 469. client_storage_nodes

Field	Description	From
client_name	Client name	name field of the NSR client resource
storage_node	Storage node	storage nodes , clone storage nodes, recover storage nodes fields of the NSR client resource
type	Type: General, Clone, Recover	Depends on which field the storage node came from in NSR client resource

storage_node_config for NetWorker

The fields described in the following table are returned.

Table 470. storage_node_config

Field	Description	From
node_name	Node name	name field of the NSR storage node resource
node_type	Node type	type of storage node field of the NSR storage node resource
nsr_resource_id	Resource ID	resource identifier field of the NSR storage node resource

pool_group_map for NetWorker

The fields described in the following table are returned.

Table 471. pool_group_map

Field	Description	From
pool	Backup pool name	name field of the NSR pool resource
group_name	Backup group name	groups field of the NSR pool resource

pool_device_map for NetWorker

The fields described in the following table are returned.

Table 472. pool_device_map

Field	Description	From
pool	Backup pool name	name field of the NSR pool resource
device_name	Backup device name	devices field of the NSR pool resource

pool_client_map for NetWorker

The fields described in the following table are returned.

Table 473. Pool client mapping

Field	Description	From
pool	Backup pool name	name field of the NSR pool resource
client_name	Backup client name	clients field of the NSR pool resource

pool_job_map for NetWorker

The fields described in the following table are returned.

Table 474. pool_job_map

Field	Description	From
pool	Backup pool name	name field of the NSR pool resource
job_name	Backup save set job name	save sets field of the NSR pool resource

vba_config for NetWorker

The fields described in the following table are returned.

Table 475. vba_config

Field	Description	From
name	Name of VBA	name attribute of the NSR VBA Server resource
comment	User-defined comments	comments attribute of the NSR VBA Server resource

Table 475. vba_config (continued)

Field	Description	From
vcenter_host	Name or IP address of the vCenter host	vCenter Host attribute of the NSR VBA Server resource
total_capacity	Capacity of the VBA	Total Capacity attribute of the NSR VBA Server resource
policy_list	Protection policy list	Policy List attribute of the NSR VBA Server resource
external_proxy_hosts	External proxy host list	External Proxy Hosts attribute of the NSR VBA Server resource

license_usage for NetWorker

The fields described in the following table are returned.

Table 476. license_usage

Field	Description	From
usage	Estimated front-end capacity usage in GiB	The output field of the nsrinfo view

Status function for NetWorker

The Status function gathers information from the NetWorker server on the status of devices, bootstraps, and if the server is waiting for volumes to be mounted. The function includes the following options:

- command timeout — Specifies how long the module should wait for commands to return before aborting them. The default is 900 seconds.
- time format used to determine bootstrap time — Specifies the time format used to decode timestamps returned in the results from NetWorker. By default, this option is not enabled and the module will use a best guess method to decode the time format.
- Forces short client names - This forces Data Protection Advisor to just report the hostname of the client without the domain name part. The default is false. Set this to true to eliminate clients from being reported with both short and fully qualified names if you have a mixture of the 2 configured in your backup environment.

The Status function returns the following information:

- [device_status for NetWorker](#)
- [device_session for NetWorker](#)
- [pending_status for NetWorker](#)
- [nsr_bootstrap for NetWorker](#)
- [vba_status for NetWorker](#)

device_status for NetWorker

The fields described in the following table are returned.

Table 477. device_status

Field	Description	From
device_host	Name of the device that controls the device	name attribute of the NSR device resource
device_name	Device name	name attribute of the NSR device resource

Table 477. device_status (continued)

Field	Description	From
status	Device status: Up, Down, Service Mode	enabled attribute of the NSR device resource
errors	Current error count of the device	consecutive errors attribute of the NSR device resource
volume_id	Name of the volume currently mounted in the device	volume_label attribute of the NSR device resource
activity	Type of operation currently in progress on the drive; for example, write, label	NSR operation attribute of the NSR device resource
sessions	Number of sessions currently writing to the drive	statistics attribute of the NSR device resource
throughput	Throughput of the drive (MB/second)	statistics attribute of the NSR device resource

device_session for NetWorker

The fields described in the following table are returned.

Table 478. device_session

Field	Description	From
session_id	Session ID	session statistics attribute of the NSR resource
device_name	Device name	name attribute of the NSR device resource
volume_id	Name of the volume currently mounted in the device	volume_label attribute of the NSR device resource
throughput	Throughput of the drive (MB/second)	statistics attribute of the NSR device resource
type	Type	session statistics attribute of the NSR resource

pending_status for NetWorker

The fields described in the following table are returned.

Table 479. pending_status

Field	Description	From
type	Type of mount request: Read or Write	pending attribute in the NSR resource
vol	Name of the volume that is waited on, if for a restore	pending attribute in the NSR resource
pool	Name of the pool that is waited on, if for a backup	pending attribute in the NSR resource
num	Number of tapes that are required in that pool if for a backup	pending attribute in the NSR resource
since	Time that the mount request occurred	pending attribute in the NSR resource
severity	Severity of the mount request	pending attribute in the NSR resource

nsr_bootstrap for NetWorker

The fields described in the following table are returned.

Table 480. nsr_bootstrap

Field	Description	From
level	Bootstrap level	level field returned from running mminfo -B
jobid	SSID of the bootstrap	ssid field returned from running mminfo -B
file	File to which the bootstrap was written	file field returned by running mminfo -B
record	Record to which the bootstrap was written	record field returned by running mminfo -B
volume	Volume to which the bootstrap was written	volume field returned by running mminfo -B
writetime	Write time	date time field returned by running mminfo -B

vba_status for NetWorker

The fields described in the following table are returned.

Table 481. vba_status

Field	Description	From
name	Name of VBA	name attribute of the NSR VBA Server resource
used_capacity	Used capacity of the VBA	Used Capacity attribute of the NSR VBA Server resource
last_validated	Last validated checkpoint	Last Validated Checkpoint attribute of the NSR VBA Server resource
online	Whether the VBA is online	online attribute of the NSR VBA Server resource
state	State of the VBA	state attribute of the NSR VBA Server resource
configuration_error	Configuration errors from the VBA	configuration error attribute of the NSR VBA Server resource

Volume Status function for NetWorker

The Volume Status function gathers data on the status of volumes in the media database. The function includes the following options:

- command timeout — Period of time to wait before killing the command gathering data from NetWorker. The default is 3600 seconds.
- time format used to determine access time — Time format to use when decoding timestamps regarding the last time a volume was accessed. By default, this option is not set and the module attempts to calculate a time format automatically.
- time format used to determine retention period — Time format to use when decoding timestamps regarding the retention time for a volume. By default, this option is not set and the module attempts to calculate a time format automatically.

volume_status for NetWorker

The fields described in the following table are returned.

Table 482. volume_status

Field	Description	From
volume_id	Unique identifier for a volume	volume field in the media database
pool	Pool in which a volume is located	pool field in the media database
state	State of a volume: Empty, Partial, Full, Frozen, Suspended	%used field in the media database
used	Amount of data written to the tape (in MB)	written field in the media database
expdate	Date the volume is due to expire	volretent field in the media database
online	Indicates if the volume is online	whether the location field in the media database is set or not
cartridge_type	Cartridge type. For example, DLT, LTO	type field in the NetWorker media database
capacity	Capacity of the cartridge	type of Cartridge
jukebox	Name of the jukebox that a volume is in if it is online	location field in the media database
slot	Slot that a volume is in if it is online	NSR jukebox resource for the corresponding jukebox name
lastwritten	Time that a volume was last written	volaccess field in the media database
expiry_flag	Indicates if a volume has expired	volretent field in the media database
firstlabelled	Time that a volume was first labelled	olabel field in the media database
numrelaballed	Number of times that a volume has been labelled	recycled field in the media database
firstwritten	Time that a volume was first written	labelled field in the media database
nummounts	Number of times that a volume has been mounted	mounts field in the media database

Job Monitor function for NetWorker

The Job Monitor function gathers information about backup and restore jobs that have occurred on the NetWorker server. Synchronize the NetWorker server clock and the storage node clock to avoid duplication of backups. The function includes the following options:

When discovering a new NetWorker server, the jobmonitor request will gather 14 days of historic jobs data. As a result of that operation, it will take 7 hours for the jobmonitor request to start gathering current job data. This is because each request is scheduled by default to run every 30 minutes and gathers a maximum of 1 day's data in each request.

- command timeout - Determines how long the module waits before terminating any commands it uses to gather data from the NetWorker server. The default is 300 s.
- mminfo timeformat - Specifies the format that timestamps must return in the media database (mminfo time format). Use this format to decode the start time/end time for a Job. By default, this option is disabled and the module attempts to calculate this value automatically.
- Forces short client names - This forces Data Protection Advisor to report only the hostname of the client without the domain name part. The default is **false**. Set this to **true** to eliminate clients from being reported with both short and fully qualified names if you have a mixture of the 2 configured in your backup environment.
- Whether to include failed jobs which are retried - Includes the reporting of failed backup job tries. NetWorker can retry a failed backup a number of times. The default is false, enable this option to include those failed attempts.

- include jobs from media DB - Allows you to switch off the search for successful jobs from the NetWorker Media database. Data Protection Advisor will search the Media database in addition to the NetWorker Jobs database for completed jobs. This allows you to collect additional data for successful `backupjob` and `bkup_ddclone`. The default is true, if you are not using an external scheduler to initiate backups, then set this to false to speed up running the Job Monitor request
- Max data time range each request will gather from - Changes the maximum amount of time the request gathers job data in one run of Jobmonitor. Default is 86400, which is one day in seconds. The value is configurable.
- Whether to collect the command field of `jobsdb` - Collects additional data about policy or workflow and gather snap job or pseudo save set job names from the "command" field of `jobsdb`.
- Overwrite status 'did not run' - Override the "did not run" status of NetWorker for clone jobs with a desired value.
- Ignore per SSID clone information, if already available - When NetWorker does not provide the clone ID of a clone job depending on the workflow used to create the clone, you have to query each SSID to know the clone ID. However, this operation can be time consuming for large data sets. The *Ignore per SSID clone information, if already available* option, when turned on, optimizes the Data Protection Advisor operation and looks up the clone ID from the previously received output of the `mminfo` command, instead of querying NetWorker for each SSID.
- Maximum time interval to get clone job information using `mminfo` command - Changes the maximum amount of time the request gathers job data in one run of Jobmonitor for clone jobs using a bulk query. The default is 1800, which is 30 minutes in seconds. The value is configurable. The maximum value is 86400 s (equivalent to 24 hours) and the minimum value is 1800 s (equivalent to 30 minutes).
- Use `clretent` in place of `ssretent` for expiry - If you set this option to `true`, the request returns `clretent` instead of `ssretent`. Otherwise, request returns `ssretent`. The default value of `useClretent` is `false`.

The Job Monitor function gathers the following data:

- [NetWorker Environment Variables](#)
- [Abandoned Jobs Polling for NetWorker](#)
- [workflowjob for NetWorker](#)
- [workflowjob for NetWorker](#)
- [backupjob for NetWorker](#)
- [backupevent for NetWorker](#)
- [backup_error for NetWorker](#)
- [restorejob for NetWorker](#)
- [restoreevent for NetWorker](#)
- [backup_openfile for NetWorker](#)
- [backup_media for NetWorker](#)
- [device_map for NetWorker](#)
- [groupevent for NetWorker](#)
- [groupjob for NetWorker](#)
- [clonejob for NetWorker](#)
- [clone_object for NetWorker](#)
- [clone_media for NetWorker](#)
- [migration for NetWorker](#)
- [migrationobject for NetWorker](#)
- [migrationmedia for NetWorker](#)
- [bkup_ddclone for NetWorker](#)

(i) NOTE: The `mminfo` command utilizes `-xc` option to display `attrs` i.e., attributes of various job details such as size, size scanned, expiry, and other attributes, with a maximum length of 18,432 bytes. However, if the length of the attributes exceeds this limit, the `-xc` option will not display them. Data Protection Advisor does not capture some attributes due to this limit.

NetWorker Environment Variables

Data Protection Advisor environment variables can be used to affect the way NetWorker data is gathered. The variables can either be set from the registry (Windows) or a configuration file (UNIX).

(i) NOTE: These environment variables are completely optional and should be used only if normal monitoring is otherwise affected. Not setting these variables does not affect normal NetWorker data gathering.

Windows

Create a new String Value under key:

```
HK_LOCAL_MACHINE\SOFTWARE\EMC\DPA\Collector
```

With the Name equal to NSR_ABANDONEDJOB_MISSCOUNT

and a Data value set according to the description below.

UNIX

Add the following lines to /opt/dpa/etc/dpa.config

```
<DPA_AGENT_VARIABLE_NAME>=value  
export <DPA_AGENT_VARIABLE_NAME>
```

Where <DPA AGENT_VARIABLE_NAME> is:

- AGENT_NSRL_ABANDONEDJOB_MISSCOUNT

Abandoned Jobs Polling for NetWorker

Name: AGENT_NSRL_ABANDONEDJOB_MISSCOUNT

Value: Number of polls before marking the job as abandoned

Default: 100

Description: Controls when to gather abandoned jobs. When a job no longer appears in mminfo output, Data Protection Advisor will wait x number polls before marking the job as abandoned. The default is 100, however increase this value if you have long running jobs.

workflowjob for NetWorker

Workflow Job information is only available from NetWorker 9.0.0.4 and later. The fields described in the following table are returned.

Table 483. workflowjob

Field	Description	From
policy_name	Name of the protection policy	Workflow job record by using jobquery
workflow_name	Name of the policy workflow	Workflow job record by using jobquery
workflow_jobid	Job ID of the workflow job instance	Workflow job record by using jobquery
status	Completion status of the workflow job	Workflow job record by using jobquery
starttime	Start time of the workflow job	Workflow job record by using jobquery
endtime	End time of the workflow job	Workflow job record by using jobquery
completion_status	Completion status for job, if any	Workflow job record by using jobquery
completion_report	Completion report for job if any	Workflow job record by using jobquery
workflowjob_client	List of the clients which are either disabled or missed	Workflow job record by using jobquery
schedule_name	Indicates schedules configured for Backup operation in the networker	Schedules fields from the nsradmin query

backupjob for NetWorker

Data about backup jobs that have occurred is gathered by polling the media database and the NetWorker group resources with nsradmin. If you are using NetWorker version 7.3 or later, information from the jobs database is also used.

Information about successful jobs is obtained from the media database and the jobs database if available. Information about failed jobs is obtained from the NSR group resource, media database, and the jobs database if that is available.

The fields that are described in the following table are returned.

Table 484. backupjob

Field	Description	From
backup_servername	Name of the backup server	Name of the backup server as defined in Data Protection Advisor
media_server	Name of the Media Server on which the backup took place.	For NetWorker 7.3 and later, the name of the media server used in the backup. For other versions, the name of the backup server is defined in Data Protection Advisor. It is not possible to get the NetWorker storage node on which the saveset was backed up for versions earlier than 7.3.
group_name	Group that scheduled the backup	group name in the save job records or name from the savegroup job records
client_name	Name of the client that was backed up.	NW clientname/id or host field in the save id job record.
job_name	Name of the file system that was backed up.	name field from the save job record or saveset name from session info record.
status	Indicates if the backup was successful: Success, Failed	Calculated from state of ssflags field in media database or state of Job in NSR group resource
level	Level of the backup	level field from save job record or level field from the media database
size	Amount of data that was backed up (in MB)	attrs field from the media database
sizescanned	Total size of data that is scanned before deduplication (in MB).	total amount to be read/written from session info record or totalsize field in the media database
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	total amount to be read/written from session info record or totalsize field in the media database
sizescannedoffset	Byte offset of scanned size	attrs field from the media database
nfiles	Number of files that were backed up.	file count field from save job records
nfilesnot	Number of files that were not backed up.	Extracted from messages in the job output field of save job records.
expiry	Expiration date of the Job	ssretent field in the media database
jobid	Unique identifier for this Job that maps back to the backup application	saveset id from the session info records
pool	Storage pool that contains the client filesystem	current pool from the session info records
queuestart	The time the backup went into the backup applications queue.	start time from savegroup job records, or session start time from session info

Table 484. backupjob (continued)

Field	Description	From
		records, or start time from save job records. Note: The NetWorker module does not return the time a Job started queuing.
jobid2	Job identifier	job id field from the savejob records
restarted_job	Restarted job	previous job id from the savejob records
starttime	The time the backup started to write to tape.	session start time from session info records, or start time from save job records
endtime	Time the backup finished writing to tape.	session end time from session info records, or end time from save job records
groupjobid	Group job identifier	parent job id from the save job records
is_snap	If job is a snapshot backup.	save job records from running the jobquery command
snap_target_platform	Snap target platform type	attrs field from running the mminfo command
snap_target	Snap target/replication target	attrs field from running the mminfo command
storageid	Backup storage ID	saveset id field from session info records
policy_name	Name of the protection policy	save job record from running jobquery
workflow_name	Name of the policy workflow	save job record from running jobquery
workflow_jobid	Job ID of the workflow job instance	save job record from running jobquery
action_name	Policy workflow action name	save job record from running jobquery, or attrs field from running the mminfo command
changedbytes	The number of bytes changed since the previous snapshot as reported by VMware	Field that is retrieved from running the mminfo command
schedule_name	Indicates schedules that are configured for Backup operation in the networker.	Schedules fields from the nsadmin query

backupevent for NetWorker

The fields described in the following table are returned.

Table 485. backupevent

Field	Description	From
backup_servername	Name of the backup server	Host of the backup server. This value is the node name in the Data Protection Advisor navigation tree
media_server	Name of the media server on which the backup occurred	For NetWorker 7.3 or later, the name of the media server used in the backup. For other versions, the name of the backup server as defined in Data Protection Advisor.

Table 485. backupevent (continued)

Field	Description	From
		It is not possible to get the NetWorker storage node on which the saveset was backed up for versions earlier than 7.3.
group_name	Group that scheduled the backup	group name from save job records or name from savegroup job records
client_name	Name of the client that was backed up	NW Client name/id or host field in the save job records
job_name	Name of the file system that was backed up	name field from save job records or saveset name from session info records
status	Indicates if the backup was successful: Success, Failed	job state field from save job records
queuestart	Time the backup went into the backup applications queue	start time from savegroup job records, or session start time from session info records, or start time from save job records
jobid2	Job identifier	job id from savejob records
groupjobid	Group job identifier	job id from the savejob records
is_snap	If job is a snapshot backup	save job records from running the jobquery command

backup_error for NetWorker

The fields described in the following table are returned.

Table 486. backup_error

Field	Description	From
backupjob_id	NetWorker Job ID in the activity log	Combination of nsadmin, mminfo and jobquery
client_name	Name of the client that failed	NW Client name/id or host fields in the save job records from jobquery
severity	Severity of the error message	Combination of nsadmin, mminfo, and jobquery
errorstring	Error message	Error message displayed in the completion attribute of the NSR group resource and the job output from jobquery

restorejob for NetWorker

The Job Monitor function returns information about Job restores that has occurred on the NetWorker server.

For NetWorker versions 7.2 and earlier, restore information is gathered by looking at the message list attribute in the NSR resource. This attribute only holds a limited number of messages. Because of this limitation, if the server is busy while the restores are occurring, NetWorker may remove the information before the Data Protection Advisor Data Collection Agent can gather it. As a result, it is possible that not all restores are gathered. Only successful restores are listed in the NetWorker message list.

For NetWorker versions 7.3 and later, restore information is gathered from the NetWorker jobs database. Both failed and successful restores are gathered in this case.

The fields that are described in the following table are returned.

Table 487. restorejob

Field	Description	From
backup_servername	Backup server on which the restore occurred	Name of the backup server as defined in Data Protection Advisor
media_server	Media server on which the restore occurred	For NetWorker 7.3 and later, the name of the media server used in the restore. For other versions, the name of the backup server as defined in Data Protection Advisor. i NOTE: It is not possible to get the NetWorker storage node on which the saveset was restored from for versions earlier than 7.3.
client_name	Name of the client to which the backup was restored	<ul style="list-style-type: none"> For NetWorker 7.2 and earlier, extracted from the message list attribute in the NSR resource For NetWorker 7.3 and later, extracted from the recover job resource of the jobs database
job_name	Name of the file system that is restored	<ul style="list-style-type: none"> For NetWorker 7.2 and earlier, extracted from the message list attribute in the NSR resource For NetWorker 7.3 and later, extracted from the session info resource of the jobs database
errcode	Error code of the restore	<ul style="list-style-type: none"> For NetWorker 7.2 and earlier, this field is not returned. For NetWorker 7.3 and later, extracted from the recover job resource of the jobs database
size	Amount of data restored	<ul style="list-style-type: none"> For NetWorker 7.2 and earlier, extracted from the message list attribute in the NSR resource For NetWorker 7.3 and later, extracted from the session info resource of the jobs database. If there is only one session, then consider the size from recovery job record.
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	<ul style="list-style-type: none"> For NetWorker 7.2 and earlier, extracted from the message list attribute in the NSR resource For NetWorker 7.3 and later, extracted from the session info resource of the jobs database
nfiles	Number of files	The number of files field from recover job records of the jobsdb.
Status	Status of the restore	<ul style="list-style-type: none"> For NetWorker 7.2 and earlier, this field is hard coded to successful. For NetWorker 7.3 and later, extracted from the recover job resource of the jobs database

Table 487. restorejob (continued)

Field	Description	From
queuestart	Time the restore was requested.	<ul style="list-style-type: none">● For NetWorker 7.2 and earlier, extracted from the server message time attribute in the NSR resource● For NetWorker 7.3 and later, extracted from the recover job resource of the jobs database
backuptime	Date of the original backup	<ul style="list-style-type: none">● For NetWorker 7.2 and earlier, extracted from the message list attribute in the NSR resource● For NetWorker 7.3 and later, extracted from the session info resource of the jobs database
jobid	Job ID	The <i>job id</i> field from the recover job records of the jobsdb
starttime	Time the restore actually starts	Same as the queue start value
endtime	Time the restore completes	<ul style="list-style-type: none">● For NetWorker 7.2 and earlier, extracted from the server message time attribute in the NSR resource● For NetWorker 7.3 and later, extracted from the recover job resource of the jobs database

restoreevent for NetWorker

For NetWorker 7.2 and earlier, the Job Monitor function returns information about event restores that have occurred on the NetWorker server. The fields described in the following table are returned.

Table 488. Restoreevent

Field	Description	From
backup_servername	Backup server on which the restore occurred	The name of the backup server as defined in Data Protection Advisor
media_server	Media server on which the restore occurred	The name of the backup server as defined in Data Protection Advisor
client_name	Name of the client that was restored	message list attribute in the NSR resource
job_name	Name of the file system that is restored	message list attribute in the NSR resource
status	Status of the restore	message list attribute in the NSR resource
queuestart	Time the restore was requested	server message time attribute in the NSR resource

backup_openfile for NetWorker

The fields described in the following table are returned.

Table 489. backup_openfile

Field	Description	From
backupjob_id	NetWorker Job ID in the activity log	Combination of nsadmin, mminfo, and jobquery
client_name	Name of the client that was not fully backed up	completion attribute of the NSR group resource or job output from jobquery
filename	Name of the file that was not backed up	completion attribute of the NSR group resource or job output from jobquery
errmsg	Error message	completion attribute of the NSR group resource or job output from jobquery

backup_media for NetWorker

The fields described in the following table are returned.

Table 490. backup_media

Field	Description	From
backupjob_id	NetWorker Job ID in the activity log	Combination of nsadmin and mminfo
volume_id	Volume to which the Job was backed up	volume field in the media database for a completed job
starttime	Time the backup started	Extracted from the session info resource of the jobs database
endtime	Time the backup completed	Extracted from the session info resource of the jobs database

device_map for NetWorker

The fields described in the following table are returned.

Table 491. device_map

Field	Description	From
backup_servername	Name of the backup server	Name of the node as defined in the Data Protection Advisor Navigation tree
media_server	Name of the Media Server	For NetWorker 7.2 and earlier, extracted from the completion attribute of the NSR group resource For NetWorker 7.3 and later, extracted from the session info resource of the jobs database
group_name	Name of the group that the client is in that causes the backup of this Job	Name attribute of the NSR group resource
client_name	Name of the client	Returned from mminfo
job_name	Name of the Job	Completion attribute of the NSR group resource

Table 491. device_map (continued)

Field	Description	From
device	Name of the device	For NetWorker 7.2 and earlier, extracted from the completion attribute of the NSR group resource For NetWorker 7.3 and later, extracted from the session info resource of the jobs database
starttime	Time the backup started	Extracted from the session info resource of the jobs database
endtime	Time the backup completed	Extracted from the session info resource of the jobs database

groupevent for NetWorker

The fields described in the following table are returned.

Table 492. groupevent

Field	Description	From
group_name	Name of the group	For NetWorker 7.2 and earlier, extracted from the NSR group resource via nsadmin For NetWorker 7.3 and later, extracted from the savegroup job resource of the jobs database
status	Status of the group	For NetWorker 7.2 and earlier, extracted from the NSR group resource via nsadmin
		For NetWorker 7.3 and later, extracted from the savegroup job resource of the jobs database
groupstart	Time the group started	For NetWorker 7.2 and earlier, extracted from the NSR group resource via nsadmin. For NetWorker 7.3 and later, extracted from the savegroup job resource of the jobs database
groupend	Time the group ended	For NetWorker 7.2 and earlier, extracted from the NSR group resource via nsadmin For NetWorker 7.3 and later, extracted from the savegroup job resource of the jobs database

groupjob for NetWorker

The fields described in the following table are returned.

Table 493. groupjob

Field	Description	From
group_name	Name of the group	For NetWorker 7.2 and earlier, extracted from the NSR group resource via nsadmin. For NetWorker 7.3 and later, extracted from name field from the recover job records of the jobs database
status	Status of the group	For NetWorker 7.2 and earlier, extracted from the NSR group resource via nsadmin. For NetWorker 7.3 and later, extracted from the savegroup job resource of the jobs database
groupstart	Time the group started	For NetWorker 7.2 and earlier, extracted from the NSR group resource via nsadmin. For NetWorker 7.3 and later, extracted from the savegroup job resource of the jobs database
groupend	Time the group ended	For NetWorker 7.2 and earlier, extracted from the NSR group resource via nsadmin. For NetWorker 7.3 and later, extracted from the savegroup job resource of the jobs database
groupjobid	Group job identifier	Available only for NetWorker 7.3 and later. Extracted from job id field from the recover job records of the jobs database

clonejob for NetWorker

Clone Job information is only available from NetWorker 7.3 and later. The fields described in the following table are returned.

Table 494. clonejob

Field	Description	From
backup_servername	Name of the backup server	Name of the node as defined in the Data Protection Advisor Navigation tree
media_servername	Name of the Media Server	Device path attribute of the session info resource from the job database
cloneid	Identifier for the cloned backup Job	Job id attribute of the clone job resource from the job database
cloneid2	Actual clone ID artefact from NetWorker	Clone ID of the save set from NetWorker obtained by running the mminfo query
clonename	Name for the clone job	Policy action name attribute of the clone job resource from the job database

Table 494. clonejob (continued)

Field	Description	From
status	Status of the cloned Job: Success, Failed	Completion status attribute of the clone job resource from the job database
errcode	Error code (if available) from the backup application	Actual exit code attribute of the clone job resource from the job database
size	Amount of data backed up (in MB)	Total amount to be read/written attribute of the session info resource from the job database
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	Total amount to be read/written attribute of the session info resource from the job database
policy_name	Name of the protection policy	Clone job record by using jobquery
workflow_name	Name of the policy workflow	Clone job record by using jobquery
workflow_jobid	Job ID of the workflow job instance	Clone job record by using jobquery
action_name	Policy workflow action name	Clone job record from running jobquery
starttime	Time the clone job started	Clone job record from running jobquery
endtime	Time the clone job completed	Clone job record from running jobquery
completion_status	Completion status of the clone job	Not applicable
client	Name of the client	Not applicable

cloneevent for NetWorker

The fields described in the following table are returned.

Table 495. cloneevent

Field	Description	From
backup_servername	Name of the backup server that ran the job	Output of jobquery
cloneid	Clone job identifier	Output of jobquery
parentjobid	NetWorker job ID of the parent job	Output of jobquery
status	Job status	Output of jobquery
queuestart	Time the clone job went into the activity log	Output of jobquery
starttime	Time the clonejob started	Output of jobquery

 **NOTE:**

- For active clone jobs in NetWorker, queuestart is equal to starttime.
- The report works as expected if the job monitor data collection frequency is less than or equal to 3 hours.

clone_object for NetWorker

Clone object information holds data on the savesets that were cloned as part of the clone job. This information is only available from NetWorker 7.3 and later. The fields described in the following table are returned.

Table 496. clone_object

Field	Description	From
clonejob_id	Identifier of the cloned Job	Job id attribute of the clone job resource from the job database
backupjob_id	Identifier of the backup Job	Failed save sets and successful save sets attributes of the clone job resource from the job database
status	Status of the cloned Job: Success, Failed	Successful save sets attributes of the clone job resource from the job database for successful save sets and failed save sets attributes of the clone job resource from the job database
storageid	Clone Storage ID	SSID(53) field from NetWorker maps DD file-level information
starttime	Time the clone job started	Clone job record from running jobquery
endtime	Time the clone job completed	Clone job record from running jobquery
retention	Clone retention period	Clone retention time of the save set from NetWorker obtained by running the mminfo query

clone_media for NetWorker

Clone media information holds data on the volumes used in the clone job. This information is only available from NetWorker 7.3 and later. The fields described in the following table are returned.

Table 497. clone_media

Field	Description	From
clone_object_id	Identifier for the cloned backup Job	job id attribute of the clone job resource from the job database
volume_id	Unique identifier for the volume	clone volume list attribute of the clone job resource from the job database

migration for NetWorker

This information is only available from NetWorker 7.3 and later. The fields described in the following table are returned.

Table 498. migration

Field	Description	From
server_name	Name of the server	Name of the node as defined in the Data Protection Advisor Navigation tree
process_id	Unique identifier that identifies the process	job id attribute of the clone job resource from the job database
status	Status of the cloned Job: Success, Failed	completion status attribute of the clone job resource from the job database

Table 498. migration (continued)

Field	Description	From
size	Amount of data backed up (in MB)	total amount to be read/written attribute of the session info resource from the job database
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	total amount to be read/written attribute of the session info resource from the job database
errors	Errors	actual exit code field from the clone job resource of the job database
errcode	Indicates if the process returned any errors. Even if the process was successful, it could have errors associated with it	actual exit code attribute of the clone job resource from the job database

migrationobject for NetWorker

This information is only available from NetWorker 7.3 and later. The fields described in the following table are returned.

Table 499. migrationobject

Field	Description	From
backupjob_id	ID of the backup Job	failed savesets and successful save sets attributes of the clone job resource from the job database
status	Status of the migration process	successful save sets attributes of the clone job resource from the job database for successful save sets and failed save sets attributes of the clone job resource from the job database

migrationmedia for NetWorker

This information is only available from NetWorker 7.3 and later. The fields described in the following table are returned.

Table 500. migratiomedia

Field	Description	From
volume_id	Unique identifier for the volume	clone volume list attribute of the clone job resource from the job database

bkup_ddclone for NetWorker

The fields described in the following table are returned.

Table 501. bkup_ddclone

Field	Description	From
clone_id	Clone identifier	Extracted from attrs field of the media database
size	Clone size	Extracted from attrs field of the media database

Table 501. bkup_ddclone (continued)

Field	Description	From
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	Extracted from attrs field of the media database
scanned	Total size of the data scanned	Extracted from attrs field of the media database
scannedoffset	Byte offset of scanned size	Extracted from attrs field of the media database
starttime	Time the clone job started	Extracted from attrs field of the media database
endtime	Time the clone job completed	Extracted from attrs field of the media database

Performance function for NetWorker

There are no options available for the Performance function.

device_perf for NetWorker

The fields described in the following table are returned.

Table 502. device_perf

Field	Description	From
device_host	Name of the host to which the device is attached	name attribute of the NSR device resource
device_name	Name of the device	name attribute of the NSR device resource
sessions	Number of sessions running on the device	statistics attribute of the NSR device resource
read_throughput	Throughput reading from the device (MB/second)	statistics attribute of the NSR device resource
write_throughput	Throughput writing to the device (MB/second)	statistics attribute of the NSR device resource

Occupancy function for NetWorker

The Occupancy function retrieves NetWorker client occupancy information. The function includes the following options:

- command timeout — Period of time to wait before killing the command gathering data from NetWorker. The default value is 600 seconds.
- Forces short client names - This forces Data Protection Advisor to just report the hostname of the client without the domain name part. The default is false. Set this to true to eliminate clients from being reported with both short and fully qualified names if you have a mixture of the 2 configured in your backup environment.

client_occupancy for NetWorker

The fields described in the following table are returned.

Table 503. client_occupancy

Field	Description	From
client_name	Name of the NetWorker Client	Output of mminfo command
filespace	Name of the client filesystem	Output of mminfo command
pool	Storage pool that contains the client filesystem	Output of mminfo command
files	Number of active files	Output of mminfo command
physical	Amount of physical storage used (in MB) Physical space is the total space taken up by data for the filesystem. Physical space includes space that is no longer active itself, but is included in a set of data that is still active.	Output of mminfo command
logical	Amount of logical storage used (in MB) Logical space is space used by active data	Output of mminfo command

Client Status function for NetWorker

The Client Status function retrieves NetWorker client status information. The function includes the following options:

- command timeout — Period of time to wait before killing the command gathering data from NetWorker. The default value is 3600 seconds.
- individual ping timeout — Timeout for each batch of pings. The default value is 10 seconds.
- Forces short client names - This forces Data Protection Advisor to just report the hostname of the client without the domain name part. The default is false. Set this to true to eliminate clients from being reported with both short and fully qualified names if you have a mixture of the 2 configured in your backup environment.
- nsreexecd port — Port number of nsreexecd on the client machines. The default value is 7937.
- number of concurrent pings — Number of clients to concurrently ping in one batch. The default value is 20 clients.
- List of critical clients to ping — File that lists clients to be pinged rather than pinging all clients configured in NetWorker. The file should list one client name per one line.

client_status for NetWorker

The fields described in the following table are returned.

Table 504. client_status

Field	Description	From
client_name	List of clients	NSR client resource via nsadmin
responding	Indicates if the client host is responding to a ping	Populated by the request itself
daemon_running	Indicates if the responding hosts are listening on their daemon ports. For NetWorker, this function checks if the nsreexecd daemon is running	Populated by the request itself
has_ip_address	Indicates if the IP address of a client can be resolved or not, of type Boolean.	The flag is true when the IP address can be resolved, and false when it cannot.

Software Distribution function for NetWorker

The Software Distribution function retrieves NetWorker information about NetWorker clients software and software repository. Software Distribution function works with NetWorker version 7.4 and later. The Agent must be installed locally on the NetWorker server machine. It does not work in remote mode. The Software Distribution function includes the following option:

- command timeout - Period of time to wait before killing the command gathering data from NetWorker. The default value is 600 seconds.

The Software Distribution function gathers the following data:

- [software_managed for NetWorker](#)
- [software_repository for NetWorker](#)

software_managed for NetWorker

The `nsrpush -s -all` command is executed to obtain software_managed data. software_managed contains the information about a NetWorker software installed on one or more NetWorker client hosts. The `nsrpush -s -all` command is performed on NetWorker server machine. Information about software installed on the server machine is collected by previously performed software inventory procedure, gathering information from one or more NetWorker client hosts. The fields described in the following table are returned.

Table 505. software_managed

Field	Description	From
client_name	Name of NetWorker client where the software is installed	The output of the <code>nsrpush -s -all</code> command.
platform	Client's platform type	The output of the <code>nsrpush -s -all</code> command.
product	Software product name	The output of the <code>nsrpush -s -all</code> command.
version	Software version	The output of the <code>nsrpush -s -all</code> command.
package_name	Software package name	The output of the <code>nsrpush -s -all</code> command.

software_repository for NetWorker

Information for software_repository is requested from NetWorker software repository located on the NetWorker server machine with the `nsrpush -l` command. The fields described in the following table are returned.

Table 506. software_repository

Field	Description	From
platform	Client's platform type	The output of the <code>nsrpush -l</code> command.
product	Software product name	The output of the <code>nsrpush -l</code> command.
version	Software version	The output of the <code>nsrpush -l</code> command.
package_name	Software package name	The output of the <code>nsrpush -l</code> command.

Sync function for NetWorker

The NetWorker Sync function gathers information about the change set related to clone retention and save set retention of a particular save set ID.

After discovering a new NetWorker server, the sync request gathers clone retention time change set related to expiry. It takes 24 hours for the sync request to start gathering current change set of the job data because each request is scheduled by default to run every 24 hours. In each request, data is gathered for a maximum of one day. The Sync function includes the following options:

- command timeout—Determines how long the module waits before terminating any commands it uses to gather data from the NetWorker server. The default is 300 seconds.
- mminfo timeformat—Specifies the format that timestamps in the media database are returned (mminfo time format). This is used to decode the start time and end time for a Job. By default, this option is disabled and the module attempts to automatically calculate this value.
- Forces short client names—This forces Data Protection Advisor to report the hostname of the client without the domain name part. The default is false. Set the value to true to eliminate clients from being reported with both short and fully qualified names, if you have both configured in your backup environment.
- Max data time range each request will gather from—Changes the maximum amount of time the request gathers job data in one run of Sync. Default is 86400, which is one day in seconds. The value is configurable.
- Overwrite status 'did not run'—Override NetWorker's "did not run" status for clone jobs with a wanted value.

Use the **Gather Historical Data** option to collect change set information of the retention time of the save sets from NetWorker for more than one day. In the Data Protection Advisor UI, specify the required start date-time and end date-time.

The NetWorker Sync data collection request is only supported from NetWorker 19.4 and later.

The NetWorker Sync function gathers the following data:

[Sync for NetWorker](#)

The fields that are described in the following table are returned.

Table 507. Sync

Field	Description	From
backup_servername	Name of the backup server	Name of the backup server as defined in Data Protection Advisor.
savesetid_long	Save set identifier in the long format	Save set id (SSID(63)) field from the backupjob and clone job records in NetWorker.
cloneid	Identifier for the clone jobs	Clone ID attribute of the clone job resource from the NetWorker job database.
property	Name of the property whose value is changed	Property or event name which gets changed in NetWorker when the retention time of the save set in NetWorker is changed.
new_value	Updated retention value for that particular save set	Updated clone retention time value from NetWorker.

The following reports are impacted by the NetWorker sync data collection request:

- All jobs report
- Cloned Backups report

Note the following:

- If a save set has "forever" as the clone retention time, the "clone retention time" field is displayed blank in the cloned backups report and in the "expires" field of all the jobs report. The blank clone retention time refers to the save set, which is retained for an indefinite time in NetWorker.

- If a save set is deleted from NetWorker, the clone retention time is displayed as the start time of the day of NetWorker sync's latest run.
- If you change the clone retention time on NetWorker, the clone retention time field of that save set is updated in the corresponding clone job reports. For example, the clone retention period field of cloned backups report is updated with a new value that is collected by the NetWorker sync data collection request.
- If you expire a save set on NetWorker, the clone retention time is displayed as the time of expiration as collected by the NetWorker sync data collection request in the corresponding Data Protection Advisor reports.

PowerProtect Data Manager Module

The PowerProtect Data Manager (PPDM) module gathers basic information related to PPDM instance status, configuration, and protection jobs. Data Protection Advisor Agent uses REST API to collect that data.

PPDM module contains the following functions:

- Configuration function for PPDM
- Status function for PPDM
- Jobmonitor function for PPDM

Topics:

- Configuration function for PPDM
- Status function for PPDM
- Job monitor function for PPDM

Configuration function for PPDM

Configuration function of the PPDM module gathers information about configuration of the software instance or the appliance, including the following: backup server configuration, clients, and appliance storage nodes configuration. The function includes the following options:

- Connect timeout (seconds)—Specifies the network connect timeout for REST calls
- Request timeout (seconds)—Specifies the network request timeout for REST calls
- Port—Network port used to connect to PPDM REST API

The configuration function gathers the following information:

- `bkup_server_config`
- `client_config`
- `bkup_server_mapping`

`bkup_server_config` for PPDM

The fields described in the following table are returned.

Table 508. `bkup_server_config`

Field	Description	From
<code>backup_servername</code>	PPDM hostname	Request configuration
<code>application</code>	PPDM software name with version	Configurations REST API
<code>hostname</code>	PPDM hostname	Configurations REST API
<code>hardware_id</code>	System ID	Configurations REST API
<code>version</code>	PPDM version	Configurations REST API
<code>sub_name</code>	PPDM hostname	Request configuration

client_config for PPDM

The fields described in the following table are returned.

Table 509. client_config

Field	Description	From
client_name	Asset name	Assets REST API
sub_name	PPDM hostname	Request configuration
nodetype	Asset type	Assets REST API
client_identifier	Asset ID	Assets REST API
active	Asset deleted flag	Assets REST API
os_type	Guest OS of VM asset	Assets REST API

bkup_server_mapping for PPDM

The fields that are described in the following table are returned.

Table 510. bkup_server_mapping

Field	Description	From
client_name	• For DB backup jobs— db_ClusterName#db_AppServerName.Asset Name • For VM backup jobs—VM Asset Name • For other backup jobs— HostName#AssetName	Assets and Hosts REST API
sub_name	PPDM hostname	Request configuration
policy_name	Policy name	Configurations REST API
nsr_client_resource_id	Resource identifier of the asset	Configurations REST API
job_name	Asset name	Assets REST API

Status function for PPDM

Status function of the PPDM module gathers information on the status of the server. This function includes the following options:

- Connect timeout (seconds) - Specifies network connect timeout for REST calls
- Timeout - request timeout (seconds) - specifies network request timeout for REST calls.
- Port - network port used to connect to PPDM REST API

The status function returns the following information:

- ppdm_alerts_metrics
- ppdm_health_metrics
- ppdm_job_metrics
- ppdm_protection_metrics
- ppdm_sla_metrics
- bkup_server_status
- ppdm_storage_metrics
- ppdm_storage_system_metrics
- ppdm_appliance_status

- ppdm_platform_node_status

ppdm_alerts_metrics for PPDM

The fields described in the following table are returned.

Table 511. ppdm_alerts_metrics

Field	Description	From
sub_name	PPDM hostname	Request configuration
unacknowledged_critical_count	Count of unacknowledged critical alerts	Alert metrics REST API
unacknowledged_warning_count	Count of unacknowledged warnings	Alert metrics REST API
unacknowledged_informational_count	Count of unacknowledged informational alerts	Alert metrics REST API

ppdm_health_metrics for PPDM

The fields described in the following table are returned.

Table 512. ppdm_health_metrics

Field	Description	From
sub_name	PPDM hostname	Request configuration
backups	Server backups health status	Health metrics REST API
infrastructure_issues	Infrastructure issues	Health metrics REST API
services_issues	Services issues	Health metrics REST API
license	License status	Health metrics REST API
protection_engines	Protection engines status	Health metrics REST API
support	Support configuration status	Health metrics REST API
uptime	System uptime (days)	Health metrics REST API

ppdm_job_metrics for PPDM

The fields described in the following table are returned.

Table 513. ppdm_job_metrics

Field	Description	From
sub_name	PPDM hostname	Request configuration
ok	Successfully finished jobs	Job metrics REST API
ok_with_errors	Partially successful jobs	Job metrics REST API
failed	Failed jobs number	Job metrics REST API
cancelled	Cancelled jobs number	Job metrics REST API
scheduled	Queued jobs number	Job metrics REST API
running	Running jobs number	Job metrics REST API

ppdm_job_status for PPDM

The fields described in the following table are returned. In PPDM backup jobs, there are two states namely completed and queued or running. Among the completed state, the result status available are as follows:

Table 514. ppm_job_status

Field	Description	From
ok	Jobs fully completed	Job status REST API
ok_with_errors	Jobs partially completed	Job status REST API
failed	Jobs failed	Job status REST API
cancelled	Jobs canceled	Job status REST API
running	Jobs in progress	Job status REST API
skipped	Jobs skipped	Job status REST API
unknown	Jobs results unknown	Job status REST API

ppdm_protection_metrics for PPDM

The fields described in the following table are returned.

Table 515. ppm_protection_metrics

Field	Description	From
sub_name	PPDM hostname	Request configuration
asset_capacity	Total assets capacity (MB)	Protection metrics REST API
protected_assets	Number of protected assets	Protection metrics REST API
unprotected_assets	Number of unprotected assets	Protection metrics REST API
protection_groups	Number of protection policies	Protection metrics REST API
backups_total	Total number of backup jobs	Protection metrics REST API
backups_success	Number of successful backup jobs	Protection metrics REST API
backups_partial_success	Number of partially successful backup jobs	Protection metrics REST API
backups_failure	Number of failed backup jobs	Protection metrics REST API
restores_total	Total number of restore jobs	Protection metrics REST API
restores_success	Number of successful restore jobs	Protection metrics REST API
restores_partial_success	Number of partially successful restore jobs	Protection metrics REST API
restores_failure	Number of failed restore jobs	Protection metrics REST API
replications_total	Total number of replication jobs	Protection metrics REST API
replications_success	Number of successful replication jobs	Protection metrics REST API
replications_partial_success	Number of partially successful replication jobs	Protection metrics REST API
replications_failure	Number of failed replication jobs	Protection metrics REST API
archives_total	Total number of archive jobs	Protection metrics REST API
archives_success	Number of successful archive jobs	Protection metrics REST API

Table 515. ppdm_protection_metrics (continued)

Field	Description	From
archives_partial_success	Number of partially successful archive jobs	Protection metrics REST API
archives_failure	Number of failed archive jobs	Protection metrics REST API

ppdm_sla_metrics for PPDM

The fields described in the following table are returned.

Table 516. ppdm_sla_metrics

Field	Description	From
sub_name	PPDM hostname	Request configuration
assets	Assets with SLA policy	SLA metrics REST API
capacity_at_risk	Capacity at risk of violating SLA policy	SLA metrics REST API
plc_groups	PLC groups	SLA metrics REST API
sla_plans	SLA plans number	SLA metrics REST API

bkup_server_status for PPDM

The fields described in the following table are returned.

Table 517. bkup_server_status

Field	Description	From
sub_name	Storage system name	Storage systems REST API
utilisation	Storage system utilization percent	Storage systems REST API
Used	Storage system used space	Storage systems REST API

ppdm_storage_metrics for PPDM

The fields described in the following table are returned.

Table 518. ppdm_storage_metrics

Field	Description	From
sub_name	PPDM hostname	Request configuration
critical_systems_count	Number of storage systems in critical states	Protection storage metrics REST API
non_critical_systems_count	Number of storage systems in non-critical states	Protection storage metrics REST API

ppdm_storage_system_metrics for PPDM

The fields described in the following table are returned.

Table 519. ppdm_storage_system_metrics

Field	Description	From
sub_name	PPDM hostname	Request configuration
system_name	Storage system name	Protection storage metrics REST API
available_percentage	Percentage of available space on a storage system	Protection storage metrics REST API
available_size	Space available on a storage system (MB)	Protection storage metrics REST API
used_percentage	Percentage of used space on a storage system	Protection storage metrics REST API
used_size	Space used on a storage system (MB)	Protection storage metrics REST API
total_size	Total space on a storage system (MB)	Protection storage metrics REST API

ppdm_appliance_status for PPDM

The fields described in the following table are returned.

Table 520. ppdm_appliance_status

Field	Description	From
sub_name	PPDM hostname	Request configuration
status	Appliance status	Appliance information REST API
app_capacity_cubes	Number of capacity cubes	Appliance information REST API
appliance_max_capacity	Maximum capacity of the appliance	Appliance information REST API

ppdm_capacity_cube_status for PPDM

The fields described in the following table are returned.

Table 521. ppdm_capacity_cube_status

Field	Description	From
cube_id	Capacity cube ID	Appliance information REST API
cube_serial	Capacity cube Serial	Appliance information REST API
state	Capacity cube state	Node information REST API
error_message	Error message for node (if any)	Node information REST API
maintenance_mode_to_be_enabled	Determines whether maintenance mode will be enabled or not	Node information REST API
capacity_usable_max	Maximum usable capacity (GB)	Node information REST API
capacity_used	Used capacity of a cube (GB)	Node information REST API
status	Capacity cube node status name	Node information REST API

ppdm_platform_node_status for PPDM

The fields described in the following table are returned.

Table 522. ppdm_platform_node_status

Field	Description	From
cube_node_id	Platform cube node ID	Appliance information REST API
cube_serial	Platform cube Serial number	Appliance information REST API
node_serial	Platform cube node serial	Appliance information REST API
state	Platform cube state	Node information REST API
error_message	Error message for node (if any)	Node information REST API
maintenance_mode_to_be_enabled	Determines whether maintenance mode will be enabled or not	Node information REST API
status	Platform cube node status name	Node information REST API

Job monitor function for PPDM

Job monitor function of the PPDM module gathers information about backup jobs that have been executed by the server.

The function has the following options:

- Connect timeout (seconds)—Specifies network connect timeout for REST calls
- Timeout - request timeout (seconds)—Specifies network request timeout for REST calls.
- Port—Network port used to connect to PPDM REST API

The job monitor function gathers the following information:

- [backupjob](#)
- [clonejob](#)
- [backupevent](#)
- [backuperror](#)
- [restorejob](#)
- [restoreevent](#)

backupjob for PPDM

The fields that are described in the following table are returned.

Table 523. backupjob

Field	Description	From
backup_servername	PPDM server hostname	Request configuration
client_name	Asset name	Activities REST API
queuestart	Job create time	Activities REST API
action_name	Job category and subcategory (if specified)	Activities REST API
group_name	Job group name	Activities REST API
job_name	Job name	Activities REST API
jobid	Job group ID	Activities REST API
jobid2	Job ID	Activities REST API

Table 523. backupjob (continued)

Field	Description	From
media_server	Job destination name	Activities REST API
policy_name	Job protection policy name	Activities REST API
status	Job status	Activities REST API
Size	Asset size in MB	Activities REST API
sizeoffset	Number of bytes that must be added or subtracted from the size field to return the job size (in bytes)	Activities REST API
starttime	Job start time	Activities REST API
sizetransferred	Job transferred bytes (MB)	Activities REST API
sizetransferredoffset	Number of bytes that must be added or subtracted from the size transferred field to return the job size (in bytes)	Activities REST API
sizescanned	Asset size (if reported by server) (MB)	stats->assetSizeInBytes of Activities REST API
sizescannedoffset	Number of bytes that must be added or subtracted from the sizescanned field to return asset size (in bytes)	Activities REST API
sub_name	Job sub name	Activities REST API
endtime	Job end time	Activities REST API

clonejob for PPDM

The fields described in the following table are returned.

Table 524. clonejob

Field	Description	From
queuestart	Job create time	Activities REST API
starttime	Job start time	Activities REST API
cloneid	Clone group ID	Activities REST API
policy_name	Job protection policy name	Activities REST API
size	Job transferred bytes (MB)	Activities REST API
sub_name	PPDM hostname	Request configuration
backup_servername	PPDM server hostname	Request configuration
endtime	Job end time	Activities REST API
sizeoffset	Number of bytes that must be added or subtracted from the size field to return the job size (in bytes)	Activities REST API
action_name	Job category and subcategory (if specified)	Activities REST API
status	Job status	Activities REST API

backupevent for PPDM

The fields described in the following table are returned.

Table 525. backupevent

Field	Description	From
backup_servername	PPDM server hostname	Request configuration
group_name	Job group name	Activities REST API
job_name	Job name	Activities REST API
jobid2	Job ID	Activities REST API
queuestart	Job create time	Activities REST API
client_name	Asset name	Activities REST API
media_server	Job destination name	Activities REST API
groupjobid	Job group ID	Activities REST API
status	Job state	Activities REST API
sub_name	PPDM hostname	Request configuration
starttime	Job start time	Activities REST API
endtime	Job end time	Activities REST API

backup_error for PPDM

The fields described in the following table are returned. The backup_error data is displayed under the backupjob node.

Table 526. backup_error

Field	Description	From
sub_name	PPDM server hostname	Request configuration
errcode	Error code of job result	Activities REST API
client_name	Asset name	Activities REST API
errorstring	Error message of job result	Activities REST API
starttime	Job start time	Activities REST API
endtime	Job end time	Activities REST API

restorejob for PPDM

The fields described in the following table are returned.

Table 527. restorejob

Field	Description	From
jobid	Job group ID	Activities REST API
client_name	Asset name	Activities REST API
job_name	Job name	Activities REST API
size	Job transferred bytes (MB)	Activities REST API
status	Job status	Activities REST API

Table 527. restorejob (continued)

Field	Description	From
queuestart	Job create time	Activities REST API
starttime	Job start time	Activities REST API
sub_name	Job sub name	Activities REST API
backup_servername	PPDM server hostname	Request configuration
endtime	Job end time	Activities REST API
sizeoffset	Number of bytes that must be added or subtracted from the size field to return the job size (in bytes)	Activities REST API
action_name	Job category and subcategory (if specified)	Activities REST API

restoreevent for PPDM

The fields described in the following table are returned.

Table 528. restoreevent

Field	Description	From
client_name	Asset name	Activities REST API
queuestart	Job create time	Activities REST API
starttime	Job start time	Activities REST API
job_name	Job name	Activities REST API
sub_name	PPDM hostname	Request configuration
backup_servername	PPDM server hostname	Request configuration
endtime	Job end time	Activities REST API
groupjobid	Job group ID	Activities REST API
status	Job state	Activities REST API

RecoverPoint Module

The RecoverPoint module gathers information about a RecoverPoint replication environment. Data Protection Advisor connects to the RecoverPoint appliance by SSH and gathers data by running commands through the RPA command line interface (CLI). The module includes the following functions that gather different types of information:

Topics:

- Configuration function for RecoverPoint
- Performance function for RecoverPoint
- Performance CS function for RecoverPoint

Configuration function for RecoverPoint

The Configuration function gathers information about components in a RecoverPoint environment. The function includes the following options:

- scanforrecover — Scan for recoverability. The default value is false.

The Configuration function gathers the following data:

- cg_config for RecoverPoint
- cg_config_crr for RecoverPoint
- cg_copy_config for RecoverPoint
- rpa_config for RecoverPoint
- fcport_config for RecoverPoint
- netint_ip for RecoverPoint
- splitter_config for RecoverPoint
- replicationset_config for RecoverPoint
- rpa_volumes for RecoverPoint
- rpa_events for RecoverPoint
- cg_status
- cg_copy_status
- splitter_status
- rpa_volumes
- rpa_events
- cg_images
- site_volumes

cg_config for RecoverPoint

Applies to RecoverPoint 3.5 and earlier for CDP (continuous data replication) and CRR (continuous remote replication) and RecoverPoint 4.0 and later for CDP. For RecoverPoint 4.0 and later for CRR see cg_config_crr.

The fields described in the following table are returned.

Table 529. cg_config

Field	Description	From
cg_name	Name of the Consistency Group	Running get_group_settings
production_copy	Name of the Production Copy	Running get_group_settings
preferred_rpa	RPA preferred to replicate this consistency group	Running get_group_settings

Table 529. cg_config (continued)

Field	Description	From
reservation_support	Indicates if reservation support is configured	Running get_group_settings
compression_enabled	Indicates if compression is enabled	Running get_group_settings
compression_level	Level of compression to use if enabled. A number between 1 and 10	Running get_group_settings
minimize_lag	Indicates if RecoverPoint should use as much bandwidth as possible to minimize CRR (RecoverPoint 3.5 and earlier) or CDP (RecoverPoint 4.0 and later) lag	Running get_group_settings
minimize_data	Indicates if RecoverPoint should preserve bandwidth to maintain CRR (RecoverPoint 3.5 and earlier) or CDP (RecoverPoint 4.0 and later) lag within its limits	Running get_group_settings
priority	Amount of bandwidth allocated to this consistency group in relation to all other consistency groups: IDLE, LOW, NORMAL, HIGH, CRITICAL	Running get_group_settings
bandwidth_limited	Indicates if the consistency group should limit the amount of bandwidth it uses	Running get_group_settings
bandwidth_allocation	Bandwidth to which the consistency group is limited (MB/second)	Running get_group_settings
host_os	Operating system of the hosts writing to the storage in the consistency group. If the hosts are not all running the same operating system, this value will be Others/Mixed	Running get_group_settings.
global_cluster_mode	Global Cluster mode for the Copy group: None, Manual, Auto-data, Auto-quorum (shared data), Manual (shared data)	Running get_group_settings
allow_regulation	Indicates if RecoverPoint should be allowed to slow or stop the host application when approaching a policy limit of CRR (RecoverPoint 3.5 and earlier) or CDP (RecoverPoint 4.0 and later)	Running get_group_settings
non_pref_rpa_transfer	Indicates if data should be transferred even when the group is handled by a non-preferred RPA	Running get_group_settings
measure_lag	Indicates if CRR (RecoverPoint 3.5 and earlier) or CDP (RecoverPoint 4.0 and later) lag should be measured when writes reach the target RPA (as opposed to the journal)	Running get_group_settings
cdp_sys_opt_lag	Indicates if the system should optimize the lag for CDP	Running get_group_settings
cdp_max_lag_size	Maximum allowed lag for CDP, if not using system optimization. Values can be stored in MB, GB, writes, seconds, minutes	Running get_group_settings

Table 529. cg_config (continued)

Field	Description	From
cdp_max_lag_secs	CDP Maximum allowed lag in number of secs	Running get_group_settings
cdp_max_lag_writes	CDP Maximum allowed lag in number of writes	Running get_group_settings
cdp_fast_first_time_init	Indicates if the CDP copy should perform fast first time initialization	Running get_group_settings
cdp_snap_granularity	Snapshot granularity for CDP as a text string: Dynamic, Fixed per sec, Fixed per write	Running get_group_settings
crr_sys_opt_lag	Indicates if the system should optimize the lag for CRR (RecoverPoint 3.5 and earlier only)	Running get_group_settings
cdp_max_lag_size	Maximum allowed lag for CRR, if not using system optimization. Values can be stored in MB, GB, writes, seconds, or minutes	Running get_group_settings
crr_max_lag_secs	CRR Maximum allowed lag in number of secs (RecoverPoint 3.5 and earlier only)	Running get_group_settings
crr_max_lag_writes	CRR Maximum allowed lag in number of writes (RecoverPoint 3.5 and earlier only)	Running get_group_settings
crr_fast_first_time_init	Indicates if the CRR copy should perform fast first time initialization (RecoverPoint 3.5 and earlier only)	Running get_group_settings
crr_snap_granularity	Snapshot granularity for CDP as a text string: Dynamic, Fixed per sec, Fixed per write (RecoverPoint 3.5 and earlier only)	Running get_group_settings
cg_set	CG set name	Running get_group_sets
distributed	Indicates if CG is distributed	Running get_group_settings
deduplication	Indicates if the dedupe is enabled is enabled for the consistency Group	Running get_group_settings
failallprod	Fail all production option enabled for the Consistency Group	Running get_group_settings

cg_config_crr for RecoverPoint

Applies to RecoverPoint 4.0 and later for CRR. For RecoverPoint 4.0 and later for CDP see cg_config.

The fields described in the following table are returned.

Table 530. cg_config_crr

Field	Description	From
cg_name	Name of the Consistency Group	Running get_group_settings
crr_sys_opt_lag	Indicates if the system should optimize the lag for CRR	Running get_group_settings
crr_max_lag_size	Maximum allowed lag for CRR, if not using system optimization. Values can be stored in MB, GB, writes, seconds, or minutes	Running get_group_settings

Table 530. cg_config_crr (continued)

Field	Description	From
crr_max_lag_secs	CRR Maximum allowed lag in number of secs	Running get_group_settings
crr_max_lag_writes	CRR Maximum allowed lag in number of writes	Running get_group_settings
crr_fast_first_time_init	Indicates if the CRR copy should perform fast first time initialization	Running get_group_settings
crr_snap_granularity	Snapshot granularity for CDP as a text string: Dynamic, Fixed per sec, Fixed per write	Running get_group_settings
from_site	Name of the production site	Running get_group_settings
to_site	Name of the remote site	Running get_group_settings
crr_minimize_lag	Indicates if RecoverPoint should use as much bandwidth as possible to minimize CRR lag	Running get_group_settings
crr_minimize_data	Indicates if RecoverPoint should preserve bandwidth to maintain CRR lag within its limits	Running get_group_settings
crr_measure_lag	Indicates if CRR lag should be measured when writes reach the target RPA (as opposed to the journal)	Running get_group_settings
crr_allow_regulation	Indicates if RecoverPoint should be allowed to slow or stop the host application when approaching a policy limit of CRR	Running get_group_settings

cg_copy_config for RecoverPoint

The fields described in the following table are returned.

Table 531. cg_copy_config

Field	Description	From
cg_name	Name of the Consistency Group	Running get_group_settings
cg_copy_name	Name of the copy	Running get_group_settings
site	Location of the copy	Running get_group_settings
role	Role of the copy. For example, PRODUCTION, LOCAL REPLICA or REMOTE REPLICA	Running get_group_settings
journal_compression	Level of compression enabled on the Journal: None, Medium, High	Running get_group_settings
reqd_protection_window	How far in time the replica image could be rolled back (in seconds)	Running get_group_settings
journal_lag_unlimited	Indicates if the journal lag is set to be unlimited	Running get_group_settings
max_journal_lag	Maximum journal lag for a copy (in MB)	Running get_group_settings
logged_writes_prop	Proportion of journal allocated for target-side log, specified as a percentage	Running get_group_settings

Table 531. cg_copy_config (continued)

Field	Description	From
journal_size_limit	Maximum size of the journal (in MB)	Running get_group_settings If not available, gather from get_group_state
reservations_policy	Reservations Policy to be applied to the Copy: Auto, IF, SCSI-2, SCSI-3, PowerPath, PowerPath (non-auto). reservations_policy information not gathered for RecoverPoint 4.0 and later	Running get_group_settings
allow_long_resync	Indicates if the Copy should allow distribution of snapshots that are larger than the capacity of journal volumes	Running get_group_settings
copyos	Operating system of the Copy. If the copies written are not all running the same operating system, this value will be Others/Mixed	Running get_group_settings

rpa_config for RecoverPoint

The fields described in the following table are returned.

Table 532. rpa_config

Field	Description	From
rpa_name	Hostname or IP address of the RecoverPoint Appliance	For RecoverPoint 3.x and earlier: Running get_system_settings For RecoverPoint 4.0 and later: Running get_rpa_settings
site	Site at which the RPA is located	For RecoverPoint 3.x and earlier: Running get_system_settings For RecoverPoint 4.0 and later: Running get_rpa_settings
version	RPA version	getBoxStatesOutput -> Sites -> boxes -> BoxStateOutput key

splitter_config for RecoverPoint

The fields described in the following table are returned.

Table 533. splitter_config

Field	Description	From
site	Site at which the Splitter is located	Running get_splitter_settings
spl_name	Splitter name	Running get_splitter_settings
type	Splitter type	Running get_splitter_settings

replicationset_config for RecoverPoint

The fields described in the following table are returned.

Table 534. replicationset_config

Field	Description	From
rs_name	Replication set name	Running get_group_settings
cg_name	Name of the Consistency Group	Running get_group_settings
size	Size of the consistency group	Running get_group_settings

fcport_config for RecoverPoint

The fields described in the following table are returned.

Table 535. fcport_config

Field	Description	From
sub_name	Name of the RPA	For RecoverPoint 3.x and earlier: Running get_system_settings For RecoverPoint 4.0 and later: Running get_rpa_settings
port	Name of the port	For RecoverPoint 3.x and earlier: Running get_system_settings For RecoverPoint 4.0 and later: Running get_rpa_settings
wwpn	World wide port number for the Fibre Channel port	For RecoverPoint 3.x and earlier: Running get_system_settings For RecoverPoint 4.0 and later: Running get_rpa_settings
f_sub_name2	The logical name for the RPA. For example, RPA1	GetAllSettingsOutput name > GetSystemSettingsOutput name > siteSettings > SiteSettingsOutput key

netint_ip for RecoverPoint

The fields described in the following table are returned.

Table 536. netint_ip

Field	Description	From
sub_name	RPA Name	For RecoverPoint 3.x and earlier: Running get_system_settings For RecoverPoint 4.0 and later: Running get_rpa_settings
sub_name2	RPA Name	For RecoverPoint 3.x and earlier: Running get_system_settings For RecoverPoint 4.0 and later:

Table 536. netint_ip (continued)

Field	Description	From
		Running get_rpa_settings
name	Name of the interface	For RecoverPoint 3.x and earlier: Running get_system_settings For RecoverPoint 4.0 and later: Running get_rpa_settings
ipaddr	IP address of the interface	For RecoverPoint 3.x and earlier: Running get_system_settings For RecoverPoint 4.0 and later: Running get_rpa_settings

cg_status for RecoverPoint

The fields described in the following table are returned.

Table 537. cg_status

Field	Description	From
cg_name	Name of the consistency group	Running get_group_state
production_copy	Name of the copy that is the source of the transfer	Running get_group_state
enabled	Indicates if the consistency group is enabled	Running get_group_state

cg_copy_status for RecoverPoint

The fields described in the following table are returned.

Table 538. cg_copy_status

Field	Description	From
cg_name	Name of the consistency group	Running get_group_settings
cg_copy_name	Name of the copy	Running get_group_state
enabled	Indicates if the Consistency Group Copy is active	Running get_group_state
active_rpa	Name of the RPA that is currently active for this Copy	Running get_group_state
data_transfer	Status of Data Transfer for this Copy (for example, ACTIVE)	Running get_group_state
journal_state	Current state of journal (for example, DISTRIBUTING IMAGES TO STORAGE)	Running get_group_state
storage_access	Current status of access to the storage for this copy (for example, DIRECT ACCESS, or NO ACCESS)	Running get_group_state
cur_protwin	Time duration of the current protection window (for example, 1 hour 35 minutes)	Running get_group_statistics
cur_protwin_status	Status of the current protection window	Running get_group_statistics

Table 538. cg_copy_status (continued)

Field	Description	From
pred_protwin	Predicted protection window value (for example, 1 hour 35 minutes)	Running get_group_statistics
pred_protwin_status	Predicted protection window status	Running get_group_statistics
avg_compression	Average compression achieved (MB/second)	Running get_group_statistics
link_mode	Link mode for CDP and CRR operations (for example, CONTINUOUS, or CONTINUOUS ASYNC)	Running get_group_state
journal_mode	Journal Mode (for example, NORMAL)	Running get_group_state
journal_usage	Current usage of the journal (in MB)	Running get_group_statistics
journal_latest_image	Timestamp of the most recent image	Running get_group_statistics
journal_lag	Size of the journal lag (in MB)	Running get_group_statistics
journal_capacity	Consistency group copy journal total size	Running get_group_statistics

splitter_status for RecoverPoint

The fields described in the following table are returned.

Table 539. splitter_status

Field	Description	From
site	Site at which the Splitter is located	Running get_splitter_settings
spl_name	Name of the Splitter	Running get_splitter_states
status	Status of the Splitter	Running get_splitter_states
rpa_connections	Status of the connections to the RPA from the Splitter	Running get_splitter_states

rpa_volumes for RecoverPoint

The fields described in the following table are returned.

Table 540. rpa_volumes

Field	Description	From
vol_name	Volume name	Running get_group_volumes
uid	Unique identifier for the volume	Running get_group_volumes
vendor	Name of the vendor	Running get_group_volumes
product	Name of the product	Running get_group_volumes
model	VNX/CLARiiON model of the volume	Running get_group_volumes
size	Size of the volume (in GB)	Running get_group_volumes
cg_name	Name of the consistency group	Running get_group_volumes
cg_copy_name	Name of the copy	Running get_group_volumes
rs_name	Name of the replication set.	Running get_group_volumes

Table 540. rpa_volumes (continued)

Field	Description	From
	If the volume is a Journal, this value will be NULL	
vol_type	One of: Replication Set, Journal, Repository	Running get_group_volumes
role	Role of the Copy (for example, PRODUCTION or REMOTE REPLICA)	Running get_group_settings
serial	Serial number of the volume	Running get_group_volumes

rpa_events for RecoverPoint

The fields described in the following table are returned.

Table 541. rpa_events

Field	Description	From
site	Site at which event occurred	For RecoverPoint 3.3 and earlier: Running get_logs For RecoverPoint 3.4 and later: Running get_events_log
rpa_name	Hostname or IP address of the RecoverPoint Appliance	For RecoverPoint 3.3 and earlier: Running get_logs For RecoverPoint 3.4 and later: Running get_events_log
topic	One of: Management, Site, RPA, Group, Splitter	For RecoverPoint 3.3 and earlier: Running get_logs For RecoverPoint 3.4 and later: Running get_events_log
scope	One of: Normal, Detailed, Advanced	For RecoverPoint 3.3 and earlier: Running get_logs For RecoverPoint 3.4 and later: Running get_events_log
level	One of: Info, Warning, Error	For RecoverPoint 3.3 and earlier: Running get_logs For RecoverPoint 3.4 and later: Running get_events_log
eventid	ID of the event	For RecoverPoint 3.3 and earlier: Running get_logs For RecoverPoint 3.4 and later: Running get_events_log
user	One of: Admin, Root, Webdownload	For RecoverPoint 3.3 and earlier: Running get_logs For RecoverPoint 3.4 and later: Running get_events_log
groups	Names of the consistency groups	For RecoverPoint 3.3 and earlier: Running get_logs

Table 541. rpa_events (continued)

Field	Description	From
		For RecoverPoint 3.4 and later: Running get_events_log
summary	Summary of the log	For RecoverPoint 3.3 and earlier: Running get_logs For RecoverPoint 3.4 and later: Running get_events_log
details	Log details	For RecoverPoint 3.3 and earlier: Running get_logs For RecoverPoint 3.4 and later: Running get_events_log
starttime	Start time of log events	For RecoverPoint 3.3 and earlier: Running get_logs For RecoverPoint 3.4 and later: Running get_events_log
endtime	End time of log events	For RecoverPoint 3.3 and earlier: Running get_logs For RecoverPoint 3.4 and later: Running get_events_log

cg_images for RecoverPoint

The fields described in the following table are returned.

Table 542. cg_images

Field	Description	From
cg_name	Name of the consistency group	Running get_groups
cg_copy_name	Name of the copy	Running get_images
snapshot	Name of the snapshot	Running get_images
currentimage	Current image	Running get_images
bookmark	Name of the snapshot bookmark	Running get_images
size	Size of the image (in bytes)	Running get_images

site_volumes for RecoverPoint

The fields described in the following table are returned.

Table 543. site_volumes

Field	Description	From
vol_name	Volume name	Running get_system_report or get_san_volumes if the RPA is 4.4 and later.
site	Site name	Running get_system_report or get_san_volumes if the RPA is 4.4 and later.

Table 543. site_volumes (continued)

Field	Description	From
Uid	Unique Identifier	Running get_system_report or get_san_volumes if the RPA is 4.4 and later.
vendor	Name of the vendor	Running get_system_report or get_san_volumes if the RPA is 4.4 and later.
product	Name of the product	Running get_system_report or get_san_volumes if the RPA is 4.4 and later.
model	Model of volume	Running get_system_report or get_san_volumes if the RPA is 4.4 and later.
size	Size of the volume (in MB)	Running get_system_report or get_san_volumes if the RPA is 4.4 and later.
inst_id	Installation ID	Running get_system_report This information is not available in RecoverPoint versions 4.0 and later.

Performance function for RecoverPoint

The Performance function gathers status information about the performance of components in a virtual hosted environment. The Performance function gathers the following data:

- [cg_copy_perf](#) for RecoverPoint
- [rpa_perf](#) for RecoverPoint
- [rpa_site_perf](#) for RecoverPoint

cg_copy_perf for RecoverPoint

The fields described in the following table are returned.

Table 544. cg_copy_perf

Field	Description	From
Server	Name or IP address of the Management Interface of the RecoverPoint cluster	As defined in the Data Protection Advisor web console
cg_name	Name of the Consistency Group	Running get_group_settings
cg_copy_name	Name of the copy	Running get_group_statistics
time_lag	Average time lag in replication of the copy over the last polling period	Running detect_bottlenecks
time_lag_peak	Peak time lag in replication of the copy over the last polling period	Running detect_bottlenecks
data_lag	Average amount of data that was queued for replication over the polling period	Running detect_bottlenecks
data_lag_peak	Peak data amount of data that was queued for replication over the polling period	Running detect_bottlenecks

Table 544. cg_copy_perf (continued)

Field	Description	From
writes_lag	Average number of IO transactions that were queued for replication	Running detect_bottlenecks
writes_lag_peak	Peak number of IO transactions that were queued for replication	Running detect_bottlenecks
incoming_write	Average amount of data that changed per second over the polling period	Running detect_bottlenecks
incoming_write_peak	Maximum amount of data changed per second over the polling period	Running detect_bottlenecks
incoming_io	Average number of IOs per second that were performed over the polling period	Running detect_bottlenecks
incoming_io_peak	Peak number of IOs per second that were performed over the polling period	Running detect_bottlenecks
total_output_rate	Average amount of data transferred on the link to the target per second. This value includes the amount of data transferred during both initialization and replication phases. It does not include any time in which the link was halted	Running detect_bottlenecks
total_output_rate_peak	Peak amount of data transferred on the link to the target per second. This value includes the amount of data transferred during both initialization and replication phases. It does not include any time in which the link was halted	Running detect_bottlenecks
init_output_rate	Average amount of data transferred on the link to the target per second during the initialization phase. It does not include any time in which the link was halted	Running detect_bottlenecks
init_output_rate_peak	Peak amount of data transferred on the link to the target per second during the initialization phase. It does not include any time in which the link was halted.	Running detect_bottlenecks
noninit_output_rate	Average amount of data transferred on the link to the target per second. This value does not include data transferred during the initialization phase but does include the time taken to perform initialization. It does not include time in which the link was halted	Running detect_bottlenecks
noninit_output_rate_peak	Peak amount of data transferred on the link to the target per second. This value does not include data transferred during the initialization phase but does include the time taken to perform initialization. It does not include time in which the link was halted	Running detect_bottlenecks
init_data_sync	Average amount of data that was marked for the initialization	Running detect_bottlenecks

Table 544. cg_copy_perf (continued)

Field	Description	From
init_data_sync_peak	Peak amount of data that was marked for the initialization	Running detect_bottlenecks
cpu_util	CPU usage of the processes used for the current link. This value is applicable in CRR mode only	Running detect_bottlenecks
cpu_util_peak	Peak CPU usage of the processes used for the current link	Running detect_bottlenecks
transfer_per	Percentage of time that the link was up	Running detect_bottlenecks
init_per	Percentage of time that the link was initializing	Running detect_bottlenecks
comp_ratio	Compression ratio or Bandwidth reduction	Running detect_bottlenecks
init_time_remote	Percentage of the initialization time used to read from the target devices	Running detect_bottlenecks
init_speed_remote	Speed of reading from the target devices	Running detect_bottlenecks
init_time_local	Percentage of the initialization time used to read from the source devices	Running detect_bottlenecks
init_speed_local	Speed of reading from the source devices	Running detect_bottlenecks
request_start	Start time for the period over which the performance statistics are gathered	Running detect_bottlenecks
request_end	End time for the period over which the performance statistics are gathered	Running detect_bottlenecks
highload_time	Percentage time of Highload	Running detect_bottlenecks
cg_copy_production_name	Name of the production copy	Running detect_bottlenecks

rpa_perf for RecoverPoint

The fields described in the following table are returned.

Table 545. rpa_perf

Field	Description	From
rpa_name	Hostname or IP address of the RecoverPoint Appliance	For RecoverPoint 3.x and earlier: Running get_system_statistics For RecoverPoint 4.0 and later: Running get_rpa_statistics
site	Site at which the RecoverPoint Appliance is located	For RecoverPoint 3.x and earlier: Running get_system_statistics For RecoverPoint 4.0 and later: Running get_rpa_statistics
san_throughput	Total throughput of SAN traffic (in Mbps)	For RecoverPoint 3.x and earlier: Running get_system_statistics For RecoverPoint 4.0 and later:

Table 545. rpa_perf (continued)

Field	Description	From
		Running get_rpa_statistics
wan_throughput	Total throughput of WAN traffic (KB/second)	For RecoverPoint 3.x and earlier: Running get_system_statistics For RecoverPoint 4.0 and later: Running get_rpa_statistics
application	Total number of writes performed by the application	For RecoverPoint 3.x and earlier: Running get_system_statistics For RecoverPoint 4.0 and later: Running get_rpa_statistics
compression	Level of compression achieved (as a percentage)	For RecoverPoint 3.x and earlier: Running get_system_statistics For RecoverPoint 4.0 and later: Running get_rpa_statistics
latency	Latency of network writes	For RecoverPoint 3.x and earlier: Running get_system_statistics For RecoverPoint 4.0 and later: Running get_rpa_statistics
packet_loss	Packet loss on the network (as a percentage)	For RecoverPoint 3.x and earlier: Running get_system_statistics For RecoverPoint 4.0 and later: Running get_rpa_statistics
utilisation	Percentage utilization of the RPA	For RecoverPoint 3.x and earlier: Running get_system_statistics For RecoverPoint 4.0 and later: Running get_rpa_statistics

rpa_site_perf for RecoverPoint

The fields described in the following table are returned.

Table 546. rpa_site_perf

Field	Description	From
rpa_name	Hostname or IP address of the RecoverPoint Appliance	Running get_rpa_statistics
site	Site at which the RecoverPoint Appliance is located. Production site	Running get_rpa_statistics
to_site	Name of the remote site	Running get_rpa_statistics
wan_throughput	Total throughput of WAN traffic from site to to_site (KB/second)	Running get_rpa_statistics
waninit_throughput	Throughput of WAN initialization traffic from site to to_site (KB/second)	Running get_rpa_statistics

Table 546. rpa_site_perf (continued)

Field	Description	From
compression	Level of compression achieved (as a percentage)	Running get_rpa_statistics
latency	Latency of network writes from site to to_site (in milliseconds)	Running get_rpa_statistics
packet_loss	Packet loss on the network from site to to_site (as a percentage)	Running get_rpa_statistics

Performance CS function for RecoverPoint

The Performance CS function gathers status information about the performance of components in a virtual hosted environment. The Performance CS function gathers the following data:

- [rpa_perfcs for RecoverPoint](#)
- [cg_copy_perfcs for RecoverPoint](#)

rpa_perfcs for RecoverPoint

Returns rpa perf data at a per minute level. The fields described in the following table are returned. This information is not available for RecoverPoint version 5.0 and 5.1.

Table 547. rpa_perfcs

Field	Description	From
rpa_name	Hostname or IP address of the RecoverPoint Appliance	Running export Consolidated Statistics
site	Site at which the RPA is located	Running export Consolidated Statistics
wan_throughput	Total throughput of WAN traffic (KB/second)	Running export Consolidated Statistics
incoming_write	Total incoming writes rate for box	Running export Consolidated Statistics
incoming_io	Average number of IOs per second that were performed over the polling period	Running export Consolidated Statistics
incoming_write_rp	Total incoming writes rate for RPA while replicating	Running export Consolidated Statistics
incoming_io_rp	Incoming IOs rate for RPA while replicating	Running export Consolidated Statistics
noninit_output_rate	Non - initialization output rate for RPA	Running export Consolidated Statistics
init_output_rate	Average amount of data transferred during init	Running export Consolidated Statistics
data_sync	Data synchronization rate for RPA	Running export Consolidated Statistics
cpu_util	Compression CPU utilization	Running export Consolidated Statistics
cpu_util_rp	Replication process CPU utilization	Running export Consolidated Statistics
box_util	RPA utilization	Running export Consolidated Statistics

cg_copy_perfcs for RecoverPoint

Returns replica link statistics at a per minute level. The fields described in the following table are returned. This information is not available for RecoverPoint version 5.0 and 5.1.

Table 548. cg_copy_perfcs

Field	Description	From
cg_name	Name of the Consistency Group	Running export_consolidated_statistics
cg_copy_name	Name of the copy	Running export_consolidated_statistics
time_lag	Average time lag in replication of the copy over the last polling period	Running export_consolidated_statistics
time_lag_peak	Peak time lag in replication of the copy over the last polling period	Running export_consolidated_statistics
data_lag	Average amount of data that was queued for replication over the polling period	Running export_consolidated_statistics
data_lag_peak	Peak data amount of data that was queued for replication over the polling period	Running export_consolidated_statistics
writes_lag	Average number of IO transactions that were queued for replication	Running export_consolidated_statistics
writes_lag_peak	Peak number of IO transactions that were queued for replication	Running export_consolidated_statistics
incoming_write	Average amount of data that changed per second over the polling period	Running export_consolidated_statistics
incoming_write_peak	Maximum amount of data changed per second over the polling period	Running export_consolidated_statistics
incoming_io	Average number of IOs per second that were performed over the polling period	Running export_consolidated_statistics
incoming_io_peak	Peak number of IOs per second that were performed over the polling period	Running export_consolidated_statistics
total_output_rate	Average amount of data transferred on the link to the target per second. This value includes the amount of data transferred during both initialization and replication phases. It does not include any time in which the link was halted	Running export_consolidated_statistics
total_output_rate_peak	Peak amount of data transferred on the link to the target per second. This value includes the amount of data transferred during both initialization and replication phases. It does not include any time in which the link was halted	Running export_consolidated_statistics
init_output_rate	Average amount of data transferred on the link to the target per second during the initialization phase. It does not include any time in which the link was halted.	Running export_consolidated_statistics
init_output_rate_peak	Peak amount of data transferred on the link to the target per second during the initialization phase.	Running export_consolidated_statistics

Table 548. cg_copy_perfc (continued)

Field	Description	From
	initialization phase. It does not include any time in which the link was halted.	
noninit_output_rate	Average amount of data transferred on the link to the target per second. This value does not include data transferred during the initialization phase but does include the time taken to perform initialization. It does not include time in which the link was halted	Running export_consolidated_statistics
noninit_output_rate_peak	Peak amount of data transferred on the link to the target per second. This value does not include data transferred during the initialization phase but does include the time taken to perform initialization. It does not include time in which the link was halted	Running export_consolidated_statistics
init_data_sync	Average amount of data that was marked for the initialization	Running export_consolidated_statistics
init_data_sync_peak	Peak amount of data that was marked for the initialization	Running export_consolidated_statistics
cpu_util	CPU usage of the processes used for the current link. This value is applicable in CRR mode only	Running export_consolidated_statistics
cpu_util_peak	Peak CPU usage of the processes used for the current link	Running export_consolidated_statistics
transfer_per	Percentage of time that the link was up	Running export_consolidated_statistics
init_per	Percentage of time that the link was initializing	Running export_consolidated_statistics
comp_ratio	Compression ratio or Bandwidth reduction	Running export_consolidated_statistics
init_time_remote	Percentage of the initialization time used to read from the target devices	Running export_consolidated_statistics
init_speed_remote	Speed of reading from the target devices	Running export_consolidated_statistics
init_time_local	Percentage of the initialization time used to read from the source devices	Running export_consolidated_statistics
request_start	Start time for the period over which the performance statistics are gathered	Running export_consolidated_statistics
request_end	End time for the period over which the performance statistics are gathered	Running export_consolidated_statistics
highload_time	Percentage time of High load	Running export_consolidated_statistics
group_util	Consistency group utilization	Running export_consolidated_statistics
group_util_peak	Consistency group utilization peak	Running export_consolidated_statistics
cg_copy_production_name	Name of the production copy	Running export_consolidated_statistics
disrecreg_time	Distributor receiver regulation duration	Running export_consolidated_statistics
disrecreg_time_peak	Distributor receiver regulation duration peak	Running export_consolidated_statistics

Table 548. cg_copy_perfcs (continued)

Field	Description	From
ffdis_time	Fast forward distribution duration	Running export_consolidated_statistics
ffdis_time_peak	Fast forward distribution duration peak	Running export_consolidated_statistics

RecoverPoint for VMs

The RecoverPoint for VM smodule gathers information about a RecoverPoint for VMs replication environment. Data Protection Advisor connects to the RecoverPoint for VMs appliance by REST API and gathers data by running REST URIs. The module includes the following functions that gather different types of information:

Topics:

- Configuration function for RecoverPoint for VMs
- Status function for RecoverPoint for VMs
- Performance function for RecoverPoint for VMs
- Performance CS function for RecoverPoint for VMs

Configuration function for RecoverPoint for VMs

The Configuration function gathers the following data:

- cg_config for RecoverPoint for VMs
- cg_config_crr for RecoverPoint for VMs
- cg_copy_config for RecoverPoint for VMs
- rpa_config for RecoverPoint for VMs
- splitter_config for RecoverPoint for VMs
- replicationset_config for RecoverPoint for VMs
- netint_ip for RecoverPoint for VMs
- rpa_volumes for RecoverPoint for VMs
- site_volumes for RecoverPoint for VMs

cg_config for RecoverPoint for VMs

The fields described in the following table are returned.

Table 549. cg_config

Field	Description	From REST URI (4.3)	From REST URI (5.1)
cg_name	Name of the Consistency Group	<a href="https://<RPVM>/fapi/rest/4_3/groups/settings">https://<RPVM>/fapi/rest/4_3/groups/settings	<a href="https://<RPVM>/fapi/rest/5_1/groups/settings">https://<RPVM>/fapi/rest/5_1/groups/settings
production_copy	Name of the Production Copy	<a href="https://<RPVM>/fapi/rest/4_3/groups/settings">https://<RPVM>/fapi/rest/4_3/groups/settings	<a href="https://<RPVM>/fapi/rest/5_1/groups/settings">https://<RPVM>/fapi/rest/5_1/groups/settings
preferred_rpa	RPA preferred to replicate this consistency group	<a href="https://<RPVM>/fapi/rest/4_3/groups/settings">https://<RPVM>/fapi/rest/4_3/groups/settings	<a href="https://<RPVM>/fapi/rest/5_1/groups/settings">https://<RPVM>/fapi/rest/5_1/groups/settings
reservation_support	Indicates if reservation support is configured	<a href="https://<RPVM>/fapi/rest/4_3/groups/settings">https://<RPVM>/fapi/rest/4_3/groups/settings	<a href="https://<RPVM>/fapi/rest/5_1/groups/settings">https://<RPVM>/fapi/rest/5_1/groups/settings
priority	Amount of bandwidth allocated to this consistency group in relation to all other consistency groups:	<a href="https://<RPVM>/fapi/rest/4_3/groups/settings">https://<RPVM>/fapi/rest/4_3/groups/settings	<a href="https://<RPVM>/fapi/rest/5_1/groups/settings">https://<RPVM>/fapi/rest/5_1/groups/settings

Table 549. cg_config (continued)

Field	Description	From REST URI (4.3)	From REST URI (5.1)
	IDLE, LOW, NORMAL, HIGH, CRITICAL		
distributed	Indicates if CG is distributed	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
non_pref_rpa_transfer	Indicates if data should be transferred even when the group is handled by a nonpreferred RPA	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
Cg set	CG set name ① NOTE: Cg set is not collected from version 5.1.1.	<code>https://<RPVM>/fapi/rest/4_3/group_sets</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>

cg_config_crr for RecoverPoint for VMs

The fields described in the following table are returned.

Table 550. cg_config_crr

Field	Description	From REST URI (4.3)	From REST URI (5.1)
Cg_name	Name of the Consistency Group	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
from site	Name of the production site	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
to site	Name of the remote site	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
crr_minimize_data	Indicates if RecoverPoint for VM should preserve bandwidth to maintain lag within its limits	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
crr_minimize_lag	Indicates if RecoverPoint for VMs should use as much bandwidth as possible to minimize lag	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
crr_allow_regression	Indicates if RecoverPoint for VMs should be allowed to slow or stop the host application when approaching a policy limit	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
crr_measure_lag	Indicates if lag should be measured when writes reach the target RPA (as opposed to the journal)	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
crr_sys_opt_lag	Indicates if the system should optimize the lag	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
crr_max_lag_secs	Maximum allowed lag in number of secs	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
crr_max_lag_size	Maximum allowed lag for CRR, if not using system optimization. Values can be stored in MB.	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
crr_max_lag_writes	Maximum allowed lag in number of writes	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>

Table 550. cg_config_crr (continued)

Field	Description	From REST URI (4.3)	From REST URI (5.1)
crr_fast_first_time_init	Indicates if the copy should perform fast first time initialization	<a href="https://<RPVM>/fapi/rest/4_3/groups/settings">https://<RPVM>/fapi/rest/4_3/groups/settings	<a href="https://<RPVM>/fapi/rest/5_1/groups/settings">https://<RPVM>/fapi/rest/5_1/groups/settings
crr_snap_granularity	Snapshot granularity as a text string: Dynamic, Fixed per sec, Fixed per write	<a href="https://<RPVM>/fapi/rest/4_3/groups/settings">https://<RPVM>/fapi/rest/4_3/groups/settings	<a href="https://<RPVM>/fapi/rest/5_1/groups/settings">https://<RPVM>/fapi/rest/5_1/groups/settings

cg_copy_config for RecoverPoint for VMs

The fields described in the following table are returned.

Table 551. cg_copy_config

Field	Description	From REST URI (4.3)	From REST URI (5.1)
cg_name	Name of the Consistency Group	<a href="https://<RPVM>/fapi/rest/4_3/groups/settings">https://<RPVM>/fapi/rest/4_3/groups/settings	<a href="https://<RPVM>/fapi/rest/5_1/groups/settings">https://<RPVM>/fapi/rest/5_1/groups/settings
cg_copy_name	Name of the copy	<a href="https://<RPVM>/fapi/rest/4_3/groups/settings">https://<RPVM>/fapi/rest/4_3/groups/settings	<a href="https://<RPVM>/fapi/rest/5_1/groups/settings">https://<RPVM>/fapi/rest/5_1/groups/settings
site	Location of the copy	<a href="https://<RPVM>/fapi/rest/4_3/groups/settings">https://<RPVM>/fapi/rest/4_3/groups/settings	<a href="https://<RPVM>/fapi/rest/5_1/groups/settings">https://<RPVM>/fapi/rest/5_1/groups/settings
role	Role of the copy. For example, PRODUCTION, LOCAL REPLICA or REMOTE REPLICA	<a href="https://<RPVM>/fapi/rest/4_3/groups/settings">https://<RPVM>/fapi/rest/4_3/groups/settings	<a href="https://<RPVM>/fapi/rest/5_1/groups/settings">https://<RPVM>/fapi/rest/5_1/groups/settings
journal_compression	Level of compression enabled on the Journal: None, Medium, High NOTE: Journal_compression data is not collected from version 5.1.1.	<a href="https://<RPVM>/fapi/rest/4_3/groups/settings">https://<RPVM>/fapi/rest/4_3/groups/settings	<a href="https://<RPVM>/fapi/rest/5_1/groups/settings">https://<RPVM>/fapi/rest/5_1/groups/settings
reqd_protection_window	How far in time the replica image could be rolled back (in seconds)	<a href="https://<RPVM>/fapi/rest/4_3/groups/settings">https://<RPVM>/fapi/rest/4_3/groups/settings	<a href="https://<RPVM>/fapi/rest/5_1/groups/settings">https://<RPVM>/fapi/rest/5_1/groups/settings
journal_lag_unlimited	Indicates if the journal lag is set to be unlimited	<a href="https://<RPVM>/fapi/rest/4_3/groups/settings">https://<RPVM>/fapi/rest/4_3/groups/settings	<a href="https://<RPVM>/fapi/rest/5_1/groups/settings">https://<RPVM>/fapi/rest/5_1/groups/settings
max_journal_lag	Maximum journal lag for a copy (in MB)	<a href="https://<RPVM>/fapi/rest/4_3/groups/settings">https://<RPVM>/fapi/rest/4_3/groups/settings	<a href="https://<RPVM>/fapi/rest/5_1/groups/settings">https://<RPVM>/fapi/rest/5_1/groups/settings
logged_writes_prop	Proportion of journal allocated for target-side log, specified as a percentage	<a href="https://<RPVM>/fapi/rest/4_3/groups/settings">https://<RPVM>/fapi/rest/4_3/groups/settings	<a href="https://<RPVM>/fapi/rest/5_1/groups/settings">https://<RPVM>/fapi/rest/5_1/groups/settings
journal_size_limit	Maximum size of the journal (in MB)	<a href="https://<RPVM>/fapi/rest/4_3/groups/settings">https://<RPVM>/fapi/rest/4_3/groups/settings	journal_size_limit is not collected from version 5.1.1.
allow_long_resync	Indicates if the Copy should allow distribution of snapshots	<a href="https://<RPVM>/fapi/rest/4_3/groups/settings">https://<RPVM>/fapi/rest/4_3/groups/settings	<a href="https://<RPVM>/fapi/rest/5_1/groups/settings">https://<RPVM>/fapi/rest/5_1/groups/settings

Table 551. cg_copy_config (continued)

Field	Description	From REST URI (4.3)	From REST URI (5.1)
	that are larger than the capacity of journal volumes		
copyos	Operating system of the Copy. If the copies written are not all running the same operating system, this value will be Others/Mixed	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>

rpa_config for RecoverPoint for VMs

The fields described in the following table are returned.

Table 552. rpa_config

Field	Description	From REST URI (4.3)	From REST URI (5.1)
rpa_name	Hostname or IP address of the RecoverPoint Appliance for VMs	<code>https://<RPVM>/fapi/rest/4_3/rpas/state</code>	<code>https://<RPVM>/fapi/rest/5_1/rpas/state</code>
site	Site at which the RPA is located	<code>https://<RPVM>/fapi/rest/4_3/rpas/state</code>	<code>https://<RPVM>/fapi/rest/5_1/rpas/state</code>
version	RPA version	<code>https://<RPVM>/fapi/rest/4_3/rpas/state</code>	<code>https://<RPVM>/fapi/rest/5_1/rpas/state</code>

splitter_config for RecoverPoint for VMs

The fields described in the following table are returned.

Table 553. splitter_config

Field	Description	From REST URI (4.3)	From REST URI (5.1)
site	Site at which the Splitter is located	<code>https://<RPVM>/fapi/rest/4_3/splitters/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/splitters/settings</code>
spl_name	Splitter name	<code>https://<RPVM>/fapi/rest/4_3/splitters/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/splitters/settings</code>
type	Splitter type	<code>https://<RPVM>/fapi/rest/4_3/splitters/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/splitters/settings</code>

replicationset_config for RecoverPoint for VMs

The fields described in the following table are returned.

Table 554. replicationset_config

Field	Description	From REST URI (4.3)	From REST URI (5.1)
rs_name	Replication set name	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>

Table 554. replicationset_config (continued)

Field	Description	From REST URI (4.3)	From REST URI (5.1)
cg_name	Name of the Consistency Group	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
size	Size of the consistency group	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>

netint_ip for RecoverPoint for VMs

The fields described in the following table are returned.

Table 555. netint_ip

Field	Description	From REST URI (4.3)	From REST URI (5.1)
sub_name	RPA Name	<code>https://<RPVM>/fapi/rest/4_3/rpas/state</code>	<code>https://<RPVM>/deployer/rest/5_1/clusters/<clusterID></code>
sub_name2	Site	<code>https://<RPVM>/fapi/rest/4_3/rpas/state</code>	<code>https://<RPVM>/deployer/rest/5_1/clusters/<clusterID></code>
name	Name of the interface: BOX or WAN	<code>https://<RPVM>/fapi/rest/4_3/rpas/state</code>	<code>https://<RPVM>/deployer/rest/5_1/clusters/<clusterID></code>
ipaddr	IP address of the interface	<code>https://<RPVM>/fapi/rest/4_3/rpas/state</code>	<code>https://<RPVM>/deployer/rest/5_1/clusters/<clusterID></code>

rpa_volumes for RecoverPoint for VMs

The fields described in the following table are returned.

Table 556. rpa_volumes

Field	Description	From REST URI (4.3)	From REST URI (5.1)
Vol_name	Raw UID	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
Vol_type	"journal" or "replication set"	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
uid	Volume name	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
CG name	CG name	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
CG Copy Name	Copy name	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>

Table 556. rpa_volumes (continued)

Field	Description	From REST URI (4.3)	From REST URI (5.1)
role	Copy role : Production, local replica or remote replica	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
vendor	Vendor name	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
Product	Product name	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
Model	Model name	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
size	Size in MB	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>
serial	Array serial number	<code>https://<RPVM>/fapi/rest/4_3/groups/settings</code>	<code>https://<RPVM>/fapi/rest/5_1/groups/settings</code>

site_volumes for RecoverPoint for VMs

The fields described in the following table are returned.

Table 557. site_volumes

Field	Description	From REST URI (4.3)	From REST URI (5.1)
site	Location	<code>https://<RPVM>/fapi/rest/4_3/clusters/<clusterID>/volumes</code>	<code>https://<RPVM>/fapi/rest/5_1/clusters/<clusterID>/volumes</code>
vol name	Volume name	<code>https://<RPVM>/fapi/rest/4_3/clusters/<clusterID>/volumes</code>	<code>https://<RPVM>/fapi/rest/5_1/clusters/<clusterID>/volumes</code>
vendor	Vendor	<code>https://<RPVM>/fapi/rest/4_3/clusters/<clusterID>/volumes</code>	<code>https://<RPVM>/fapi/rest/5_1/clusters/<clusterID>/volumes</code>
product	product	<code>https://<RPVM>/fapi/rest/4_3/clusters/<clusterID>/volumes</code>	<code>https://<RPVM>/fapi/rest/5_1/clusters/<clusterID>/volumes</code>
Model	model	<code>https://<RPVM>/fapi/rest/4_3/clusters/<clusterID>/volumes</code>	<code>https://<RPVM>/fapi/rest/5_1/clusters/<clusterID>/volumes</code>
Size	Size in MB	<code>https://<RPVM>/fapi/rest/4_3/clusters/<clusterID>/volumes</code>	<code>https://<RPVM>/fapi/rest/5_1/clusters/<clusterID>/volumes</code>
Uid	uid	<code>https://<RPVM>/fapi/rest/4_3/clusters/<clusterID>/volumes</code>	<code>https://<RPVM>/fapi/rest/5_1/clusters/<clusterID>/volumes</code>

Status function for RecoverPoint for VMs

The Status function gathers status information about the status of components in a virtual hosted environment. The Status function gathers the following data:

- cg_status for RecoverPoint for VMs
- cg_copy_status for RecoverPoint for VMs
- rpa_status for RecoverPoint for VMs
- splitter_status for RecoverPoint for VMs
- rpa_events for RecoverPoint for VMs
- cg_images for RecoverPoint for VMs

cg_status for RecoverPoint for VMs

The fields described in the following table are returned.

Table 558. cg_status

Field	Description	From REST URI (4.3)	From REST URI (5.1)
cg_name	Name of the consistency group	<a href="https://<RPVM>/fapi/rest/4_3/groups/state">https://<RPVM>/fapi/rest/4_3/groups/state	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state
production_copy	Name of the copy that is the source of the transfer	<a href="https://<RPVM>/fapi/rest/4_3/groups/state">https://<RPVM>/fapi/rest/4_3/groups/state	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state
enabled	Indicates if the consistency group is enabled	<a href="https://<RPVM>/fapi/rest/4_3/groups/state">https://<RPVM>/fapi/rest/4_3/groups/state	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state

cg_copy_status for RecoverPoint for VMs

The fields described in the following table are returned.

Table 559. cg_copy_status

Field	Description	From REST URI (4.3)	From REST URI (5.1)
cg_name	Name of the consistency group	<a href="https://<RPVM>/fapi/rest/4_3/groups/state">https://<RPVM>/fapi/rest/4_3/groups/state	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state
cg_copy_name	Name of the copy	<a href="https://<RPVM>/fapi/rest/4_3/groups/statistics">https://<RPVM>/fapi/rest/4_3/groups/statistics	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state
enabled	Indicates if the Consistency Group Copy is active	<a href="https://<RPVM>/fapi/rest/4_3/groups/statistics">https://<RPVM>/fapi/rest/4_3/groups/statistics	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state
active_rpa	Name of the RPA that is currently active for this Copy	<a href="https://<RPVM>/fapi/rest/4_3/groups/statistics">https://<RPVM>/fapi/rest/4_3/groups/statistics	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state
data_transfer	Status of Data Transfer for this Copy (for example, ACTIVE, PAUSED)	<a href="https://<RPVM>/fapi/rest/4_3/groups/statistics">https://<RPVM>/fapi/rest/4_3/groups/statistics	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state
journal_state	Current state of journal (for example, DISTRIBUTING IMAGES TO STORAGE)	<a href="https://<RPVM>/fapi/rest/4_3/groups/statistics">https://<RPVM>/fapi/rest/4_3/groups/statistics	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state

Table 559. cg_copy_status (continued)

Field	Description	From REST URI (4.3)	From REST URI (5.1)
storage_access	Current status of access to the storage for this copy (for example, DIRECT ACCESS, or NO ACCESS)	<a href="https://<RPVM>/fapi/rest/4_3/groups/statistics">https://<RPVM>/fapi/rest/4_3/groups/statistics	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state
cur_protwin	Time duration of the current protection window (for example, 1 hour 35 minutes)	<a href="https://<RPVM>/fapi/rest/4_3/group_copies/protection_windows">https://<RPVM>/fapi/rest/4_3/group_copies/protection_windows	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state
pred_protwin	Predicted protection window value (for example, 1 hour 35 minutes)	<a href="https://<RPVM>/fapi/rest/4_3/group_copies/protection_windows">https://<RPVM>/fapi/rest/4_3/group_copies/protection_windows	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state
avg_compression	Average compression achieved (MB/second)	<a href="https://<RPVM>/fapi/rest/4_3/groups/statistics">https://<RPVM>/fapi/rest/4_3/groups/statistics	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state
link_mode	Link mode for local and remote replications (for example, CONTINUOUS, or CONTINUOUS ASYNC)	<a href="https://<RPVM>/fapi/rest/4_3/groups/statistics">https://<RPVM>/fapi/rest/4_3/groups/statistics	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state
journal_mode	Journal Mode (for example, NORMAL)	<a href="https://<RPVM>/fapi/rest/4_3/groups/statistics">https://<RPVM>/fapi/rest/4_3/groups/statistics	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state
journal_usage	Current usage of the journal (in MB)	<a href="https://<RPVM>/fapi/rest/4_3/groups/statistics">https://<RPVM>/fapi/rest/4_3/groups/statistics	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state
journal_latest_image	Timestamp of the most recent image	<a href="https://<RPVM>/fapi/rest/4_3/groups/statistics">https://<RPVM>/fapi/rest/4_3/groups/statistics	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state
journal_lag	Size of the journal lag (in MB)	<a href="https://<RPVM>/fapi/rest/4_3/groups/statistics">https://<RPVM>/fapi/rest/4_3/groups/statistics	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state
journal_capacity	Size of the journal (in MB)	<a href="https://<RPVM>/fapi/rest/4_3/groups/statistics">https://<RPVM>/fapi/rest/4_3/groups/statistics	<a href="https://<RPVM>/fapi/rest/5_1/groups/state">https://<RPVM>/fapi/rest/5_1/groups/state

rpa_status for RecoverPoint for VMs

The fields described in the following table are returned.

Table 560. rpa_status

Field	Description	From REST URI (4.3)	From REST URI (5.1)
rpa_name	Hostname or IP address of the RecoverPoint Appliance for VMs	<a href="https://<RPVM>/fapi/rest/4_3/rpas/state">https://<RPVM>/fapi/rest/4_3/rpas/state	<a href="https://<RPVM>/fapi/rest/5_1/rpas/state">https://<RPVM>/fapi/rest/5_1/rpas/state
site	Site at which the RPA is located	<a href="https://<RPVM>/fapi/rest/4_3/rpas/state">https://<RPVM>/fapi/rest/4_3/rpas/state	<a href="https://<RPVM>/fapi/rest/5_1/rpas/state">https://<RPVM>/fapi/rest/5_1/rpas/state
status	Status of the RPA	<a href="https://<RPVM>/fapi/rest/4_3/rpas/state">https://<RPVM>/fapi/rest/4_3/rpas/state	<a href="https://<RPVM>/fapi/rest/5_1/rpas/state">https://<RPVM>/fapi/rest/5_1/rpas/state
repository_vols	Status of the Repository Volume	<a href="https://<RPVM>/fapi/rest/4_3/rpas/state">https://<RPVM>/fapi/rest/4_3/rpas/state	<a href="https://<RPVM>/fapi/rest/5_1/rpas/state">https://<RPVM>/fapi/rest/5_1/rpas/state

Table 560. rpa_status (continued)

Field	Description	From REST URI (4.3)	From REST URI (5.1)
remote_connections	Status of the connection with the remote site	<a href="https://<RPVM>/fapi/rest/4_3/rpas/state">https://<RPVM>/fapi/rest/4_3/rpas/state	<a href="https://<RPVM>/fapi/rest/5_1/rpas/state">https://<RPVM>/fapi/rest/5_1/rpas/state
lan	Status of the LAN interface	<a href="https://<RPVM>/fapi/rest/4_3/rpas/state">https://<RPVM>/fapi/rest/4_3/rpas/state	<a href="https://<RPVM>/fapi/rest/5_1/rpas/state">https://<RPVM>/fapi/rest/5_1/rpas/state
lan_connections	Status of the local connections	<a href="https://<RPVM>/fapi/rest/4_3/rpas/state">https://<RPVM>/fapi/rest/4_3/rpas/state	<a href="https://<RPVM>/fapi/rest/5_1/rpas/state">https://<RPVM>/fapi/rest/5_1/rpas/state
wan	Status of the WAN interface	<a href="https://<RPVM>/fapi/rest/4_3/rpas/state">https://<RPVM>/fapi/rest/4_3/rpas/state	<a href="https://<RPVM>/fapi/rest/5_1/rpas/state">https://<RPVM>/fapi/rest/5_1/rpas/state
wan_connections	Status of the WAN connections	<a href="https://<RPVM>/fapi/rest/4_3/rpas/state">https://<RPVM>/fapi/rest/4_3/rpas/state	<a href="https://<RPVM>/fapi/rest/5_1/rpas/state">https://<RPVM>/fapi/rest/5_1/rpas/state
data_link	Status of data links on the RPA	<a href="https://<RPVM>/fapi/rest/4_3/rpas/state">https://<RPVM>/fapi/rest/4_3/rpas/state	<a href="https://<RPVM>/fapi/rest/5_1/rpas/state">https://<RPVM>/fapi/rest/5_1/rpas/state
volume_connections	Status of volume connections on the RPA	<a href="https://<RPVM>/fapi/rest/4_3/rpas/state">https://<RPVM>/fapi/rest/4_3/rpas/state	<a href="https://<RPVM>/fapi/rest/5_1/rpas/state">https://<RPVM>/fapi/rest/5_1/rpas/state

splitter_status for RecoverPoint for VMs

The fields described in the following table are returned.

Table 561. splitter_status

Field	Description	From REST URI (4.3)	From REST URI (5.1)
site	Site at which the Splitter is located	<a href="https://<RPVM>/fapi/rest/4_3/splitters/state">https://<RPVM>/fapi/rest/4_3/splitters/state	<a href="https://<RPVM>/fapi/rest/5_1/splitters/state">https://<RPVM>/fapi/rest/5_1/splitters/state
spl_name	Name of the Splitter	<a href="https://<RPVM>/fapi/rest/4_3/splitters/state">https://<RPVM>/fapi/rest/4_3/splitters/state	<a href="https://<RPVM>/fapi/rest/5_1/splitters/state">https://<RPVM>/fapi/rest/5_1/splitters/state
status	Status of the Splitter (for example, OK, DOWN,UNCONTROLLABLE)	<a href="https://<RPVM>/fapi/rest/4_3/splitters/state">https://<RPVM>/fapi/rest/4_3/splitters/state	<a href="https://<RPVM>/fapi/rest/5_1/splitters/state">https://<RPVM>/fapi/rest/5_1/splitters/state
rpa_connections	Status of the connections to the RPA from the Splitter	<a href="https://<RPVM>/fapi/rest/4_3/splitters/state">https://<RPVM>/fapi/rest/4_3/splitters/state	<a href="https://<RPVM>/fapi/rest/5_1/splitters/state">https://<RPVM>/fapi/rest/5_1/splitters/state

rpa_events for RecoverPoint for VMs

The fields described in the following table are collected using **POST** https://<RPVM>/fapi/rest/4_1/events filtered with the following payload:

```

payload :
{
    "JsonSubType": "UserEventLogsFilter",

    "level": "INFO",
    "scope": "ADVANCED",
    "eventsIDs": [],
    "timeFrame": {
        "startTime": {"timeInMicroSeconds" : <starttime>},
        "endTime": {"timeInMicroSeconds" : <endtime>}
    },
    "topics": [
        "CONSISTENCY_GROUP",

```

```

        "MANAGEMENT",
        "SPLITTER",
        "RPA",
        "CLUSTER"
    ],
    "textFilter": null
}

```

Table 562. rpa_events

Field	Description	From REST URI (4.3)	From REST URI (5.1)
site	Site at which event occurred	<a href="https://<RPVM>/fapi/rest/4_3/events/filtered">https://<RPVM>/fapi/rest/4_3/events/filtered	<a href="https://<RPVM>/fapi/rest/5_1/detailed_events/filtered">https://<RPVM>/fapi/rest/5_1/detailed_events/filtered
rpa_name	Hostname or IP address of the RecoverPoint Appliance for VMs	<a href="https://<RPVM>/fapi/rest/4_3/events/filtered">https://<RPVM>/fapi/rest/4_3/events/filtered	<a href="https://<RPVM>/fapi/rest/5_1/detailed_events/filtered">https://<RPVM>/fapi/rest/5_1/detailed_events/filtered
topic	One of: Management, Site, RPA, Group, Splitter	<a href="https://<RPVM>/fapi/rest/4_3/events/filtered">https://<RPVM>/fapi/rest/4_3/events/filtered	<a href="https://<RPVM>/fapi/rest/5_1/detailed_events/filtered">https://<RPVM>/fapi/rest/5_1/detailed_events/filtered
scope	One of: Normal, Detailed, Advanced, Root_cause	<a href="https://<RPVM>/fapi/rest/4_3/events/filtered">https://<RPVM>/fapi/rest/4_3/events/filtered	<a href="https://<RPVM>/fapi/rest/5_1/detailed_events/filtered">https://<RPVM>/fapi/rest/5_1/detailed_events/filtered
level	One of: Info, Warning, Error, Critical, Clear, Transient Warning, cleared warning, Transient Error, etc.	<a href="https://<RPVM>/fapi/rest/4_3/events/filtered">https://<RPVM>/fapi/rest/4_3/events/filtered	<a href="https://<RPVM>/fapi/rest/5_1/detailed_events/filtered">https://<RPVM>/fapi/rest/5_1/detailed_events/filtered
eventid	ID of the event	<a href="https://<RPVM>/fapi/rest/4_3/events/filtered">https://<RPVM>/fapi/rest/4_3/events/filtered	<a href="https://<RPVM>/fapi/rest/5_1/detailed_events/filtered">https://<RPVM>/fapi/rest/5_1/detailed_events/filtered
user	user	<a href="https://<RPVM>/fapi/rest/4_31/events/filtered">https://<RPVM>/fapi/rest/4_31/events/filtered	<a href="https://<RPVM>/fapi/rest/5_1/detailed_events/filtered">https://<RPVM>/fapi/rest/5_1/detailed_events/filtered
groups	Names of the consistency groups	<a href="https://<RPVM>/fapi/rest/4_3/events/filtered">https://<RPVM>/fapi/rest/4_3/events/filtered	<a href="https://<RPVM>/fapi/rest/5_1/detailed_events/filtered">https://<RPVM>/fapi/rest/5_1/detailed_events/filtered
summary	Summary of the log	<a href="https://<RPVM>/fapi/rest/4_3/events/filtered">https://<RPVM>/fapi/rest/4_3/events/filtered	<a href="https://<RPVM>/fapi/rest/5_1/detailed_events/filtered">https://<RPVM>/fapi/rest/5_1/detailed_events/filtered
details	Log details	<a href="https://<RPVM>/fapi/rest/4_3/events/filtered">https://<RPVM>/fapi/rest/4_3/events/filtered	<a href="https://<RPVM>/fapi/rest/5_1/detailed_events/filtered">https://<RPVM>/fapi/rest/5_1/detailed_events/filtered

(i) NOTE: rpa_events data is not gathered from RecoverPoint 5.2.2.

cg_images for RecoverPoint for VMs

The fields described in the following table are returned.

Table 563. cg_images

Field	Description	From REST URI (4.3)	From REST URI (5.1)
cg_name	Name of the consistency group	<code>https://<RPVM>/fapi/rest/4_3/groups/<groupID>/snapshots?name=' '&starttime=<startTime>&endTime=<endTime></code>	<code>https://<RPVM>/fapi/rest/5_1/groups/<groupID>/snapshots?name=' '&starttime=<startTime>&endTime=<endTime></code>
cg_copy_name	Name of the copy	<code>https://<RPVM>/fapi/rest/4_3/groups/<groupID>/snapshots?name=' '&starttime=<startTime>&endTime=<endTime></code>	<code>https://<RPVM>/fapi/rest/5_1/groups/<groupID>/snapshots?name=' '&starttime=<startTime>&endTime=<endTime></code>
snapshot	Name of the snapshot	<code>https://<RPVM>/fapi/rest/4_3/groups/<groupID>/snapshots?name=' '&starttime=<startTime>&endTime=<endTime></code>	<code>https://<RPVM>/fapi/rest/5_1/groups/<groupID>/snapshots?name=' '&starttime=<startTime>&endTime=<endTime></code>
currentimage	Current image	<code>https://<RPVM>/fapi/rest/4_3/groups/<groupID>/snapshots?name=' '&starttime=<startTime>&endTime=<endTime></code>	<code>https://<RPVM>/fapi/rest/5_1/groups/<groupID>/snapshots?name=' '&starttime=<startTime>&endTime=<endTime></code>
bookmark	Name of the snapshot bookmark	<code>https://<RPVM>/fapi/rest/4_3/groups/<groupID>/snapshots?name=' '&starttime=<startTime>&endTime=<endTime></code>	<code>https://<RPVM>/fapi/rest/5_1/groups/<groupID>/snapshots?name=' '&starttime=<startTime>&endTime=<endTime></code>
size	Size of the image (in bytes)	<code>https://<RPVM>/fapi/rest/4_3/groups/<groupID>/snapshots?name=' '&starttime=<startTime>&endTime=<endTime></code>	<code>https://<RPVM>/fapi/rest/5_1/groups/<groupID>/snapshots?name=' '&starttime=<startTime>&endTime=<endTime></code>

(i) NOTE: cg_images data is not gathered from RecoverPoint 5.2.2.

Performance function for RecoverPoint for VMs

The Performance function gathers performance information about the performance of components in a RecoverPoint for VMs environment. The Performance function gathers the following data:

- [cg_copy_perf for RecoverPoint for VMs](#)
- [rpa_perf for RecoverPoint for VMs](#)

cg_copy_perf for RecoverPoint for VMs

The fields described in the following table are collected using **POST** `https://<RPVM>/fapi/rest/4_1/system/detect_bottlenecks` with the following Payload:

This data is not gathered from RecoverPoint 5.1.1 for VMs.

```
payload :{
    "workingMode": "SYSTEM_OVERVIEW_AND_BOTTLENECK_ANALYSIS",
    "timeFrame": {
        "startTime": {"timeInMicroSeconds" : <startTime>},
        "endTime": {"timeInMicroSeconds" : <endTime>}},
    "peakDuration": {
        "value": 5,
        "type": "MINUTES"
    },
    "advancedOverview": true,
    "detailedOverview": true,
    "groups": [{"id": <groupId>}, {"id": <groupID>}]
}
```

Table 564. cg_copy_perf

Field	Description	From REST URI (4.3)
cg_name	Name of the Consistency Group	POST <code>https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks</code>
cg_copy_name	Name of the copy	POST <code>https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks</code>
time_lag	Average time lag in replication of the copy over the last polling period	POST <code>https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks</code>
time_lag_peak	Peak time lag in replication of the copy over the last polling period	POST <code>https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks</code>
data_lag	Average amount of data that was queued for replication over the polling period	POST <code>https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks</code>
data_lag_peak	Peak data amount of data that was queued for replication over the polling period	POST <code>https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks</code>
writes_lag	Average number of IO transactions that were queued for replication	POST <code>https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks</code>
writes_lag_peak	Peak number of IO transactions that were queued for replication	POST <code>https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks</code>
incoming_write	Average amount of data that changed per second over the polling period	POST <code>https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks</code>

Table 564. cg_copy_perf (continued)

Field	Description	From REST URI (4.3)
incoming_write_peak	Maximum amount of data changed per second over the polling period	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
incoming_io	Average number of IOs per second that were performed over the polling period	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
incoming_io_peak	Peak number of IOs per second that were performed over the polling period	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
total_output_rate	Average amount of data transferred on the link to the target per second. This value includes the amount of data transferred during both initialization and replication phases. It does not include any time in which the link was halted	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
total_output_rate_peak	Peak amount of data transferred on the link to the target per second. This value includes the amount of data transferred during both initialization and replication phases. It does not include any time in which the link was halted	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
init_output_rate	Average amount of data transferred on the link to the target per second during the initialization phase. It does not include any time in which the link was halted	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
init_output_rate_peak	Peak amount of data transferred on the link to the target per second during the initialization phase. It does not include any time in which the link was halted.	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
noninit_output_rate	Average amount of data transferred on the link to the target per second. This value does not include data transferred during the initialization phase but does include the time taken to perform initialization. It does not include time in which the link was halted	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
noninit_output_rate_peak	Peak amount of data transferred on the link to the target per second. This value does not include data transferred during the initialization phase but does include the time taken to perform initialization. It does not include time in which the link was halted	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
init_data_sync	Average amount of data that was marked for the initialization	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks

Table 564. cg_copy_perf (continued)

Field	Description	From REST URI (4.3)
init_data_sync_peak	Peak amount of data that was marked for the initialization	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
cpu_util	CPU usage of the processes used for the current link. This value is applicable in CRR mode only	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
cpu_util_peak	Peak CPU usage of the processes used for the current link	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
Time in transfer	Percentage of time that the link was up	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
Time in initialization	Percentage of time that the link was initializing	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
comp_ratio	Compression ratio or Bandwidth reduction	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
Init time remote	Percentage of the initialization time used to read from the target devices	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
Init speed remote	Speed of reading from the target devices	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
Init time local	Percentage of the initialization time used to read from the source devices	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
Init speed local	Speed of reading from the source devices	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
highload_time	Percentage time of Highload	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks
cg_copy_production_name	Name of the production copy	POST <a href="https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks">https://<RPVM>/fapi/rest/4_3/system/detect_bottlenecks

rpa_perf for RecoverPoint for VMs

The fields described in the following table are returned.

Table 565. rpa_perf

Field	Description	From REST URI (4.3)	From REST URI (5.1)
rpa_name	Hostname or IP address of the RecoverPoint Appliance	<code>https://<RPVM>/fapi/rest/4_3/rpas/statistics</code>	<code>https://<RPVM>/fapi/rest/5_1/rpas/statistics</code>
site	Site at which the RecoverPoint Appliance for VMs is located	<code>https://<RPVM>/fapi/rest/4_3/rpas/statistics</code>	<code>https://<RPVM>/fapi/rest/5_1/rpas/statistics</code>
application	Total number of writes performed by the application	<code>https://<RPVM>/fapi/rest/4_3/rpas/statistics</code>	<code>https://<RPVM>/fapi/rest/5_1/rpas/statistics</code>
compression	Level of compression achieved (as a percentage)	<code>https://<RPVM>/fapi/rest/4_3/rpas/statistics</code>	<code>https://<RPVM>/fapi/rest/5_1/rpas/statistics</code>
wan_throughput	Total throughput of WAN traffic	<code>https://<RPVM>/fapi/rest/4_3/rpas/statistics</code>	<code>https://<RPVM>/fapi/rest/5_1/rpas/statistics</code>
san_throughput	Total throughput of SAN traffic	<code>https://<RPVM>/fapi/rest/4_3/rpas/statistics</code>	<code>https://<RPVM>/fapi/rest/5_1/rpas/statistics</code>
utilisation	Percentage utilization of the RPA	<code>https://<RPVM>/fapi/rest/4_3/rpas/statistics</code>	<code>https://<RPVM>/fapi/rest/5_1/rpas/statistics</code>
waninit_throughput	Throughput of WAN initialization traffic	<code>https://<RPVM>/fapi/rest/4_3/rpas/statistics</code>	<code>https://<RPVM>/fapi/rest/5_1/rpas/statistics</code>

Performance CS function for RecoverPoint for VMs

The Performance CS function gathers performance information about the performance of components in a RecoverPoint for VMs environment. The Performance CS function gathers the following data:

- [cg_copy_perfcs for RecoverPoint for VMs](#)
- [rpa_perfcs for RecoverPoint for VMs](#)

This data is not gathered from RecoverPoint 5.1.1 for VMs.

cg_copy_perfcs for RecoverPoint for VMs

The fields described in the following table are collected using `POST https://<RPVM>/fapi/rest/4_1/statistics/export_consolidate_by_time_frame` with the following payload:

```
{  
    "granularity": "MINUTES",  
    "timeFrame": {  
        "startTime": {"timeInMicroSeconds": <startTime>},  
        "endTime": {"timeInMicroSeconds": <endTime>}  
    },  
}
```

Table 566. cg_copy_perfc

Field	Description	From REST URI (4.3)
cg_name	Name of the Consistency Group	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
cg_copy_name	Name of the copy	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
time_lag	Average time lag in replication of the copy over the last polling period	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
time_lag_peak	Peak time lag in replication of the copy over the last polling period	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
data_lag	Average amount of data that was queued for replication over the polling period	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
data_lag_peak	Peak data amount of data that was queued for replication over the polling period	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
writes_lag	Average number of IO transactions that were queued for replication	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
writes_lag_peak	Peak number of IO transactions that were queued for replication	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
incoming_write	Average amount of data that changed per second over the polling period	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
incoming_write_peak	Maximum amount of data changed per second over the polling period	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
incoming_io	Average number of IOs per second that were performed over the polling period	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
incoming_io_peak	Peak number of IOs per second that were performed over the polling period	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
total_output_rate	Average amount of data transferred on the link to the target per second. This value includes the amount of data transferred during both initialization and	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame

Table 566. cg_copy_perfcs (continued)

Field	Description	From REST URI (4.3)
	replication phases. It does not include any time in which the link was halted.	
total_output_rate_peak	Peak amount of data transferred on the link to the target per second. This value includes the amount of data transferred during both initialization and replication phases. It does not include any time in which the link was halted.	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
init_output_rate	Average amount of data transferred on the link to the target per second during the initialization phase. It does not include any time in which the link was halted.	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
init_output_rate_peak	Peak amount of data transferred on the link to the target per second during the initialization phase. It does not include any time in which the link was halted.	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
noninit_output_rate	Average amount of data transferred on the link to the target per second. This value does not include data transferred during the initialization phase but does include the time taken to perform initialization. It does not include time in which the link was halted.	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
noninit_output_rate_peak	Peak amount of data transferred on the link to the target per second. This value does not include data transferred during the initialization phase but does include the time taken to perform initialization. It does not include time in which the link was halted.	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
init_data_sync	Average amount of data that was marked for the initialization	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
init_data_sync_peak	Peak amount of data that was marked for the initialization	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
cpu_util	CPU usage of the processes used for the current link. This value is applicable in CRR mode only	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
cpu_util_peak	Peak CPU usage of the processes used for the current link	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
transfer_per	Percentage of time that the link was up	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame

Table 566. cg_copy_perfc (continued)

Field	Description	From REST URI (4.3)
init_per	Percentage of time that the link was initializing	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
comp_ratio	Compression ratio or Bandwidth reduction	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
init_time_remote	Percentage of the initialization time used to read from the target devices	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
init_speed_remote	Speed of reading from the target devices	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
init_time_local	Percentage of the initialization time used to read from the source devices	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
request_start	Start time for the period over which the performance statistics are gathered	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
request_end	End time for the period over which the performance statistics are gathered	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
highload_time	Percentage time of High load	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
group_util	Consistency group utilization	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
group_util_peak	Consistency group utilization peak	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
cg_copy_production_name	Name of the production copy	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
disrecreg_time	Distributor receiver regulation duration	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
disrecreg_time_peak	Distributor receiver regulation duration peak	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame

Table 566. cg_copy_perfcs (continued)

Field	Description	From REST URI (4.3)
ffdis_time	Fast forward distribution duration	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
ffdis_time_peak	Fast forward distribution duration peak	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame

rpa_perfcs for RecoverPoint for VMs

Returns rpa perf data at a per minute level for the RecoverPoint for VMs environment . The fields described in the following table are returned.

Table 567. rpa_perfcs

Field	Description	From REST URI (4.3)
rpa_name	Hostname or IP address of the RecoverPoint Appliance	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
site	Site at which the RPA is located	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
wan_throughput	Total throughput of WAN traffic (KB/second)	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
incoming_write	Total incoming writes rate for box	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
incoming_io	Average number of IOs per second that were performed over the polling period	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
incoming_write_rp	Total incoming writes rate for RPA while replicating	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
incoming_io_rp	Incoming IOs rate for RPA while replicating	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
noninit_output_rate	Non - initialization output rate for RPA	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame
init_output_rate	Average amount of data transferred during init	<a href="https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame">https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame

Table 567. rpa_perfcs (continued)

Field	Description	From REST URI (4.3)
data_sync	Data synchronization rate for RPA	<code>https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame</code>
cpu_util	Compression CPU utilization	<code>https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame</code>
cpu_util_rp	Replication process CPU utilization	<code>https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame</code>
box_util	RPA utilization	<code>https://<RPVM>/fapi/rest/4_3/statistics/export_consolidate_by_time_frame</code>

Tape Library Module

The Tape Library module gathers information about tape libraries and the drives within those tape libraries. Data Protection Advisor uses SNMP to gather Configuration, Status, and Performance data from the tape library MIBs. The Tape Library module contains the following functions:

Topics:

- Configuration function for tape libraries
- Status function

Configuration function for tape libraries

The Configuration function gathers information about the tape libraries and the drives within the library. The function includes the following options:

- timeout — SNMP timeout value in seconds. The default value is 10.

The Configuration function gathers the following data:

- library_config for tape libraries
- tapedrive_config for tape libraries
- fcport_config for tape libraries
- hwpsu_config for tape libraries
- hwtemp_config for tape libraries
- hwfan_config for tape libraries
- hwbattery_config for tape libraries
- license_config for tape libraries
- netint_config for tape libraries

library_config for tape libraries

The fields described in the following table are returned.

Table 568. library_config

Field	Description	Returned For
firmware	Firmware version of the library	Quantum Scalar 100, 1000, 10K, i500, i2000; Sun L-Series, Oracle StorageTek SL24, SL48, SL500; IBM TS 3500, IBM TS 3583; Fujitsu LT250, LT270, IBM TS3100, IBM TS3200
serial	Serial number of the library	Quantum Scalar 100, 1000, 10K, i500, i2000; Sun L-Series, Oracle StorageTek SL24, SL48, SL500; IBM TS 3500, IBM TS 3583; Fujitsu LT250, LT270, IBM TS3100, IBM TS3200
hands	Number of hands in the library	Sun L-Series, Oracle StorageTek SL500, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K, Fujitsu LT250, LT270, IBM TS3100, IBM TS3200
slots	Number of slots in the library	Sun L-Series, Oracle StorageTek SL500, Quantum i500, Quantum i2000, IBM TS

Table 568. library_config (continued)

Field	Description	Returned For
		3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K, HP StorageWorks Tape Libraries, IBM TS3100, IBM TS3200
caps	Number of CAPs in the library	Sun L-Series, Oracle StorageTek SL500, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K, Fujitsu LT250 and LT270, IBM TS3100, IBM TS3200
drives	Number of drives in the library	Sun L-Series, Oracle StorageTek SL500, Quantum i500, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K Tape, HP StorageWorks Libraries, Fujitsu LT250 and LT270, IBM TS3100, IBM TS3200
vendor	Vendor that produces the tape library	Quantum Scalar 100, 1000, 10K, i500, i2000; Sun L-Series, Oracle StorageTek SL24, SL48, SL500; IBM TS 3500, IBM TS 3583; Fujitsu LT250, LT270, IBM TS3100, IBM TS3200
model	Library model	Quantum Scalar 100, 1000, 10K, i500, i2000; Sun L-Series, Oracle StorageTek SL24, SL48, SL500; IBM TS 3500, IBM TS 3583; Fujitsu LT250, LT270, IBM TS3100, IBM TS3200

tapedrive_config for tape libraries

The fields described in the following table are returned.

Table 569. tapedrive_config

Field	Description	Returned For
libraryname	Name of library in which the tape drive is located	Sun L-Series, Oracle StorageTek SL500, Quantum i500, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K Tape Libraries, IBM TS3100, IBM TS3200
name	Name of the tape drive	Quantum Scalar 100, 1000, 10K, i500, i2000; Sun L-Series, Oracle StorageTek SL24, SL48, SL500; IBM TS 3500, IBM TS 3583; Fujitsu LT250, LT270, IBM TS3100, IBM TS3200
make	Make of the tape drive	Quantum Scalar 100, 1000, 10K, i500, i2000; Sun L-Series, Oracle StorageTek SL24, SL48, SL500; IBM TS 3500, IBM TS 3583; Fujitsu LT250, LT270, IBM TS3100, IBM TS3200
model	Model of the tape drive	Quantum Scalar 100, 1000, 10K, i500, i2000; Sun L-Series, Oracle StorageTek SL24, SL48, SL500; IBM TS 3500, IBM TS 3583; Fujitsu LT250, LT270, IBM TS3100, IBM TS3200

Table 569. tapedrive_config (continued)

Field	Description	Returned For
firmware	Version of firmware running on the drive	Quantum Scalar 100, 1000, 10K, i500, i2000; Sun L-Series, Oracle StorageTek SL24, SL48, SL500; IBM TS 3500, IBM TS 3583; Fujitsu LT250, LT270, IBM TS3100, IBM TS3200
serial	Serial number of the tape drive	Quantum Scalar 100, 1000, 10K, i500, i2000; Sun L-Series, Oracle StorageTek SL24, SL48, SL500; IBM TS 3500, IBM TS 3583; Fujitsu LT250, LT270, IBM TS3100, IBM TS3200
interface	Interface type of the drive	Quantum Scalar 100, 1000, 10K, i500, i2000; Sun L-Series, Oracle StorageTek SL24, SL48, SL500; IBM TS 3500, IBM TS 3583; Fujitsu LT250, LT270, IBM TS3100, IBM TS3200 Note: For the IBM TS 3500, data is returned only for Fibre Channel tape drives
if_address	Address of the interface	Oracle StorageTek SL500, Fujitsu LT250 and LT270
controller_firmware	Version of firmware running on the Controller	HP StorageWorks

fcport_config for tape libraries

The fields described in the following table are returned.

Table 570. fcport_config

Field	Description	Returned For
port	Port identifier; for example, Port 1	Sun L-Series; Oracle StorageTek SL500; Quantum i500, Quantum i2000; IBM TS 3500, IBM TS 3583; Quantum Scalar 100, 1000 and 10K Tape Libraries
wwpn	Worldwide Port Name allocated to this port	Sun L-Series, Oracle StorageTek SL500, Quantum i500, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K Tape Libraries

hwpsu_config for tape libraries

The fields described in the following table are returned.

Table 571. hwpsu_config

Field	Description	Returned For
name	Description of the power supply unit	Sun L-Series, Quantum i2000, Fujitsu LT250 and LT270
make	Manufacturer of the power supply unit	Sun L-Series
location	Location of power supply unit within the tape library	Quantum i2000

hwtemp_config for tape libraries

The fields described in the following table are returned.

Table 572. hwtemp_config

Field	Description	Returned For
name	Name of the temperature sensor	Sun L-Series, Quantum i2000, Fujitsu LT250 and LT270
model	Model of the temperature sensor	Quantum i2000
make	Manufacturer of the temperature sensor	Sun L-Series
location	Location of the temperature sensor within the tape library	Quantum i2000

hwfan_config for tape libraries

The fields described in the following table are returned.

Table 573. hwfan_config

Field	Description	Returned For
name	Description of the hardware fan	Sun L-Series, Quantum i2000, Fujitsu LT250 and LT270
model	Model of the hardware fan	Quantum i2000k
make	Manufacturer of the temperature sensor	Sun L-Series
location	Location of the hardware fan within the tape library	Quantum i2000

hwbattery_config for tape libraries

The fields described in the following table are returned.

Table 574. hwbattery_config

Field	Description	Returned For
name	Name of the hardware battery	Fujitsu LT250 and LT270
type	Type of battery	Fujitsu LT250 and LT270

license_config for tape libraries

The fields described in the following table are returned.

Table 575. license_config

Field	Description	Returned For
product	Name of the product	Quantum i2000
identifier	License ID	Quantum i2000
code	License code	Quantum i2000
instance	Instance number of a license if there are multiple. This value is hard coded to 1	Quantum i2000

Table 575. license_config (continued)

Field	Description	Returned For
instances	Number of instances provided by this license	Quantum i2000
valid	Indicates if the license is valid	Quantum i2000
expires	Expiration date of the license	Quantum i2000

netint_config for tape libraries

The fields described in the following table are returned.

Table 576. netint_config

Field	Description	Returned For
name	Name of the network interface	Sun L-Series, Oracle StorageTek SL500, Quantum i500, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K, HP StorageWorks Tape Libraries, Fujitsu LT250, LT270
ether_addr	Ethernet address of the underlying network card	Sun L-Series, Oracle StorageTek SL500, Quantum i500, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K, HP StorageWorks Tape Libraries, Fujitsu LT250, LT270
description	Description of the network interface	Sun L-Series, Oracle StorageTek SL500, Quantum i500, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K, HP StorageWorks Tape Libraries, Fujitsu LT250, LT270
mtu	Size of the largest packet that a network protocol can transmit	Sun L-Series, Oracle StorageTek SL500, Quantum i500, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K Tape Libraries, Fujitsu LT250, LT270
jumbo	Jumbo Packets Enabled	SNMP OID 1.3.6.1.2.1.2.2.1.4

Status function

The Status function gathers information about the current state of the tape library and the drives within it. The function includes the following options:

timeout — SNMP timeout value in seconds. The default value is 10.

The Status function gathers the following data:

- [library_status](#) for tape libraries
- [library_slotstatus](#) for tape libraries
- [library_errors](#) for tape libraries
- [library_capstatus](#) for tape libraries
- [tapedrive_status](#) for tape libraries
- [hwpsu_status](#) for tape libraries
- [hwtemp_status](#) for tape libraries
- [hwfan_status](#) for tape libraries
- [hwbattery_status](#) for tape libraries
- [netint_status](#) for tape libraries

library_status for tape libraries

The fields described in the following table are returned.

Table 577. library_status

Field	Description	Returned For
status	Status of the tape library	Sun L-Series, Oracle StorageTek SL24, SL48, SL500, Quantum i500, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K, Fujitsu LT250, LT270, IBM TS3100, IBM TS3200
state	Indicates if the tape library is online or offline	HP StorageWorks
numvolumes	Number of volumes within a tape library	Sun L-Series, Quantum i2000, IBM TS 3500

library_slotstatus for tape libraries

The fields described in the following table are returned.

Table 578. library_slotstatus

Field	Description	Returned For
address	Address of the slot	Sun L-Series, IBM TS 3500
volume	Volume ID of the volume in the slot	Sun L-Series, IBM TS 3500
status	Current status of the slot	Sun L-Series, IBM TS 3500 Note: For IBM TS 3500, this value is hard coded to OK
type	Type of cartridge in the slot	Sun L-Series, IBM TS 3500

library_errors for tape libraries

The fields described in the following table are returned.

Table 579. library_errors

Field	Description	Returned For
errorcode	Error code of the error	Sun L-Series, Quantum i2000, Fujitsu LT250, LT270
severity	Severity of the error	Sun L-Series, Quantum i2000
error	Error message	Sun L-Series, Quantum i2000, Fujitsu LT250, LT270
count	Number of errors that have occurred	Sun L-Series, Quantum i2000
action	Recommended action to resolve the error	HP StorageWorks

library_capstatus for tape libraries

The fields described in the following table are returned.

Table 580. library_capstatus

Field	Description	Returned For
address	Address of the CAP	Sun L-Series, Quantum i500, Quantum i2000, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K Tape Libraries, Fujitsu LT250, LT270, IBM TS3100, IBM TS3200
status	Current health of the CAP	Sun L-Series, Quantum i2000, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K Tape Libraries, Fujitsu LT250, LT270, IBM TS3100, IBM TS3200 Note: For IBM TS 3500, this value is hard coded to OK
accessibility	Indicates if the CAP is locked	Sun L-Series, Quantum i500, Quantum i2000, IBM TS 3583, Quantum Scalar 100, 1000 and 10K Tape Libraries
open	Indicates if the CAP is open	Sun L-Series, Quantum i500, Quantum i2000, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K Tape Libraries, Fujitsu LT250, LT270

tapedrive_status for tape libraries

The fields described in the following table are returned.

Table 581. tapedrive_status

Field	Description	Returned For
name	Name of the tape drive	Sun L-Series, Oracle StorageTek SL500, Quantum i500, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K, HP StorageWorks Tape Libraries, Fujitsu LT250, LT270, IBM TS3100, IBM TS3200
uncorrected_read_errors	Number of read errors that have not been corrected	Quantum i2000, IBM TS3100, IBM TS3200
uncorrected_write_errors	Number of write errors that have not been corrected	Quantum i2000, IBM TS3100, IBM TS3200
corrected_read_errors	Number of read errors that have been corrected	IBM TS3100, IBM TS3200
corrected_write_errors	Number of write errors that have been corrected	IBM TS3100, IBM TS3200
status	Current state of the drive	Sun L-Series, Oracle StorageTek SL500, Quantum i500, Quantum i2000, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K, HP StorageWorks Tape Libraries, Fujitsu LT250, LT270, IBM TS3100, IBM TS3200

Table 581. tapedrive_status (continued)

Field	Description	Returned For
volume	Name of the volume loaded in the drive	Sun L-Series, Oracle StorageTek SL500, Quantum i2000, IBM TS 3500, Fujitsu LT250, LT270
speed	Speed of the drive. Available only for Fibre Channel drives	Sun L-Series, Quantum i500
state	Additional drive state information	Sun L-Series, Oracle StorageTek SL500, Quantum i2000, Quantum i2000, IBM TS 3500, Fujitsu LT250, LT270, IBM TS3100, IBM TS3200
loopid	Loop ID of the drive. Available only for Fibre Channel drives	Sun L-Series, Oracle StorageTek SL500, Quantum i500, Quantum i2000
num_loads	Number of times that a tape has been loaded in a drive	Oracle StorageTek SL500, Quantum i500, Quantum i2000, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K Tape Libraries, IBM TS3100, IBM TS3200
cleaning_required	Indicates if cleaning is required on the drive	Sun L-Series, Oracle StorageTek SL500, Quantum i500, Quantum i2000, Quantum i2000, IBM TS 3500, HP StorageWorks Tape Libraries, IBM TS3100, IBM TS3200
libraryname	Library in which the tape drive is located	Sun L-Series, Oracle StorageTek SL500, Quantum i500, Quantum i2000, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K Tape Libraries, IBM TS3100, IBM TS3200

hwpsu_status for tape libraries

The fields described in the following table are returned.

Table 582. hwpsu_status

Field	Description	Returned For
name	Name of the power supply unit	Sun L-Series, Quantum i2000, Fujitsu LT250, LT270
active	Indicates if the power supply unit is active: 1 (active)	Sun L-Series, Quantum i2000
status	Status of the power supply	Fujitsu LT250, LT270

hwtemp_status for tape libraries

The fields described in the following table are returned.

Table 583. hwtemp_status

Field	Description	Returned For
name	Name of the temperature sensor	Sun L-Series, Quantum i2000, Fujitsu LT250, LT270

Table 583. hwtemp_status (continued)

Field	Description	Returned For
active	Indicates if the temperature sensor is active: 1 (active)	Sun L-Series, Quantum i2000
temp	Temperature of the sensor in the library	Sun L-Series, Quantum i2000, Fujitsu LT250, LT270
hot	Indicates if sensor has reached the threshold setting	Sun L-Series, Quantum i2000

hwfan_status for tape libraries

The fields described in the following table are returned.

Table 584. hwfan_status

Field	Description	Returned For
name	Name of the hardware fan	Sun L-Series, Quantum i2000, Fujitsu LT250, LT270
active	Indicates if the fan is active: 1 (active)	Sun L-Series, Quantum i2000
speed	Speed at which the fan is operating	Quantum i2000
status	Status of the fan	Fujitsu LT250, LT270

hwbattery_status for tape libraries

The fields described in the following table are returned.

Table 585. hwbattery_status

Field	Description	Returned For
name	Name of the hardware battery	Fujitsu LT250, LT270
status	Status of the battery	Fujitsu LT250, LT270

netint_status for tape libraries

The fields described in the following table are returned.

Table 586. netint_status

Field	Description	Returned For
name	Name of the hardware fan	Sun L-Series, Oracle StorageTek SL500, Quantum i500, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K, HP StorageWorks Tape Libraries, Fujitsu LT250, LT270
linkup	Indicates if the interface has an active link	Sun L-Series, Oracle StorageTek SL500, Quantum i500, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar 100, 1000 and 10K, HP StorageWorks Tape Libraries, Fujitsu LT250, LT270
speed	Speed at which the Network Interface is running (MB/second)	Sun L-Series, Oracle StorageTek SL500, Quantum i500, Quantum i2000, IBM TS 3500, IBM TS 3583, Quantum Scalar

Table 586. netint_status (continued)

Field	Description	Returned For
		100, 1000 and 10K Tape Libraries, Fujitsu LT250, LT270

IBM Spectrum Protect

The Spectrum Protect (formerly Tivoli Storage Manager, or TSM) module monitors the status of IBM Spectrum Protect. Note that the Data Protection Advisor web console and documentation continue to reference TSM. Data Protection Advisor uses the Spectrum Protect command line tool to return and display Configuration, Status, Job Monitor, Process Monitor, Volume Status, and Occupancy information. It consists of the following functions:

Topics:

- Configuration function for Spectrum Protect
- Status function for Spectrum Protect
- Volume Status function for Spectrum Protect
- Job Monitor function for Spectrum Protect
- Process Monitor function for Spectrum Protect
- Occupancy function for Spectrum Protect

Configuration function for Spectrum Protect

The Configuration function of the IBM Spectrum Protect module gathers information about the configuration of the backup server including information about clients, policies, pools, and devices. The function includes the following options:

- timeout — Determines how long the Data Protection Advisor Data Collection Agent waits for the results of running various IBM Spectrum Protect commands before terminating them. The default value is 3600 seconds.
- tsmhost — Specifies the hostname of the Spectrum Protect server if you are monitoring Spectrum Protect remotely and there is more than one instance on a system.
- tsport — Specifies the port for the Spectrum Protect server if you are monitoring Spectrum Protect remotely and there is more than one instance on a system. The default value is 1500.
- disableprivatevolumes — Disables reporting of private volumes.

The Configuration function gathers the following data:

- tsm_policyset_config
- tsm_copygroup_config
- tsm_mgmtclass_config
- bkup_server_config
- defined_server_config for Spectrum Protect
- bkup_server_mapping for Spectrum Protect
- group_config for Spectrum Protect
- client_config for Spectrum Protect
- schedule_config for Spectrum Protect
- job_config for Spectrum Protect
- jukebox_config for Spectrum Protect
- device_config for Spectrum Protect
- license_config for Spectrum Protect
- bkup_pool_config for Spectrum Protect

(i) NOTE: In Spectrum Protect environments that use Greshem Claret EDT for device control, Data Protection Advisor communicates with EDT to gather device configuration information. The Dell Data Protection Advisor Installation and Administration Guide contains more information about configuring Data Protection Advisor for EDT.

tsm_policyset_config

Table 587. tsm_policyset_config

Field	Description	From
policy_set_name	Policy set name	The output of query policyset f=d
policy_domain_name	Name of the domain the policy set is assigned to	The output of query policyset f=d
default_mgmt_class	The default management class assigned to this policy set	The output of query policyset f=d
description	Policy set description	The output of query policyset f=d
last_update_by	Administrator who made most recent changes	The output of query policyset f=d
last_updated	Date of last change managing_profile Managing profile name	The output of query policyset f=d
changes_pending	Whether changes are being made but not activated	The output of query policyset f=d

The fields described in the following table are returned.

tsm_copygroup_config

Table 588. tsm_copygroup_config

Field	Description	From
policy_domain_name	Policy domain of the copy group	The output of query copygroup f=d
policy_set_name	Policy set of the copy group	The output of query copygroup f=d
mgmt_class_name	Management class of the copy group	The output of query copygroup f=d
copy_group_name	Name of the copy group	The output of query copygroup f=d
copy_group_type	Type of copy group	The output of query copygroup f=d
versions_data_exists	Max backup versions retained	The output of query copygroup f=d
versions_data_deleted	Max backup versions deleted from client	The output of query copygroup f=d
retain_extra_versions	Days backup versions retained after being inactive	The output of query copygroup f=d
retain_only_version	Days backup versions retained after being deleted	The output of query copygroup f=d
copy_mode	Copy mode, modified or absolute	The output of query copygroup f=d
copy_serialization	How to process modified files during backup	The output of query copygroup f=d
copy_frequency	How frequent a file can be backed up (days)	The output of query copygroup f=d
copy_destination	Primary storage pool for data	The output of query copygroup f=d
toc_destination	Primary storage pool for Table Of Contents	The output of query copygroup f=d
last_update_by	Administrator who made most recent change	The output of query copygroup f=d
last_updated	Date time of the last change	The output of query copygroup f=d

Table 588. tsm_copygroup_config (continued)

Field	Description	From
managing_profile	Managing profile name	The output of query copygroup f=d
changes_pending	Whether changes are pending	The output of query copygroup f=d

The fields described in the following table are returned.

tsm_mgmtclass_config

Table 589. tsm_mgmtclass_config

Field	Description	From
policy_domain_name	Policy domain of the management class	The output of query mgmtclass f=d
default	Whether this is the default management class for the policy set	The output of query mgmtclass f=d
policy_set_name	Policy set of the management class	The output of query mgmtclass f=d
mgmt_class_name	Management class name	The output of query mgmtclass f=d
description	Management class description	The output of query mgmtclass f=d
space_mgmt_technique	File migration technique	The output of query mgmtclass f=d
automigrate_nonuse	Elapsed days of last access before file can be migrated	The output of query mgmtclass f=d
migration_requires_backup	Whether backup version exists before migration	The output of query mgmtclass f=d
migration_destination	Primary storage pool for migrated data	The output of query mgmtclass f=d
last_update_by	Administrator who made most recent change	The output of query mgmtclass f=d
last_updated	Date time of the last change	The output of query mgmtclass f=d
managing_profile	Managing profile name	The output of query mgmtclass f=d
changes_pending	Whether changes are pending	The output of query mgmtclass f=d

The fields described in the following table are returned.

bkup_server_config

The fields described in the following table are returned.

Table 590. bkup_server_config

Field	Description	From
backup_servername	Backup server name	Node name of the host that is monitored
application	Application name	Hard coded to Spectrum Protect
version	Version of the server software	Logon session information returned after a connection to Spectrum Protect is established
os_type	Application operating system	PLATFORM field in the status table
hostname	Server TCP/IP address	SERVER_NAME field in the status table
serverport	Server port number	SERVER_LLA field in the status table

Table 590. bkup_server_config (continued)

Field	Description	From
passset	Indicates if the server password is set	SERVER_PASSSET field in the status table
install_date	Date and time when the server was installed	INSTALL_DATE field in the status table
restart_date	Last date and time when the server was started	RESTART_DATE field in the status table
auth	Indicates if password authentication is set on or off	AUTHENTICATION field in the status table
passexp	Period after which the administrator or client node password expires (in days)	PASSEXP field in the status table
invpwlimit	Number of invalid sign-on attempts before a node is locked	INVALIDPWLIMIT field in the status table
minpwlength	Minimum number of characters for the password	MINPWLENGTH field in the status table
webauthto	Web authorization time out	WEBAUHTIMEOUT field in the status table
reg	Indicates if the client node registration is open or closed	REGISTRATION field in the status table
avail	Indicates if the server is enabled or disabled	AVAILABILITY field in the status table
acc	Indicates if an accounting record is generated at the end of each client node session	ACCOUNTING field in the status table
actlogret	Number of days information is retained in the activity log, or the size of the log (in days)	ACTLOGRETENTION field in the status table
sumret	Number of days information is retained in the SQL activity summary table (in days)	SUMMARYRETENTION field in the status table
licaudperiod	Period after which the license manager automatically audits the Spectrum Protect license (in days)	LICENSEAUDITPERIOD field in the status table
lastlicaud	Date and time when the last license audit occurred	LASTLICENSEAUDIT field in the status table
scheduler	Indicates if central scheduling is running (active or inactive)	SCHEDULER field in the status table
maxsess	Maximum number of client/server sessions	MAXSESSIONS field in the status table
maxschedsess	Maximum number of client/server sessions available for processing scheduled work	MAXSCHEDESESSIONS field in the status table
eventret	Number of days central scheduler event records are retained (in days)	EVENTRETENTION field in the status table
clientactdur	Duration of the period during which the client processes the schedule defined (in days)	CLIENTACTDURATION field in the status table
rand	Randomization percentage. How much of the startup window is used for	RANDOMIZE field in the status table

Table 590. bkup_server_config (continued)

Field	Description	From
	executing scheduled events in client-polling mode.	
queryschedper	Frequency with which clients poll the server to obtain scheduled work, in client-polling mode (in hours). If the value in this field is Client, the polling frequency is determined by the client node	QUERYSCHEDPERIOD field in the status table Data Protection Advisor does not report this field for TSM 6.3
maxcmdretr	Maximum number of times that a client scheduler retries after a failed attempt to execute a scheduled command. If the value in this field is Client, the client node determines the maximum number of retries	MAXCMDRETRIES field in the status table Data Protection Advisor does not report this field for TSM 6.3
retryper	Number of minutes between attempts by the client scheduler to retry after a failed attempt to contact the server or to execute a scheduled command (in minutes). If the value in this field is Client, the client node determines the number of minutes between retries	RETRYPERIOD field in the status table Data Protection Advisor does not report this field for TSM 6.3
schedmode	Central scheduling modes supported by the server	SCHEDMODE field in the status table
logmode	Mode for saving recovery log records: roll-forward, normal	LOGMODE field in the status table
dbbacktrig	Spectrum Protect automatically runs a backup of the database if the database backup trigger is enabled	DBBACKTRIGGER field in the status table
actrec	Active receivers for which event logging has begun	ACTIVERECEIVERS field in the status table
confmgr	Indicates if the server is a configuration manager	CONFIG_MANAGER field in the status table
refrint	Refresh interval. Interval that elapses before the managed server requests a refresh of any changes from a configuration manager	REFRESH_INTERVAL field in the status table
crossdef	Indicates if cross definition of servers is allowed	CROSSDEFINE field in the status table
ctxtmsg	Indicates if context messaging is enabled or disabled	CONTEXT_MESSAGING field in the status table
svrfreestatus	Indicates if server-free data movement is on, off, or not supported	SERVERFREE_STATUS field in the status table
svrfreebatch	Amount of data that is copied in a single instance of server-free data movement (in MB)	SERVERFREE_BATCH field in the status table
tocloadret	Approximate number of minutes that unreferenced Table of Contents data will be retained in the database (in minutes)	TOCLOADRETENTION field in the status table
mcguid	Machine globally unique identifier (GUID) as of the last time that the server was started. This GUID identifies the host	MACHINE_GUID field in the status table

Table 590. bkup_server_config (continued)

Field	Description	From
	machine on which the current server resides	
archretprot	Indicates if archive data retention protection is activated or deactivated	ARCHRETPROT field in the status table
licensecompl	Indicates if the server is in compliance (Valid) or out of compliance (Failed) with the license terms	LICENSECOMPLIANCE field in the status table
lastrefr	If the server is a managed server, specifies the date and time of the last successful refresh of configuration information from the configuration manager	LAST_REFRESH field in the status table
actlognum	Number of records in the activity log	ACTRECORDNUMBER field in the status table
actlogsize	Size of the activity log (in MB)	Activity Log Size field in the status table
dedupe level	Client-side deduplication verification level	DEDUPVERLEVEL field in the status table
dbrptmode	Database reporting mode	DBRPTMODE field in the status table
dbdirs	Database data directories	DB_DIRS field in the status table
encryptstrength	Encryption strength	ENCRYPTION_STRENGTH field in the status table
subfile	Indicates if subfile backups are enabled or not	SUBFILE field in the status table
deduprequiresbackup	Indicates if volumes in primary sequential-access storage pools that are set up for data deduplication can be reclaimed: Yes or No	DEDUPREQUIRESBACKUP field in the options table
srvdeduptxnlimit	Specifies the maximum size of a transaction when server-side deduplicated data is backed up or archived (in GB)	SERVERDEDUPTXNLIMIT field in the options table
clntdeduptxnlimit	Specifies the maximum size of a transaction when client-side deduplicated data is backed up or archived (in GB)	CLIENTDEDUPTXNLIMIT field of status table
deduptier3filesize	Specifies the file size at which point the Spectrum Protect server begins using Tier 3 chunking for data deduplication (in GB)	DEDUPTIER3FILESIZE field in the options table
deduptier2filesize	Specifies the file size at which point the Spectrum Protect server begins using Tier 2 chunking for data deduplication (in GB)	DEDUPTIER2FILESIZE field in the options table
enablenasdedup	Indicates if the server deduplicates data that is stored by a network-attached storage (NAS) file server	EnableNasDedup field in the status table
outbound_replication	Indicates if replication processing is enabled or not	Outbound replication field from status table

Table 590. bkup_server_config (continued)

Field	Description	From
target_repl_server	Name of the target node for replication operations	Target replication server field from status table
default_archive_repl_rule	Default replication rule for archive data	Default Replication Rule for Archive field from status table
default_backup_repl_rule	Default replication rule for backup data	Default Replication Rule for Backup field from status table
default_space_mgmt_rule	Default replication rule for space-managed data	Default Replication Rule for Space Management field from status table
repl_retention_period	Number of days replication history records are kept	Replication Record Retention Period field from status table

defined_server_config for Spectrum Protect

In previous Data Protection Advisor releases, this table was called LAN-free Server Configuration. Data is retrieved by running the query server f=d command. The fields described in the following table are returned.

Table 591. defined_server_config

Field	Description	From
defined_servername	Name of the server. In previous Data Protection Advisor releases, this field was called LAN-free Server Name	Server Name field of query server f=d
version	Server version	Version, Release, Level field of query server f=d
hostname	IP address of the server	High-level Address field of query server f=d
portno	Port number of the server	Low-level Address field of query server f=d
description	Server description	Description field of query server f=d
node	Client node name	Node Name field of query server f=d
compression	Type of compression performed by Spectrum Protect on client files	Compression field of query server f=d
archdelallowed	Indicates if the client node can delete its own archive files	Archive Delete Allowed? field of query server f=d
url	URL of the server	URL field of query server f=d
regdate	Registration date and time for the client node	Registration Date/Time field of query server f=d
passwdset	Indicates if the server password is set	Server password Set field of query server f=d
passwdsetdate	When the server password was set	Server password Set Date/Time field of query server f=d
invsigncount	Maximum number of invalid sign on attempts allowed	Invalid Sign-on count for Server field of query server f=d
validateprotocol	Indicates if data validation is enabled	Validate Protocol field of query server f=d
regadmin	Name of the administrator that registered the client node	Registering Administrator field of query server f=d

Table 591. defined_server_config (continued)

Field	Description	From
roles	Spectrum Protect server roles	Role(s) field of query server f=d
comm_method	Communication method	Comm. Method field of query server f=d
ssl	SSL	SSL field of query server f=d
virtpasswdset	Virtual volume password set status	Virtual Volume Password Set field of query server f=d
virtpasswdsetdate	Virtual volume password set date and time	Virtual Volume Password Set Date/Time field of query server f=d
grace_delete	Grace deletion period (in days)	Grace Deletion Period field of query server f=d
allowrepl	Indicates if server definitions can be replaced	Allow Replacement field of query server f=d
locked	Indicates if client node is locked out of Spectrum Protect	Locked? field of query server f=d

bkup_server_mapping for Spectrum Protect

The fields described in the following table are returned.

Table 592. bkup_server_mapping

Field	Description	From
client_name	Client name	node name from node query
group_name	List of backup jobs	Policy Domain name from node query
schedule_name	Name of schedule	Schedule name from schedule query
job_name	Name of Job	Objects from schedule query

group_config for Spectrum Protect

The fields are obtained by running the query QUERY domain format=detailed. The fields described in the following table are returned.

Table 593. group_config

Field	Description	From
group_name	Group name	Policy domain name
active	Indicates if the client is active: 1 (active)	Hard coded to 1
backup_ret	Number of days the inactive backup data is retained	Backup retention (grace period)
archive_ret	Number of days the inactive archive data is retained	Archive retention (grace period)
mgmt_class	The assigned default management class for the policy set	The output of query domain f=d
registered_nodes	The number of client nodes registered to the policy domain	The output of query domain f=d
description	Description of the policy domain	The output of query domain f=d

Table 593. group_config (continued)

Field	Description	From
last_update_by	Administrator who made most recent changes	The output of query domain f=d
last_updated	Date of last change	The output of query domain f=d
managing_profile	Managing profile name	The output of query domain f=d
changes_pending	Whether changes are being made but not activated	The output of query domain f=d
data_pool_list	The list of active-data pools in the domain	The output of query domain f=d

client_config for Spectrum Protect

The fields are obtained by running the query QUERY node type=any format=detailed. The fields described in the following table are returned.

Table 594. client_config

Field	Description	From
client_name	Client name	Node name
active	Indicates if the client is active: 1 (active)	Hard coded to 1
version	Client version	Client version
remoteip	Client IP address	TCP/IP Address
os_type	Client operating system	Platform
contact	Client admin. Text string of information identifying the client node	Contact
client_identifier	Client ID. Physical name of client	TCP/IP name
os_version	Client operating system version	Client OS Level
regtime	Registration time	Registration Date/Time
lastacctime	Time last accessed	Last Access Date/Time
pwset_time	Time password was set	Password Set Date/Time
invalid_pw_count	Number of invalid password entries	Invalid Sign-on Count
compression	Indicates if compression is enabled	Compression
archdelete	Indicates if archive deletion is permitted	Archive Delete Allowed?
backdelete	Indicates if backup deletion is permitted	Backup Delete Allowed?
locked	Indicates if the client node is locked	Locked?
reg_admin	Name of the administrator who registered the client	Registering Administrator
option_set	Option set for the client specified on the Spectrum Protect server	Option Set
url	URL for the web client	URL
nodetype	Type of client node: Client, Server, NAS	Node Type
passexp	Number of days after which a password expires	Password Expiration Period

Table 594. client_config (continued)

Field	Description	From
keep_mp	Indicates if the client can keep mount points during a session	Keep Mount Point?
max_mp_allowed	Maximum number of mount points permitted for a client in a session	Maximum Mount Points Allowed
auto_fs_rename	Indicates if Spectrum Protect prompts the client to rename file spaces when the client system upgrades to a client that supports Unicode	Auto Filespace Rename
validateprotocol	Indicates if the client has data validation enabled	Validate Protocol
guid	Globally unique identifier (GUID) of the client node	Globally Unique ID
txngroupmax	Maximum number of files or directories that can be contained in a transaction group	Transaction Group Max
datareadpath	Transfer path when sending data: <ul style="list-style-type: none">● LAN path only● LAN-free path only● Any path	Data Read Path
datawritepath	Transfer path when receiving data: <ul style="list-style-type: none">● LAN path only● LAN-free path only● Any path	Data Write Path
sessioninitiation	Initiator of session: server or client, or server only	Session Initiation
client_hla	High level address of the NAS file server (IP address or domain name)	High Level Address
client_lln	Low level address of the NAS file server (port number)	Low Level Address
collocgroup_name	Indicates that collocation is enabled for the client	Collocation Group Name
proxy_target	Specifies which nodes are proxy nodes (agents) for other nodes	Proxynode Target
proxy_agent	Specifies the originating node of a proxy node	Proxynode Agent
compression_loc	Indicates where the compression is performed	Compression
deduplication	Indicates where the data is deduplicated: ClientOrServer, ServerOnly	Deduplication
domain	Specifies a list of policy domains that limit the client node query	QUERY node type=any f=d call
replication_state	Indicates whether the node is enabled for replication	QUERY node type=any f=d call
replication_mode	Indicates whether the node is configured as the source of or target for replicated data. If this field is blank, the node is	QUERY node type=any f=d call

Table 594. client_config (continued)

Field	Description	From
	not configured for replication.	
backup_replication_rule	The replication rule that applies to backup, archive, and space-managed data that belongs to the node.	QUERY node type=any f=d call
archive_replication_rule	The replication rule that applies to backup, archive, and space-managed data that belongs to the node.	QUERY node type=any f=d call
space_management_replicaiton_rule	The replication rule that applies to backup, archive, and space-managed data that belongs to the node.	QUERY node type=any f=d call

schedule_config for Spectrum Protect

The fields are obtained by running the queries QUERY schedule type=client format=detailed and QUERY schedule type=admin format=detailed. The fields described in the following table are returned.

Table 595. schedule_config

Field	Description	From
schedule_name	Schedule name	Schedule Name
group_name	Name of the group with which the schedule is associated	Policy Domain Name

job_config for Spectrum Protect

The fields described in the following table are returned.

Table 596. Job configuration

Field	Description	From
job_name	Job name. Name of the entry in the file list	Objects from schedule query
client_name	Client name	Node name from node query
group_name	Name of the group in which the client is located	Policy Domain name

jukebox_config for Spectrum Protect

The fields are obtained by running the query QUERY library format=detailed. The fields described in the following table are returned.

Table 597. jukebox_config

Field	Description	From
jukebox_name	Jukebox logical name	Library Name
jukebox_host	Host from which the jukebox is controlled	Primary Library Manager
num_devices	Number of devices in the jukebox	Count of number of entries in the drives table where the library_name field in the drives table is the same as the value

Table 597. jukebox_config (continued)

Field	Description	From
		in the library_name field in the libraries table
type	Jukebox type	Library Type

device_config for Spectrum Protect

The fields described in the following table are returned.

Table 598. device_config

Field	Description	From
device_host	Name of the host that controls the device	source_name field in the paths table
device_name	Name of the device	drive_name field in the drives table
device_path	Path used to access the device	device field in the paths table
device_class	Class of device: Disk, Tape	Hard coded to Disk
device_type	Specific type of device. For example, LTO	device_type field in the drives table
read_only	Indicates if the drive is configured as read-only: Yes, No	read_formats field in the drives table
jukebox_name	Jukebox name	library_name field in the drives table
serial_number	Serial number of the tape drive	drive_serial field in the drives table

license_config for Spectrum Protect

The fields described in the following table are returned.

Table 599. license_config

Field	Description	From
product	Name of the backup application	Hard coded to Spectrum Protect
identifier	Name of the license	Row name in the licenses table for row that is set to 1. This value corresponds with available licenses
instance	Instance of the license type	Either the Instance or Instances field is returned. If this value is set to Yes, then the value is the ACT row in the licenses table
description	Description of license	Readable form of license name
instances	Number of instances provided by this license	Either the Instance or Instances field is returned. If this value is set to Yes, then the value is the LIC row in the licenses table
valid	Indicates if the license is valid	Hard coded value: <ul style="list-style-type: none">• If ACT is set to Yes and LIC is set to Y, then the value is 1• If ACT is set to Yes and LIC is set to No, then the value is 1

Table 599. license_config (continued)

Field	Description	From
		<ul style="list-style-type: none"> All other situations result in a value of 0

bkup_pool_config for Spectrum Protect

The fields are obtained by running QUERY stgpool format=detailed. The fields described in the following table are returned.

Table 600. bkup_pool_config

Field	Description	From
masterservername	Name of the Spectrum Protect server	Node name of the host that is monitored
poolname	Pool name	Storage Pool Name
pooltype	Pool type: <ul style="list-style-type: none"> Primary — Primary storage pool Copy — Copy storage pool Any — Either primary or copy storage pool (Spectrum Protect) 	Storage Pool Type
description	Backup pool description	Description
device_class	Device class associated with the storage pool	Device Class Name
est_capacity_GB	Amount of estimated space of the backup pool (in GB)	Estimated Capacity
high_mig_pct	Value at which the Spectrum Protect server automatically starts migration for this storage pool. This value is determined when the number of volumes containing data reaches this percentage of the total number of volumes in the storage pool. The total number of volumes includes the maximum number of scratch volumes	High Mig Pct
low_mig_pct	Value at which the Spectrum Protect server stops migration for this storage pool. This value is determined when the number of volumes containing data reaches this percentage of the total number of volumes in the storage pool	Low Mig Pct
next_storage_pool	Primary storage pool to which files are migrated	Next Storage Pool
reclaim_storage_pool	Primary storage pool as a target for reclaimed data from this storage pool	Reclaim Storage Pool
max_size_threshold	Maximum size for a physical file that the server can store in the storage pool	Maximum Size Threshold
overflow_location	Overflow location for the storage pool	Overflow Location
cache_migrated_files	Indicates if the migration process leaves a cached copy of a file in this storage pool after migrating the file to the next storage pool	Cache Migrated Files?
collocate	Indicates if the server attempts to keep data belonging to a single client node,	Collocate?

Table 600. bkup_pool_config (continued)

Field	Description	From
	group of client nodes, or client file space stored on as few volumes as possible	
reclamation_threshold	Indicates if the server attempts to keep data belonging to a single client node, group of client nodes, or client file space stored on as few volumes as possible	Reclamation Threshold
max_scratch_volumes	Maximum number of scratch volumes that the server can request for this storage pool. Valid values are between 0 and 100000000	Maximum Scratch Volumes Allowed
offsite_reclamation_limit	Number of offsite volumes to have their space reclaimed during reclamation for this storage pool	Offsite Reclamation Limit
delay_period_for_reuse	Number of days that must elapse after all files are deleted from a volume before the volume can be rewritten or returned to the scratch pool	Delay Period for Volume Reuse
updated_by	User ID of the user who updated the pool	Last Update by Administrator
updated	Date and time change is made to the backup pool	Last Update Date/Time
storage_pool_data_format	Data format to use to back up files to this storage pool and restore files from this storage pool	Data format
copy_storage_pools	Names of copy storage pools where the server simultaneously writes data	Copy Storage Pools
crc_data	Indicates if a cyclic redundancy check (CRC) validates storage pool data when audit volume processing occurs on the server	CRC Data
access	Specifies how client nodes and server processes (such as migration and reclamation) can access files in the storage pool. Valid values include: <ul style="list-style-type: none">• READWrite — Specifies that client nodes and server processes can read and write to files stored on volumes in the storage pool• READOnly — Specifies that client nodes can only read files from the volumes in the storage pool• UNAvailable — Specifies that client nodes cannot access files stored on volumes in the storage pool	Access
dedupdata	Indicates if data in the storage pool is deduplicated: Yes, No	Deduplicate data
num_identify_proc	Number of duplicate identification processes that are specified as the default for the storage pool	Processes for Identifying Duplicates
duplicate_data	Amount of data that was removed from the storage pool by the reclamation process. This field also represents the	Duplicate Data Not Stored

Table 600. bkup_pool_config (continued)

Field	Description	From
	amount of storage space that was saved in the storage pool as a result of server-side data deduplication	
data_dedup_by_clnt	Indicates if the storage pool contains data that was deduplicated by clients: Yes, No	Contains data deduplicated by clients?

Status function for Spectrum Protect

The Status function gathers information from the IBM Spectrum Protect server on the status of the Spectrum Protect server and Spectrum Protect port. The function includes the following options:

- timeout — Determines how long the Data Protection Advisor Data Collection Agent waits for the results of running various IBM Spectrum Protect commands before terminating them. The default is 900 seconds.
- tsmhost — Specifies the hostname of the Spectrum Protect server if you are monitoring Spectrum Protect remotely and there is more than one instance on a system.
- tsport — Specifies the port for the Spectrum Protect server if you are monitoring Spectrum Protect remotely and there is more than one instance on a system. The default value is 1500.

The Status function returns the following information:

- defined_server_status for Spectrum Protect
- repl_node_status_for_spectrum_protect
- device_status for Spectrum Protect
- bkup_pool_status for Spectrum Protect
- tsm_database
- tsm_path

defined_server_status for Spectrum Protect

In previous Data Protection Advisor releases, this table was called LAN-free Server Status. Data is retrieved by running the command query server f=d. The fields described in the following table are returned.

Table 601. defined_server_status

Field	Description	From
defined_servername	Server name. In previous Data Protection Advisor releases, this field was called LAN-free Server Name	Server Name field of query server f=d
lastaccess	Date and time of last access	Last Access Date/Time field of query server f=d
bytessent_lastsession	Number of bytes sent in the last session to the client node	Bytes Sent Last Session field of query server f=d
bytesrecv_lastsession	Bytes received by the server during the last client node session	Bytes Received Last Session field of query server f=d
duration	Duration of last client node session (in seconds)	Duration of Last Session field of query server f=d
node	Client node name	Node Name field of query server f=d
roles	Spectrum Protect server roles	Role(s) field of query server f=d
idle_wait_last	Percentage of total session time that the client was not performing any functions	Pct. Idle Wait last session field of query server f=d

Table 601. defined_server_status (continued)

Field	Description	From
comm_wait_last	Percentage of total session time that the client was not waiting for response from server	Pct. Comm Wait last session field of query server f=d
media_wait_last	Percentage of total session time that the client waited to volume to be mounted	Pct. Media Wait last session field of query server f=d

repl_node_status_for_spectrum_protect

To retrieve the data, run the q replnode command.

Table 602. repl_node_status

Field	Description	From
nodename	The name of the client node.	Node Name is the field of q replnode * query
repl_type	The type of data.	Type is the field of q replnode * query
filespace	The name of the file space that belongs to the node.	Filespace Name is the field of q replnode * query
fsid	The file space identifier for the file space.	FSID is the field of q replnode * query
files	Total number of backup, archive, and space-managed files on the server.	Files on Server is the field of q replnode * query
repl_server_name	The name of the replication server.	Replication Server is the field of q replnode * query
repl_server_files	The number of files stored on the target replication server.	Files on replication Server is the field of q replnode * query

Now the fields are returned.

device_status for Spectrum Protect

The fields described in the following table are returned.

Table 603. device_status

Field	Description	From
device_host	Name of the device that controls the device	source_name field in the paths table
device_name	Name of the device	drive_name field in the drives table
status	Status of the device: Up, Down, Service Mode	drive_state field in the drives table
errors	Error message string	
volume_id	Unique identifier for a volume	volume_name field in the drives table

bkup_pool_status for Spectrum Protect

The fields are obtained by running the query QUERY stgpool format=detailed. The fields described in the following table are returned.

Table 604. bkup_pool_status

Field	Description	From
masterservername	Name of the Spectrum Protect server that controls the storage pool	Node name as defined in the Data Protection Advisor web console
poolname	Name of the storage pool	Storage Pool Name
pooltype	Type of storage pool: Primary, Copy, or ActiveData	Storage Pool Type
pct_utilized	Percentage of the storage pool that is utilized	Pct Util
pct_migr	Percentage of data in the storage pool that can be migrated	Pct Migr
migr_running	Indicates if at least one migration process is active for the storage pool	Migration in Progress
migr_mb	Amount of data currently migrated from the storage pool (in MB)	Amount Migrated (MB)
migr_seconds	<ul style="list-style-type: none">• If migration is active, this indicates the amount of time elapsed since migration began• If migration is not active, this indicates the amount of time required to complete the last migration• If multiple parallel migration processes are used for the storage pool, this indicates the total time from the beginning of the first process until the completion of the last process	Elapsed Migration Time (seconds)
recl_running	Indicates if a reclamation process is active for the storage pool	Reclamation in Progress?
numscratchused	Number of scratch volumes used in the storage pool	Number of Scratch Volumes used
trigger_pct_utilized	Utilization of the storage pool, as calculated by the storage pool space trigger, if any, for this storage pool	Space Trigger util
duplicate_data	Amount of data that was removed from the storage pool by the reclamation process. This field also represents the amount of storage space that was saved in the storage pool as a result of server-side data deduplication	Duplicate Data Not Stored

tsm_database

The fields described in the following table are returned.

Table 605. TSM Database

Field	Description	From
object	Database object	Hard coded to Database, Active Log, or Archive Log
available	Available space	Returned from the query db command if the value of the Object field is Database or the query log command if the value of the Object field is Recovery Log
assigned	Assigned capacity	Returned from the query db command if the value of the Object field is Database or the query log command if the value of the Object field is Recovery Log
utilisation	Percentage utilized	Returned from the query db command if the value of the Object field is Database or the query log command if the value of the Object field is Recovery Log
pool_hit	Buffer pool hit ratio	buffer pool hit ratio field returned from running query db format=detailed
cache_hit	Package cache hit ratio	package cache hit ratio field returned from running query db format=detailed
buffer_reqs	Number of total buffer requests	total buffer requests field returned from running query db format=detailed
sort_overflow	Number of sorts that ran out of heap memory	sort overflows field returned from running query db format=detailed
lock_esc	Number of times row locks were escalated to table locks	lock escalation field returned from running query db format=detailed
last_reorg	Date and time the database was last reorganized	last database reorganization field returned from running query db format=detailed
incr_since	Number of incremental database backups since the last full database backup	incrementals since last full field returned from running query db format=detailed
last_full	Date and time of the last full database backup	last complete backup date/time field returned from running query db format=detailed

tsm_path

The fields described in the following table are returned.

Table 606. tsm path

Field	Description	From
name	Name of the path source	source name field returned from running query path format=detailed
type	Type of path source	source type field returned from running query path format=detailed

Table 606. tsm path (continued)

Field	Description	From
destname	Name of the path destination	destination name field returned from running query path format=detailed
desttype	Path destination type	destination type field returned from running query path format=detailed
library	Name of the destination path library if the type is a drive	library field returned from running query path format=detailed
nodename	Name of the device in the destination path	node name field returned from running query path format=detailed
device	Name of the destination path device	device field returned from running query path format=detailed
extmgr	Name of the external library manager, if applicable	external manager field returned from running query path format=detailed
lun	Logical unit name (LUN) through which the disk can be accessed by the source	LUN field returned from running query path format=detailed
initiator	Path initiator	initiator field returned from running query path format=detailed
directory	Directory location of a file on the source	directory field returned from running query path format=detailed
online	Indicates if the path is online and available for use, or offline	on-line field returned from running query path format=detailed
updateby	User who last updated the path	updateby field returned from running query path format=detailed
lastupdate	Date and time of the last update	last update date/time field returned from running query path format=detailed

Volume Status function for Spectrum Protect

The Volume Status function gathers data on the status of volumes in the IBM Spectrum Protect database. The function includes the following options:

- **timeout** — Determines how long the Data Protection Advisor Data Collection Agent waits for the results of running various IBM Spectrum Protect commands before terminating them (in seconds).
- **tsmhost** — Specifies the hostname of the Spectrum Protect server if you are monitoring Spectrum Protect remotely and there is more than one instance on a system.
- **tsmport** — Specifies the port for the Spectrum Protect server if you are monitoring Spectrum Protect remotely and there is more than one instance on a system. The default value is 1500.
- **tsmlibmgrcred** — If the Spectrum Protect server is a Library Client, this is the credential used to access the Library Manager.
- **disableprivatevolumes** — Disables reporting of private volumes.

The Volume Status function returns the following information:

- [volume_status for Spectrum Protect](#)
- [drmedia for Spectrum Protect](#)

volume_status for Spectrum Protect

The fields described in the following table are returned.

Table 607. volume_status

Field	Description	From
volume_id	Unique identifier for a volume	volume_name field in the volumes table
pool	Pool in which a volume is located	stgpool_name field in the volumes table
state	State of a volume: Empty, Partial, Full, Frozen, Suspended	status field in the volumes table
used	Amount of data written to the tape (in MB)	Equation in the fields in the volumes table: est_capacity_mb * pct_utilized / 100
encryptionmanager	Name of the encryption key manager	vol_encr_keymgr field in the volumes table
encrypted	Whether the volume is encrypted	block_protect field in the volumes table
expired	Percentage of volume that has expired	pct_reclaim field in the volumes table
online	Indicates if the volume is online	DISK or FILECLASS volumes - If status field of VOLUMES is not 'OFFLINE', online is set to 1 Volumes assigned to a library - online field is set to 1. Otherwise, online is set to 0
cartridge_type	Cartridge type. For example, DLT, LTO, File	Hard coded to File
capacity	Capacity of the filespace	est_capacity_mb field in the volumes table
jukebox	Name of the jukebox in which a volume is located if it is online	library_name field in the libvolumes table
slot	Slot that a volume is in if it is online	home_element field in the libvolumes table
owner	Name of the server that manages the volume	owner field in the libvolumes table
lastwritten	Time that a volume was last written	last_write_date field in the volumes table
expiry_flag	Indicates if a volume has expired	Set to True when the pct_reclaim field in the volumes table reaches 100
write_errors	Number of write errors	write_errors field in the volumes table
read_errors	Number of read errors	read_errors field in the volumes table
access	Access rights to volume	access field in the volumes table

drmedia for Spectrum Protect

The fields described in the following table are returned.

Table 608. drmedia

Field	Description	From
volume_name	Name of the database backup or copy storage pool volume	volume_name field in the drmedia table
state	State of the volume	state field in the drmedia table
location	Volume location	location field in the drmedia table
stgpool_name	Name of the storage pool	stgpool_name field in the drmedia table
lib_name	Name of the library	lib_name field in the drmedia table
voltype	Type of volume: <ul style="list-style-type: none">• DBBackup — Full or incremental database backup volume• DBSnapshot — Database snapshot backup volume• CopyStgPool — Copy storage pool volume	voltype field in the drmedia table
upd_date	Date and time that the volume state was last updated	upd_date field in the drmedia table

Job Monitor function for Spectrum Protect

The Job Monitor function gathers information about backup and restore Jobs that have occurred on the IBM Spectrum Protect server. Spectrum Protect monitors the following types of Jobs:

- Spectrum Protect Data Protection — All values retrieved from the summary_extended table.

(i) NOTE: Supported Spectrum Protect Data Protection include Lotus Notes, SQL Server, Oracle, and Exchange for data retrieved from the activity log.

- Network-attached storage (NAS) — All values retrieved from the summary_extended table.
- Ad hoc — All values retrieved from the summary_extended table.
- Scheduled — Values retrieved from various locations within Spectrum Protect .

The function includes the following options:

- ignorewarnings - Lists the warnings to exclude. Comma separated without spaces. The warnings listed here will be excluded from data collection report sent to server.
- timeout — Determines how long the Data Protection Advisor Data Collection Agent waits for the results of running various IBM Spectrum Protect commands before terminating them (in seconds).
- tsmhost — Specifies the hostname of the Spectrum Protect server if you are monitoring Spectrum Protect remotely and there is more than one instance on a system.
- tsport — Specifies the port for the Spectrum Protect server if you are monitoring Spectrum Protect remotely and there is more than one instance on a system. The default value is 1500.
- processingtype — Processing type can have the values ACTLOG or SUMMARY.

If ACTLOG, then job data is collected by scanning the Activity Log entries. If SUMMARY then job data is collected from the Spectrum Protect summary_extended table.

- filterbynoderegtime — Flag that filters out missed jobs that occur before the registration time of a client node. The default value is true.
- Whether to gather failed jobs from the activity log - If this is enabled and set to True then any messages in the Spectrum Protect activity log that indicates a failed backup has taken place are also reported as a failed job in Data Protection Advisor. This option is set to False as default.

- Max data time range each request will gather from — Sets the max amount of data to gather in one request run. Defaults to one day.
- Warning codes to treat as successful — Includes one or more warning codes separated by a comma. For example, ANR0523W,ANR0526W. This option does not have any default warning code. The warning code format is: <Message Prefix><Message Number><Message Type>. For example, in the case of ANR0523W, "ANR" is the Message Prefix, "0523" is the Message Number, and "W" is the Message Type.
- Error codes for false positive jobs — Includes one or more error codes separated by a comma. For example, ANR2578W, ANR2579E. This option does not have any default error code. The warning code format is: <Message Prefix><Message Number><Message Type>. For example, in the case of ANR2579E, "ANR" is the Message Prefix, "2579" is the Message Number, and "E" is the Message Type.

The Job Monitor function gathers the following data:

- [backupjob for Spectrum Protect](#)
- [backupevent for Spectrum Protect](#)
- [backup_error for Spectrum Protect](#)
- [application_error for Spectrum Protect](#)
- [tsm_backupset](#)
- [backup_openfile for Spectrum Protect](#)
- [restorejob for Spectrum Protect](#)
- [restoreevent for Spectrum Protect](#)
- [commandevent for Spectrum Protect](#)

backupjob for Spectrum Protect

Job data is gathered from the summary_extended table. If you want to gather data for Spectrum Protect using the activity log, you can modify the processingtype option in the Spectrum Protect Job Monitor request. Set the value to SUMMARY if you want data to be gathered from the summary_extended table. Set the value to ACTLOG if you want data to be gathered from the activity log.

Alternatively, you can set the TSM_JOB_PROCESSING environment variable. Set this variable to SUMMARY to gather Spectrum Protect information from the summary_extended table. Set this variable to ACTLOG to gather TSM information from the activity log. The setting for the TSM_JOB_PROCESSING environment variable overrides the processingtype option in the Spectrum Protect Job Monitor request.

The fields described in the following table are returned from the activity log.

Table 609. backupjob

Field	Description	From activity log	From summary_extended table
backup_servername	Backup or archive server name	Node name of the host that is monitored	Node name of the host that is monitored
media_server	Name of the media server on which the backup or archive occurred	Node name of the host that is monitored	Node name of the host that is monitored
group_name	Group that scheduled the backup or archive	Extracted from the backup message in the activity log Note: This field is only available for scheduled jobs	domain_name field in the nodes table Note: This field is only available for scheduled jobs
client_name	Name of the client that was backed up or archived	Extracted from the backup or archive message in the activity log	entity field in the summary_extended table
schedule_name	Schedule that triggered the backup or archive	Extracted from the backup or archive message in the activity log Note: This field is only available for scheduled jobs	schedule_name field in the summary_extended table Note: This field is only available for scheduled jobs

Table 609. backupjob (continued)

Field	Description	From activity log	From summary_extended table
job_name	Name of the file system that was backed up or archived	From one of the following fields: <ul style="list-style-type: none">• objects field in client_schedules table• combination of policy domain name and schedule name from client_schedules table• filespace_name field from backups table• message or instance field from activity log• policy domain name or schedule name from client_schedules table• activity_details or entity fields from summary_extended table	From one of the following fields: <ul style="list-style-type: none">• objects field in client_schedules table• combination of policy domain name and schedule name from client_schedules table• filespace_name field from backups table• message or instance field from activity log• policy domain name or schedule name from client_schedules table• activity_details or entity fields from summary_extended table
status	Indicates if the backup or archive was successful: Success, Failed, Missed	Extracted from the backup or archive message in the activity log	successful field in the summary_extended table
errcode	Application error code associated with the Job	result field in the events table Note: This field is only available for scheduled jobs. The value is 1 if a job is missed	result field in the events table Note: This field is only available for scheduled jobs Note: The value is 1 if a job is missed
level	Level of the backup	action field in the client_schedules table Note: This field is only available for scheduled jobs	action field in the client_schedules table Note: This field is only available for scheduled jobs
size	Amount of data that was backed up (in MB)	Extracted from the backup or archive message in the activity log	bytes field in the summary_extended table
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	Calculated from the backup or archive message in the activity log	Calculated from the bytes field in the summary_extended table
nfiles	Number of files that were backed up or archived	Extracted from the backup or archive message in the activity log	affected field in the summary_extended table
filesscanned	Number of files that were scanned on the client when performing a backup or archive	Extracted from the backup or archive message in the activity log	examined field in the summary_extended table
archive_flag	Indicates if the Job is a backup or archive Job	Extracted from the backup or archive message in the activity log	activity field in the summary_extended table
nfilesnot	Number of files that were not backed up or archived	Extracted from the backup or archive message in the activity log	failed field in the summary_extended table

Table 609. backupjob (continued)

Field	Description	From activity log	From summary_extended table
jobid	Identifier of the Job	Extracted from the session id in the activity log	number in the summary_extended table.
pool	Storage pool to which the Job was backed up or archived	Extracted from the backup or archive message in the activity log	Backups: <ul style="list-style-type: none">● destination field of bu_copygroups table Archives: <ul style="list-style-type: none">● destination field of ar_copygroups table
idle_wait	Number of seconds waiting for the client	idle field from the summary_extended table	
media_wait	Number of seconds waiting for the backup media	mediaw field from the summary_extended table	
totaldataredtn	Total data reduction ratio	Extracted from message ANE49782I in the activity log	
dedupredtn	Deduplication reduction	Extracted from message ANE4981I in the activity log	
totalobjdedup	Total number of objects deduplicated	Extracted from message ANE49782I in the activity log	
queuestart	Time the backup or archive went into the queue	Extracted from the starttime value in the backup or archive message in the activity log	start_time in the summary_extended table
starttime	Time the backup or archive started.	Extracted from the backup or archive message in the activity log.	start_time in the summary_extended table.
endtime	Time the backup or archive ended.	Extracted from the backup or archive message in the activity log.	end_time in the summary_extended table.
instancename Gathered only for Legacy backups	Name of DB instance backedup	Extracted from the SQL message in the activity log, if available.	
dbbackuptype Gathered only for Legacy backups	Type of DB instance backedup	Extracted from the SQL message in the activity log.	

backupevent for Spectrum Protect

The fields described in the following table are returned.

Table 610. backupevent

Field	Description	From
backup_servername	Backup or archive server name	Node name of the host that is monitored
media_server	Name of the media server on which the backup or archive occurred	Node name of the host that is monitored
group_name	Group that scheduled the backup or archive	domain_name field in the events table

Table 610. backupevent (continued)

Field	Description	From
client_name	Name of the client that was backed up or archived	node_name field in the events table
schedule_name	Schedule that triggered the backup or archive	schedule_name field in the events table
job_name	Name of the file system that was backed up or archived	objects field in the client_schedules table
status	Indicates if the backup or archive was successful: Success, Failed	status field in the events table
errcode	Application error code associated with the Job	result field in the events table
queuestart	Time the backup or archive went into the backup applications queue	scheduled_start field in the events table

backup_error for Spectrum Protect

The fields described in the following table are returned.

Table 611. backup_error

Field	Description	From
backupjob_id	IBM Spectrum Protect Job ID in the activity log	Can be: <ul style="list-style-type: none"> Extracted from the activity log if using the activity log method Taken from the backup job from the summary_extended table if using the summary_extended table method
client_name	Name of the client that failed	Can be: <ul style="list-style-type: none"> Extracted from the activity log if using the activity log method Taken from the backup job from the summary_extended table if using the summary_extended table method
severity	Severity of the error message	Extracted from the activity log
errorstring	Error message	Extracted from the activity log
errcode	Error code associated with the failed backup	Extracted from the activity log. This field is not returned for all failures
starttime	Time the backup or archive started	Extracted from the backup or archive message in the activity log
endtime	Time the backup or archive ended	Extracted from the backup or archive message in the activity log

application_error for Spectrum Protect

The fields described in the following table are returned.

Table 612. application_error

Field	Description	From
client_name	Client name	Parsing the node data from the activity log message

Table 612. application_error (continued)

Field	Description	From
appid	Session ID or Process ID that the error is associated with	Parsing the session ID data from the activity log message
errcode	Error code of the message: message prefix, message number, message type	Parsing the message ID data from the activity log message
errorstring	Text of the error message	Parsing the message data from the activity log message
severity	Severity of the message: Sever error, Error, Warning	Parsing the message ID data from the activity log message

tsm_backupset

Data comes from running the following query: query backupset ** begindate='date_lastpoll' begintime='time_lastpoll' format=detailed. The fields described in the following table are returned.

Table 613. tsm_backupset

Field	Description	From
name	Name of the backup set	backup set name field returned from running backupset query
client	Name of the client node	node name field returned from running backupset query
type	Type of data, either file, image, or application	data type field from returned from running backupset query
createtime	The date and time the backup set was created	date/time field returned from running backupset query
retention	Retention days	retention period field returned from running backupset query
devclass	Name of the device class	device class name field returned from running backupset query
description	User defined description of the device class	description field returned from running backupset query
has_toc	A value of 1 indicates if table of contents is available	Has table of contents (TOC)? field returned from running backupset query
volumes	Volume names containing the data displayed in a comma-separated list	volume names field returned from running backupset query
filespaces	Filespace names displayed in a comma-separated list	filespace names field returned from running backupset query
size	Size	BYTES field from the summary_extended table
expiry	Expiration date	Retention Period field returned from running the backupset query

backup_openfile for Spectrum Protect

The Job Monitor function returns information about any files that were not backed up during the backup process.

i|NOTE: This information is not returned for scheduled Jobs.

The fields described in the following table are returned.

Table 614. backup_openfile

Field	Description	From
backupjob_id	IBM — Job ID in the activity log	Can be: <ul style="list-style-type: none">● Extracted from the activity log if using the activity log method● Taken from the backup job from the summary_extended table if using the summary_extended table method
client_name	Name of the client that was not fully backed up	Can be: <ul style="list-style-type: none">● Extracted from the activity log if using the activity log method● Taken from the backup job from the summary_extended table if using the summary_extended table method
filename	Name of the file that was not backed up	Extracted from the activity log

restorejob for Spectrum Protect

 **NOTE:** This information is not returned for Spectrum Protect Data Protector and NAS Jobs for data retrieved from the activity log.

The fields described in the following table are returned.

Table 615. restorejob

Field	Description	From activity log	From summary_extended table
backup_servername	Backup server on which the restore or retrieve occurred	Extracted from the activity log	Node name of the host that is monitored.
media_server	Media server on which the restore or retrieve occurred	Extracted from the activity log	Node name of the host that is monitored.
client_name	Name of the client that was restored	Extracted from the activity log	entity field in the summary_extended table.
job_name	Name of the file system that is restored or retrieved	Extracted from the activity log Note: This field is only available for scheduled jobs	schedule_name field in the summary_extended table. Note: This field is only available for scheduled jobs.
status	Status of the restore or retrieve	Extracted from the activity log	successful field in the summary_extended table.
errcode	Any error code associated with a failed restore or retrieve	Extracted from the activity log Note: This field is only available for scheduled jobs	result field in the events table. Note: This field is only available for scheduled jobs. Note: The value is 1 if a job is missed.
size	Amount of data restored or retrieved	Extracted from the activity log	bytes field in the summary_extended table.
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	Extracted from the activity log	Calculated from the bytes field in the summary_extended table.
nfiles	Number of files restored or retrieved	Extracted from the activity log	affected field in the summary_extended table.

Table 615. restorejob (continued)

Field	Description	From activity log	From summary_extended table
restrieve_flag	Indicates if Job is a restore or retrieve Job	Extracted from the activity log	activity field in the summary_extended table.
jobid	Application-specific identifier for the Job	Extracted from the session number in the activity log	number field in the summary_extended table.
queuestart	Time the restore or retrieve was requested	Extracted from the activity log	start_time in the summary_extended table.
starttime	Time the restore or retrieve started	Extracted from the activity log	start_time in the summary_extended table.
endtime	Time the restore or retrieve ended	Extracted from the activity log	end_time in the summary_extended table.

restoreevent for Spectrum Protect

 **NOTE:** This information is not returned for Spectrum Protect Data Protection and NAS Jobs.

The fields described in the following table are returned.

Table 616. restoreevent

Field	Description	From
backup_servername	Backup server on which the restore or retrieve occurred	Extracted from the activity log
media_server	Media server on which the restore or retrieve occurred	Extracted from the activity log
client_name	Name of the client that was restored	Extracted from the activity log
job_name	Name of the file system that is restored or retrieved	Extracted from the activity log
status	Status of the restore or retrieve	Extracted from the activity log
queuestart	Time the restore or retrieve was requested	Extracted from the activity log
starttime	Time the restore or retrieve started	Extracted from the activity log
endtime	Time the restore or retrieve ended	Extracted from the activity log

commandevent for Spectrum Protect

The Job Monitor function returns information about Spectrum Protect command events that have occurred on the IBM Spectrum Protect server. The fields described in the following table are returned

Table 617. commandevent

Field	Description	From
backup_servername	Backup server name that generated the command event	Node name of the host that is monitored
media_server	Name of the Media Server on which the backup or archive occurred	Node name of the host that is monitored
group_name	Name of the group associated with the command event	domain_name field in the events table

Table 617. commandevent (continued)

Field	Description	From
client_name	Name of the client on which the command ran	node_name field in the events table
schedule_name	Name of the schedule associated with the command event	schedule_name field in the events table
job_name	Name of the command that ran	objects field in the client_schedules table, or the names of the files backed up or restored from the actlog (if available)
status	Indicates if the command ran successfully or not	status field in the events table
errcode	Error code of the command event	result field in the events table
queuestart		scheduled_start field in the events table
starttime	Time the command started running	scheduled_start field in the events table
endtime	Time the command finished running	scheduled_end field in the events table

Spectrum Protect Environment Variables

A number of Data Protection Advisor environment variables can be used to affect the way Spectrum Protect data is gathered. The variables can either be set from the registry (Windows) or a configuration file (UNIX).

i **NOTE:** These environment variables are completely optional and should be used only if normal monitoring is otherwise affected. Not setting these variables does not affect normal Spectrum Protect data gathering.

Windows Spectrum Protect Environment Variables

Create a new String Value under key:

```
HK_LOCAL_MACHINE\SOFTWARE\EMC\DPA\Collector
```

or

```
HKLM\SOFTWARE\EMC\DPA
```

With the Name equal to one of:

- TSM_COMMAND_GRACE
- TSM_SEVERED_GRACE
- TSM_GATHER_FAILED_MANUAL_JOBS
- TSM_MAX_ERROR_MSGS
- TSM_EVENTS_GRACE

and a Data value set according to the description below.

UNIX Spectrum Protect Environment Variables

Add the following lines to one of:

```
/opt/dpa/etc/dpa.config
```

or

```
/opt/dpa/etc/dpa.custom (if this file already exists)
<DPA AGENT VARIABLE NAME>=value
export <DPA AGENT VARIABLE NAME>
```

Where <DPA AGENT_VARIABLE_NAME> is one of:

- AGENT_TSM_COMMAND_GRACE
- AGENT_TSM_SEVERED_GRACE
- AGENT_TSM_GATHER_FAILED_MANUAL_JOBS
- AGENT_TSM_MAX_ERROR_MSGS
- AGENT_TSM_EVENTS_GRACE

Command Grace Period

Name: AGENT_TSM_COMMAND_GRACE

Value: Number of hours

Default: 12

Description: When a Spectrum Protect event job with a command schedule completes, the Data Protection Advisor Agent will try to merge this with entries in the Spectrum Protect Summary table. If no entries are found in the Summary table then the Agent will wait this set amount of time before reporting the event job data. The Data Protection Advisor Agent uses the Summary table entries to add further details to the command event job.

Severed Grace Period

Name: AGENT_TSM_SEVERED_GRACE

Value: Number of hours

Default: 12

Description: Controls when jobs in the event table with a status of SEVERED is treated as a failed job. Spectrum Protect can sometimes change the state of SEVERED jobs to either COMPLETED, FAILED or left as SEVERED.

Gather Failed Manual Jobs

Name: AGENT_TSM_GATHER_FAILED_MANUAL_JOBS

Value: [true | false]

Default: false

Description: Controls whether messages in the actlog that indicates when a session is terminated is treated as a failed job. The session could terminate due to timeout, connection severed, resource problems, and user abortion.

Max number of Error Messages

Name: AGENT_TSM_MAX_ERROR_MSGS

Value: Number of errors to gather

Default: 2000

Description: Sets the maximum number of errors to gather in one jobmonitor request. Sometimes the Data Protection Advisor Data Collection Agent can be overloaded with the number of errors generated per minute on a Spectrum Protect server. For these systems the Data Protection Advisor Data Collection Agent could run out of memory just processing the error messages. This variable limits the number of errors to return per jobmonitor request poll.

Event Grace Period

Name: AGENT_TSM_EVENTS_GRACE

Value: Number of Hours

Default: 24

Description: The Data Protection Advisor Data Collection Agent gets entries from the event table based on the time the last jobmonitor was ran. The event table can actually get updated with new entries that don't appear during the last poll but contains information for a job which ran during the old polling period, these jobs can be missed by the Data Protection Advisor Data Collection Agent. This grace value allows the Data Protection Advisor Data Collection Agent to gather entries from the last poll plus the number of grace hours.

Process Monitor function for Spectrum Protect

The Process Monitor function retrieves Spectrum Protect reclamation and migration information. The function includes the following options:

- timeout — Determines how long the Data Protection Advisor Data Collection Agent waits for the results of running various IBM Spectrum Protect commands before terminating them (in seconds).
- tsmhost — Specifies the hostname of the Spectrum Protect server if you are monitoring Spectrum Protect remotely and there is more than one instance on a system.
- tsmport — Specifies the port for the Spectrum Protect server if you are monitoring Spectrum Protect remotely and there is more than one instance on a system. The default value is 1500.

The Process Monitor function gathers the following data:

- [tsm_identify_duplicates](#)
- reclamation for Spectrum Protect
- reclamationerrors for Spectrum Protect
- migration for Spectrum Protect
- migrationerrors for Spectrum Protect
- dbbackup for Spectrum Protect
- dbbackuperrors for Spectrum Protect
- expiration for Spectrum Protect
- expirationerrors for Spectrum Protect
- bkupstgpool for Spectrum Protect
- bkstgpoolerrors for Spectrum Protect
- movedata for Spectrum Protect
- movedataerrors for Spectrum Protect
- deletevolume for Spectrum Protect

tsm_identify_duplicates for Spectrum Protect

Data Protection Advisor gathers server side deduplicate process information which is obtained by running the query QUERY PROCESS. The fields described in the following table are returned.

Table 618. tsm_identify_duplicates

Field	Description	From
process_id	Identify duplicates process ID	Process Number from the query output
storagepool	Storagepool on which the process is running	Storage pool: or Storage Pool from the query output
volume	volume of storage pool on which Identify duplicates process is running	Volume: or Volume from the query output
state	Current state of the Identify duplicates process	State: or Status: from the query output

Table 618. tsm_identify_duplicates (continued)

Field	Description	From
num_fileprocessed	Number of files processed by Identify duplicates process on the storage pool	Total Files Processed: or Files Processed: from the query output
num_dupeextents	Number of duplicate extents found by Identify duplicates process on the storage pool	Total Duplicate Extents Found: or Duplicate Extents Found: from the query output
cur_filesize	Size of current physical file in (MB)	Current Physical File(bytes): or Current Physical File(bytes) from the query output
dedupe_size	Total Duplicate size Found by Identify duplicates process on the storage pool in (MB)	Total Duplicate Bytes Found: from the query output
dedupe_statetime	Dedupe state date/time	State Date/Time: from the query output

reclamation for Spectrum Protect

The fields described in the following table are returned.

Table 619. reclamation

Field	Description	From
server_name	Name of the backup server	Node name of the host that is monitored
process_id	Unique identifier used by Spectrum Protect to identify the process	Extracted from the reclamation process message in the activity log
storagepool	Storage pool that contains the reclaimed volume	Extracted from the reclamation process message in the activity log
input_volumes	Volume from which data is being reclaimed	Extracted from the reclamation process message in the activity log
output_volumes	Volume to which the reclaimed data is transferred	Extracted from the reclamation process message in the activity log
status	Indicates if the process was a Success or a failure	Extracted from the reclamation process message in the activity log
num_items	Number of items that were reclaimed	Extracted from the reclamation process message in the activity log
size	Amount of data that was reclaimed (in MB)	Extracted from the reclamation process message in the activity log
errors	Indicates if any errors were reported during the process. Even if the process was successful, there could be errors	Extracted from the reclamation process message in the activity log
start_time	The date and time that the reclamation process started	Extracted from the correspondent Spectrum Protect summary_extended table entries
end_time	The date and time that the reclamation process ended	Extracted from the correspondent Spectrum Protect summary_extended table entries

reclamationerrors for Spectrum Protect

The fields described in the following table are returned.

Table 620. reclamationerrors

Field	Description	From
reclamation_id	Identifier for the reclamation process	Corresponding ID of the entry in the reclamation table
errormsgid	ID of the error message	Extracted from the reclamation process message in the activity log
error	Error string returned by the process	Extracted from the reclamation process message in the activity log

migration for Spectrum Protect

The fields described in the following table are returned.

Table 621. migration

Field	Description	From
server_name	Name of the backup server	Node name of the host that is monitored
process_id	Unique identifier used by Spectrum Protect to identify the process	Extracted from the migration process message in the activity log
storagepool	Storage pool that contains the migrated volume	Extracted from the migration process message in the activity log
input_volumes	Volume from which data is being migrated	Extracted from the migration process message in the activity log
output_volumes	Volume to which the migrated data is transferred	Extracted from the migration process message in the activity log
status	Indicates if the process was a Success or failure	Extracted from the migration process message in the activity log
num_items	Number of items that were migrated	Extracted from the migration process message in the activity log
size	Amount of data that was migrated (in MB)	Extracted from the migration process message in the activity log
errors	Indicates if any errors were reported during the process. Even if the process was successful, there could be errors	Extracted from the migration process message in the activity log
start_time	The date and time that the migration process started	Extracted from the correspondent Spectrum Protect summary_extended table entries
end_time	The date and time that the migration process ended	Extracted from the correspondent Spectrum Protect summary_extended table entries

migrationerrors for Spectrum Protect

The fields described in the following table are returned.

Table 622. migrationerrors

Field	Description	From
migration_id	Identifier for the migration process	Corresponding ID of the entry in the migration table
errormsgid	ID of the error message	Extracted from the migration process message in the activity log
error	Error string returned by the process	Extracted from the migration process message in the activity log

dbbackup for Spectrum Protect

The fields described in the following table are returned.

Table 623. dbbackup

Field	Description	From
server_name	Name of the backup server	Node name of the host that is monitored
process_id	Unique identifier used by Spectrum Protect to identify the process	Extracted from the database (catalog) backup process message in the activity log
output_volumes	Volume to which the backed up database (catalog) is transferred	Extracted from the database (catalog) backup process message in the activity log
status	Indicates if the process was a success or a failure	Extracted from the database (catalog) backup process message in the activity log
num_items	Number of items that were backed up	Extracted from the database (catalog) backup process message in the activity log
size	Size of the database (catalog) that was backed up (in MB)	Extracted from the database (catalog) backup process message in the activity log
errors	Indicates if any errors were reported during the process. Even if the process was successful, there could be errors	Extracted from the database (catalog) backup process message in the activity log
start_time	The date and time that the database backup process started	Extracted from the date_time field of the correspondent entries in Spectrum Protect Actlog and Event tables
end_time	The date and time that the database backup process ended	Extracted from the date_time field of the correspondent entries in Spectrum Protect Actlog and Event tables

dbbackuperrors for Spectrum Protect

The fields described in the following table are returned.

Table 624. dbbackuperrors

Field	Description	From
dbbackup_id	Identifier for the database (catalog) backup process	Corresponding ID of the entry in the database backup table
errormsgid	ID of the error message	Extracted from the database (catalog) backup process message in the activity log
error	Error string returned by the process	Extracted from the database (catalog) backup process message in the activity log

expiration for Spectrum Protect

The fields described in the following table are returned.

Table 625. expiration

Field	Description	From
server_name	Name of the backup server	Node name of the host that is monitored
process_id	Unique identifier used by Spectrum Protect to identify the process	Extracted from the expiration process message in the activity log
status	Indicates if the process was a Success or a failure	Extracted from the expiration process message in the activity log
nodedetails	Details of the Spectrum Protect server nodes on which expiration is occurring. This includes the node name, filespace name, filespace ID, domain name, management class and type of files being expired; for example, BACKUP and ARCHIVE	Extracted from the expiration process message in the activity log
expobjectsexamined	Objects that were scrutinized during the expiration process	Extracted from the expiration process message in the activity log
expbackupobjdeleted	Backup objects that were deleted during the expiration process	Extracted from the expiration process message in the activity log
exparchiveobjdeleted	Archive objects that were deleted during the expiration process	Extracted from the expiration process message in the activity log
expdbvolumesdeleted	Database volumes that were deleted during the expiration process	Extracted from the expiration process message in the activity log
exprecplansdeleted	Recovery plans that were deleted during the expiration process	Extracted from the expiration process message in the activity log
experrors	Number of errors in the expiration process	Extracted from the expiration process message in the activity log
num_items	Number of items that were deleted	Extracted from the expiration process message in the activity log
size	Amount of data deleted (in MB)	Extracted from the expiration process message in the activity log

Table 625. expiration (continued)

Field	Description	From
errors	Indicates if any errors were reported during the process. Even if the process was successful, there could be errors	Extracted from the expiration process message in the activity log
start_time	The date and time that the expiration process started	Extracted from the correspondent Spectrum Protect summary_extended table entries
end_time	The date and time that the expiration process ended	Extracted from the correspondent Spectrum Protect summary_extended table entries

expirationerrors for Spectrum Protect

The fields described in the following table are returned.

Table 626. expirationerrors

Field	Description	From
expiration_id	ID of the expiration process	Node name of the host that is monitored
errormsgid	ID of the error message	Extracted from the expiration process message in the activity log
error	Error string returned by the process	Extracted from the expiration process message in the activity log

bkupstgpool for Spectrum Protect

The fields described in the following table are returned.

Table 627. bkupstgpool

Field	Description	From
server_name	Name of the backup server	Node name of the host that is monitored
process_id	Unique identifier used by Spectrum Protect to identify the process	Extracted from the backup storage pool process message in the activity log
status	Indicates if the process was a Success or a failure	Extracted from the backup storage pool process message in the activity log
input_volumes	Volume from which data is being backed up	Extracted from the backup storage pool process message in the activity log
output_volumes	Volume to which the data is backed up	Extracted from the backup storage pool process message in the activity log
stgpool	Name of the storage pool	Extracted from the backup storage pool process message in the activity log
copystgpool	Name of the storage pool to which data has been copied	Extracted from the backup storage pool process message in the activity log
num_items	Number of items that were backed up	Extracted from the backup storage pool process message in the activity log
size	Amount of data that was backed up (in MB)	Extracted from the backup storage pool process message in the activity log

Table 627. bkupstgpool (continued)

Field	Description	From
errors	Indicates if any errors were reported during the process. Even if the process was successful, there could be errors	Extracted from the backup storage pool process message in the activity log
unreadablefiles	Unreadable files	Extracted from the backup storage pool process message in the activity log
unreadablebytes	Unreadable bytes	Extracted from the backup storage pool process message in the activity log
start_time	The date and time that the bkupstgpool process started	Extracted from the correspondent TSM summary_extended table entries
end_time	The date and time that the bkupstgpool process ended	Extracted from the correspondent TSM summary_extended table entries

bkstgpoolerrors for Spectrum Protect

The fields described in the following table are returned.

Table 628. bkstgpoolerrors

Field	Description	From
bkupstgpool_id	ID for the backup storage pool process	Node name of the host that is monitored
errormsgid	ID of the error message	Extracted from the backup storage pool process message in the activity log
error	Error string returned by the process	Extracted from the backup storage pool process message in the activity log

movedata for Spectrum Protect

The fields described in the following table are returned.

Table 629. movedata

Field	Description	From
server_name	Name of the backup server	Node name of the host that is monitored
process_id	Unique identifier used by Spectrum Protect to identify the process	Extracted from the move data process message in the activity log
status	Indicates if the process was a Success or a failure	Extracted from the move data process message in the activity log
input_volumes	Volume from which data is being moved	Extracted from the move data process message in the activity log
output_volumes	Volume to which the data is moved	Extracted from the move data process message in the activity log
stgpool	Name of the storage pool from which data has been moved	Extracted from the move data process message in the activity log
start_time	The date and time that the movedata process started	Extracted from the correspondent TSM summary_extended table entries
end_time	The date and time that the movedata process ended	Extracted from the correspondent TSM summary_extended table entries

Table 629. movedata (continued)

Field	Description	From
num_items	Number of items that were moved	Extracted from the move data process message in the activity log
size	Amount of data that was moved (in MB)	Extracted from the move data process message in the activity log
errors	Indicates if any errors were reported during the process. Even if the process was successful, there could be errors	Extracted from the move data process message in the activity log

movedataerrors for Spectrum Protect

The fields described in the following table are returned.

Table 630. movedataerrors

Field	Description	From
movedata_id	ID for the move data process	Node name of the host that is monitored
errormsgid	ID of the error message	Extracted from the move data process message in the activity log
error	Error string returned by the process	Extracted from the move data process message in the activity log

deletevolume for Spectrum Protect

The fields described in the following table are returned.

Table 631. deletevolume

Field	Description	From
server_name	Name of the backup server	Node name of the host that is monitored
process_id	Unique identifier used by Spectrum Protect to identify the process	Extracted from the delete volume process message in the activity log
volume	Deleted volume	Extracted from the delete volume process message in the activity log
stgpool	Storage pool that contains the deleted volume	Extracted from the delete volume process message in the activity log
status	Indicates if the process was a Success or a failure	Extracted from the delete volume process message in the activity log
num_items	Number of items that were deleted	Extracted from the delete volume process message in the activity log
size	Amount of data that was deleted (in MB)	Extracted from the delete volume process message in the activity log
start_time	The date and time that the deletevolume process started	Extracted from the date_time field of the correspondent delete volume process message in the activity log
end_time	The date and time that the deletevolume process ended	Extracted from the date_time field of the correspondent delete volume process message in the activity log

Occupancy function for Spectrum Protect

The Occupancy function retrieves Spectrum Protect client occupancy information. The function includes the following options:

- timeout — Determines how long the Data Protection Advisor Data Collection Agent waits for the results of running various IBM Spectrum Protect commands before terminating them (in seconds).
- tsmhost — Specifies the hostname of the Spectrum Protect server if you are monitoring Spectrum Protect remotely and there is more than one instance on a system.
- tsmport — Specifies the port for the Spectrum Protect server if you are monitoring Spectrum Protect remotely and there is more than one instance on a system. The default value is 1500.

The Occupancy function gathers the following data:

- `client_occupancy` for Spectrum Protect
- `client_filespaces` for Spectrum Protect
- `tsm_auditocc` for Spectrum Protect

client_occupancy for Spectrum Protect

The fields described in the following table are returned.

Table 632. client_occupancy

Field	Description	From
client_name	Name of the Spectrum Protect Client	node field in the occupancy table
type	Type of data stored: Backup, Archive, HSM	type field in the occupancy table
filespace	Name of the client filespace	filespace_name field in the occupancy table
pool	Storage pool that contains the client filespace	stgpool_name field in the occupancy table
filespace_id	ID of the client filespace	filespace_id in the occupancy table
files	Number of active files	num_files in the occupancy table
physical	Amount of physical storage used (in MB) Physical space is the total space taken up by data for the filespace. Physical space includes space that is no longer active itself, but is included in a set of data that is still active	physical_mb field in the occupancy table
logical	Amount of logical storage used (in MB) Logical space is space used by active data	logical_mb field in the occupancy table

tsm_auditocc for Spectrum Protect

The fields described in the following table are returned.

Table 633. tsm_auditocc

Field	Description	From
client_name	Name of the backup client	Client Node Name field in auditoccupancy table
backup_mb	Total backup storage use for the node (in MB)	Backup Storage Used (MB) field in auditoccupancy table

Table 633. tsm_auditocc (continued)

Field	Description	From
backup_copy_mb	Total backup copy storage use for the node (in MB)	backup_copy_mb field in auditoccupancy table
archive_mb	Total archive storage use for the node (in MB)	Archive Storage Used (MB) field in auditoccupancy table
archive_copy_mb	Total archive copy storage use for the node (in MB)	archive_copy_mb field in auditoccupancy table
total_mb	Total storage use for the node (in MB)	Total Storage Used (MB) field in auditoccupancy table

client_filespaces for Spectrum Protect

The fields described in the following table are returned.

Table 634. client_filespaces

Field	Description	From
client_name	Name of the backup client	node_name field in the filespaces table
filespace_name	Name of the filesystem	filespace_name field in the filespaces table
filespace_id	Unique ID for the filesystem	filespace_id field in the filespaces table
filespace_type	Filesystem type	filespace_type field in the filespaces table
capacity	Size assigned to the filesystem (in MB)	capacity field in the filespaces table
pct_util	Percentage of capacity used of the filesystem	pct_util field in the filespaces table
backup_start	Time the last incremental backup started on the client	backup_start field in the filespaces table
backup_end	Time the last incremental backup finished on the client	backup_end field in the filespaces table
delete_time	Time the filesystem was deleted	delete_occurred field in the filespaces table

VMware Module

The VMware module gathers information about virtual machines running on a VMware server, including virtualization managers, virtualization servers, and virtual machines. Data Protection Advisor uses VMware SOAP and REST API calls and responses to gather Configuration, Status and Performance data.

 **NOTE:** The requirements to collect guest file system statistics are in Data Protection Advisor 19.4 and vCenter 6.7 U3 or later.

The module includes the following functions that gather different types of information:

Topics:

- Configuration function for VMware
- Status function for VMware
- Performance function for VMware

Configuration function for VMware

The Configuration function gathers configuration information about components in a virtual hosted environment. The function includes the following options:

- timeout — Specifies how long the module should wait for commands to return before aborting them. The default value is 3600 seconds.
- vmwarehost — Host name of the VMware server.
- port — Port on which to connect to the VMware server. The default value is 443.
- usessl — Indicates to use SSL over HTTP. The default value is true.

The Configuration function gathers the following data:

- host_alias for VMware
- host_config for VMware
- memory_config for VMware
- processor_config for VMware
- netint_config for VMware
- netint_ip for VMware
- disk_config for VMware
- filesystem_config for VMware
- filesysc_diskc_r for VMware
- fcport_config for VMware
- vcs_config for VMware
- vcs_hosts for VMware
- datacenters for VMware
- host_vms for VMware
- vm_host_config for VMware
- vm_netint_config for VMware
- vm_disk_config for VMware

host_alias for VMware

The fields described in the following table are returned.

Table 635. host_alias

Field	Description	From
hostname	Hostname of the virtualization server	name field of the HostSystem object
alias	A host alias name	System calls to gethostbyaddr()
ipaddr	Alias IP address	ipAddress field of the VirtualEthernetCard object

host_config for VMware

The fields described in the following table are returned.

Table 636. host_config

Field	Description	From
vendor	Name of the product vendor	vendor field of AboutInfo object
osclass	Name of operating system	osType field of AboutInfo object
product	Name of operating system	name field of AboutInfo object
version	Version of operating system	version field of AboutInfo object
iscsiname	iSCSI name of host	iScsiName field of HostInternetScsiHba object

memory_config for VMware

The fields described in the following table are returned.

Table 637. memory_config

Field	Description	From
physical	Total amount of memory on host machine	memorySize field of HostHardwareInfo object

processor_config for VMware

The fields described in the following table are returned.

Table 638. processor_config

Field	Description	From
num	Identifier for the processor	threadId field of HostCpuPackage object
make	Make of processor	vendor field of HostCpuPackage object
model	Model of processor	description field of HostCpuPackage object
speed	Speed of processor	hz field of HostCpuPackage object

netint_config for VMware

The fields described in the following table are returned.

Table 639. netint_config

Field	Description	From
For physical interfaces		
name	Unique identifier for the network interface	device field of the PhysicalNic object
ether_addr	Hardware address of the network interface	mac field of the PhysicalNic object
autoneg	Indicates if the interface is set to autonegotiate	If the linkSpeed field of the PhysicalNicSpec object is set to Unset, then autonegotiation is TRUE. Else, it is FALSE
appname	vSphere application name	name field of the AboutInfo object
For console interfaces		
hostname	Hostname of the virtualization server	name field of HostSystem object
name	Unique identifier for the network interface	device field of HostVirtualNic object
ether_addr	Hardware address of the network interface	mac field of HostVirtualNicSpec object
For VMKernel interfaces		
hostname	Hostname of the virtualization server	name field of HostSystem object
name	Unique identifier for the network interface	device field of HostVirtualNic object
ether_addr	Hardware address of the network interface	mac field of HostVirtualNicSpec object
esxname	Name of the ESX server	name field of the HostSystem object

netint_ip for VMware

The fields described in the following table are returned.

Table 640. netint_ip

Field	Description	From
For physical interfaces		
name	Unique identifier for the network interface	device field of PhysicalNic object
ipaddr	IP address of the network interface	ipAddress field of HostIpConfig object
netmask	Netmask used by the network interface	subnetMask field of HostIpConfig object
gateway	Gateway address used by the network interface	defaultGateway field of HostIpRouteConfig object
For console interfaces		
hostname	Hostname of the virtualization server	name field of HostSystem object
Name	Unique identifier for the network interface	device field of HostVirtualNic object

Table 640. netint_ip (continued)

Field	Description	From
ipaddr	IP address of the network interface	ipAddress field of HostIpConfig object
netmask	Netmask used by the network interface	subnetMask field of HostIpConfig object
gateway	Gateway address used by the network interface	defaultGateway field of HostIpRouteConfig object
For VMKernel interfaces		
hostname	Hostname of the virtualization server	name field of HostSystem object
name	Unique identifier for the network interface	device field of HostVirtualNic object
ipaddr	IP address of the network interface	ipAddress field of HostIpConfig object
netmask	Netmask used by the network interface	subnetMask field of HostIpConfig object
gateway	Gateway address used by the network interface	defaultGateway field of HostIpRouteConfig object
esxname	Name of the ESX server	name field of the HostSystem object

disk_config for VMware

The fields described in the following table are returned.

Table 641. disk_config

Field	Description	From
device	Unique identifier for the disk	canonicalName field of ScsiLun object
manufacturer	Manufacturer of the disk	vendor field of ScsiLun object
model	Model of the disk	model field of ScsiLun object
serial_number	Serial number of the disk	data field of ScsiLunDurableName object
firmware	Firmware revision of the disk	revision field of ScsiLun object
size	Total capacity of the disk (in GB)	block multiplied by blockSize fields of HostDiskDimensionsLBA object
esxname	Name of the ESX server	name field of the HostSystem object
appname	vSphere application name	name field of the AboutInfo object

filesystem_config for VMware

The fields described in the following table are returned.

Table 642. filesystem_config

Field	Description	From
mountpoint	Mountpoint of the file system	name field of the HostVmfsVolume object
device	Name of device on which the file system is located	url field of the VmfsDatastoreInfo object
type	Type of file system	type field of the HostVmfsVolume object
total_space	Total capacity of the file system (in GB)	capacity field of the DatastoreSummary object

Table 642. filesystem_config (continued)

Field	Description	From
esxname	Name of the ESX server	name field of the HostSystem object
appname	vSphere application name	name field of the AboutInfo object

filescsc_diskc_r for VMware

The fields described in the following table are returned.

Table 643. filescsc_diskc_r

Field	Description	From
dev_node	Node name on which device is located	name field of HostSystem object
device	Name of device	url field of the VmfsDatastoreInfo object
dsk_node	Node name on which disk is located	name field of HostSystem object
disk	Name of disk	diskName field of HostScsiDiskPartition object

fcport_config for VMware

The fields described in the following table are returned.

Table 644. fcport_config

Field	Description	From
wwpn	Fibre Channel World Wide Port Name	portWorldWideName field from HostFibreChannelHba object
port	Port identifier	device field from HostFibreChannelHba object
wwnn	Fibre Channel World Wide Node Name	nodeWorldWideName field from HostFibreChannelHba object

vcs_config for VMware

The fields described in the following table are returned.

Table 645. vcs_config

Field	Description	From
appname	Application name	name field of AboutInfo object
vendor	Application vendor	vendor field of AboutInfo object
version	Version of the application	version and build fields of AboutInfo object
os	Version of the operating system running on the virtualization manager	osType field of AboutInfo object

vcs_hosts for VMware

The fields described in the following table are returned.

Table 646. vcs_hosts

Field	Description	From
name	Name of the virtualization server	name field of HostSystem object
appname	vSphere application name	name field of the AboutInfo object

datacenters for VMware

The fields described in the following table are returned.

Table 647. datacenters

Field	Description	From
name	Name of a datacenter defined on the vSphere Server	name field from Datacenter object

host_vms for VMware

The fields described in the following table are returned.

Table 648. host_vms

Field	Description	From
vm_name	Label of the virtual machine running on the virtualization server	name field of VirtualMachine object
vm_hostname	Name of the physical machine on which the virtual machine is running	hostName field of GuestInfo object
esxname	Name of the ESX server	name field of the HostSystem object
appname	vSphere application name	name field of the AboutInfo object

vm_host_config for VMware

The fields described in the following table are returned.

Table 649. vm_host_config

Field	Description	From
vm_name	Name of the virtual machine	name field of VirtualMachine object
vm_type	Type of virtual machine	guestFullName field of GuestInfo object
num_cpu	Number of CPUs configured on the virtual machine	numCPU field VirtualHardware object
max_cpu	Maximum number of CPUs configured on the virtual machine	hz multiplied by f_num_cpu fields of HostCpuPackage object
reserved_cpu	Number of CPUs reserved on the virtual machine	reservation field of ResourceAllocationInfo object
limit_cpu	Amount of CPU cycles that the virtual machine is limited to	limit field of ResourceAllocationInfo object

Table 649. vm_host_config (continued)

Field	Description	From
memory	Amount of memory configured for the virtual machine	memoryMB field of VirtualHardware object
reserved_memory	Amount of memory reserved for the virtual machine	reservation field of ResourceAllocationInfo object
limit_memory	Amount of memory that the virtual machine is limited to	limit field of ResourceAllocationInfo object
esxname	Name of the ESX server	name field of the HostSystem object
appname	vSphere application name	name field of the AboutInfo object
vm_tags	The tags associated with the virtual machine, represented in the format <categoryName>:<tagName>. Comma separated values in case there is more than one tag associated. For example, categoryName1:tagName1, categoryName2:tagName2 i NOTE: <ul style="list-style-type: none"> Duplicate VM names on a single ESXi host are not supported. Maximum supported configuration: 1000 ESXi hosts, each with 1000 VMs. Supported vSphere versions are 6.5 and later. 	Category and tag of the object

vm_netint_config for VMware

The fields described in the following table are returned.

Table 650. vm_netint_config

Field	Description	From
vm_name	Virtual machine name	name field of VirtualMachine object
name	Virtualization server name Unique identifier for the virtual interface	name field of HostSystem object label field of Description object
virtualnetwork	Network on which the virtual interface is located	summary field of Description object
mac	MAC address of network interface	macAddress field of VirtualEthernetCard object
esxname	Name of the ESX server	name field of the HostSystem object
appname	vSphere application name	name field of the AboutInfo object
ip	IP address of the virtual machine	ipAddress field of the VirtualEthernetCard object

vm_disk_config for VMware

The fields described in the following table are returned.

Table 651. vm_disk_config

Field	Description	From
vm_name	Name of the virtual machine	name field of VirtualMachine object
name	Name of the virtualization server Unique identifier for the disk	name field of HostSystem object label field of Description object
size	Capacity for the disk (in GB)	capacityInKB field of VirtualDisk object
virtualdisk (i) NOTE: This is not available in VMware 6.5 and later	Virtual disk to which the disk maps	name field of VmfsDatastoreInfo object
device	Device where the virtual disk resides	deviceName field from the BackingInfo object of the VirtualDisk object
key		
datastore	Name of datastore on which the virtual disk is located	Datastore field of VirtualDeviceBackingInfo of the VirtualDisk object
esxname	Name of the ESX server	name field of the HostSystem object
appname	vSphere application name	name field of the AboutInfo object

Status function for VMware

The Status function gathers status information about the status of components in a virtual hosted environment. The function includes the following options:

- timeout — Specifies how long the module should wait for commands to return before aborting them. The default value is 3600 seconds.
- vmwarehost — Host name of the VMware server.
- port — Port on which to connect to the VMware server. The default value is 443.
- usessl — Indicates to use SSL over HTTP. The default value is true.
- GuestVMFsDetails — To collect guest VM file system statistics. The default value is true.

The Status function gathers the following data:

- host_status for VMware
- memory_status for VMware
- netint_status for VMware
- netint_status for VMware
- filesystem_status for VMware
- vm_host_status for VMware
- vm_netint_status for VMware

host_status for VMware

The fields described in the following table are returned.

Table 652. host_status

Field	Description	From
hostname	Name of the virtualization server	name field of HostSystem object

Table 652. host_status (continued)

Field	Description	From
lastboot	Last time the server was started	bootTime field of HostRuntimeInfo object

memory_status for VMware

The fields described in the following table are returned.

Table 653. memory_status

Field	Description	From
hostname	Name of the virtualization server	name field of HostSystem object
used	Total amount of physical memory used on the server	overallMemoryUsage field of HostListSummaryQuickStats object

netint_status for VMware

The fields described in the following table are returned.

Table 654. netint_status

Field	Description	From
For physical interfaces		
hostname	Name of the virtualization server	name field of HostSystem object
name	Identifier for the network interface	device field of PhysicalNic object
linkup	Indicates if the interface is linked to a switch	If the linkSpeed field of the PhysicalNicSpec object is set to Unset, then linkup is TRUE. Else, it is FALSE
speed	Current speed of the network interface	speedMb field of PhysicalNicLinkInfo object
esxname	Name of the ESX server	name field of the HostSystem object
appname	vSphere application name	name field of the AboutInfo object

filesystem_status for VMware

The fields described in the following table are returned.

Table 655. filesystem_status

Field	Description	From
hostname	Name of the virtualization server	name field of HostSystem object
used_space	Total space used in the file system	capacity minus freeSpace fields of DatastoreSummary object
mountpoint	Mountpoint of the file system	name field of the HostVmfsVolume object
esxname	Name of the ESX server	name field of the HostSystem object
appname	vSphere application name	name field of the AboutInfo object

vm_host_status for VMware

The fields described in the following table are returned.

Table 656. vm_host_status

Field	Description	From
vm_name	Name of the virtual machine	name field of VirtualMachine object
storage_used	Total storage space, in megabytes, committed to this virtual machine across all datastores. Essentially an aggregate of the property committed across all datastores that this virtual machine is located on	committed field of VirtualMachineStorageSummary object
storage_provisioned	Total storage space, in megabytes, committed to this virtual machine across all datastores. Plus: Additional storage space, in megabytes, potentially used by this virtual machine on all datastores. Essentially an aggregate of the property uncommitted across all datastores that this virtual machine is located on.	sum of committed and uncommitted fields of VirtualMachineStorageSummary object
storage_unshared	Total storage space, in megabytes, occupied by the virtual machine across all datastores, that is not shared with any other virtual machine.	unshared field of VirtualMachineStorageSummary object
status	Status of the virtual machine	powerState field of VirtualMachineRuntimeInfo object
memory_used	Amount of memory used by the virtual machine	guestMemoryUsage field of VirtualMachineQuickStats object
cpu_used	Amount of CPU utilized by the virtual machine	overallCpuUsage field of VirtualMachineQuickStats object
lastboot	Time of the last boot of the VM	bootTime field from VirtualMachineSummary object
tools_status	Indicates if the VMware tools is not installed (0), not running (1), old (2), or OK (3)	toolsStatus field of the VirtualMachine object
tools_version	Version of the VMware tools	toolsVersion field of the VirtualMachine object
esxname	Name of the ESX server	name field of the HostSystem object
appname	vSphere application name	name field of the AboutInfo object
guest_fs_capacity	Total storage capacity assigned for the VM, includes capacity for all the disks	vCenter Rest API : GET:rest/vcenter/vm/<VM-ID>/guest/local-filesystem addition of 'capacity' field for all disks
guest_fs_free_space	Total free space available for a VM to store the data in the disk, includes free space combined from all the disks of the VM	vCenter Rest API : GET:rest/vcenter/vm/<VM-ID>/guest/local-filesystem addition of 'free_space' field for all disks

Table 656. vm_host_status (continued)

Field	Description	From
guest_fs_utilized_space	Total utilized space by the VM on the disks	Calculated from guest_fs_capacity and guest_fs_free_space fields using REST API

 **NOTE:** The VM storage utilization data is collected only if:

- The vCenter version is 6.7 U3 and later. For vCenter 6.7 U3, the Data Protection Advisor user must be a member of SystemConfiguration.Administrators group in vCenter and for vCenter 7.0 and later, the Data Protection Advisor user must be a member of SystemConfiguration.ReadOnly group in vCenter. Data Protection Advisor uses REST API GET: rest/appliance/system/version to fetch the version of the vCenter.
- The VM is up and running.
- The guest tools are running on the VM.
- The vCenter REST API is accessible.

vm_netint_status for VMware

The fields described in the following table are returned.

Table 657. vm_netint_status

Field	Description	From
vm_name	Name of the virtual machine	name field of VirtualMachine object
name	Unique identifier for the network interface	label field of Description object
status	Status of the network interface	connected field of VirtualDeviceConnectInfo object
ip	IP address of the network interface	ipAddress field of GuestNicInfo object
esxname	Name of the ESX server	name field of the HostSystem object
appname	vSphere application name	name field of the AboutInfo object

Performance function for VMware

The Performance function gathers information about the performance of hosts and virtual machines in a virtual hosted environment. The function includes the following options:

timeout — Specifies how long the module should wait for commands to return before aborting them. The default value is 3600 seconds.

vmwarehost — Host name of the VMware server.

port — Port on which to connect to the VMware server. The default value is 443.

usessl — Indicates to use SSL over HTTP. The default value is true.

The Performance function gathers the following data:

- processor_status for VMware
- netint_perf for VMware
- disk_perf for VMware
- vm_netint_perf for VMware
- vm_disk_perf for VMware
- vm_proc_perf for VMware

processor_status for VMware

The fields described in the following table are returned.

Table 658. processor_status

Field	Description	From
hostname	Name of the virtualization server	name field of HostSystem object
num	Identifier for the processor on the machine	Hard coded to 0
utilisation	Current CPU utilization of the server	overallCpuUsage field of the HostListSummaryQuickStats object
online	Indicates if the CPU is online	Hard coded to 1

netint_perf for VMware

The fields described in the following table are returned.

Table 659. netint_perf

Field	Description	From
name	Name of the virtualization server	Name of the server as configured in Data Protection Advisor
data_in	Amount of data coming in to the network interface (KB/second)	transmitted counter of net
data_out	Amount of data going out of the network interface (KB/second)	received counter of net
packets_in	Number of packets coming in to the network interface (in 1000s/second)	packetsRx counter of net
packets_out	Number of packets going out of the network interface in (1000s/second)	packetsRx counter of net
esxname	Name of the ESX server	name field of the HostSystem object
appname	vSphere application name	name field of the AboutInfo object

disk_perf for VMware

The fields described in the following table are returned.

Table 660. disk_perf

Field	Description	From
device	Device name of the disk	Name of the disk as configured in Data Protection Advisor
data_in	Amount of data transferred from memory to disk (KB/second)	read counter of disk
data_out	Amount of data transferred from disk to memory (KB/second)	write counter of disk
reqs_in	Number of read operations (/second)	numberRead counter of disk
reqs_out	Number of write operations (/second)	numberWrite counter of disk

vm_netint_perf for VMware

The fields described in the following table are returned.

Table 661. vm_netint_perf

Field	Description	From
hostname	Name of the virtualization server	Name of the server as configured in Data Protection Advisor
vm_name	Name of the virtual machine	Name of the VM as configured in Data Protection Advisor
data_in	Amount of data coming in to the network interface (KB/second)	transmitted counter of net
data_out	Amount of data going out of the network interface (KB/second)	received counter of net
packets_in	Number of packets coming in to the network interface (in 1000s/second)	packetsRx counter of net
packets_out	Number of packets going out of the network interface (in 1000s/second)	packetsTx counter of net
esxname	Name of the ESX server	name field of the HostSystem object
appname	vSphere application name	name field of the AboutInfo object

vm_disk_perf for VMware

The fields described in the following table are returned.

Table 662. vm_disk_perf

Field	Description	From
hostname	Name of the virtualization server	Name of the server as configured in Data Protection Advisor
vm_name	Name of the virtual machine	Name of the VM as configured in Data Protection Advisor
device	Name of the VM disk	label field of the deviceInfo object from the VirtualDisk object
data_in	Amount of data transferred from memory to disk (KB/second)	read counter of disk
data_out	Amount of data transferred from disk to memory (KB/second)	write counter of disk
reqs_in	Number of read operations (/second)	numberRead counter of disk
reqs_out	Number of write operations (/second)	numberWrite counter of disk

vm_proc_perf for VMware

The fields described in the following table are returned.

Table 663. vm_proc_perf

Field	Description	From
vm_name	Name of the virtual machine	Name of the VM as configured in Data Protection Advisor

Table 663. vm_proc_perf (continued)

Field	Description	From
processor_instance	Processor instance	instance field from PerfMetricIntSeries object
used		used field from the PerfCounterInfo object
wait		wait field from the PerfCounterInfo object

Webserver Module

The Webserver module monitors the status of webservers. Data Protection Advisor uses HTTPS to gather Configuration and Response data. It consists of the following functions:

Topics:

- Configuration function for webservers
- Response function for webservers

Configuration function for webservers

The Configuration function of the Webserver module gathers information about the configuration of the Webserver. The function includes the following options:

- port — Port of the webserver. The default value is 80.

The Configuration function gathers the following data:

- `webserver_config`

`webserver_config`

The fields described in the following table are returned.

Table 664. `webserver_config`

Field	Description	From
<code>agent_name</code>	Name of the web server host	The name of the node that is monitored
<code>product</code>	Product name of the web server	Extracted from the output of the Server: query
<code>version</code>	Version of the web server	Extracted from the output of the Server: query

Response function for webservers

The Response function gathers response information of the webserver. The function includes the following options:

- `page` — Page to obtain.
- `port` — Port of the webserver. The default value is 80.

The Response function returns the following information:

- `webserver_response`

`webserver_response`

The fields described in the following table are returned.

Table 665. `webserver_response`

Field	Description	From
<code>page</code>	URL of the page to retrieve	The page request option

Table 665. webserver_response (continued)

Field	Description	From
valid_response	Indicates if the response from the server is valid	Extracted from the response of a GET request
response_time	Time in seconds for the web server to respond	Extracted from the response of a GET request

Xsigo Module

The Xsigo module gathers information about Xsigo Director, including configuration, status, and performance. Data is gathered from the Xsigo Director MIBs over SNMP. The module includes the following functions that gather different types of information:

Topics:

- Configuration function for Xsigo
- Status function for Xsigo
- Performance function for Xsigo

Configuration function for Xsigo

The Configuration function of the Xsigo module gathers configuration information about Xsigo Directors. The function includes the following options:

- timeout — SNMP timeout value. The default value is 10.

The Configuration function gathers the following data:

- host_config for Xsigo
- netint_config for Xsigo
- fcport_config for Xsigo
- hwpwu_config for Xsigo
- hwtemp_config for Xsigo
- hwfan_config for Xsigo
- infiband_config for Xsigo
- virtual_port_map for Xsigo

host_config for Xsigo

The fields described in the following table are returned.

Table 666. host_config

Field	Description	EDL 3D
vendor	Vendor of the product	Hard coded to Xsigo
osclass	Class of the product	Hard coded to Director
product	Name of the product	SNMPv2-MIB::sysName.0
version	Firmware version of the product	SNMPv2-MIB::sysDescr.0
hostid	Hardware ID of the product	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoChassisSerialNum
hostname	Host name	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoChassisName

netint_config for Xsigo

The fields described in the following table are returned.

Table 667. netint_config

Field	Description	Obtained from
name	Interface name	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortLocation
autoneg	Indicates if autonegotiation is enabled	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortAdminSpeed
virtualtype	Indicates if the ports are virtual (1) or physical (0)	Physical ports — Hard coded to 0 Virtual ports — Hard coded to 1
f_jumbo	Jumbo Packets Enabled	SNMP OID .1.3.6.1.2.1.2.2.1.4

fcport_config for Xsigo

The fields described in the following table are returned.

Table 668. fcport_config

Field	Description	Obtained from
port	Port name	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortLocation
wwpn	Port WWPN	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortWWPN
wwnn	Port World Wide Node Name	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortWNN
virtualtype	Indicates if the HBA is virtual (1) or physical (0)	Physical ports — Hard coded to 0 Virtual ports — Hard coded to 1

hwpsu_config for Xsigo

The field described in the following table is returned.

Table 669. hwpsu_config

Field	Description	Obtained from
name	Power supply unit name	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPowerSupplyName
model	Power supply unit model	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPowerSupplyModelNum
serial	Power supply unit serial number	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPowerSupplySerialNum

hwtemp_config for Xsigo

The field described in the following table is returned.

Table 670. hwtemp_config

Field	Description	Obtained from
name	Thermometer name	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoTemperatureProbeIndex/xsigoTemperatureProbeName
location	Thermometer location	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoTemperatureProbeLocation

hwfan_config for Xsigo

The field described in the following table is returned.

Table 671. hwfan_config

Field	Description	EDL 3D
name	Hardware fan name	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoFanIndex
model	Hardware fan model	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoFanModel
serial	Hardware fan serial number	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoFanSerialNum
location	Hardware fan location	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoFanLocation

infiband_config for Xsigo

The field described in the following table is returned.

Table 672. infiband_config

Field	Description	Obtained from
name	Port name	IF-MIB::ifName (Make sure that ifName is not available at either XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortLocation or::xsigoVnicName or ::xsigoVhbaName)

virtual_port_map for Xsigo

The field described in the following table is returned.

Table 673. virtual_port_map

Field	Description	Obtained from
physicalname	Physical port name	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoVhbaName or XSIGO-IODIRECTOR-ENTITY-MIB::xsigoVnicName
virtualname	Virtual port name	IF-MIB::ifName

Table 673. virtual_port_map (continued)

Field	Description	Obtained from
		(Make sure that ifName is not available at either XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortLocation or ::xsigoVnicName or ::xsigoVhbaName)
virtualtype	Virtual port type	xsigoVnicTable or xsigoVhbaTable

Status function for Xsigo

The Status function gathers information on the status of components of the Xsigo Director. The function includes the following options:

- timeout — SNMP timeout value. The default value is 10.

The Status function gathers the following data:

- host_status for Xsigo
- netint_status for Xsigo
- fcport_status for Xsigo
- hwpsu_status for Xsigo
- hwtemp_status for Xsigo
- hwfan_status for Xsigo
- infiband_status for Xsigo
- processor_status for Xsigo

host_status for Xsigo

The fields described in the following table are returned.

Table 674. host_status

Field	Description	Obtained from
lastboot	Last time the product was rebooted	SNMPv2-MIB::sysUpTime
status	Host status	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoChassisOperState

netint_status for Xsigo

The fields described in the following table are returned.

Table 675. netint_status

Field	Description	Obtained from
name	Interface name	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortLocation (make sure that :: xsigoPortType is NOT 'sanFcPort' or 'ib10gbport')
linkup	Indicates if the link is up	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortOperState

Table 675. netint_status (continued)

Field	Description	Obtained from
speed	Maximum speed of the active link	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortSpeed
fullduplex	Indicates if the interface is full duplex	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortFullDuplex
virtualtype	Indicates if the port is virtual (1) or physical (0)	Physical ports — Hard coded to 0 Virtual ports — Hard coded to 1
adm_linkup	Indicates if the link is has been disabled by an administrator	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortAdminState

fcport_status for Xsigo

The fields described in the following table are returned.

Table 676. fcport_status

Field	Description	Obtained from
port	Port name	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortLocation (make sure that :: xsigoPortType is 'sanFcPort')
linkup	Indicates if the physical link is operating	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortOperState
speed	Maximum speed of the active link	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortSpeed
virtualtype	Indicates if the library is virtual (1) or physical (0)	Physical ports — Hard coded to 0 Virtual ports — Hard coded to 1
adm_linkup	Indicates if the link is has been disabled by an administrator	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortAdminState

hwpsu_status for Xsigo

The fields described in the following table are returned.

Table 677. hwpsu_status

Field	Description	Obtained from
name	Power supply unit name	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPowerSupplyName
active	Indicates if the power supply unit is active	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPowerSupplyAdminState/xsigoPowerSupplyOperState

hwtemp_status for Xsigo

The fields described in the following table are returned.

Table 678. hwtemp_status

Field	Description	Obtained from
name	Thermometer name	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoTemperatureProbeIndex/xsigoTemperatureProbeName
active	Indicates if the thermometer is active	Hard coded to 1
temp	Thermometer temperature	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoTemperatureProbeActValue
hot	Indicates if the thermometer is hot if the reading goes above a certain number	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoTemperatureProbeMaxValue

hwfan_status for Xsigo

The fields described in the following table are returned.

Table 679. hwfan_status

Field	Description	EDL 3D
name	Hardware fan name	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoFanIndex
active	Indicates if the fan is active	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoFanOperState
speed	Speed at which the fan is operating	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoFanExpSpeed
normalspeed	Expected normal operating speed of the fan	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoFanExpSpeed

infiband_status for Xsigo

The field described in the following table is returned.

Table 680. infiband_status

Field	Description	Obtained from
name	Port name	IF-MIB::ifName (Make sure that ifName is not available at either XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortLocation or::xsigoVnicName or ::xsigoVhbaName)
linkup	Indicates if the link is up	IF-MIB::ifOperStatus
speed	Maximum speed of the active link	IF-MIB::ifHighSpeed

processor_status for Xsigo

The field described in the following table is returned.

Table 681. processor_status

Field	Description	Obtained from
num	Processor identifier	Hard coded to 1
utilisation	Percentage utilization of the processor	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoChassisCpuUsage
online	Indicates if the processor is online	Hard coded to TRUE

Performance function for Xsigo

The Performance function gathers information regarding the performance of the Infiniband and physical and virtual interfaces for Xsigo. The function includes the following options:

- timeout — SNMP timeout value. The default value is 10.

The Status function gathers the following data:

- [netint_perf for Xsigo](#)
- [fcport_perf for Xsigo](#)
- [infiband_perf for Xsigo](#)

netint_perf for Xsigo

The fields described in the following table are returned.

Table 682. netint_perf

Field	Description	Obtained from
name	Interface name	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortLocation (make sure that :: xsigoPortType is NOT 'sanFcPort' or 'ib10gbport')
data_in	Amount of data entering the interface	IF-MIB::ifHCInOctets
data_out	Amount of data leaving the interface	IF-MIB::ifHCOutOctets
packets_in	Number of packets entering the interface	IF-MIB::ifHCInUcastPkt
packets_out	Number of packets leaving the interface	IF-MIB::ifHCOutUcastPkt
errors_in	Number of bad frames received by the port	IF-MIB::ifInErrors
errors_out	Number of bad frames sent by the port	IF-MIB::ifOutErrors
discards_in	Number of incoming frames discarded	IF-MIB::ifInDiscards
discards_out	Number of outgoing frames discarded	IF-MIB::ifOutDiscards
virtualtype	Indicates if the interface is virtual (1) or physical (0)	Physical ports — Hard coded to 0 Virtual ports — Hard coded to 1
qdepth	Length of the I/O queue	IF-MIB::ifOutQLen

fcport_perf for Xsigo

The fields described in the following table are returned.

Table 683. fcport_perf

Field	Description	Obtained from
port	Port name	XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortLocation (make sure that :: xsigoPortType is 'sanFcPort')
data_in	Amount of data entering the port	IF-MIB::ifHCInOctets
data_out	Amount of data leaving the port	IF-MIB::ifHCOutOctets
frames_in	Number of frames entering the port	IF-MIB::ifHCInUcastPkt
frames_out	Number of frames leaving the port	IF-MIB::ifHCOutUcastPkt
errors_in	Number of bad frames received by the port	IF-MIB::ifInErrors
errors_out	Number of bad frames sent by the port	IF-MIB::ifOutErrors
discards_in	Number of incoming frames discarded	IF-MIB::ifInDiscards
discards_out	Number of outgoing frames discarded	IF-MIB::ifOutDiscards
virtualtype	Indicates if the port is virtual (1) or physical (0)	Physical ports — Hard coded to 0 Virtual ports — Hard coded to 1
qdepth	Length of the I/O queue	IF-MIB::ifOutQLen

infiband_perf for Xsigo

The field described in the following table is returned.

Table 684. infiband_perf

Field	Description	Obtained from
name	Port name	IF-MIB::ifName (Make sure that ifName is not available at either XSIGO-IODIRECTOR-ENTITY-MIB::xsigoPortLocation or ::xsigoVnicName or ::xsigoVhbaName)
data_in	Amount of data entering the port	IF-MIB::ifHCInOctets
data_out	Amount of data leaving the port	IF-MIB::ifHCInOctets
packets_in	Number of packets entering the port	IF-MIB:: ifHCInUcastPkt
packets_out	Number of packets leaving the port	IF-MIB:: ifHCOutUcastPkt

VMware vSphere Data Protection Module

The VMware vSphere Data Protection (VDP) module monitors the status of VDP servers. Data Protection Advisor uses ODBC API calls and responses to gather Configuration and Status information. It consists of the following functions:

Topics:

- Configuration function for VDP
- Job Monitor function for VDP
- Status function for VDP

Configuration function for VDP

The Configuration function of the VDP module gathers information about the configuration of the backup server including information about clients, policies, pools, and devices. The function includes the following options:

- dbname — Database name. The default value is mcdb.
- dbport — Port on which to access the database. The default value is 5555.
- VDP decimal capacity factor — Identifies the capacity factor with which to use in Data Protection Advisor to ensure that the capacity is similar in VDP and Data Protection Advisor reports.

The Configuration function gathers the following data:

- bkup_server_config for VDP
- bkup_server_mapping for VDP
- group_config for VDP
- client_config for VDP
- schedule_config for VDP
- job_config for VDP
- ret_policy_config for VDP

bkup_server_config for VDP

The fields described in the following table are returned.

Table 685. bkup_server_config

Field	Description	From
backup_servername	Backup server name	Name of the host as defined in Data Protection Advisor
application	Application name	Hard coded to VDP
capacity	Total capacity of the VDP server	capacity_mb field in the v_node_space view
usable_capacity	Amount that can be used for storage on the VDP server	capacity_mb and diskreadonly fields in the v_node_space view.
ip_address	IP address of the backup server	ipaddr field in v_server_info view
hardware_id	Hardware identifier of the backup server	hardwareid field in v_server_info view
hostname	FQDN of the backup server	hostname field in config xml

bkup_server_mapping for VDP

The fields described in the following table are returned.

Table 686. bkup_server_mapping

Field	Description	From
client_name	Name of client	client_name field in the v_clients view
group_name	Name of group	group_name field in the v_groups view
schedule_name	Name of schedule	name field in the v_schedules view
job_name	Name of Job	Combination of the v_plugins view and the v_ds_targets view
domain_name	Name of the domain associated with the group	domain field in the v_groups view
nsr_retention_policy	Name of the group retention policy	name field in the v_groups_retention view

group_config for VDP

The fields described in the following table are returned.

Table 687. group_config

Field	Description	From
group_name	Group name	name field in the v_groups view
active	Indicates if the group is active	enabled field in the v_groups view
domain_name	Name of the domain associated with the group	domain field in the v_groups view

client_config for VDP

The fields described in the following table are returned.

Table 688. client_config

Field	Description	From
client_name	Client name	client_name field in the v_clients view
active	Indicates if the client is active: 1 (active)	enabled field in the v_clients view
version	Application version running on the client	agent_version field in the v_clients view
remoteip	Client IP address	client_addr field in the v_clients view
os_type	Client operating system	os_type field in the v_clients view
client_identifier	Client Identifier	cid field in the v_clients view
domain_name	VDP domain to which the client belongs	full_domain_name field in the v_clients view

schedule_config for VDP

The fields described in the following table are returned.

Table 689. schedule_config

Field	Description	From
schedule_name	Schedule name	name field in the v_schedules view
group_name	Name of the group associated with the schedule	name field in the v_groups view
domain_name	Name of the domain associated with the schedule	domain field in the v_schedules view
enabled	Indicates if scheduling is enabled	enabled field in the v_schedules view
type	Schedule type	recur_interval field in the v_schedules view
schedule_starttime	Start time of schedule	schedule_start field in the v_schedules view
schedule_endtime	End time of schedule	schedule_end field in the v_schedules view
windowstart	Start time of backup window	window_start field in the v_schedules view
windowduration	Duration of backup window	window_duration field in the v_schedules view
calendar_hours	Hours selected if using a calendar window	calendar_hours field in the v_schedules view
calendar_weekdays	Week days selected if using a calendar window	calendar_weekdays field in the v_schedules view
calendar_monthdays	Month days selected if using a calendar window	calendar_monthdays field in the v_schedules view

job_config for VDP

The fields described in the following table are returned.

Table 690. job_config

Field	Description	From
job_name	Job name	Combination of the v_plugins view and the v_ds_targets view
client_name	Client name	client_name field in the clients view
group_name	Name of the group that the client is in that causes the backup of this Job	name field in the v_groups view
domain_name	Name of the domain associated with the group	domain field in the v_groups view

ret_policy_config for VDP

The fields described in the following table are returned.

Table 691. ret_policy_config

Field	Description	From
name	Name of the Retention Policy	name field in the v_retention_policies view
domain_name	VDP domain associated with the policy	domain field in the v_retention_policies view
enabled	Indicates if the policy is enabled or not	enabled field in the v_retention_policies view
readonly	Indicates if the policy is Read Only	read_only field in the v_retention_policies view
expiration	Expiration date of the policy	Calculated from duration and unit fields in the v_retention_policies view
duration	Duration that data should be backed up	duration field in the v_retention_policies view
durationtype	Units of policy duration	unit field in the v_retention_policies view
override	Indicates if to override Basic Retention	override field in the v_retention_policies view
keepdaysdaily	Number of days of daily backups to keep	daily field in the v_retention_policies view
keepweekswEEKLY	Number of weeks of weekly backups to keep	weekly field in the v_retention_policies view
keepmonthsmonthly	Number of months of monthly backups to keep	monthly field in the v_retention_policies view
keepyearsyearly	Number of years of yearly backups to keep	yearly field in the v_retention_policies view

Job Monitor function for VDP

The Job Monitor function gathers information about backup and restore Jobs that have occurred on the VDP server. The function includes the following options:

- dbname — Database name. The default value is mcdb.
- dbport — Port on which to access the database. The default value is 5555.

The Job Monitor function gathers the following data:

- ddup_status for VDP
- backupjob for VDP
- backupevent for VDP
- backuperror for VDP
- restorejob for VDP
- restoreevent for VDP
- clonejob for VDP
- clone_object for VDP
- maintenancejob for VDP
- application_error for VDP

ddup_status for VDP

The fields described in the following table are returned.

Table 692. ddup_status

Field	Description	From
seg_bytes	Its all the bytes that were ever written to that	The output of the se_sfs_dump command
seg_count	Number of segments in the file	The output of the se_sfs_dump command
redund_seg_count	Number of redundant segments that already exist on the DDR	The output of the se_sfs_dump command
pre_lc_size	Size before local compression	The output of the se_sfs_dump command
post_lc_size	Size after local compression	The output of the se_sfs_dump command

backupjob for VDP

The fields described in the following table are returned.

Table 693. backupjob

Field	Description	From
backup_servername	Backup server name	Name of the host as defined in Data Protection Advisor
media_server	Name of the media server on which the backup occurred	Name of the host as defined in Data Protection Advisor
group_name	Group that scheduled the backup	group_name field in the v_activities_2 view
client_name	Name of the client that was backed up	client_name field in the v_activities_2 view
schedule_name	Schedule that triggered the backup	schedule field in the v_activities_2 view
job_name	Name of the file system that was backed up	Combination of the plugin_name , the client_name , and the dataset fields in the v_activities_2 view
domain_name	Name of the VDP domain to which the client belongs	domain field in the v_activities_2 view
effective_path	Effective path of the Backup	effective_path field in the v_activities_2 view
errorcodesummary	Error summary code of the backup job	error_code_summary field in the v_activities_2 view
statuscodesummary	Status summary code of the backup job	status_code_summary field in the v_activities_2 view
pluginname	VDP plug-in name	plugin_name field in the v_activities_2 view
status	Indicates if the backup was successful: Success, Failed	status_code a field in the v_activities_2 view

Table 693. backupjob (continued)

Field	Description	From
		Note: If this value is 30,000 or 30,005, then the status is Success. If the value is anything else, then this value is Failed
errcode	Application error code associated with the Job	error_code field in the v_activities_2 view
statuscode	Application status code associated with the job	status_code field in the v_activities_2 view
level	Level of the backup	Hard coded to Full
size	Amount of data that was backed up (in MB)	bytes_new field in the v_activities_2 view
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	bytes_new field in the v_activities_2 view
sizescanned	Total size of the data scanned	bytes_scanned field in the v_activities_2 view
sizescannedoffset	Byte offset of scanned size	bytes_scanned field in the v_activities_2 view
nfiles	Number of files that were backed up	num_of_files field in the _2 view
nfilesnot	Number of files that were not backed up	num_files_skipped field in the v_activities_2 view
bytesmodifiedsent	Bytes modified sent	bytes_modified_sent field in the v_activities_2 view
bytesmodifiednotsent	Bytes modified not sent	bytes_modified_not_sent field in the v_activities_2 view
expiry	Expiration date of this Job	effective_expiration field in the v_activities_2 view
jobid	VDP Job ID in the activity log	session_id field in the v_activities_2 view
queuestart	Time the backup went into the backup applications queue	scheduled_start_ts field in the v_activities_2 view

backupevent for VDP

The fields described in the following table are returned.

Table 694. backupevent

Field	Description	From
backup_servername	Backup server name	Name of the host as defined in Data Protection Advisor
media_server	Name of the media server on which the backup occurred	Name of the host as defined in Data Protection Advisor
group_name	Group that scheduled the backup	group_name field in the v_activities_2 view
client_name	Name of the client that was backed up	client_name field in the v_activities_2 view
schedule_name	Schedule that triggered the backup	schedule field in the v_activities_2 view

Table 694. backupevent (continued)

Field	Description	From
job_name	Name of the file system that was backed up	Combination of the name, client_name, and the dataset fields in the v_activities_2 view
domain_name	Name of the VDP domain to which the client belongs	domain field in the v_activities_2 view
status	Indicates if the backup was successful: Success, Failed	status_code field in the v_activities_2 view Note: If this value is 30,000 or 30,005, then the status is Success. If the value is anything else, then this value is Failed
errcode	Application error code associated with the Job	error code field in the v_activities_2 view
queuestart	Time the backup went into the backup applications queue	scheduled_start_ts field in the v_activities_2 view

backuperror for VDP

The fields described in the following table are returned.

Table 695. backuperror

Field	Description	From
backupjob_id	VDP Job ID in the activity log	Combination of the session_id field in the v_activity_errors, v_ev_catalog, and v_activities_2 views
client_name	Name of the client that failed	Combination of the client_name field in the v_activity_errors, v_ev_catalog, and v_activities_2 views
severity	Severity of the error message	Combination of the severity field in the v_activity_errors, v_ev_catalog, and v_activities_2 views
errorstring	Error message	Combination of the summary field in the v_activity_errors, v_ev_catalog, and v_activities_2 views

restorejob for VDP

The fields described in the following table are returned.

Table 696. restorejob

Field	Description	From
backup_servername	Backup server on which the restore occurred	Name of the host as defined in Data Protection Advisor
media_server	Media server on which the restore occurred	Name of the host as defined in Data Protection Advisor
client_name	Name of the client that was restored	client_name field in the v_activities_2 view

Table 696. restorejob (continued)

Field	Description	From
job_name	Name of the file system that is restored	Combination of the name, dataset, and client_name fields in the v_activities_2 view
domain_name	Name of the VDP domain to which the client belongs	domain field in the v_activities_2 view
jobid	Job ID of the job that is restored	jobid field in the v_activities_2 view
status	Status of the restore	status_code field in the v_activities_2 view
errcode	Any error code associated with a failed restore	err_code field in the v_activities_2 view
size	Amount of data restored	bytes_new field in the v_activities_2 view
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	bytes_new field in the v_activities_2 view
sizescanned	Total size of the data scanned	bytes_scanned field in the v_activities_2 view
sizescannedboffset	Byte offset of scanned size	bytes_scanned field in the v_activities_2 view
nfiles	Number of files restored	num_of_files field in the v_activities_2 view
queuestart	Time the restore was requested	scheduled_start_ts field in the v_activities_2 view
backupnumber	Number of the backup that is being restored	backup_number field in the v_activities_2 view
backuplabel	Name of the backup that is being restored	backup_label field in the v_activities_2 view
recordeddatetime	Timestamp of the restore	recorded_date_time field in the v_activities_2 view
numoffiles	Number of files recovered	num_of_files field in the v_activities_2 view
mbytesscanned	Number of bytes scanned	bytes_scanned field in the v_activities_2 view
pluginname	VDP plug-in name	plugin_name field in the v_activities_2 view

restoreevent for VDP

The fields described in the following table are returned.

Table 697. restoreevent

Field	Description	From
backup_servername	Backup server on which the restore occurred	Name of the host as defined in Data Protection Advisor
media_server	Media server on which the restore occurred	Name of the host as defined in Data Protection Advisor

Table 697. restoreevent (continued)

Field	Description	From
client_name	Name of the client that was restored	client_name field in the v_activities_2 view
job_name	Name of the file system that is restored	Combination of the name, dataset, and client_name field in the v_activities_2 view
jobid	Unique ID of the job	jobid field in the v_activities_2 view
domain_name	Name of the VDP domain to which the client belongs	domain field in the v_activities_2 view
status	Status of the restore	status_code field in the v_activities_2 view
queuestart	Time the restore was requested	scheduled_start_ts field in the v_activities_2 view

clonejob for VDP

The Job Monitor function returns information about jobs for replications that have occurred on the VDP server. The fields described in the following table are returned.

Table 698. clonejob

Field	Description	From
backup_servername	Backup server name	Node name
media_server name	Name of the backup server	Node name
cloneid	Identifier for the replication job	session_id field in the v_repl_activities view
client	Client for which replication is being performed	client_name field in the v_repl_activities view
domain_name	Name of the VDP domain to which the client belongs	domain field in the v_repl_activities view
status	Status of the replication Job: Success, Failed	status_code field in the v_repl_activities view
errcode	Error code (if available) from the backup application	error_code field in the v_repl_activities view
size	Amount of data backed up (in MB)	bytes_modifiedfield in the v_repl_activities view
sizeoffset	Number of bytes that should be added or subtracted from the Size field to return the Job size (in bytes)	bytes_modified field in the v_repl_activities view
sizescanned	Total size of the data scanned	bytes_scanned field in the v_repl_activities view
sizescannedoffset	Byte offset of scanned size	bytes_scanned field in the v_repl_activities view

clone_object for VDP

The fields described in the following table are returned.

Table 699. clone_object

Field	Description	From
clonejob_id	Clone Job ID	session_id field in the v_repl_activities view
backupjob_id	Backup Job ID	session_id field in the v_activities_2 view

maintenancejob for VDP

The fields described in the following table are returned.

Table 700. maintenancejobs

Field	Description	From
job_type	Job type: <ul style="list-style-type: none">● Garbage collection● Checkpoint maintenance● HFS check	code field in the v_event view
status	Status of the Job: Success, Failed	code field in the v_event view
jobid	Identifier for the maintenance job	event_id field in the v_event view
queuestart	Time the job started queuing	timestamp field in the v_event view

application_error for VDP

Only data on events of type Warning or Error is gathered. The fields described in the following table are returned.

Table 701. application_error

Field	Description	From
appid	Application Identifier	Hard coded to VDP
errcode	Error code	code field in the v_event view
errorstring	Error string	summary field in the v_event view
severity	Severity	severity field in the v_event view
type	Event type	type field in the v_event view
source	Source of the event	source field in the v_event view
domain	Domain of the event	domain field in the v_event view
category	Category of the event	category field in the v_event view
starttime	Start time of the event	timestamp field in the v_event view
endtime	End time of the event	timestamp field in the v_event view

Status function for VDP

The Status function gathers information about the status of the VDP server and VDP garbage collection. The function includes the following options:

- dbname — Database name. The default value is mcdb.
- dbport — Port on which to access the database. The default value is 5555.
- VDP decimal capacity factor — Identifies the decimal capacity factor with which to use in Data Protection Advisor to ensure that the capacity is similar in VDP and Data Protection Advisor reports.

The Status function gathers the following data:

- [bkup_server_status for VDP](#)
- [gc_status for VDP](#)
- [avamar_audit for VDP](#)

[bkup_server_status for VDP](#)

The fields described in the following table are returned.

Table 702. bkup_server_status

Field	Description	From
utilisation	Percentage utilization of the VDP server	utilization field in the v_node_space view
used	Server space used (in MB)	used_mb field in the v_node_space view

[gc_status for VDP](#)

The fields described in the following table are returned.

Table 703. gc_status

Field	Description	From
node_count	Number of VDP nodes involved in the garbage collection process	node_count field in the v_gcstatus view
idxstr_processed	Number of index stripes processed by the garbage collection process	indexstripes_processed field in the v_gcstatus view
idxstr_total	Total number of index stripes	indexstripes_total field in the v_gcstatus view
mb_recovered	Number of bytes recovered by the garbage collection process	bytes_recovered field in the v_gcstatus view
mb_recovered_boffset	Recovered offset	bytes_recovered field in the v_gcstatus view
chunks_deleted	Number of chunks deleted by the garbage collection process	chunks_deleted field in the v_gcstatus view
result	Status code for the garbage collection process	gcstatusid field in the v_gcstatus view
gcid	Unique ID for the garbage collection process	result_code field in the v_gcstatus view
starttime	Time the collection process started	start_time field in the v_gcstatus view
endtime	Time the collection process ended	end_time field in the v_gcstatus view

avamar_audit for VDP

The fields described in the following table are returned.

Table 704. avamar_audit

Field	Description	From
domain_name	Domain associated with the changed object	domain field in the v_audits view
user	User that changed the object	user_name field in the v_audits view
object	Object that changed: SCHEDULE, GROUP, DOMAIN, CLIENT, DATASET, USER	object field in the v_audits view
operation	Type of change	operation field in the v_audits view

Additional Stored Data

The information in this chapter is reported by the individual process or components of the Data Protection Advisor Server. The additional stored data consists of the following functions:

Topics:

- Status function for additional stored data

Status function for additional stored data

The Status function gathers information about the status of the components within Data Protection Advisor as well as the status of the Data Protection Advisor license. The Status function gathers the following data:

- Agent status for additional stored data
- Agent errors for additional stored data
- AnalysisAlert for additional stored data
- License configuration for additional stored data
- Request history for additional stored data

Agent status for additional stored data

The fields described in the following table are returned.

Table 705. Agent status

Field	Description
product	Name of the product
Major	Part of the build number
Minor	Part of the build number
Maintenance	Maintenance number of Data Protection Advisor version
Build	Build number of Data Protection Advisor version
Alive	Indicates if Data Protection Advisor is responding
Last Start	Last time the process was started
Last Config	Last time the Data Protection Advisor Data Collection Agent received its configuration

Agent errors for additional stored data

The fields described in the following table are returned.

Table 706. Agent errors

Field	Description
Data Protection Advisor Server	Name of the Data Protection Advisor server on which the Listener is running
Function	Function against which the error is reported

Table 706. Agent errors (continued)

Field	Description
error ID	Error ID of the error that is returned
error Message	Error message that is returned

AnalysisAlert for additional stored data

The fields described in the following table are returned.

Table 707. AnalysisAlert

Field	Description
Alert ID	Identifier of the alert
eventid	Identifier of the event
severity	Severity of the alert
group_name	Group in which the alert is located
Text	Text of the alert
First Occurrence	Date the alert was first generated
Last Occurrence	Date the alert was last generated
count	Number of alerts

License configuration for additional stored data

The fields described in the following table are returned.

Table 708. License configuration

Field	Description
product	Name of the product: <ul style="list-style-type: none"> • TSM — from the licenses table • NetBackup — running bpm in license command • NetWorker — nsrlicense resource from nsradmin
identifier	License ID
Code	License code
instance	Instance number of a license if there are multiple. This value is hard coded to 1
instances	Number of instances provided by this license
Valid	Indicates if the license is valid
description	License description if any. Populated by the Server
expires	License expiry date, if any; populated by the Server
tiers	License tier, populated by the Server
platform	License platform, populated by the Server

Request history for additional stored data

The fields described in the following table are returned.

Table 709. Request history

Field	Description
Server	Name of the Data Protection Advisor server host
Module	Name of the module executed
Collector	Name of the host on which the Data Protection Advisor Data Collection Agent ran
Function	Name of the function executed
status	Indicates if the function was executed successfully or not
target	Name of the host being monitored by the request
message	Messages logged for request
Report size	Size of the report returned
starttime	Time the request started
endtime	Time the request completed
run_type	Whether ran from a schedule (listener) or manual run, populated by the listener
agent_id	ID of the Data Protection Advisor Agent used, populated by the listener
retention period	The expiry time when the data will be deleted, populated by the listener
runid	The run id of the request, populated by the listener
last_modified_long	Last time the data was modified, populated by the listener