SARG (Simple Actifio Report Generator) User Guide



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Preface

About this Guide

This guide provides detailed descriptions and syntax for Actifio's Simple Actifio Report Generator (SARG) commands. Also explains how to use each of the SARG command.

Intended Audience

This guide is intended for Actifio administrators. This guide assumes basic familiarity with the Actifio CLI, with data storage concepts, and with knowledge of Actifio CDS and Sky Appliances.

Actifio Appliances

Unless otherwise specified, all features and functions described in this document apply to all Actifio appliances.

Organization of This Guide

This guide includes the following chapters:

- **Chapter 1**, Getting Started with SARG on page 1.
- **Chapter 2**, Using the SARG Commands on page 3.

Related Documentation

• **Actifio CLI Reference Guide**: This guide provides detailed descriptions and syntax for Actifio's Command Line Interface (CLI). It also describes how to access the command-line interface using SSH.

Actifio Support and Service

Access these locations for help with your Actifio product suite:

Customer Support Numbers	U.S. Toll-Free Number: 1.855.392.6810 From Anywhere: +1.315.261.7501 Australia: 0011 800-16165656 Germany: 00 800-16165656 New Zealand: 00 800-16165656 UK: 0 800-0155019
Customer Support Email	support@actifio.com
Customer Support Portal	http://support.actifio.com/ When prompted, enter the user name and password provided by your Actifio representative.
General Information	http://www.actifio.com

1 Getting Started with SARG

The SARG tool uses the Actific Command Line Interface (CLI) to provide on-demand reports. SARG combines useful Actific CLI commands in scripts that are invoked by SARG commands. SARG requires Administrator user access to the Actific CLI interface, but it does not require a deep understanding of how the Actific CLI operates.

SARG command output is provided in text format, designed to be easily read on a wide screen in a single line, or placed in a CSV file for easy reporting. Available reports vary based on the software revision and type of your Actifio appliance (Actifio CDS or Actifio Sky).

This chapter introduces Simple Actific Report Generator (SARG) tool. It includes:

- Accessing the Command-Line Interface
- Using CLI Commands and SARG Commands
- Parameters

Accessing the Command-Line Interface

The process to install and use an SSH client to access the Actifio appliance CLI includes:

- 1. Installing an SSH client on the host computer that you will use to access the Actifio appliance CLI. We recommend that you use PuTTY with the default installation options.
- 2. Generating an SSH public/private key pair on the host using either PuTTYgen or SSH-Keygen.
- 3. Uploading the SSH public key file to the Actifio appliance.
- 4. Configuring the SSH session on the host.

You can find details for each of these steps and more information about the Actifio CLI in the Actifio CLI Reference.

Note: An SSH public/private key pair must be generated on a per user basis to access the Actifio appliance CLI.

Using CLI Commands and SARG Commands

On Unix systems, you can send CLI commands using the SSH command like this:

ssh -i ~/.ssh/id_rsa admin@10.1.1.1 "udsinfo lsorg"

On a Windows host, you might use **plink**. For example:

plink -i id_rsa.ppk admin@10.1.1.1 "udsinfo lsorg"

SARG commands are executed directly from the appliance command line:

reportorgusage

You can use reportlist to display all available SARG commands.

SARG commands are usually used with parameters. Parameters for each command are listed with the command description in Chapter 2, Using the SARG Commands. Some of the most common parameters are introduced in Parameters on page 2.

Note: SARG commands do not support applications or hosts that have a } in their name (a right hand curly bracket). The Actific Desktop and the AGM do not allow you to create applications and hosts with this special character and VMware does not recommend you use it in VM names.

Parameters

For each SARG command there are number of valid parameters. All the valid parameters are described within this document. Not every parameter works in every report. The meaning of a letter may change based on the report. The help message for each command shows which parameters are valid for that report. Parameters usage is case-sensitive and are always lower case. Many SARG reports use these parameters:

Parameter	Description
-a <number></number>	To display information about a specific application using the application ID. To learn an application's appid, see Learning an Application's Appid.
-C	To display the report output in CSV format.
-d <number></number>	To display the backward-data, specify the number of days (last 5 days, last 10 days etc.). You can also specify decimal intervals such as 0.5 for half a day (12 hours). Example: -d 5 displays the last five days data.
-l <number></number>	Change the length of the application name from the default value. The default value is specified for each report in its own section. The -w option is often a better choice.
-N	Exclude the header information.
-0	To print only orphan applications (protected or unprotected)
-р	To print only protected applications (no orphans or unprotected)
-S	To sort the data based on hostname/application name. The default sort order is based on application type/hostname/application name.
-t	To sort the data based on template/profile followed by hostname/application name.
-u	To print only unprotected applications (no orphans or protected applications).
-W	Change column width to exactly match the output data with no truncation.
-X	To print extra stats, this prints the totals of certain columns.
-Z	To force an update of the statistics.

Common SARG Report Parameters

Learning an Application's Appid

To learn the appid for an application, hold the mouse cursor over the application name in the Actifio Desktop

2 Using the SARG Commands

This chapter details the following SARG commands:

reportadvancedsettings on page 5 reportappcount on page 6 reportapps on page 8 reportcloneconsumption on page 11 reportaudit on page 12 reportcanceledjobs on page 13 reportclonedisks on page 14 reportclones on page 15 reportcompliance on page 16 reportconnectoroptions on page 18 reportconnectors on page 19 reportcons on page 20 reportconsumption on page 21 reportdaily on page 22 reportdailyfailures on page 24 reportdarusage on page 25 reportdedupasyncs on page 26 reportdedupratio on page 28 reportdedups on page 29 reportdedupstorage on page 31 reportdirectdedups on page 32 reportdisables on page 34 reporteverything on page 35 reportexpires on page 36 reportfabric on page 37 reportfailedjobs on page 39 reportfctree on page 41 reportgroups on page 42 reporthealth on page 43

reportimagecount on page 47 reportimages on page 49 reportinband on page 53 reportiostats on page 54 reportjobcount on page 55 reportjobs on page 56 reportlist on page 57 reportliveclones on page 58 reportmailer on page 60 reportmdiskspace on page 62 reportmdlusage on page 63 reportmirrordisks on page 63 reportmounts on page 66 reportnet on page 67 reportonvaults on page 68 reportorgmembers on page 69 reportorgusage on page 70 reportorphanimages on page 72 reportorphanimages on page 72 reportpolicies on page 74 reportpoolhistory on page 75 reportpools on page 76 reportprofiles on page 76 reportremotededups on page 81 reportremoteimages on page 82 reportrestores on page 83 reportrpo on page 84 reportrunningjobs on page 88 reportsarg on page 90 reportslaoptions on page 90

reportslaviolations on page 91 reportsnappool on page 93 reportsnaps on page 95 reportstats on page 97 reportstreamsnaps on page 99 reportsweeps on page 101 reportunprotected on page 103 reportvaults on page 104 reportvdisks on page 106 reportvms on page 106 reportworkflows on page 107

reportadvancedsettings

Use this command to show all the advanced policy options that are set for each SLA type:

- These are normally set using the Advanced Settings section for each application in the Actifio Desktop.
- They can be displayed using *udsinfo lspolicyoption*

Note: Only consistency groups are shown since applications inside a consistency group do not have an SLA.

Valid Parameters

The following options are available (invalid parameters will be ignored):

Parameter	Use this Parameter to:		
-a <appid></appid>	Display just one selected application using the Application ID (App ID) or SLA ID.		
-o <name></name>	Display just one policy option.		
-s <sltid></sltid>	Display an example command to recreate that policy option with a different SLT ID.		
-W	Print using fixed width columns This is best used with -a or -o or -t to limit option quantity.		
	Optionally one (and only one) of the following application types can be entered:-tbBigDataDirector (NAS)-tcCIFS-teMicrosoft Exchange-tfFileSystem-tgConsistency Group-thMicrosoft Hyper-V-tnNFS-toOracle-tsMicrosoft SQL Application Types-tvVMBackupInvalid parameters are ignored.		

Note: Blank fields will always print a dash in CSV mode as well as Wide mode. This prevents header mismatch in restful API mode.

Default Sort Order

The default sort order is by application type, followed by host name and then application name.

- It is very important to note that only used policy options are shown.
- If an application has a policy option set, then it will be listed.
- If an application is not using any policy options then it will not be listed.

reportappcount

Use this command to find out the following information for each application type:

- Number of protected applications.
- Number of unprotected applications.
- Total number of applications (protected + unprotected).
- Total number of applications protected in percentage.

Statistics

The **reportappcount** report provides the following statistics for each job:

Statistic	Description
Protected	Number of protected applications for each application type. Examples: Number of SQL applications protected Number of Oracle applications protected Number of File System protected.
Unprotected	Number of unprotected applications for each application type.
Total	Total number of applications (protected + unprotected) for each application type.
Protected%	Total number of applications protected in percentage.
Totals	Sum of each column.

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-C	Display the report output in Comma Separated Value (CSV) format.
-n	Exclude header information.
-X	Include the header information in the output, use this to print the total columns.

Default Sort Order

The default sort order is by **Application Type** in alphabetical order with other applications shown last since their application type is not recognized by this report.

Example CLI Commands

Use the *udsinfo Isapplication* command to find out specific application types.

Example: udsinfo Isapplication -filtervalue friendlytype=CIFS

The **friendlytype** field is case sensitive, so FileSystem produces results, while filesystem does not produce any result. An example to display VMs is shown:

udsinfo lsapplication -filtervalue friendlytype=VMBackup

Valid application types are:

VMBackup	udsinfo	lsapplication	-filtervalue	friendlytype=VMBackup
Oracle	udsinfo	lsapplication	-filtervalue	friendlytype=Oracle
NFS	udsinfo	lsapplication	-filtervalue	friendlytype=NFS
CIFS	udsinfo	lsapplication	-filtervalue	friendlytype=CIFS
SQL Server	udsinfo	lsapplication	-filtervalue	friendlytype=SQLServer
Exchange	udsinfo	lsapplication	-filtervalue	friendlytype=Exchange
Hyper-V VSS Writer	udsinfo	lsapplication	-filtervalue	<pre>friendlytype="Microsoft Hyper-V VSS Writer"</pre>
Mapped FileSystem	udsinfo	lsapplication	-filtervalue	friendlytype=FileSystem
Generic	udsinfo	lsapplication	-filtervalue	friendlytype=Generic
NAS	udsinfo	lsapplication	-filtervalue	friendlytype=xxx
LVM	udsinfo	lsapplication	-filtervalue	friendlytype=xxx
Other Apps	udsinfo	lsapplication	-filtervalue	friendlytype=xxx

Typical Output

The following is sample output from the **reportappcount** command:

Actifio:sa-hq:admin>	reportapp	count		
Арр Туре	Protected	Unprotected	Total	Protected(%)
CIFS Shares	0	0	0	0%
Exchange Databases	2	0	2	100%
FileSystems	5	73	78	6%
Generic Apps	1	0	1	100%
Hyper-V VMs	3	0	3	100%
LVM Volumes	0	0	0	0%
NAS	2	2	4	50%
NFS Shares	0	0	0	0%
Oracle Databases	6	5	11	55%
SQL Databases	13	99	112	12%
VMWare VMs	24	30	54	44%
Other Apps	0	0	0	0%

Command	Use this Parameter to:
reportlist	Displays the full list of available reports.

reportapps

Use this command to list the applications and consistency groups that are protected or consuming resources. Protected applications are those with an associated template and profile. Unprotected applications are not listed unless they are consuming resources.

The ignored column displays the applications that are marked as ignored. If ignored is set to true then this shows a protected application is being ignored, which should be corrected as the expected value for a protected application is false.

To report size values, you need to create at least one image of the application. The size statistics are updated once in every 24 hours, so if no size is reported for a new application, you either need to wait till 3am local time for the updated statistics or run the command **reportapps** with **-z** to force an update.

Use the -u parameter to display only unprotected applications that are consuming resources.

Use the **-o** parameter to display only orphaned applications. Orphan applications are those that are deleted but still have images in the system. Orphan applications still consume MDL and pool space. To remove an orphan application, all of its images must be expired. In some cases, an application might have been deleted and added again. This means the images that belongs to the original instance of the application are not connected to the new instance. Orphan images are expired as per their expiration date or they can be manually expired to speed up the removal process.

Statistics

The following statistics are provided for each application:

Statistic	Description
VirtSize	Actual size of the disks that make up the application.
MDLConsumption	Consumption is based on used data or device size depending on the application type.
VDisks	Number of virtual disks used by the application (both Staging and Snapshot disks).
Stage (GB)	Amount of snapshot pool used by staging disks.
Snaps (GB)	Amount of snapshot pool used by snaps of the staging disks.
Total (GB)	Total sum of the staging disks and snapshots.
DedupImages	Deduplication images created for the application.
PostCompress (GB)	Amount of new data written to the Dedup pool in last 30 days.
LastExpiration	The expiration date of the last image to be expired for this application.

Note: Any value lower than 0.05 GB is rounded to zero.

- Use the command *reportunprotected* to see the unprotected applications. Applications inside consistency groups are not listed.
- Use the command *reportgroups* to list more information about groups.

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format.
-d <number></number>	Display historical data, specify the number of days (last 5 days, last 10 days etc.). Example: -d 5 to display last five days data. This applies only for Post Compress data.
-k <slt <br="" id="">Name></slt>	Only show protected applications using a specified SLT ID/Name. Use the command report policies to get SLT IDs. Search by name is not case sensitive.
-l <number></number>	Change the length of the application name from the default value of 26 characters.
-n	Exclude the header information.
-0	Print only orphan applications (protected or unprotected)
-р	Print only protected applications (no orphans or unprotected)
-S	Sort the data based on hostname/application name. The default sort order is based on application type/hostname/application name.
-t	Sort the data based on template/profile followed by hostname/application name.
-u	Print only unprotected applications (no orphans or protected applications).
-W	Change column width to exactly match output data with no truncation.
-X	Print extra stats, this prints the totals of certain columns.
-у	Display remote applications that have images on this appliance.
-Z	Force an update of the statistics.

Default Sort Order

The default sort order is by application type, followed by host name, and application name.

- Use **-s** option to sort the data by host name followed by application name.
- Use -t option to sort the data by policy template first followed by host name and application name.

Example CLI Commands

The **reportapps** command uses the output of various *udsinfo* commands as mentioned below:

- **udsinfo lssla** to find the protected applications using the application ID.
- **udsinfo lsslt** to get the policy template name.

- **udsinfo lsslp** to get the profile name.
- **udsinfo lsapplication** to get the application name.
- **udsinfo lshost** to get the host name.
- **udsinfo lsmdlstat** to get the MDL statistics.
- **udsinfo lssnappoolstat** to get snapshot pool usage.

Typical Output

The following is sample output from the **reportapps** command:

Acetrico:sa-nq:aam	tros reportapps												
AppType	HostName	AppName	AppID Template	Profile	Ignored Vir	tSize(GB)	MDL(GB) VI	risks St	oge(GB)	Snops(GB)	Total (GB)	Dedups P	ostCompress(GB) LastExpirationDate
ConsistGrp	demo-sql-4	AV_CG	23385555 Gold	Remote Profile	false	71.9	0.0		0.1	0.0	0.1	33	0.006 2016-11-24 19:00
ConsistGrp	hq-sql	smalldbCG	25983008 Silver	Local Profile	false	557.4	18.0		0.2	0.0	0.2		0.002 2016-12-03 11:28
Exchange	hq-exchange	In-Band	106713 Silver	Local Profile	false	100.0	3.4		0.0	0.0	0.0	12	0.005 2016-12-03 11:02
Exchange	hq-exchange	Mailbox Database 011315687	10012 Platinum	Remote Profile	false	557.4	1.0		1.5	0.0	1.5	26	0.006 2100-01-01 00:00
FileSystem	hq-sql		20941151 Silver	Local Profile	false	557.4	73.5		43.8	6.1	49.9		1,256 2016-12-03 11:26
FileSystem	hyper-v-sql		25960582 Silver	Local Profile	false	47.9	16.9		17.6	2.2	19.8		0.867 2016-12-03 11:14
FileSystem	Oracle-Prod		20975829 StreamSnap	Remote Profile	false	60.0	4.3		7.4	0.2	7.5		0.000 2100-01-01 00:00
FileSystem	Oracle-Prod	/boot	20975830 Vault	Google NearLine	false	0.6	0.1		0.1	0.0	0.1		0.000 2016-11-27 23:01
FileSystem	Oracle-Prod	/home	20975831 Silver	Local Profile	false	54.7	16.0		18.8	12.3	31.1		1.730 2100-01-01 00:00
Generic	hq-sql	inbandb	22197596 Silver	Local Profile	false	2048.0	2048.0		0.0	0.0	0.0		0.000 2016-11-05 12:01
Microsoft Hyper-V	hyper-v-linux	Hyper-V-Linux	22589607 Gold	Remote Profile	false	32,0	3.3		2.8	0.6	3.4		1,155 2016-12-03 11:05
Microsoft Hyper-V	hyper-v-sql	Hyper-V-SQL	25909050 Silver	Local Profile	false	80.0	22.5		25.0	2.0	27.0		20.059 2016-12-03 11:18
Microsoft Hyper-V	scvmm-prod	SCVMM-Prod	22589642 Silver	Local Profile	false	72.0	55.8		52.0	2.3	54.3		1.460 2016-12-03 11:06
nas	isilon-cluster	NFS-Large	22535916 Snap Only	Local Profile	false	100.0	81.5		82.7	0.1	82.7	0	0.000 2016-11-03 16:25
nas	isilon-cluster	NFS-Small	22522086 Snap Only	Local Profile	false	100.0	11.8		14.1	0.0	14.2		0.000 2016-11-03 16:23
Oracle	Oracle-Mask-Prd	dmdb	17433999 Snap Only	Local Profile	false	50.0	1.5		1.7	4.2	5.9		0.000 2100-01-01 00:00
Oracle	Onacle-Prod	bigdb	20837997 Silver	Local Profile	false	1653.7	1102.5		1103.5	3.6	1107.0		1.289 2100-01-01 00:00
Oracle	Oracle-Prod	localdb	25178160 Cloud	AWS Profile	false	50.0	1.6		1.8	0.9			1.357 2100-01-01 00:00
Oracle	Oracle-Prod	smalldb	27095220 Silver LogSmart	Local Profile	false	50.0	1.5		2.4	0.6	3.0	10	0.815 2016-11-27 11:30
Oracle	oracle-rac-1	racbigdb	21681349 Silver LogSmart	Local Profile	false	2000.0	1330.0	16	1332.3	4.3	1336.6		2.420 2016-11-27 11:17
Oracle	oracle-rac-1	tmpdb	27641203 Vault	Amazon S3	false	50.0	2.4			0.5	3.2		0.642 2016-11-27 23:01
SQLServer	hq-sql	bigdb	20941152 Silver	Local Profile	false	2457.4	1972.2		1022.2	0.0	1022.2		0.003 2100-01-01 00:00
SQLServer	hq-sql	localdb	25178171 Cloud	AWS Profile	false	2457.4	6.0		0.2	0.0	0.2		0.003 2100-01-01 00:00
SQLServer	hq-sql	smalldb	20941648 Silver LogSmart	Local Profile	false	557.4	6.0		0.6	0.1	0.6		0.001 2016-12-03 11:30
SOLServer	ha-sal	tdedb	26697505 Snap Only	Local Profile	false	2457.4	0.2		0.3	0.0	0.3		0.000 2016-11-03 16:38
SQLServer	SQL-AAG-CLUSTER	oogdb	21907405 Silver	Local Profile	false	168.0	0.2		0.3	0.0	0.3	12	0.001 2016-12-03 11:08
SQLServer	SQL-AAG-CLUSTER	aagdb2014	22642347 Silver	Local Profile	false	71.9	0.2		0.3	0.0	0.3	12	0.001 2016-12-03 11:03
SOLServer	SOL-CLUSTER	clusterdb	23827689 Silver	Local Profile	false	48.0	0.0		0.1	0.0	0.1		0,001 2016-12-03 11:04
SQLServer	sql-masking-prod	unmasked	20990406 Gold	Remote Profile	false	48.0	0.0		0.1	0.2	0.3	33	0.003 2100-01-01 00:00
WBackup	ansible	Ansible	22672364 Vault	Amazon S3	false	32.0	32.0		10.0	0.6	10.6		0.000 2016-11-27 23:01
WMBackup	demo-mgmt-10	Demo-Mgmt-10	20929541 Daily Dedup Async	Remote Profile	true	60.0	60.0	4	53.4	0.1	53.5		0.499 2100-01-01 00:00

Command	Description
reportgroups	Displays a report on all applications in protected groups.
reportlist	Displays the full list of all available reports.
reportunprotected	Displays a list of applications that are not protected.

report clone consumption

Use this command to report on space consumption by application split by parent and child relationship.

Typical Output

The following is sample output from the **report report consumption** command:

ParentAppID	AppID	UniqueID	ParentAppName		Туре	HostName	AppName	s
napData(GB)	MaxSnapData(GB)	SnapL	ogs(GB) De	edup (GB)				_
6548426	i 0	6073858	/stand		Host	hpvm16.sga.actifio.com	NonAppAwareMount	
0.002	0.002		0.000	0.000				
6546320	6550473	6550473	cdbpqa		Child	asmdev02	satdb	
11.965	11.965		0.000	0.000				
17024036	17379570	17379570	CG-lin24-OracFS	3	Child	lin1qa116-24.sqa.actifio.	CG-lin24-inband	
4.235	4.235		0.000	0.000				
17024036	17732176	17732176	CG-lin24-OracFS	3	Child	lin1qa116-24.sqa.actifio.	HeyItWorks	
4.023	4.023		0.000	0.000				
195429	0	195105	datastore1		Host	nala.sqa.actifio.com	NonAppAwareMount	
0.001	0.001		0.000	0.000				
12307374	0	13424561	fsdb		Host	172.16.157.135	NonAppAwareMount	
1.910	1.910		0.000	0.000				

Command	Description
reportlist	Displays the full list of all available reports.

reportaudit

This report allows you to search the audit log. It is not recommended to just run the report without parameters as the audit log is very deep and verbose. Instead use it to search for audit entries against a particular application ID (with -a), username (with -u), job search needed (with -j), job is more than two days old (-d) Or use it to search for on demand jobs (with -o).

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format.
-d <number></number>	Display a different number of days backwards from now (default is 1). Audit history is retained for 12 weeks.
-f	Display workflow run commands.
-i <ipaddr></ipaddr>	Display audit entries from a specific source IP.
-j <jobname></jobname>	Display audit details about a job name.
-l <number></number>	Limit the no. of lines of output.
-m <command/>	Search for entries that have the specified command. Use single quotes if your search contains spaces.
-N	Exclude the header information.
-0	Show On-demand jobs.
-t	Show top users of the VDP appliance. This counts on-demand jobs run by user.
-u <username></username>	Search by user ID.
-W	Change column width to exactly match the output data with no truncation.

Note: The -j and -t options cannot be combined with other options.

reportcanceledjobs

Use this command to see all canceled jobs. If you do not specify any parameters, this command lists the canceled jobs for the last two days.

Note: A canceled job is manually stopped by an administrator. If the dedup pool becomes full, then all running dedup jobs are automatically canceled.

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format.
-d <number></number>	Display historical data, specify the number of days (last 5 days, last 10 days etc.). Example: -d 5 to display last five days data.This applies to only Post Compress data.
-l <number></number>	Change the length of the application name from its default 26 characters.
-n	Exclude the header information.
-W	Change column width to exactly match the output data with no truncation.

Default Sort Order

The default sort order is by event time (old to new).

Example CLI commands

The following commands shows the canceled jobs in last two days:

udsinfo lsjobhistory -filtervalue status=canceled\&"jobhistory since 2 days"

To cancel a job:

Use the command **reportrunningjobs** to find a running job. Then use **udstask chjob** -changerequest cancel < job ID >

Example: udstask chjob -changerequest cancel Job_1234567

Command	Description
reportlist	Displays all the full list available reports.

reportclonedisks

This report lists the clone disks that are created by non-VMware related clone jobs. VMware clones are created in the VMware data store and do not consume Snapshot pool space so they are not listed here. These are also not Live Clones (that are tracked like snapshots).

Note: To remove clones, the disks need to be unmapped from hosts and then deleted. Contact Actifio support before proceeding. This report only works on Actifio CDS (not Sky).

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Change the output to comma separated variable (CSV).
-n	Not print the header lines.
-S	Sort on Host name/App Name rather than on VDisk name.
-W	Change column width to exactly match output data with no truncation.

reportclones

Use this command to list clone type jobs. If no parameter is specified, the last two days clone type jobs are reported.

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format.
-d <number></number>	Display historical data, specify the number of days (last 5 days, last 10 days etc.). Example: -d 5 to display last five days data. This parameter applies only to Post Compress data.
-l <number></number>	Change the length of the application name from its default 26 characters.
-n	Exclude the header information.
-S	Sort the data by hostname/application name. The default sort order is by date and then hostname/application name.
-W	Change column width to exactly match the output data with no truncation.

Default Sort Order

The default sort order is by event time (old to new). You can also sort by hostname/appname using -s parameter.

Example CLI commands

The following command shows all the successful clone jobs:

udsinfo lsjobhistory -filtervalue jobclass=clone\&status=succeeded

Typical output

The following is sample output from the command:

[10:08:59] atlantic:~ # reportclones -d 40										
StartDate StartTime	JobName	JobClass	HostName	AppName	AppID TargetHost	Duration	VirtSize(GB)	AppSize(GB) Ded	upRestored(GB)	DataCopied(GB)
2018-02-15 06:42:00	Job_0116446	clone	sql2012vm06	SQL2012VM06	93947 sql2012vm06	00:01:21	96.0	0.0	0.0	0.0
2018-03-05 02:26:34	Job_0393023	clone	mrvm2	MRVM2	340720 CloneVM	00:07:02	1.2	0.0	0.0	0.0
2018-03-07 05:00:14	Job_0474620	clone	dd1	DD1	471610 dd-cloned	00:11:42	1.2	0.0	0.0	0.0
2018-03-16 03:13:49	Job_0876350	clone	workflowvm	workflowvm	734892 newvmhv	00:07:21	1.2	0.0	0.0	0.0

Command	Description
reportimages	Displays all the all available images for each application.
reportimagecount	Counts the number of images created on an Actifio Appliance.

reportcompliance

This will report on compliance status using the compliance feature. For each job class, an application can either be Compliant, Pending, Non-Compliant or have an Unknown compliance status. If an application has multiple policies in a job-class, then the least compliant result will be shown, so if an application is protected by two snapshot policies and one is Compliant but one is Non-Compliant, then the application shows as non-compliant for that job class.

There are four possible compliance status messages:

- Compliant: All policies in that job class are compliant
- Non-Compliant: At least one policy in that job class is not compliant
- Pending: At least one policy is waiting for a job to run within the compliance period
- Not Started: All policies in that job class have not entered their compliance measurement period

Note: Not Started might be shown as undefined when displayed using: udsinfo lscompliancestatus

Note: The report compliance command only returns output when version2 of SLA analysis is in use.

To validate which version of SLA analysis the Appliance is using, use the following command (expected results are version1 or version2):

udsinfo getparameter -param slaAnalysis.analysisType

If you are using version2, then you will see the output in the reportcompliance command.

To toggle between versions, use either:

```
udstask setparameter -param slaAnalysis.analysisType -value version1
```

udstask setparameter -param slaAnalysis.analysisType -value version2

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Change the output to comma separated variable (CSV).
-l <number></number>	Change the length of the application name from the default of 20 characters.
-m	Only print apps where at least one policy shows as Non-Compliant. If no policies show as Non-Compliant, that app won't be printed.
-n	Exclude to print the header lines.
-S	Sort on Host name/Application Name rather than apptype/hostname/appname.
-t	Sort on template/profile first (then host/application name)

Parameter	Use this Parameter to:
-W	Change column width to exactly match output data with no truncation.

Default Sort Order

The default sort order is by **Application Type**, followed by host name and then application name. If you wish to sort by template use the -t option, this makes it easier to spot SLA misses. Consistency groups are always shown by default. Individual applications inside a Consistency Groups are not listed.

- To get a detailed view of compliance, use this command: *udsinfo lscompliancestatus*
- To get a detailed view of all policies, use this command: *udsinfo lspolicystatus*

reportconnectoroptions

Use this command to list the options set for Actific Connector based snapshots. You can set these options using the Advanced Settings tab of each application and also using the **udstask mkpolicyoption** command.

Examples of policy options include startpaths, prunepaths and excludepatterns.

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-a <appid></appid>	Display just one selected application using the Application ID (App ID) or SLA ID
-o <name></name>	Display just one policy option.
-s <sltid></sltid>	Display an example command to recreate that policy option with a different SLT ID
-W	Print using fixed width columns This is best used with -a or -o or -tx to limit option quantity

Example CLI commands

These options are also displayed with the command **udsinfo lspolicyoption**.

Command	Description
reportlist	Displays all the full list available reports.

reportconnectors

Use this command to see the Actifio Connector versions installed on your hosts. Using this command you can detect the hosts with down level connectors. If the host is not listed, then you have not installed the connector or not performed the Application Discovery to discover applications. To check a specific host for an updated connector, run the below mentioned command, changing XX for the host ID:

udstask appdiscovery -versiononly -host xx

If you do not know the host ID, use the **-e** option as described in the parameter section. The version check column shows the comparison between the installed version and the latest version available with the Actifio appliance:

- **Current Release**: Means no action is required.
- **Upgrade Needed**: Means the Connector running on the host must be upgraded.
- **Newer Version**: Means the Connector running on the host has a version higher than that available on the Actific Appliance.

To upgrade your connector, use the below mentioned syntax where xxxx and yyyy and zzzz are host IDs separated by colons. You can specify just one host ID or multiple host IDs but ensure that they are separated by colons:

udstask upgradehostconnector -hosts xxxx:yyyy:zzzz

If a VMware VM is set to use guest iSCSI (guestvmiscsi) this will get shown in the "diskpref" column.

Default Sort Order

The default sort order is Physical hosts followed by Virtual hosts. The hosts in each type are listed alphabetically by name. Use the **-e** option to sort the data by host name.

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-a <app id=""></app>	Display one selected application or host using the application ID or Host ID.
-b	Only shows hosts that are set to created Block format staging disks.
-C	Display the report output in CSV format.
-е	List every host regardless of whether it has a connector installed.
-f	Only shows hosts that are set to created NFS format staging disks.
-n	Exclude the header information.
-S	To display a simple numerical count of up level and down level connectors.
-u	Display the hosts where the connector version does not match with the Actifio Appliance version.
-W	Change column width to exactly match the output data with no truncation.

Example CLI commands

The following command shows the hosts with an installed connector:

udsinfo lshost -filtervalue hasagent=true

The following command shows all the available connectors:

udsinfo lsavailableconnector

Typical output

The below example shows the hosts with outdated Connectors. Update the Connectors on these hosts using the Connector Management panel in the Actific Desktop Domain Manager.

The following is sample output from the command:

[06:48:18] atlantic:~ # reportconnectors								
Platform	Hostname	OSType	HostID IPAddress	DBAuth	InstalledVersion	AvailableVersion	VersionCheck	DiskPref
Physical	172.27.7.151	Linux (Red Hat Enterprise Linux Server release 6.5)	872971 172.27.7.151	Host	7.1.9.981	8.1.0.938	Upgrade Needed	Block
Physical	78-sles11	Linux (3.0.101-63-default)	216478 172.29.11.78	Host	7.8.7.867 HotFix 1317	8.1.0.938	Upgrade Needed	Block
Physical	clu05	Win32 (Microsoft Windows Server 2012 R2)	643523 172.16.107.212	DB	8.1.0.984	8.1.0.938	Upgrade Needed	Block
Physical	clu86	Win32 (Microsoft Windows Server 2012 R2)	644254 172.16.107.213	DB	8.1.0.984	8.1.0.938	Upgrade Needed	Block
Physical	hyperv1	Win32 (Microsoft Windows Server 2016)	339113 192.168.16.289	DB	8.1.0.798	8.1.0.938	Upgrade Needed	Block
Physical	OracleVM	Linux (Red Hat Enterprise Linux Server release 6.5)	268674 172.22.3.210	Host	8.8.3.420	8.1.0.938	Upgrade Needed	Block
Physical	parasccm01.paradise.loc	oc Win32 (Microsoft Windows Server 2012 R2)	256334 172.16.9.174	DB	7.1.1.766	8.1.0.938	Upgrade Needed	Block
Physical	rhone.sqa.actifio.com	Win32 (Microsoft Windows Server 2008 R2)	61313 172.16.9.28	DB	7.1.1.766	8.1.8.938	Upgrade Needed	Block
Physical	sql2008phy04.paradise.l	l Win32 (Microsoft Windows Server 2008 R2)	44473 172.16.158.34	DB	8.8.3.286	8.1.0.938	Upgrade Needed	Block

Related Commands

Command	Description
reportlist	Displays all the full list available reports.

reportcons

Run the reportrpo command to get the required information.

reportconsumption

Use this command to list the space consumption by application, If you do not specify any parameters it displays the details of all applications and the space they consume.

Log data is not broken out in space consumed by mounts, and children applications are not reported individually. Dedup data is calculated using the overall data reduction ratio for the appliance, not the rate for each individual application. Individual application change rate is taken into account.

Statistics

The following statistics are provided for each job:

Statistic	Description
SnapData(GB)	Shows the space consumed in the snapshot pool for staging and snapshots of data.
SnapLogs(GB)	Shows the space consumed in the snapshot pool for staging and snapshots of logs (if applicable).
SnapMounts(GB)	Shows the space consumed in the snapshot pool for mounts, including all children applications.
Dedup(GB)	Shows the space consumed in the dedup pool for all retained images, including space consumed by children apps and protection of those apps (of applicable).

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-a <number></number>	Display a specific application by ID, application name is not supported.
-C	Display the report output in CSV format.
-l <number></number>	Change the length of the app name from the default of 20 characters.
-n	Exclude the header information.
-W	Change column width to exactly match the output data with no truncation.

Example CLI Commands

The following command shows the specific application by ID:

reportconsumption -a 1845105

Typical output

The following is sample output from the command:

AppID	HostName	AppName	SnapData(GB)	SnapLogs(GB)	SnapMounts(GB)	Dedup(GB)	DedupChildren(GB)
1304300	172.16.156.58	dummy_onvault test	5.001	0.000	0.001	0.000	0.000
3259951	172.16.29.81	/	0.000	0.000	0.000	4.612	0.000
2665837	1gb_empty_vm18	1GB_Empty_VM18	0.001	0.000	0.001	0.000	0.000
352897	1gb_empty_vm1	1GB_Empty_VM1	0.003	0.000	0.000	0.000	0.000

reportdaily

Use this command to list the daily status. It shows the successful jobs count for each class in the last 24 hours (or longer if desired). If Production Mirroring (Dedup Async or StreamSnap) is in use, it also shows the consistency date of the last replicated image. Applications in consistency groups are not listed. You can use reportgroups to list them.

Default Sort Order

The default sort order is by Application Type followed by host name, and application name. Use **-t** option to sort the data by policy template, then host name and application name. This makes it easier to identify missed SLAs since it groups all the applications protected by same policy template. Each application should have the same job count once the policy period is completed.

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-a <appid></appid>	Display information about a specific application using the application ID.
-C	Display the report output in CSV format.
-d <number></number>	Display historical data, specify the number of days (last 5 days, last 10 days etc.). Example: -d 5 to display last five days data.
-l <number></number>	Change the length of the application name from the default value of 20 characters.
-n	Exclude the header information.
	Sort on hostname/appname rather than apptype/hostname/appname.
-t	Sort the data by template/profile first (then type/host/app name).
-x <hours></hours>	Display a different number of hours backwards from now (will override days selection)
-z <number></number>	Specify a minimum threshold for snapshot and log jobs. When this option is specified, only apps that did not meet the minimum threshold of snapshot and log jobs are listed. For example, if you expect 96 snapshots per day, then run with: -z 96. If an app did 0-95 snapshot jobs then it will be listed.

Example CLI Commands

The following command shows all successful jobs for the application ID 1234567 in the last two days.

udsinfo lsjobhistory -filtervalue appid=1234567\&"jobhistory since 2 days"\&status=succeeded

Typical Output

The following is sample output from the command:

Actifio:sa-hq:ad	min> reportdaily											
AppType	HostName	AppName	AppID Template	Profile	VirtSize(GB)	Snaps	D2D D	edup Re	:mDup	ProdMirror Fai	led	ProdMirrorDate
ConsistGrp	demo-sql-4	AV_CG	23385555 Gold	Remote Prof								n/a
ConsistGrp	hq-sql	smalldbCG	25983008 Silver	Local Profi	557							n/a
Exchange	hq-exchange	In-Band	106713 Silver	Local Profi	100		Ø		Ø	0		n/a
Exchange	hq-exchange	Mailbox Database 011	10012 Platinum	Remote Prof	557		0				0	2016-11-01 07:00:15-0

Command	Description
reportlist	Displays the full list of available reports.

reportdailyfailures

Use this command to assess the failure jobs status on daily basis. It shows the failed jobs count in each listed job class in the last 24 hours (or longer if desired). If the total jobs are non-zero, but no other failures are listed, look for job types like failed mounts, clones, or restores. Applications within the consistency groups are not listed (only the group name is displayed). You may use the reportgroups command to see the contents of a group.

Default Sort Order

The default sort order is by Application Type, followed by hostname, and application name. Use the **-t** option to sort the data by template.

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-a <appid></appid>	Display information about a specific application using the application ID.
-C	Display the report output in CSV format.
-d <number></number>	Display historical data, specify the number of days (last 5 days, last 10 days etc.). Example: -d 5 to display last five days data.
-l <number></number>	Change the length of the application name from its default value of 20 characters.
-n	Exclude the header information.
-S	Sort the data by hostname/application name rather by application type/hostname.
-t	Sort the data by template/profile first (then type/host/application name)

Example CLI commands

The following command shows the failed jobs for application ID 1234567 in the last day:

udsinfo lsjobhistory -delim , -nohdr -filtervalue appid=1234567\&"jobhistory since 1 days"\&status=failed

Typical Output

The following is sample output from the command:

[06:33:36] juicy:	- 🕴 reportdailyfailure	3											
AppType	HostName	AppName	AppID Template	Profile	Size(GB)	Snaps	D2D	Dedup	RemDup	ProdMirror	Expires	Mounts	Total
ConsistGrp	BB5AIX1	AIX_InBand_CG	760629 Snap-DAR	Remote_SVT	4								0
ConsistGrp	BB5AIX1	AIX OOB CG	760963 Snap-12	LocalProfi	84								
ConsistGrp	CLU09.paradise.local	Con Grp master	261104 Snap-12	LocalProfi									
ConsistGrp	hpux24	hpux24 CG	839523 Enterprise	LocalProfi									
ConsistGrp	sun07	da.	916767 gv_log	LocalProfi									
FileSystem		/mnt/hf999	731996 NEW_STREAM_TEST	Remote_SVT									
FileSystem	172.17.204.23	/mnt/sdb	731995 NEW STREAM TEST	Remote SVT									
FileSystem	rhel6.5	/moon	764331 Snap 15	LocalProfi									
FileSystem	spsql2008vm01		146606 Enterprise	LocalProfi									
FileSystem	sun07	/export/home/brad	356923 BUG_28136	LocalProfi									
FileSystem	sun07	/mnt/hf1002	819893 Snap-12	LocalProfi									
FileSystem		/var/share	356926 Snap-DAR	New Profil									
FileSystem	WIN-O5DP8TSPAG1		233586 Enterprise	New Profil									
Generic	BB5AIX1	conftest	283655 Snap-24bk	LocalFrofi									
Generic	hpqavm06	Generic-app	326487 Enterprise	LocalProfi									

reportdarusage

Use this command to list the Dedup Async Replication (DAR) jobs. If no parameter is specified, it shows the last two days jobs. The listed job classes are: failovertest, deletetest, failover, syncback, and failback.

Default Sort Order

The default sort order is by event time (old to new). You can also sort the data by hostname/appname using **-s** option.

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes
-C	Display the report output in CSV format.
-d <number></number>	Display historical data, specify the number of days (last 5 days, last 10 days etc.). Example: -d 5 to display last five days data.
-l <number></number>	Change the length of the application name from the default value of 20 characters.
-n	Exclude the header information.
-S	Sort the data by hostname/appname rather application type/hostname/appname
-W	Change column width to exactly match the output data with no truncation.

Example CLI commands

The following command shows the Dedup Async related job types:

udsinfo lsjobhistory -filtervalue jobclass=failovertest udsinfo lsjobhistory -filtervalue jobclass=deletetest udsinfo lsjobhistory -filtervalue jobclass=failover udsinfo lsjobhistory -filtervalue jobclass=syncback udsinfo lsjobhistory -filtervalue jobclass=failback

Typical Output

The following is sample output from the command:

[06:39:33] juicy:~	<pre># reportdarusa</pre>	ige						
StartDate StartTime	JobName	JobClass	HostName	AppName	AppID TargetHost	Duration	VirtSize(GB)	AppSize(C
2016-08-22 01:31:44	Job_1000481	failover	AGM_SVT	E:\	953651 kt_2008vm2	e 00:01:20	0.0	5
2016-08-22 01:34:57	Job 1000731	syncback	AGM SVT	E:\	463638 AGM SVT	00:00:30	60.0	5

reportdedupasyncs

Use this command to list Dedup Async jobs. If no parameter is specified, it lists all the successful Dedup Async jobs in last two days. This report lists the jobs that created Dedup Async images, not the Dedup Async images themselves. The images that are created by these jobs may already have expired. To find all images, use reportimages or reportimagecount.

Statistics

The following statistics are provided for each job:

Statistic	Description
VirtSize	The size of the Applications Disks. For VMs this is the full size of the VMDKs.
AppSize	The size of the data being used by the application.
DataCopiedMB	The new data found by the snapshot for the particular job.
WroteLocalMB	The new data written to the local dedup pool for this particular job.
TotalSentMB	The total amount of data sent to the remote site for this particular job.
LocalSaving%	The savings% of DataCopied to WroteLocal.
WANReduction%	The savings% of data copied to total sent.

Note: TotalSent may in some rare cases exceed WroteLocal due to the metadata that is sent with each image.

Default Sort Order

The default sort order is by event time (old to new). You can also sort the data by hostname/appname using -s option.

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes
-C	Display the report output in CSV format.
-d <number></number>	Display historical data, specify the number of days (last 5 days, last 10 days etc.). Example: -d 5 to display last five days data.
-l <number></number>	Change the length of the application name from the default value of 20 characters
-n	Exclude the header information.

Parameter	Use this Parameter to:
-0	Display only on-demand jobs.
-S	Sort the data by hostname/appname rather by apptype/hostname/appname.
-W	Change column width to exactly match the output data with no truncation.

Example CLI Commands

The following command shows all the successful Dedup Async jobs in the last three days:

udsinfo lsjobhistory -filtervalue jobclass=dedupasync\&status=succeeded\&"jobhistory since 3 days"

Typical Output

The following is sample output from the command:

Actifio:sa-hq:admin> reportdedupasyncs												
StartDate StartTime JobName	JobClass PolicyName	HostName	AppName	AppID	Duration	VirtSize(GB)	AppSize(GB)	DataCopied(MB)	WroteLocal(MB)	TotalSent(MB)	LocalSaving%	WANReduction%
2016-10-30 21:42:55 Job_27798139	dedupasync Production to	demo-mgmt-8	Demo-Mgmt-8	20929560	00:01:52	60.0	60.0	33.125	6.075	3.011	81.66	90.91
2016-10-30 21:42:57 Job_27798140	dedupasync Production to	demo-mgmt-3	Demo-Mgmt-3	20929545	00:02:11	60.0	60.0	30.188	5.804	2.350	80.77	92.21
2016-10-30 22:28:39 Job_27798208	dedupasync Production to	windows-prod	Windows-Prod	21388278	00:02:12	100.0	12.8	28.875	4,444	2.939	84.61	89.82
2016-10-30 22:28:57 Job_27798214	dedupasync Production to	sharepoint-prod	SharePoint-Prod	17172	00:12:02	60.0	59.9	1955.750	438.593	366.726	77.57	81.25
2016-10-30 22:31:27 Job_27798242	dedupasync Production to	demo-mgmt-2	Demo-Mgmt-2	20929543	00:04:14	60.0	60.0	260.812	84.514	73.429	67.60	71.85
2016-10-30 22:33:56 Job_27798257	dedupasync Production to	demo-mgmt-10	Demo-Mgmt-10	20929541	00:02:01	60.0	60.0	34.312	6.018	2.913	82.46	91.51
2016-10-30 22:42:56 Job_27798327	dedupasync Production to	demo-mgmt-1	Demo-Mgmt-1	20771743	00:02:01	60.0	60.0	60.500	6.096	2.194	89.92	96.37
2016-10-31 06:15:16 Job_27799954	dedupasync Production to	hq-sql	localdb	25178171	00:02:21	2457.4	6.0	0.023	0.053	0.019	-125.93	16.91
2016-10-31 06:23:51 Job_27799970	dedupasync Production to	demo-mgmt-9	Demo-Mgmt-9	20929563	00:01:44	60.0	60.0	23.062	4.568	1.903	80.19	91.75
2016-10-31 06:32:03 Job_27800000	dedupasync Production to	Oracle-Prod	localdb	25178160	00:04:01	50.0	1.6	42.355	32.811	33.617	22.53	20.63
2016-10-31 06:58:36 Job_27800034	dedupasync Production to	hq-exchange	Mailbox Database 011	10012	00:02:52	557.4	1.0	2.562	0.068	0.054	97.36	97.89
2016-10-31 07:01:09 Job_27800048	dedupasync Production to	Linux-Prod	Linux-Prod	17169	00:01:41	16.0	6.9	21.250	1.576	4.673	92.58	78.01
2016-10-31 16:52:07 Job_27806081	dedupasync Production to	demo-mgmt-5	Demo-Mgmt-5	20929551	00:02:12	60.0	60.0	30.250	5.718	2.809	81.10	90.71

reportdedupratio

This command provides the efficiency of the dedup pool. It first shows the full size of all images in the dedup pool. While Actifio performs incremental image creation when ever possible, each image is always stored as a full copy. This means the summed full size of all images is usually a very large number. Then it reports the size of the actual data written to the dedup pool (after deduplication and compression). Finally, it shows the ratio between the two numbers.

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-C	Display the report output in CSV format.
-n	Exclude the header information.
-t	Print the output data in tabular form.
-u	Display size values using specified units, either g for GB or t for TB.

Example CLI commands

The following command shows the current space usage in the dedup pool. Check the Used column for the most recent space usage in the pool by using the below mentioned command:

udsinfo lsdedupstat

The following command shows the images in the dedup pool. The VirtSize column shows the virtual size (or full size) of the image:

```
udsinfo lsbackup -nohdr -filtervalue "jobclass=dedup"
udsinfo lsbackup -nohdr -filtervalue "jobclass=directdedup"
udsinfo lsbackup -nohdr -filtervalue "jobclass=dedupasync"
```

Typical Output

The following is sample output from the command:

Actifio:sa-hq:admin> re	portdedupratio		
Total number of images	Logical copy data(TiB)	Dedup pool used(TiB)	Dedup efficiency ratio
351	137.3	2.0	69.2:1
reportdedups

Use this command to list the dedup job history. If you specify no parameters, the report displays all dedup jobs performed in the last two days. This report lists the jobs that created dedup images, not the dedup images themselves. The images that are created by these jobs might have already expired. To find all the images, use the commands reportimages or reportimagecount.

The capture type reflects whether the dedup job examined a single snapshot or the delta between two snapshots (full vs incremental). A full dedup reads every block of the application, so the bytes read number is normally by the same value as the application used data size. This means the savings and ratio numbers look better than the actual numbers. If the capture type is full then the bytes read field actually contains the application size value from that first initial snapshot. This is to ensure the savings% and dedup ratio values are more accurate.

Statistics

The following statistics are provided for each job:

Statistic	Description
BytesRead (MB)	New data produced by the snapshot job.
PostDedup (MB)	Results of deduplicating the BytesRead
Compressed (MB)	New data written to the dedup pool for the job.
Saving%	The savings of Compressed(MB) versus BytesRead(MB)
Ratio	Ratio of BytesRead to Compressed (X to 1)

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name.Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format.
-d <number></number>	Display historical data, specify the no. of days. Example: -d 5 to display last five days data.
-l <number></number>	Change the length of the application name from the default value of 20 characters.
-n	Exclude the header information.
-0	Show only on-demand jobs.
-р	Search for dedup jobs created by a specific policy.
-S	Sort the data by hostname/appname rather than apptype/hostname/appname.

Parameter	Use this Parameter to:
-W	Change column width to exactly match the output data with no truncation.

Note: The image expiry date is also printed when CSV output is selected.

Default Sort Order

The default sort order is by event time (old to new). You can also sort the data by hostname/appname using the **-s** option.

Example CLI Commands

The following commands shows all the dedup images in the dedup pool

udsinfo lsbackup -nohdr -filtervalue "jobclass=dedup"

Typical Output

Actifio:sa-hq:admin> reportdedups												
StartDate StartTime JobName	Class PolicyName	HostName	AppName	AppID	Duration CaptureType	VirtSize(GB)	AppSize(GB)	BytesRead(MB)	PostDedup(MB)	Compressed(MB)	Saving%	Ratio
2016-10-31 00:18:30 Job_27799150	Dedup Daily Dedup	Linux-Prod	Linux-Prod	17169	00:00:10 Incremental	16.0	6.9	84		3	96.05	25.3
2016-10-31 00:20:13 Job_27799208	Dedup Daily Dedup	windows-prod	Windows-Prod	21388278	00:00:10 Incremental	100.0	12.8	62		1	97.61	41.9
2016-10-31 00:21:31 Job_27799242	Dedup Daily Dedup	hq-exchange	Mailbox Database 011	10012	00:00:10 Incremental	557.4	1.0			G	99.18	122.2
2016-10-31 00:22:22 Job_27799283	Dedup Daily Dedup	sharepoint-prod	SharePoint-Prod	17172	00:02:11 Incremental	60.0	59.9	4084	338	109	97.34	37.6
2016-10-31 12:16:58 Job_27803473	Dedup Daily Dedup	oracle-rac-1	racbigdb	21681349	00:00:52 Incremental	2000.0	0.0	780	299	76	90.27	10.3
2016-10-31 12:27:57 Job_27803697	Dedup Daily Dedup	hq-sql	smalldb	20941648	00:00:09 Incremental	557.4	0.0	3		e	97.83	46.2
2016-10-31 12:28:10 Job_27803702	Dedup Daily Dedup	Oracle-Prod	smalldb	27095220	00:00:10 Incremental	50.0	0.0	240	99	26	89.19	9.2
2016-10-31 20:00:01 Job_27806601	Dedup Daily Dedup	demo-sql-4	AV_CG	23385555	00:00:10 Incremental	71.9	0.0	14		G	98.61	71.8
2016-10-31 20:00:03 Job_27806603	Dedup Daily Dedup	sql-masking-prod	unmasked	20990406	00:00:10 Incremental	48.0	0.0	6		e	98.43	63.8
2016-10-31 20:00:03 Job_27806605	Dedup Daily Dedup	demo-mgmt-11	Demo-Mgmt-11	23628872	00:00:30 Incremental	60.0	51.0	102	65	14	86.60	7.5
2016-10-31 20:00:04 Job_27806607	Dedup Daily Dedup	hq-exchange	In-Band	106713	00:00:12 Incremental	100.0	3.4	6		6	98.15	54.2
2016-10-31 20:00:17 Job_27806625	Dedup Daily Dedup	SQL-AAG-CLUSTER	aagdb2014	22642347	00:00:10 Incremental	71.9	0.2	3		G	98.63	73.2
2016-10-31 20:00:18 Job_27806629	Dedup Daily Dedup	scvmm-prod	SCVMM-Prod	22589642	00:01:50 Incremental	72.0	55.8	1180	246	48	95.91	24.4
2016-10-31 20:00:33 Job_27806646	Dedup Daily Dedup	SQL-CLUSTER	clusterdb	23827689	00:00:09 Incremental	48.0	0.0			e	98.75	80.0
2016-10-31 20:00:33 Job_27806647	Dedup Daily Dedup	hyper-v-sql	C:\	25960582	00:00:50 Incremental	47.9	16.5	746	75	15	97.93	48.4
2016-10-31 20:00:34 Job_27806649	Dedup Daily Dedup	hyper-v-sql	Hyper-V-SQL	25909050	00:01:51 Incremental	80.0	22.5	1312	1021	821	37.42	1.6
2016-10-31 20:00:35 Job_27806652	Dedup Daily Dedup	Oracle-Prod	bigdb	20837997	00:01:02 Incremental	1653.7	1102.5	366	89	26	93.02	14.3

reportdedupstorage

Use this command to count the number of applications of each type.

Statistics

The following statistics are provided for each job:

Statistic	Description
WriteIOPs	Write operations per second during the sample interval.
ReadIOPS	Read operations per second during the sample interval.
WritesKBps	Write KiB per second during the sample interval
ReadKBps	Read KiB per second during the sample interval
WriteQueueDepth	Write time per second during the sample interval (equivalent to queue depth).
ReadQueueDepth	Read time per second during the sample interval (equivalent to queue depth).

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-C	Display the report output in CSV format.
-d <number></number>	Display more than one day's worth of history.
-l <number></number>	To limit number of recent lines of data to this number.
-n	Exclude the header information.

Example CLI Commands

The following commands shows the count of number of applications of each type:

reportdedupstorage

Typical Output

[[08:37:33]	wta29u29:~ #	reportdedupstorage					
StartDate		WriteIOPs	ReadIOPS	WritesKBps	ReadKBps	WriteQueueDepth	ReadQueueDepth
2018-03-19	00:02:16	3	2	0.20	0.18	0.001	0.011
2018-03-19	00:03:16	0	2	0.04	0.16	0.000	0.005
2018-03-19	00:04:16	0	0	0.01	0.02	0.000	0.000
2018-03-19	00:08:16	0	1	0.01	0.08	0.001	0.002
2018-03-19	00:10:16	0	0	0.01	0.02	0.000	0.000
2018-03-19	00:16:16	1298	0	81.15	0.00	0.844	0.000
2018-03-19	00:17:16	774	0	48.40	0.00	0.953	0.000
2018-03-19	00:34:17	0	0	0.00	0.00	0.000	0.000
2018-03-19	00:35:17	0	156	0.00	9.79	0.000	0.989

reportdirectdedups

Use this command to see direct-to-dedup jobs. If you specify no parameter, it displays the jobs in last two days.

Note: This report lists jobs that created directdedup images, not the directdedup images themselves. The images created by these jobs may already have expired. To find all the images, use the commands reportimages or reportimagecount.

The capture type reflects whether the job is able to use a previous image as a base. A full backup indicates there is no previous image available. An incremental backup indicates that there is an option to compare the delta with a previous image. There may be situations, where a full backup occur however, such as when VMware loses CBT information, forcing a full ingest.

Statistics

The following statistics are provided for each job:

Statistic	Description
VirtSize (GB)	Size of the application disks. For VMs that are the full size of the VMDKs.
AppSize (GB)	Size of the data used by the application.
BytesRead (MB)	New application data found by the job.
PostDedup (MB)	Results of deduplicating the BytesRead.
PostCompress(MB)	New data written to the dedup pool for the job after dedup and compression.
Saving%	Represents the savings of Compressed(MB) versus BytesRead(MB)
Ratio	The ratio of BytesRead(MB) to PostCompress(MB) (X to 1)
ChangeRatio%	The BytesRead (MB) as a percentage of AppSize (GB)

Default Sort Order

The default sort order is by event time (old to new). You can also sort the data by hostname/appname using -s option.

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format.

Parameter	Use this Parameter to:
-d <number></number>	Display historical data, specify the number of days (last 5 days, last 10 days etc.). Example: -d 5 to display last five days data.
-l <number></number>	Change the length of the application name from the default of 20 characters
-n	Exclude the header information.
-0	Show only on-demand jobs.
-р	Search for dedup jobs created by a specific policy.
-S	Sort the data by hostname/appname rather than apptype/hostname/appname.
-W	Change column width to exactly match output data with no truncation.

Note: The image expiry date is also printed when CSV output is selected.

Example CLI commands

The following command shows all dedup images in the dedup pool:

udsinfo lsbackup -nohdr -filtervalue "jobclass=directdedup"

reportdisables

Use this command to list any disabled schedules, expiration, or dedupasyncs. The time and date shown is when the relevant schedule is disabled. You can enable these functions using the Actifio Desktop.

This report also lists any applications where application consistency is disabled using the Advanced Settings tab. You can enable application consistency using the Actifio Desktop.

Default Sort Order

The default sort order may at first appear confusing. The reason is that the report searches for applications in each of these conditions:

- expirationoff: All applications with expiration disabled are listed by SLA ID
- scheduleoff: All applications with the schedule disabled are listed by SLA ID
- **dedupasyncoff**: All applications with dedupasync disabled are listed by SLA ID

Each protected application has a numerical SLA allocated at the time protecting it. The default sort order inside each type is listed by that numerical SLA ID. If an application has multiple functions disabled, it appears multiple times.

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-C	Display the report output in CSV format.
-n	Exclude the header information.

Typical Output

In this example there are three disable settings. One application, 296150, has both scheduling and expiration disabled. The following is sample output from the command:

Actifio:sa-hq:admin> reportdisables								
SLAID	Function	Date	Time	AppID HostName		AppName		
22197610	expirationoff	2016-09-20	14:01:20	22197596 hq-sql		inbandb		
22197610	scheduleoff	2016-09-20	14:01:20	22197596 hq-sql		inbandb		
25897995	appconsistency	2016-07-19	08:31:27	17172 sharepoint-	prod	SharePoint-Prod		

Example CLI Commands

The following command shows all the disabled SLAs:

```
udsinfo lssla -nohdr -delim , -filtervalue expirationoff =true
udsinfo lssla -nohdr -delim , -filtervalue scheduleoff =true
udsinfo lssla -nohdr -delim , -filtervalue dedupasyncoff =true
```

To enable an SLA, use the SLA ID (the first column of output) and change the state using a command like this (where the SLA ID in this example is 64755):

udstask chsla -scheduleoff false 64575

reporteverything

Use this command to list all the available information for each application.

Note: This report only produces CSV output. There is no need to use -c option to get CSV output.

Default Sort Order

The default sort order is by application type, followed by host name and application name.

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes
-n	Exclude the header information.

Typical Output

The following is sample output from the command:

[07:15:38] juicy:~ # reporteverything
AppType,HostName,AppID,HostID,ConsistencyGroupID,ConsistencyGroupName,GroupMemberID,GroupID
rofileName, LocalNode, RemoteNode, VirtualSize (GB), Snaps, DirectDedups, Dedups, RemoteDudups, LiveClones, Dedups, Content and Content an
upDate,LiveCloneDate,DedupAsyncDate,SnapStreamDate,VaultDate
CIFS,"spsql2008vm01","\\172.16.1.37\mad cifs",665087,18246,,,,,,,,,,,,,,,,,
ConsistGrp, "BB5AIX1", "AIX InBand CG", 760629, 18225, ,,,,, 760710, false, false, 386925, Snap-DAR, 518686, Ren
16-08-22 06:51:32-04,,
ConsistGrp, "BB5AIX1", "AIX 00B CG", 760963, 18225, , , , , 761014, false, false, 111, Snap-12, 51, LocalProfile,]
ConsistGrp, "BB5AIX1", "Bug28229", 713777, 18225,,,,,,,,,,,,,,,
ConsistGrp, "CLU09.paradise.local", "Con Grp master", 261104, 259966, ,, ,, ,261160, false, false, 111, Snap-12
ConsistGrp,"CLU09.paradise.local","narcg1",648975,259966,,,,,,,,,,,,,,,,,,
ConsistGrp, "CLUSTERPARA05.PARADISE.LOCAL", "Con Grp1470311981134", 620956, 260299, ,,,,,,,,,,215, 2, (
ConsistGrp, "hpux24", "hpux24 CG", 839523, 750830, ,,,,,839563, false, false, 103, Enterprise, 51, Local Profile
ConsistGrp, "sun07", "gv", 916767, 356634, ,,,, 925985, false, false, 931086, gv log, 51, LocalProfile, jaz, ,2,
FileSystem, "172.16.159.41", "/", 473921, 468727, ,, ,, ,, ,, ,, ,, ,, , , , , , , ,
FileSystem, "172.16.159.41", "/act/mnt/Job 1134081 mountpoint 1469123250051", 473912, 468727, ,,,,,,,,,,,,,,,,
FileSystem, "172.16.159.41", "/act/mnt/Job 1134670 mountpoint 1469163880833", 473911, 468727, ,,,,,,,,,,,,,,,,

Related Commands

Command	Description
reportlist	Displays all available reports.

reportexpires

Use this command to see the expiration jobs occurred. If parameter is specified, it list the expiration jobs occurred in last two days

Default Sort Order

The default sort order is by event time (old to new). You can also sort the data by hostname/appname using -s option.

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:			
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes			
-C	Display the report output in CSV format.			
-d <number></number>	Display historical data, specify the number of days (last 5 days, last 10 days etc.). Example: -d 5 to display last five days data.			
-l <number></number>	Change the length of the application name from the default of 20 characters.			
-n	Exclude the header information.			
-0	Show only on-demand jobs.			
-S	Sort the data by hostname/appname rather than apptype/hostname/appname.			
-W	Change column width to exactly match output data with no truncation.			

Example CLI Commands

The following command shows expiration jobs.

udsinfo lsjobhistory -filtervalue jobclass=expiration

Typical Output

Actifio:sa-hq:admin	> reportexpires							
StartDate StartTime	JobName	JobClass	OriginalJobClass	PolicyName	HostName	AppName	AppID	Duration
2016-10-30 20:00:46	Job_27798060	expiration	remote-dedup	Dedup to Dedup	sql-masking-prod	unmasked	20990406	00:00:11
2016-10-30 20:00:47	Job_27798061	expiration	remote-dedup	Dedup to Dedup	demo-sql-4	AV_CG	23385555	00:00:10
2016-10-30 22:29:42	Job_27798221	expiration	snapshot	12hr Snap	hq-exchange	In-Band	106713	00:00:10
2016-10-30 22:32:59	Job_27798246	expiration	snapshot	Daily Snap	Linux-Prod	Linux-Prod	17169	00:00:10
2016-10-30 22:33:27	Job_27798250	expiration	snapshot	Production to S	demo-mgmt-10	Demo-Mgmt-10	20929541	00:00:10
2016-10-30 22:34:12	Job_27798262	expiration	snapshot	Daily Snap	hq-exchange	Mailbox Database 011	10012	00:00:10
2016-10-30 22:34:58	Job_27798273	expiration	snapshot	Daily Snap	windows-prod	Windows-Prod	21388278	00:00:10
2016-10-30 22:35:17	Job_27798279	expiration	snapshot	Production to S	demo-mgmt-2	Demo-Mgmt-2	20929543	00:00:10
2016-10-30 22:36:41	Job_27798293	expiration	snapshot	Daily Snap	sharepoint-prod	SharePoint-Prod	17172	00:00:10

reportfabric

Use this command to display information about the SAN Fibre connectivity of an Actifio CDS Appliance. This report reformats the output of **usvcinfo lsfabric** into a more user friendly output while adding some additional information.

Note: This report does not typically apply to Actifio Sky Appliance.

In some rare cases, Actifio Sky appliance can learn about the Fibre Channel ports of hosts. The Sky appliance no longer show the Fibre Channel port information of hosts.

Default Sort Order

The default sort order is to display hosts, controllers, and then nodes. Within each category the objects are sorted by type and then name.

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-a	Show whether ports are active (a) or inactive (i). Note that a port needs to have detected some IO activity in the last five minutes to be reported as active. It is not uncommon for a port to show as inactive, even on a busy system.
-C	Display the report output in CSV format.
-е	For the CDS node section, print every CDS FC port, not just those currently logged in. Useful when run with -f and -s to find missing ports
-f	Perform a FC fabric status check. Only degraded and off-line controllers and hosts will be printed. Also use with -s to check on-line node port count
-i	Show iSCSI ports instead of Fibre Channel ports. (CDS only - Sky shows this by default.)
-n	Exclude the header information.
-0	Print only on-line Host Ports (this makes the report run faster but you miss the off-line ports).(CDS only)
-p	Print appliance port information instead of connection information.
-s <ports></ports>	Used with -f to check nodes to ensure they have at least the specified number of on-line ports (between 1 and 4). This option can only be used with -f. If -f is specified without -s XX then the value of on-line node ports needed will be 1 per node
-u	Not print unknown WWPNs (CDS only).
-W	Change column width to exactly match output data with no truncation.

Parameter	Use this Parameter to:
-Z	Print WWPNs of active Actifio node ports that are not zoned to that host (needs -c as well) (CDS only).

Degraded Hosts

If a host is reported as degraded, it means that the host is unable to communicate with both Actifio nodes. Sometimes, this may be due to the host having both iSCSI and FC connections and an iSCSI connection is not attached to both nodes.

Example CLI commands

The following usvcinfo command shows fabric information:

usvcinfo lsfabric

reportfailedjobs

Use this command to see the failed jobs. If you specify no parameters, it displays the failed jobs for last two days.

Default Sort Order

The default sort order is by event time (old to new). You can also sort by hostname/appname using **-s** option.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format.
-e <errorcode></errorcode>	Display only jobs with a specific error code.
-d <number></number>	Display historical data, specify the number of days (last 5 days, last 10 days etc.).
-f	Used with -j to exclude applications that are no longer failing in that class. If no class is specified it will just examine snapshots.
-i <number></number>	Specify error tolerance threshold. Display app only if the number of failures is greater than the specified number.
-j <job class=""></job>	Display failed jobs of a particular job-class.
-l <number></number>	Change the length of the application name from the default value of 20 characters.
-m <number></number>	Change the error message length, from its default cutoff value of 42 characters.
-n	Exclude the header information.
-0	Show only failed on-demand jobs.
-p	Show the policy ID instead of the policy name (only if a policy ID is available). If the application is no longer protected then the policy name is printed, not the policy ID. Also, if the CSV output is selected and the -p option is selected, then for backup jobs, the udstask backup command syntax is printed. This will help you rerun the job.
-q	To only show failed full copy jobs
-r	Show retry jobs and failed jobs.
-S	Sort the data by hostname/appname rather than by date and then hostname/appname
-t <hours></hours>	To display a different number of hours backwards from now.

Parameter	Use this Parameter to:
-W	Change column width to exactly match output data with no truncation.
-x	To instead print the total occurrences of each error code. Start date shown will be the start date of the period being examined (by default 2 days)
-у	To print the end date of the last successful job in that job class.
-Z	Also displays cleanup jobs. By default these are not shown.

Example

For example: reportfailedjobs -d 9 -a 57 -l 40 -m 100

This displays 9 days for application ID 57 lengthening the application name from 20 to 40 characters and the message field from 50 to 100 characters.

Example CLI Commands

The following command shows the failed jobs:

udsinfo lsjobhistory -filtervalue status=failed

reportfctree

This report prints the snapshot tree. Please note the following:

- Label field will show a dash by default, meaning a blank label will show a dash
- VDiskType If the VDisk is a child of staging disk then its name will start with an underscore. If the VDisk is a child of a snapshot, it's name will start with at least two underscores. Parent/child relationships can be determined by the number of underscores.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Change the output to comma separated variable (CSV).
-n	Not print the header lines.
-W	Change column width to exactly match output data with no truncation.

reportgroups

This command is used to list all the protected applications in groups, both regular and consistency. Protected applications are those that have an associated Template and Profile applied to them. Unprotected applications are not listed. Use the *reportunprotected* command to find those.

The ignored column shows if the application marked as ignored. If ignored is set to true then this shows a protected application is being ignored, which should be corrected as the expected value for a protected application is false. If the **-c** parameter to display CSV format is used then additional statistics are printed. These stats are the same as those printed by the reportapps command.

Default Sort Order

Consistency group members are always shown first. Regular group members are always shown second. The default sort order within this is hostname, CG number, application name. Use **-i** to sort by SQL Instance name and use **-t** to sort by policy template and profile

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format.
-g	To only show consistency groups.
-i	Sort the data based on "instance name" followed by "group name"
-l <number></number>	Change the length of the application name from the default of 25 characters.
-n	Exclude the header information.
-р	To only print apps in protected groups.
-S	To only show SQL Instances.
-t	Sort on template/profile first rather than hostname/CG number/appname
-W	Change column width to exactly match output data with no truncation.

Example CLI Commands

The **reportgroups** command uses the output of various udsinfo commands as mentioned below:

udsinfo lsconsistgrp to find the consistency groups.

udsinfo lsgroup to find the regular groups.

udsinfo lsgroupmember to find applications in regular groups.

udsinfo lsconsistgrpmember to find applications in consistency groups.

udsinfo 1ss1a to find protected applications by application ID.

reporthealth

This report gives a fast overview of the health of an appliance. The report runs a series of tests and gives each test a result. It also validates if any remote appliances can be contacted and if so, what appliance type they are and what version they are running. The appliance check will time out after 3 seconds, but this can be tuned with the -t option if your network is slow. It also checks for and reports all processes that are not running.

The following tests are performed:

reporthealth Tests

Test	What It Does
ApplianceName/Type	Shows the appliance name and appliance type (CDS or Sky).
System Date/Version	Shows the system time/timezone and the current installed software version.
Appliances (multiple)	Shows the version reported by a connection test to port 443 on the Operative IP of that appliance.Passed: Successfully connected to port 443 and learned appliance type and version.Failed: Did not connect to port 443 after 3 seconds. Consider using -t xx to increase timeout if you get false failures
Primary FS Usage	 Shows the usage of the Primary File system. Usage and capacity in GiB is shown as well as usage %. Note that the usage % may differ slightly from used/capacity. This is a quirk of the df command and not a bug. Passed: Usage % is less than 75% Warning: Usage % is 75% to 85%. Contact Actifio Support Failed: Usage % is over 85%. Contact Actifio Support
Scheduler Check	Checks to see if the global scheduler or global expiration is disabled. Passed: Both are enabled. Warning: At least one is disabled. Enable using Control Panel in Domain Manager
Protected apps	Count of all applications that are protected by an SLA. A ConsistencyGroup counts as one application. Passed: No applications that are protected have a disabled scheduler Warning: At least one application has its scheduler disabled
SLA Violation apps	Count of all applications that had an SLA Violation in the last 24 hours. Passed: No applications show an SLA Violation in the last 24 hours Warning: At least one application shows an SLA Violation in the last 24 hours Failed: Every protected application shows an SLA Violation in the last 24 hours
Successful capture apps	Count of all applications that had successful Snapshot, DirectDedup and DedupAsync jobs in the last 24 hours exactly. Passed: More than 1 capture job occurred or there are no protected apps or no protected and scheduler enabled apps. Warning: No capture jobs occurred for any protected applications.

reporthealth Tests

Test	What It Does
Failed capture apps	Count of all applications that had failed Snapshot, DirectDedup and DedupAsync jobs in the last 24 hours and no successful jobs in that period Passed: No applications had capture jobs failed in the last 24 hours Warning: At least one app had a job that failed. Investigate failed jobs with reportfailedjobs
Running/Queued jobs	Count of all running and queued applications in both capture and non-capture types. Capture type are Snapshot, DirectDedup and DedupAsync jobs. Non-Capture is every other job class.
Long running captures	Count of all Snapshot, DirectDedup and DedupAsync jobs that have been running for more than 3 hours. Passed: No currently running capture job has exceeded 3 hours. Warning: At least one currently running capture job has exceeded 3 hours.
Online Nodes	(CDS only) Confirms both CDS nodes are online. Passed: Both nodes are online. Failed: Only one is online. Contact Actifio Support to investigate.
MDisk/VDisk Check	 (CDS only) Shows the number of MDisks per pool. If more than 80% of the MDisks are used, for example, say 100 of 128, a warning will get posted. Also checks for any MDisks or VDisks that are not online (they are either offline or degraded). Passed: No degraded or offline MDisks or VDisks were detected. Warning: At least one degraded or offline disk was found. Investigate with usvcinfo lswdisk.
VDisks	Counts the number of VDisks in use and a usage %. Passed: Usage % is below the warning % set in Domain Manager. Warning: Usage % exceeds warning % set in Domain Manager. You may need to change your templates. Failed: Usage is 100% Contact Actifio Support.
Snapshot memory	 (CDS only) Shows snapshot bitmap memory usage and a usage %. Passed: Usage % is below the warning % set in Domain Manager. Warning: Usage % exceeds warning % set in Domain Manager. Increase snapshot memory if possible. Failed: Usage is 100%. Increase snapshot memory if possible. Contact Actifio Support.

reporthealth Tests

Test	What It Does
Dedup Status Check	Checks if Dedup is enabled and if SSDs are installed, if any have failed. Passed: Dedup process is running and if installed, both SSDs are enabled. Warning: The dedup process is disabled or an SSD has failed. Contact Actifio Support. Failed: The dedup process is not running at all. Contact Actifio Support.
Pools (multiple)	 Shows consumption of each pool. Usage and capacity in TiB is shown as well as usage %. OnVaults only show usage. Passed: Usage is below the warning % set in Domain Manager Warning: Usage is above the warning % set in Domain Manager. Consider increasing the size of the pool Failed: Usage is above the safe % set in Domain Manager. Consider increasing the size of the pool
Unused MDisk check	(CDS only) Checks for free MDisks that can be added to pools. Passed: There is at least one free MDisk Warning: There are no free MDisks. For some Appliances this may be normal

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-C	Display the report output in CSV format.
-d	Count only database type apps rather than all apps.
-f	Failed only print mode, which prints only health check results that did not get a Passed message.
-I	Run an additional test for leaked VDisks. This test is not run by default
-m	Override MDisk warnings if there are no free MDisks.
-n	Do not run network check for attached Appliances.
-p	Show additional platform software version information (CDS only).
-r	Report the Local Appliance Name first. This option will not apply in CSV output.
-S	Force the Protected Apps test to always report as Passed, even if disabled apps discovered.

Parameter	Use this Parameter to:
-t <seconds></seconds>	Timeout in seconds when testing remote cluster availability. Default is 3 seconds.
-u	Show node uptime (not shown by default and not shown if -f is also selected)
-W	Check the output of reportfabric command for host or controller ports thats are not shown in the online status.
-Z	Do not check on SSD health.

reportimagecount

This command is used to count the number of images created on an Actifio appliance. With **-r** option, this report counts the images that are sent to this Actifio appliance from a different Actifio appliance. With **-e**, this reports counts only images that are created by applications local to this particular Actifio appliance.

Not all image types are counted, only the most common types are counted.

For remote images, the SourceAppID and SourceAppName are not found on the local appliance using reportapps. If the source cluster name is numeric, then the definition for the remote cluster is deleted.

Statistics

The following statistics are provided:

Statistic	Description
Vols	The number of volumes in the most recent image, not including log disks.
AppSize (GB)	The size of the data being used by the application.
Total	Total number of images in any job class.

Note: If the value shown in Total is not equal to the sum of the other columns, then there are images in other classes, such as failover or syncback. Use the command **reportimages -a xxxxx** to find them. If a production mirror date/time is shown then a production mirror image is also one of the images counted in the total column. Production mirror images are either dedup async or Streamsnap. Since there can only be one production mirror image, a separate count column is not shown.

Default Sort Order

The default sort order is SourceCluster/AppType/HostName/AppName.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <appid></appid>	Display only data for a specific application ID.
-C	Display the report output in CSV format.
-e	Count only local images.
-i	Sort the data only by Host Name/ App Name.
-l <number></number>	Change the length of the app name from the default value of 20 characters.
-n	Exclude the header information.

Parameter	Use this Parameter to:
-0	To count only orphan images
-r	Count remote images rather than local images.
-S	Sort the data by SourceCluster/HostName/AppName
-t	Sort on template/profile first and then hostname/appname second.
-W	Change column width to exactly match output data with no truncation.
-у	Shows images that failed to expire with a reason column. did not consider remote- mount jobs
-X	Print extra stats. This will print totals for certain columns.

Example CLI Commands

The following command shows the snapshot images for application ID 1885855:

udsinfo lsbackup -delim , -nohdr -filtervalue appid=1885855\&jobclass=snapshot

reportimages

This report is used to list all available images for each application. This reports shows the actual images that are available in each job class. There is also an option using -a0 to list all images for every application.

If an image is a Database dump then the word (dump) will appear in the Jobclass column.

Default Sort Order

The default sort order is by hostname, then application name.

Statistics

The following statistics are provided for each job:

Statistic	Description
Vols	The number of VDisks that make up the staging disk for this image (-s only).
VirtualSize (GB)	The virtual size of the Applications Disks. These disks are thin provisioned (-s only).
AppSize (GB)	The actual size of the data being used by the application.
StageUsed (GB)	The utilized size of the Staging Disk data created to hold the Golden Copy in snapshot pools (-s only).
SharedUsed (GB)	Snapshot consumed size that is shared between multiple images (-s only). This does not apply to CDS appliance.
SnapUsed (GB)	The size of the data being used by the snapshot (-s only).
ConsistencyDate	The actual point in time (PIT) when the host side image is created. When the -s option is used, for log images only, the EndPIT date of those logs is shown as the consistency date.
EndPIT	Most recent point in time (PIT) for which logs are available.
ExpirationDate	Date on which the image expires.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format.
-d <number></number>	Display a different number of days backwards from now.

Parameter	Use this Parameter to:
-e	Print a command to change expiration by a set number of days (CSV only).
-f	Display only images that were capture using NFS staging disk format (cannot be used with -s).
-i	Show images with an expiraton date past 16:53 Dec 4, 2099 UTC. This will not show mounts, liveclones or mirror images. Use -j to see specific classes that have expiration dates set to the distant future.
-j <job class=""></job>	Display images specific to a particular job class.
-l <number></number>	Change the length of the app name from the default of 20 characters.
-m <id></id>	Print replicateimage command. Creates CSV output only. Needs ID of target cluster.
-N	Exclude the header information.
-0	Show only images that are created by on-demand jobs.
-р	Show only orphan images (those created by deleted applications).
-q	Show preserved images (that are waiting to be processed by dedup or replication).
-r	Only show images on this VDP Appliance that were sent to this VDP Appliance by a remote VDP Appliance.
-S	Display the snapshot tree. This will ignore other filter options apart from app id. Note that Clone images may not be listed by this option.
-v <policy></policy>	Only shows images created by the specified policy ID or policy Name. If the policy name has spaces, enclose it in single quotes.
-W	Change column width to exactly match output data with no truncation.
-X	Limit number of fields shown when using -s in regular print mode (only applies to -s and doesn't apply when using -c or -w).
-у	Show images that have missed their expiration date. A reason will be printed in the image status column.
-Z	Use this parameter only when advised by Actifio Customer Support Engineering. This shows hidden images.
-0	Used with -s to print volumes that were not found in local storage pools. Size and consumed space for these may be misreported as zero.
-1	Show only log images (componenttype=1).

Parameter	Use this Parameter to:
-2	Does not show ENDPIT date for apps that have logs. This will make the report run faster.
-3 <poolid></poolid>	Used with -s to lookup volumes on a specific external snapshot pool as well as all internal pools.
-4	Used with -s to lookup volumes on all external snapshot pools as well as all internal pools.
-6	Show only DB Dump images.

The **-m** option will print an example of the replicate image command. Policy names will have all spaces removed. It uses the -inheritexpiration option to set the expiration of the replicated image to the same date and time as the source image. If the expiration date of the source image is in the past, no replicate image command will be printed. This is because the image should already have expired, so it is unclear if it should be replicated.

The **-e** option will print an example of the chbackup command. It takes the current expiration date and then calculates a new one based on the value put against the **-e** command.

-e 2 will print a command that can be used to increase the expiration date by two days (the image will exist for 2 extra days).

-e -2 will print a command that can be used to reduce the expiration date by two days (the images will exist for 2 less days). The command must be run with the -c option and cannot be run with the -m option.

If you use -y to display images that have missed expiration then the possible image statuses are explained below:

- **GlobalExpirationDisabled**: Expiration is disabled for the entire Appliance, so no images are being expired. When you enable expiration then provided no other reasons exist, images will start to be expired.
- **AppExpirationDisabled**: Expiration is disabled for this specific application, so no images for this app are being expired. When you enable expiration then provided no other reasons exist, images will start to be expired.
- **BackupLockSet**: The backup lock is set. Normally a backup is in progress. If not contact Support. If the lock is removed then provided no other reasons exist, the image will expire.
- **RestoreLockSet**: The restore lock is set. Normally a restore is in progress. If not contact Support. If the lock is removed then provided no other reasons exist, the image will expire.
- LastSnap: This image is or would be the last snapshot for this app, and the app is still protected. A
 protected app should always have at least one image in each relevant class.
- **LastDedup**: This image is or would be the last dedup for this app, and the app is still protected. A protected app should always have at least one image in each relevant class.
- **LastRemoteDedup**: This image is or would be the last remote-dedup for this app, and the app is still protected. A protected app should always have at least one image in each relevant class.
- **NeededForNextDedup**: This snapshot was used to create the last dedup image and is thus needed to help create the next dedup image. If you expire this snapshot then the next dedup will take much longer.
- **NeededForNextRemoteDedup**: This dedup was used to create the last remote-dedup image and is thus needed to help create the next remote-dedup image. If you expire this dedup then the next remote-dedup will take much longer.
- **PreservedImage**: This image is preserved because catchup is running to ensure downstream images are not lost. If you expire this image then downstream images (like a dedup of a snapshot) will not be created.

• **1 mount (or more)**: This image cannot be expired till all mounts based on it are unmounted and deleted. Refreshing older mounts with newer images will allow older images to expire and the space they consume to be released.

Example CLI Commands

If you wish to get more information about one image, learn the Image ID from reportimages (the first column of output) and then issue a command like this (where in this example is Image ID 1234567):

udsinfo lsbackup 1234567

The following command shows only snapshot images for the application ID 1885855:

udsinfo lsbackup -delim , -nohdr -filtervalue appid=1885855\&jobclass=snapshot

reportinband

Use this command to list all in-band VDisks on an Actifio CDS appliance. The purpose of this report is to identify inband VDisks that are not protected. If a VDisk is part of a Generic Application, this is identified. If snapshots are in use, then this is also displayed as Yes or No.

Note: This report does not apply to Actifio Sky.

Sideband VDisks are not shown unless they are misnamed.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format.
-n	Exclude the header information.

Typical Output

The following is sample output from the **reportinband** command:

Actifio:sa-hq:admin> reportin	and								
VDiskName	VDiskSize(GB)	0SType	AppType	MappedHostName	HostName	AppName	AppID	SLAID Sr	capOty UUID
Exchange_Datastore	100.0	Win32	Exchange	hq-exchange	hq-exchange	In-Band	106713	7124283	4 638A95F225801C59D00
inband_hq_sql	2048.0	Win32	Generic	hq-sql	hq-sql	inbandb	22197596	22197610	2 638A95F225801C59D00

reportiostats

Use this command to see the historical input/output statistics of an Actifio CDS appliance.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-d <days></days>	Display a different number of days backwards from now.
-m	Display MDisk stats.
-n	Display node stats.
-o <object></object>	when used with -m, it displays the statistics for a specified MDisk.
-o <object></object>	when used with -m, and -t, it displays the total statistics for a specified disk pool.
-o <object></object>	when used with -v, it displays the statistics for a specified VDisk.
-o <object></object>	when used with -v, and -t, it displays the total statistics for a specified VDisk(s).
-р	Display ports statistics.
-s <samples></samples>	Display only a fixed number of time samples. If I/O stat files are missing for one node, this may cause additional time points to be printed
-t	Display totals if -m or -v are also selected. Does nothing on its own.
-V	Display VDisk statistics.
-x <minutes></minutes>	Display a different number of minutes backwards from now (default is 120 minutes).

Typical Output

The following is sample output from the **reportiostats** -**m** command:

[08:55:21] wta29u29:~ # reportiostats -m Statistics are not currently being collecte Starting enhanced statistics collection. Fetching from CDS	ed. Do	you wish	to enab	ble enhanced	statistics	collection	(y/n)?
<pre>./Nn_stats_KQ1CDY_180320_051959: 95 ./Nn_stats_KQ1CDY_180320_055134: 95</pre>	5.1% 5.3%	replaced replaced	with ./ with ./	'Nn_stats_KQ1 'Nn_stats_KQ1	LCDY_180320 LCDY_180320	_051959.gz _055134.gz	
./Nm_stats_KQ1CDY_180320_072007: 79 ./Nd_stats_K09M48_180320_083905: 43	9.9% 3.1%	replaced	with ./	Nm_stats_KQ1	LCDY_180320	072007.gz	
./Nm_stats_KQ1CDY_180320_051959: 78	3.2%	replaced	with ./	Nm_stats_KQ1	LCDY_180320	_051959.gz	
./Nw_stats_KQ1CDY_180320_084935: 79	7.8%	replaced	with ./	Nm_stats_KQ1	LCDY_180320	_083905.gz	
./Nm_stats_KQ9M48_180320_082318: 85 ./Nd_stats_KQ9M48_180320_073555: 43	3.1% 3.1%	replaced replaced	with ./	Nm_stats_KQ9 Nd_stats_KQ9	0048_180320 0048_180320	_082318.gz _073555.gz	
<pre>./Nd_stats_KQ9M48_180320_050411: 43 ./Nv_stats_KQ9M48_180320_083905: 97</pre>	3.3% 7.6%	replaced replaced	with ./ with ./	'Nd_stats_KQ9 'Nv_stats_KQ9	048_180320 048_180320	_050411.gz _083905.gz	
./Nm_stats_KQ9M48_180320_083905: 85	5.2%	replaced	with ./	Nm_stats_KQ9	M48_180320	083905.gz	

reportjobcount

Use this command to count the number of completed jobs in each job class, some job types are combined as shown below:

- **Clone** includes both clone and remote-clone jobs
- DARusage includes failovertest, failback, syncback, failback, deletetest and deletefailover jobs.
- LiveClone includes LiveClone, LiveClone-refresh, rollbackliveclone and reprovision jobs.
- Mount includes both mount, remote-mount and prep-mount jobs.
- **Restore** includes restore and remote-restore jobs.
- **Unmount** include both unmount, unmount-delete and prep-unmount jobs.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-C	Display the report output in CSV format.
-d <number></number>	Display historical data, specify the number of days (last 5 days, etc.). Example: -d 5 to display the last five days data.The default is maximum.
-N	Exclude the header information.
-X	Print extra stats. This prints totals for certain columns.

Typical Output

The following is sample output from the command:

Actifio:sa-hq:admin>	reportjobcount
Event	Count
Job History Days	170
Clone Jobs	3
Dedup Jobs	4435
Dedup Async Jobs	3843
DAR Usage Jobs	21
Direct2Dedup Jobs	2
Expiration Jobs	20722
Liveclone Jobs	116
Mount Jobs	2156
Remote Dedup Jobs	1088
Restore Jobs	9
Snapshot Jobs	21485
Streamsnap Jobs	357
Unmount Jobs	2145
OnVault Jobs	52

Example CLI commands

The following commands shows the successful jobs in each class:

```
udsinfo lsjobhistory -filtervalue jobclass=clone\&status=succeeded
udsinfo lsjobhistory -filtervalue jobclass=dedup\&status=succeeded
udsinfo lsjobhistory -filtervalue jobclass=dedupasync\&status=succeeded
```

reportjobs

Use this command to list the jobs that occurred in the past. If you specify no parameters, it displays last two days jobs. This information is useful to know all the events occurred to an application for a fixed number of days and the order in which those events occurred.

Default Sort Order

The default sort order is by event time (old to new). You can also sort by hostname/appname using -s option.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format.
-d <number></number>	Display historical data, specify the no. of days. Ex: -d 5 to display last five days data.
-е	Display jobs regardless of status, instead of showing only successful jobs.
-l <number></number>	Change the length of the application name from its default value of 20 characters.
-N	Exclude the header information.
-0	Display only failed on-demand jobs.
-p <number></number>	Search for jobs created by a specific policy ID
-S	Sort the data by hostname/appname rather than by date and then hostname/appname.
-W	Change column width to exactly match output data with no truncation.
-Z	Also shows cleanup jobs which by default are not shown.

For example: reportjobs -d 9 -a 57-140

This displays nine days of job history for application ID 57 lengthening the app name from 20 to 40 characters.

Example CLI Commands

The following commands shows all successful jobs for application ID 57 for the last nine days:

udsinfo lsjobhistory -filtervalue status=succeeded\&appid=57\&"jobhistory since 9 days"

Typical Output:

Actifio:sa-hq:admin> reportjobs							
StartDate StartTime JobName	JobClass	Status	PolicyName	HostName	AppName	AppID	Duration
2016-10-30 20:00:46 Job_27798060	expiration	succeeded	Dedup to Dedup	sql-masking-prod	unmasked	20990406	00:00:11
2016-10-30 20:00:47 Job_27798061	expiration	succeeded	Dedup to Dedup	demo-sql-4	AV_CG	23385555	00:00:10
2016-10-30 20:06:54 Job_27798066	snapshot(Log)	succeeded	12hr Snap	oracle-rac-1	racbigdb	21681349	00:03:10
2016-10-30 20:26:24 Job_27798080	snapshot(Log)	succeeded	12hr Snap	Oracle-Prod	smalldb	27095220	00:03:13
2016-10-30 20:26:42 Job_27798082	snapshot(Log)	succeeded	12hr Snap	hq-sql	smalldb	20941648	00:02:50
2016-10-30 21:06:58 Job_27798109	snapshot(Log)	succeeded	12hr Snap	oracle-rac-1	racbigdb	21681349	00:03:10
2016-10-30 21:26:25 Job_27798122	snapshot(Log)	succeeded	12hr Snap	Oracle-Prod	smalldb	27095220	00:03:20
2016-10-30 21:26:43 Job_27798124	snapshot(Log)	succeeded	12hr Snap	hq-sql	smalldb	20941648	00:02:42
2016-10-30 21:42:55 Job_27798139	dedupasync	succeeded	Production to M	demo-mgmt-8	Demo-Mgmt-8	20929560	00:01:52
2016-10-30 21:42:57 Job_27798140	dedupasync	succeeded	Production to M	demo-mgmt-3	Demo-Mgmt-3	20929545	00:02:11
2016-10-30 21:59:59 Job_27798169	cleanup	succeeded	Production to M	I demo-mgmt-8	Demo-Mgmt-8	20929560	00:00:10

reportlist

Use this command to list all the available reports. The output varies according to the product and software version you are using. There are two categories of report available as shown below:

- Job History Reports
- Current Status Reports

Typical Output:

[07:25:36] atlantic:~ #	<pre># reportlist</pre>
Job History Reports	Report Function
reportaudit	Report on the contents of the Audit log
reportcanceledjobs	Report 2 days of canceled jobs. Filter by recent days or by recent days and app id
reportclones	Report 2 days of clone jobs. Filter by recent days and/or app 1d
reportdaily	Report the quantity of jobs that were run for each app for each type
reportdailyfailures	Report quantities of failed jobs for each application
reportdarusage	Report all dedup async related jobs: Tailoverrest deletetest Tailover syncback Tailback
reportdedupasyncs	Report 2 days of dedupasync jobs. Filter by recent days and/or app 10
reportdedups	Report 2 days of decup jobs. Filter by recent days and/or app id
reportairectaeaups	Report 2 days of directedup jobs. Filter by recent days and/or app id
reportfailediebs	Report 2 days of expiration jobs. Filter by recent days and/or app id
reportioncount	Report 2 days of failed jobs, filter by felent days and/or app in
reportions	Report 2 days of jobs Eilter by recent days and/or ann id
reportliveclones	Report 2 days of jobs, filter by feelen days and/or app in
reportmounts	Report 2 days of front jobs. Filter by recent days and/or app 10
reportpoolbistory	Report on nool space history
report remotededups	Report 2 days of remote dedun jobs. Filter by recent days and/or ann id
report restores	Report 2 days of restore ints. Filter by recent days and/or app 10
reportslaviolations	Report all SIA Violations for the previous day
reportsnaps	Report 2 days of snapshot jobs. Filter by recent days and/or app id
reportstats	Report 2 days of indes. Filter by recent days and/or app id
reportstreamsnaps	Report 2 days of StreamShap and LooReplicate jobs. Filter by recent days and/or app id
reportsweeps	Report all garbage collection jobs
reportonvaults	Report 2 days of OnVault jobs. Filter by recent days and/or app id
	······································
Current Status Reports	Report Function
reportadvancedsettings	Show all Advanced policy options that have been set
reportappcount	Count all applications and show protection status
reportapps	Report all protected applications sorted by app type then hostname and appname
reportclonedisks	Report on clone disks that were created by clone jobs
reportcompliance	Report on the compliance status of every protected application
reportconnectors	Report all connector versions. Display help with -h to get update commands
reportconnectoroptions	Report any options set for connector operations
reportconsumption	Report on space consumption by application
reportdedupratio	Report on the ratio of total image size to dedup pool size
reportdisables	Report all applications that have scheduling or expiration disabled
reporteverything	Report as many details as possible about each application. CSV output only
reportfabric	Report that displays information about the SAN and ISCSI fabric
reportictree	Report the snapshot tree
reportgroups	Report all protected applications that are in groups
reportheatth	Report on the health status of the Appliance
reportimagecount	Lists the quantity of images available for each application in each jobclass
reportinhand	Ensert images for specified applications of job classes
reportiostate	Report on any indana disks so show their protection status
reportmailer	report on historical 10 stats
reportmanneddisks	Panort on all stading disk manned to horts
reportmdiskspace	Report on how the MDisks are used in the pools
reportmountedimages	Report all mounted images active in the system
reportnet	Report on network interface throughout
reportoramembers	Report that lists which organizations an application is in
reportorgusage	Report that shows resource consumption by organization
reportperfstats	Report on node IOPS throughput and response times
reportpolicies	Report all in-use policies including number of apps using each one
reportpools	Report on pool space consumption
reportprofiles	Report on all resource profiles defined in the system
reportrbac	Report on Role Based Access Control (RBAC)
reportrpo	Report the most recent consistency date for each jobclass for each protected application
reportrunningjobs	Report all jobs currently running in the system
reportslaoptions	Report all options set for each SLA
reportsnappool	Report on the space usage of the snap pool
reportunprotected	Report all apps that dont have an SLA
reportvms	Report on VM discovery status
reportworkflows	Report on all workflows

reportliveclones

Use this command to list LiveClone jobs. If you specify no parameters, it displays the last two days jobs.

Note: This report lists jobs that created LiveClone images, not the LiveClone images themselves. The images that are created by these jobs may already have expired. To find all images, use reportimages or reportimagecount.

Statistics

The following statistics are provided for each job:

Statistic	Description
VirtSize (GB)	Size of the application's disks. For VMs this is the full size of the VMDKs
AppSizeGB	Size of the data being used by the application.
DataCopiedGB	New application data found by this job.
ChangeRate%	The percentage of data copied is of application size (used data)

Default Sort Order

The default sort order is by event time (old to new). You can also sort by hostname/appname using -s option.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format.
-d <number></number>	Display historical data, specify the number of days (last 5 days, last 10 days etc.). Example: -d 5 to display last five days data.
-l <number></number>	Change the length of the application name from the default of 20 characters.
-n	Exclude the header information.
-S	Sort the data by hostname/appname rather than by date and then hostname/appname.
-W	Change column width to exactly match output data with no truncation.

For example: reportliveclones -d 9 -a 57 -l 40

This displays nine days data for the application ID 57, lengthening the application name from 20 to 40 characters

Example CLI Commands

The following command shows the successful LiveClone jobs for the application ID 57 in last nine days:

udsinfo lsjobhistory -filtervalue jobclass=liveclone\&status=succeeded\&appid=57\&"jobhistory since 9 days"

Typical Output

Actifio:sa-hq:admin>	reportliveclon	es									
StartDate StartTime	JobName	JobClass	PolicyName	HostName	AppName	AppID	Duration	VirtSizeGB	AppSizeGB	DataCopiedGB	ChangeRate%
2016-11-01 06:00:00	Job_27808677	refreshliveclone	12hr Snap	sql-masking-prod	unmasked	20990406	00:00:19	48.0	0.0	0.018	360.00
2016-11-01 06:05:39	Job_27808704	reprovision	12hr Snap	sql-masking-prod	unmasked	20990406	00:04:00	48.0	0.0	0.000	0.00
2016-11-01 10:03:44	Job_27810022	reprovision	Production to	Oracle-Mask-Prd	dmdb	17433999	00:03:30	50.0	1.5	0.000	0.00
2016-11-01 16:05:00	Job_27818209	refreshliveclone	Production to	Oracle-Mask-Prd	dmdb	17433999	00:00:30	50.0	1.5	1.903	130.25
2016-11-01 16:17:23	Job_27818506	reprovision	Production to	Oracle-Mask-Prd	dndb	17433999	00:03:30	50.0	1.5	0.000	0.00

reportmailer

Use this command to email reports. A single XLS file with one tab per report is emailed to the desired recipient or recipients. When the report opens as a spreadsheet it actually be in XML format.

• You must place multiple email addresses in double quotes with a single space or comma between each address. Also place multiple reports in double quotes with a comma between each report

Note: If a report with identical parameters is requested more than once, duplicates will be ignored. For each report you can optionally specify any parameters you wish to run against that report. Parameters specified against a particular report will run against just that report.

For this particular command, you need not to use -c to get CSV, the output will always be an XML formatted XLS file.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-e <email address=""></email>	Select a destination addres(s) (placed inside double quotes with comma separation).
-r <report></report>	Specify desired report or reports (placed inside double quotes with comma separation).

Example CLI Commands

```
reportmailer -e johnsmith@acme.com -r "reportfailedjobs -d9,reportrpo"
```

reportmappeddisks

Use this report to list all the mapped disks except in-band disks. This is normally needed if you are attempting to delete a host, but it cannot be deleted as there are mapped volumes. This report will help you find these mapped volumes.

Note: LAN-free VDisks are not shown unless they are misnamed.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Change the output to comma separated variable (CSV).
-n	Not print the header lines.
-S	Sort on Host name/Application Name rather than by ActifioMappedHost.

Parameter	Use this Parameter to:
-t	Sort on Apptype/Hostname/AppName rather than on ActifioMappedHost
-u	ACTIFIO SERVICE ONLY - print a sample command to un-map the volume (it does not actually do the un-map)
-W	Change column width to exactly match output data with no truncation.

reportmdiskspace

Use this command to show MDisk utilization with Actifio pools. For each pool you get a variety of statistics.

Note: This command cannot be run on Actifio Sky.

Statistics

The following statistics are provided for each MDisk:

Statistic	Description
MDiskSize (GB)	Size of the MDisk in GB.
ExtentSize (MB)	Extent size in MB
TotalExtents	Total number of extents for each MDisk.
FreeExtents	Number of extents that are not yet allocated to VDisk space.
FreeSpace (GB)	Disk space within that MDisk that is not allocated to extents

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-C	Display the report output in CSV format.
-n	Exclude the header information.
-u	Print only unused MDisks.
-Z	Do not check on SSD health (Sky only - warning this may result in used SSDs being reported as unmanaged).

Example CLI commands

The following command shows the MDisks used by Actifio CDS:

usvcinfo lsmdisk

Typical Output:

E05:00:231 Sukey:~	reportediskspace									
Fool act_pri_pool0										
PoolName	MDiskName	Status	MDiskSize(GB)	ExtentSize (MB)	TotalExtents	FreeExtents	FreeSpace (GB)	Controller	LUNFID (hex)	LUNID (dec)
act_pri_pool000	act_pri_mdk0000									
Fool sot_per_pool0										
PoolName	MD1skName	Status	MD1skSize(GB)	ExtentSize (MB)	TotalExtents	FreeExtents	FreeSpace (GB)	Controller	LUNID (hex)	LUNID (dec)
act_per_poc1000	act_per_mdk0000									
Fool act_ded_pool0 Note that 1 TiB (1) Note also that act	op is 5.00 TiB in siz S%) of pool space is ual free space shown	e with 1.54 TiB o reserved, meaning here may be small	f free space. PoolSize shown or than what is	in reportpools y reported by repo	will be smaller propose. This	by that amount is because of				
PoolName	MD1skName	Status	MD1skSize(GB)	ExtentSize (MB)	TotalExtents	FreeExtents	FreeSpace (GB)	Controller	LUNID (hex)	LUNID (dec)
act ded poclooo	act ded mdk0000									

reportmdlusage

Run the reportapps command to get the required information.

reportmirrordisks

Use this command to list all mirror VDisks.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Change the output to comma separated variable (CSV).
-n	Not print the header lines.
-W	Change column width to exactly match output data with no truncation

Note: The -c and -w options cannot be run together. Please only use one of those options.

Example CLI commands

reportmirrordisks

Typical Output:

[09:54:49] wta29u29:~ # reportmirrordisks										
Hostname	AppName	Appid	Jobclass	ImageID	SourceAppliance	TargetAppliance	SourceSize(GiB)	SourceVDisk	TargetVDisk	SourceIdentifier
1gb_empty_vm14	1GB_Enpty_VM14	1174813	dedupasync	4848877	babybear	barkley	-	-	-	vmvol:6088C29f-625d-9
1gb_empty_vm14	1GB_Empty_VM14	1174813	dedupasync	4848877	babybear	barkley	-	-	-	vmvol:6000C292-2b44-8
1gb_empty_vm15	1GB_Empty_VM15	1174815	dedupasync	3233134	babybear	barkley	-	-	-	vmvol:6000C293-7997-9
1gb_empty_vm15	1GB_Empty_VM15	1174815	dedupasync	3233134	babybear	barkley	-	-	-	vmvol:6088C296-5bec-1
1gb_empty_vm15	1GB_Empty_VM15	1174815	dedupasync	3233132	babybear	barkley	-	-	-	vmvol:6008C293-7997-9
1gb_empty_vm15	1GB_Empty_VM15	1174815	dedupasync	3233132	babybear	barkley	-	-	-	vmvol:6000C296-5bec-1
1gb_empty_vm20	1GB_Empty_VM20	939992	dedupasync	5702847	babybear	barkley	-	-	-	vmvol:6088C291-ebfb-8
1gb_empty_vm20	1GB_Empty_VM20	939992	dedupasync	5702847	babybear	barkley	-	-	-	vmvol:6000C295-0633-1
ASHOk-RHEL-Unix	delete	5655328	dedupasync	5719249	barkley	ktsky.sga.actifio.c	50.0	vm-5AAA34A12380	vm-5AAA36213C00	dasvol:delete

reportmountedimages

Use this command to list all the active mount images. The command reportmounts shows the historical mount jobs regardless of whether the mount is currently in use.

Statistics

The following statistics are provided for each mounted image:

Statistic	Description
VirtSize (GB)	The size of the application's disks. For VMs this is the full size of the VMDKs.
ConsumedSize	The amount of disk space consumed by the mounted image.

Default Sort Order

The default sort order for images is source host name followed by source application name. Optionally, the images are sorted by Target Host.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name.Names with spaces or special characters will need to be encased in single quotes.
-b	Show the provisioning option(s) used when remounting images. Can be used with -1, which will print the entire remount command. If passwords exist in the provisioning options, they are replaced by ****** since the user running the command may not have the permission to know the password used during a mount.
-C	Display the report output in CSV format.
-l <number></number>	Change the application name from the default of 20 characters.
-N	Exclude the header information.
-р	Optionally show the snapshot pool selected at mount time. Default is shown if not selected
-t	Sort the data by target host followed by source hostname/source appname).
-u	Display consumed size using specified units, either m for MB or t for TB.

Example CLI commands

The following command shows all the mount jobs:

```
udsinfo lsbackup -filtervalue jobclass=mount
```
Typical Output

The following is sample output from the command:

Mount TrageName	OrigImage	ConsistencyDate	LastMountDate	AppType	SourceHost	SourceApp	SourceAppID TargetHost	MountedAppName	VirtSize(GB) Consu	medSize(GB)	Lat
Image_27812785	snapshot	2016-10-31 12:34:16	5 2016-11-01 13:16:0	5 SqlServerWriter	hq-sql	bigdb	20941152 demo-sql-5	CStest	2457.4	0.005	CSS
Image_27816103	snapshot	2016-11-01 12:34:55	5 2016-11-01 15:16:5	2 SqlServerWriter	hq-sql	bigdb	20941152 demo-mgmt-2	<notappaware></notappaware>	2457.4	0.009	
Image_27820992	snapshot	2016-11-01 12:34:55	5 2016-11-01 18:38:1	4 SqlServerWriter	hq-sql	bigdb	20941152 demo-sql-2	DEVDB2	2457.4	0.007	
Image_27816295	snapshot	2016-11-01 00:19:01	L 2016-11-01 15:24:44	6 VMBackup	Linux-Prod	Linux-Prod	17169 WFVM	<notappaware></notappaware>	16.0	0.062	
Image_27818506	liveclone	2016-11-01 08:12:02	2 2016-11-01 16:17:3	4 Oracle	Oracle-Mask-Prd	dmdb	17433999 oracle-mask-dev	dindib	50.0	0.038	
Image_27817012	snapshot	2016-11-01 12:18:48	8 2016-11-01 15:43:10	0 FileSystem	Oracle-Prod	/home	20975831 demo-oracle-6	<notappaware></notappaware>	54.7	0.001	tes

reportmounts

Use this command to see the mount and remote-mount jobs. If no parameter is specified, last two days mount jobs are displayed. This report shows historical mount jobs including the jobs that are currently in use, whereas the reportmdlusage command shows only actual live mounts.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name.Names with spaces or special characters will need to be encased in single quotes.
-b	Display all mounts that used a specific image.
-C	Display the report output in CSV format.
-d <number></number>	Display historical data, specify the number of days (last 5 days, last 10 days etc.). Example: -d 5 to display last five days data.
-е	Display jobs regardless of status, instead of showing only successful jobs.
-j <job-class></job-class>	Display mounts for a particular mount type job-class (you can use any mix of case when typing the job-class name.
-l <number></number>	Change the application name from the default of 20 characters.
-m	Only show System Recovery jobs (Cloud Mobility)
-N	Exclude the header information.
-o <job class=""></job>	Display mounts from a particular original job class (you can use any mix of case when typing the job class name)
-r	Only show re-provision jobs.
-S	Sort the data by hostname/appname rather than by date and then hostname/appname.
-u	Print unmount jobs as well as mount jobs.
-W	Change the column width to exactly match with the output data with no truncation.

For example: reportmountjobs -d 9 -1 40

This displays last nine days job history, increasing the application name from 20 to 40 characters.

Example CLI commands

The following command shows all mount jobs:

udsinfo lsjobhistory -filtervalue jobclass=mount

Typical Output:

The following is sample output from the command:

	Actifio:sa-hq:admin>	reportmounts								
	StartDate StartTime	JobName	JobClass	SourceHost	SourceApp	SourceAppID	TargetHost	Duration	VirtSize(GB)	AppSize(GB)
	2016-10-31 09:36:14	Job_27800423	mount	oracle-rac-1	racbigdb	21681349	oracle-rac-1	00:08:09	2000.0	1330.0
	2016-10-31 10:01:16	Job_27801149	mount	Oracle-Prod	bigdb	20837997	demo-oracle-6	00:02:39	1653.7	1102.5
Í	2016-10-31 11:33:54	Job_27801806	mount	oracle-rac-1	racbigdb	21681349	oracle-rac-1	00:07:41	2000.0	1330.0
ļ	2016-10-31 11:38:35	Job_27801952	mount	hq-sql	bigdb	20941152	demo-sql-6	00:01:52	2457.4	1972.2
ļ	2016-10-31 11:48:31	Job_27802418	mount	Oracle-Prod	bigdb	20837997	demo-oracle-1	00:03:20	1653.7	1102.5
l	2016-10-31 11:49:10	Job_27802457	mount	Oracle-Prod		20975829	demo-oracle-6	00:00:51	60.0	4.3
I	2016-10-31 11:50:43	Job_27802560	mount	hq-sql	bigdb	20941152	demo-sql-1	00:02:19	2457.4	1972.2
	2016-10-31 11:51:50	Job_27802656	mount	windows-prod	Windows-Prod	21388278	Bill2	00:00:21	100.0	12.8
	2016-10-31 14:18:46	Job_27803949	mount	hq-sql	bigdb	20941152	demo-sql-8	00:01:50	2457.4	1972.2
	2016-10-31 14:24:12	Job_27804138	mount	Oracle-Prod	bigdb	20837997	Oracle-Prod	00:03:40	1653.7	1102.5
	2016-10-31 14:39:59	Job_27804500	mount	hq-sql	bigdb	20941152	demo-sql-3	00:02:10	2457.4	1972.2
	2016-10-31 14:46:23	Job_27804729	mount	demo-mgmt-2	Demo-Mgmt-2	20929543	DLI-test	00:00:29	60.0	60.0
	2016-10-31 15:21:04	Job_27805095	mount	hq-sql	bigdb	20941152	demo-sql-8	00:01:49	2457.4	1972.2
	2016-10-31 15:21:34	Job_27805136	mount	ansible	Ansible	22672364	ACtest	00:01:10	32.0	32.0
	2016-10-31 16:25:04	Job_27805658	mount	Oracle-Prod	bigdb	20837997	demo-oracle-6	00:02:40	1653.7	1102.5
	2016-10-31 16:28:19	Job_27805739	mount	hq-sql	bigdb	20941152	demo-sql-6	00:01:50	2457.4	1972.2

reportnet

Use this report to display network port throughput. By default this report runs for 20 by 5 second intervals and stops.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-С	Change the output to comma separated variable (CSV).
-i	Change the number of lines of output that are printed from the default of 20.
-n	Not print the header lines.
-r	Change the data capture rate from 5 seconds to another value in seconds.

Example CLI Commands

For instance the following command will output CSV data with 2 second of data per line and 10 lines of output: reportnet -c -i10 -r2

reportonvaults

Use this command to list OnVault jobs. If you specify none, you see successful OnVault jobs in the last two days.

Note: This report lists jobs that created OnVault images, not the OnVault images themselves. The images created by these jobs may already have expired. To find all images, use reportimages or reportimagecount.

Statistics

The following statistics are provided for each job:

Statistic	Description
Virtual Size	Size of the application disks. For VMs, this is the full size of the VMDKs.
AppSize	Size of the data used by the application.

Default Sort Order

The default sort order is by event time (old to new). You can also sort by hostname/appname using -s option.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name
-C	Display the report output in CSV format.
-d <number></number>	Display historical data, specify the no. of days. Ex: -d 5 to display last five days data.
-j ,, <class></class>	Display either OnVault or DirectOnVault
-l <number></number>	Change the length of the application name from its default value of 20 characters.
-n	Exclude the header information.
-0	Show only on-demand jobs.
-p , <number></number>	Search for jobs created by a specific policy ID
-S	Sort the data by hostname/appname rather than by date and then hostname/appname.
-W	Change column width to exactly match output data with no truncation.

Example CLI command

udsinfo lsjobhistory -filtervalue jobclass=vault

reportorgmembers

This command is used to list the application and organization mapping, this lets you determine if an application is:

- In a particular organization
- Not in an organization
- In one or more organizations
- In the wrong organization

You can use this command along with reportorgusage to ensure all applications whose usage you wish to track are in the correct organizations. A common method is to use the Actifio Desktop to assign applications to organizations. Use **–u** to find missing applications, then use **–m** to find the applications that are double allocated. Misallocated organizations are harder to find as they need knowledge of which applications should be in which organization.

Default Sort Order

Applications are sorted by type, followed by hostname, and application name.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-C	Display the report output in CSV format.
-m	Print only applications that are members of more than one organization.
-N	Exclude the header information.
-o xxxxn	Print applications in a specific organization, specified as a numerical ID.
-u	Print only the applications that are not members of an organization.
-W	Change column width to exactly match output data with no truncation.

Example CLI Commands

- **udsinfo lsorg**: To list organizations.
- **udsinfo lsorgresource**: To find resources in organizations.

Typical Output:

The following is sample output from the command:

[05:51:42] juicy:- SourceCluster	<pre># reportorgmembers AppType</pre>	NostName	AppName	AppID	Template	Profile	Ignored Apr	pMemberOras
0	SQLServer	CLU09.paradise.local	narpxClusterDB01	648976	RemoteApp	RemoteApp	false	
branchagm_sky.sqa.a	FileSystem	branchagm_win2		893563	RemoteApp	RemoteApp	false	
jaz		spsq12008vm01	\\172.16.1.37\mad_cifs		UnprotectedApp	UnprotectedApp	false	
jaz	ConsistGrp	BB5AIX1	AIX_InBand_CG	760629	Snap-DAR	Remote_SVTCluste	false	
jaz	ConsistGrp	BB5AIX1	AIX_OOB_CG	760963	Snap-12	LocalProfile	false	
jaz	ConsistGrp	BB5AIX1	Bug28229		UnprotectedApp	UnprotectedApp		
jaz	ConsistGrp	CLU09.paradise.local	Con_Grp_master		Snap-12		false	
jaz	ConsistGrp	CLU09.paradise.local	narogl		UnprotectedApp	UnprotectedApp	false	
jaz	ConsistGrp	CLUSTERPARA05.PARADISE.LOC	Con_Grp1470311981134	620956	UnprotectedApp	UnprotectedApp	false	
jaz	ConsistGrp	hpqavm06	Con_Grphpqa06	302489	OrphanApp	OrphanApp	OrphanApp	

reportorgusage

Use this command to see the usage metrics for organizations or templates.

Statistics

The following statistics are provided for each organization or template:

Statistic	Description
AppQty	The sum of all applications and groups in this organization.
ProtectedAppQty	The sum of all protected applications or groups in this organization. If –t is used then the Protected App Qty will be the same as the App Qty. <i>This counts groups, not the applications inside the groups.</i>
MDLUsage(GB)	Is based on used data or device size depending on application type as of 3am
VDisks	The sum of all VDisks used as of 3am.
SnapPoolUsage(GB)	The sum of the Staging Disks and Snapshots as of 3am.
DataCopied(GB)	The sum of all data copied by snapshots and Dedup Async over the last 30 days (or from the days set by -d xx)
LocalPostCompress(GB)	The net new data written to the local dedup pool by this app over the last 3 days (or from the days set by -d xx)
RemotePostCompress(GB)	The net new data written to any remote dedup pool by this app over the last 30 days (or from the days set by -d xx)
OnVaultDataCopied)GB)	The sum of all data copied by OnVault over the last 30 days (or from the days set by -d xx).

Default Sort Order

Organizations or Templates are sorted by name.

Valid Parameters

Parameter	Use this Parameter to:
-C	Display the report output in CSV format.
-d <number></number>	Display historical data, specify the number of days (last 5 days, last 10 days etc.). Example: -d 5 to display last five days data.
-N	Exclude the header information.
-t	Print the usage by template rather than by organization. This does not display unprotected applications.

Parameter	Use this Parameter to:
-W	Change column width to exactly match output data with no truncation.
-Z	To force an update of the statistics for MDLUsage, VDisk and SnapPoolUsage columns.

reportorphanimages

Run the reportimages command with option -p to get the required information.

reportorphanapps

Run the reportapps command with option **-o** to get the required information.

reportperfstats

Use this command to see the I/O performance of the Actifio appliance. The output on Actifio Sky varies from what is shown on Actifio CDS.

Note: This command cannot be run on Actifio Sky appliances.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-C	Change the output to comma separated variable (CSV) (CDS only).
-i xxxx	Change the display interval from 20 sets of data to another value.
-n	Not print the header lines.
-o <object></object>	Print a certain object, either one VDisk starting with vm- or rs- or all the VDisks in one image starting with Image

Statistics

The following statistics are provided for each node:

Statistic	Description
CPU_%	CPU Utilization of the cores assigned to I/O (normally 4)
FC_MB	Fibre Channel MBps
FC_IO	Fibre Channel IOPS: The FC_IO value is always non-zero as Node 1 and Node 2 are always chatting. Note that if there is no in-band data and no mounts, you may see MDisk traffic with no VDisk Traffic. This is normal.
VD_MB	VDisks throughput in MBps
VD_IO	VDisk IOPS

Statistic	Description
VDRms	VDisk read response time in milliseconds
VDWms	VDisk write response time in milliseconds
Read%	Percentage of VDisk workload that is read workload.
MD_MB	MDisk throughput in MBps.
MD_IO	MDisk IOPS
MDRms	MDisk read response time in milliseconds
MDWms	MDisk write response time in milliseconds
Read%	Percentage of MDisk workload that is read workload.

reportpolicies

Use this command to list the templates and their associated policies. The total number of applications using each policy is also listed. By default, unused templates are not included. You can use the **-e** option to see these templates, however there are two aspects to how this command behaves:

- If there are no protected applications (such as on a brand new appliance), then all the policy templates are be shown regardless of whether **-e** is used.
- Once the first application is protected, only the policy templates in use are shown. You can use t -e option to force all templates to be printed.

If you have unused templates or profiles, Actifio recommends you to delete them.

Default Sort Order

The default sort order is by template name followed by policy within that template. First, data capture and replication job types in logical order, then replication types, then resource profiles are printed. Policies are printed in this order:

- 1. snap
- 2. directdedup
- 3. dedup
- 4. replicate
- 5. sync
- 6. async
- 7. dedup_async
- 8. streamsnap

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <appid></appid>	Display the policies for just one selected application using its application ID (appid).
-C	Display the report output in CSV format.
-е	Display every template including the ones not currently in use by an SLA.
-N	Exclude the header information.

Typical Output

In this example there are three policy templates. The following is sample output from the command:

24073662 Gold	24073666 12hr Snap	4 snap	medium	2days	no	no	no	00:00	23:55	12hours	Everyday
24073662 Gold	24073665 Daily Dedup	dedup	high	7days	n/a	n/a	n/a	20:00	23:55	24hours	Everyday
24073662 Gold	24073664 Weekly Dedup	dedup	medium	2weeks	n/a	n/a	n/a	00:00	23:55	24hours	Every week on sun
24073662 Gold	24073663 Monthly Dedup	dedup	medium	1months	n/a	n/a	n/a	00:00	23:55	24hours	Every month on the 1st sun
24073662 Gold	24073689 Dedup to Dedup 1	replicate	medium	24days	n/a	n/a	n/a	00:00	23:59	24hours	Everyday
103 Platinum	53590 Daily Snap	4 snap	medium	2days	yes		yes	00:00	23:55	24hours	Everyday

Example CLI Commands

The following command shows the templates and profiles:

```
udsinfo lsslt
```

reportpoolhistory

Use this command to see the pool space history. This reports shows the size and growth of each pool over a period of time using the output of the command **udsinfo lsdiskpoolstat**.

Historical statistics is measured at 3 a.m.

Default Sort Order

The pools are listed in alphabetical order.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a	Show protected application history.
-b	Display output of -r, -s and -t in bits rather than bytes (multiplied by 8)
-C	Display the report output in CSV format.
-d <days></days>	To limit the number of days of history. The default is 84 days.
-g	Show MDL consumption history per application. Default is 7 days of history
-n	Exclude the header information.
-p <poolname></poolname>	Display the history of a specific pool.
-r	Display bandwidth stats for dedup traffic (Dedup replication and Dedup Async)
-S	Display bandwidth stats for StreamSnap replication
-t	Display a combination of dedup and StreamSnap replication stats (-r plus -s)
-V	Show VDisk usage history instead of pool history (overrides -p).

Example CLI Commands

The following command shows the pool history:

udsinfo lsdiskpoolstat

reportpools

Use this command to list Pool Usage. This reports shows how the size and growth of each pool both over the last 24 hours and 7 days. Historical stats are measured each day at 3am. The report for OnVault pool usage includes the OnVault bucket name(s) as well as the object size used by OnVault (for example, 256KB, 1MB, etc.).

Note: The dedup capacity is normally reported at 85% of actual physical capacity since 15% is reserved space. Also note that printed with the dedup pool name is the maximum possible physical space of the dedup pool in TB.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-C	Display the report output in CSV format.
-n	Exclude the header information.
-u	Display size values in TB rather than GB. There are no other size choices.

Typical Output

The below mentioned example shows the dedup pool that currently has 1548 GB of usable space (which is 85% of total allocated disk to the pool) and that it can grow to a maximum size of 42 TB (of which 85% will be usable).

Example CLI Commands

The following command shows all the defined pools:

udsinfo lsdiskpool

The following command shows the usage and capacity of the dedup pool:

udsinfo lsdiskpoolstat -filtervalue poolname=act_ded_pool000 -delim ,

The following command shows the usage and capacity of the snapshot pool:

udsinfo lsdiskpoolstat -filtervalue poolname=act_per_pool000 -delim ,

reportprofiles

Use this command to list all the resource profiles

Valid Parameters

Parameter	Use this Parameter to:
-C	Display the report output in CSV format.
-n	Exclude the header information.
-W	Change column width to exactly match output data with no truncation.

reportrbac

This command can be used to analyze, offload and document the setup of roles and orgs on an Actifio appliance or AGM. There are a number of separate reports supplied by reportrbac, so unless a specific report is requested, the help message will be printed.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-C	Display the report output in CSV format. For some reports this may be the best way to read the output since some reports (such as -r and -u) are very wide. Use -c and then place the output into a spreadsheet (using the text to columns option).
-n	Exclude the header information.
-o <object></object>	Search on a specific object such as an Org or Role or User. This option applies to all reports. Note that searches by name are case sensitive.

Available Reports

There are a number of reports currently available:

Use To Get the Report

-d **Dependencies**: To display missing dependencies per organization, currently this examines Snapshot and OnVault Pools, SLPs and SLTs

When a protected application is added to an organization, certain dependent resources should be added at the same time. The Template and Profile being used to protect an App are two of these, as are the Performance Pool and OnVault Pool specified by the Profile. If these resources are missing, users with rights to perform actions, may not be able to do so. For instance if a user has the SLA Manage right, they can only edit a template if the template is visible in the organization. A good practice would be to run -d on a regular basis to check for missing dependent resources and then add them. Ideally -d should show no output. Currently this report only checks for missing Templates, Profiles, Performance Pools and OnVault pools.

You can use -o to display a specific organization by name or ID.

Example Output:

In this example the test organization is missing three resources, a Profile, a Template, and the Snapshot Pool. These should be added to that organization as they are clearly needed by a protected application that is already in this organization.

Example Usage Scenario:

A user who has SLA Manage rights cannot edit a Template being used in their organization. After running reportrbac -d the Administrator can see that this Template was overlooked and adds it to the organization.

Use	To Get the Report
-	LDAP Mapping: To list LDAP group mappings to roles and organizations.
	If LDAP mapping is in use, this report can be used to see which Actifio Roles and organizations are mapped to which LDAP Groups. On AGM this report will mirror the output shown on the LDAP mapping panel.
	You can use -o to display a specific LDAP Group by name or ID.
	Example Output
	In this example a number of LDAP Groups have been mapped to Roles and organizations. Each mapping can be clearly seen.
	Example usage scenario
	The security manager wants to confirm what access specific LDAP Groups will get on an Actifio Appliance. By running reportrbac -1c the Actifio Administrator can share a spreadsheet that shows all mapping from LDAP Group to Actifio Role and organization. After learning this, they may choose run reportrbac -r to explore the rights of each role and reportrbac -m to explore the members of each Org.
-m	Members: To list organization members (output is CSV by default and cannot be changed)
-111	This report shows all resources currently in each organization. Resources listed are Apps, Groups, Hosts, Orgs, Pools, Profiles, Templates and Users. To help understand why an App may be visible in an organization even though it has not been discreetly added to an organization, for each App the reason the App is in the organization will be printed (Added by App, by Host or by Group). This is because when a Host is added to an organization, all Apps on that host are automatically added. Equally if a Group is added to an organization, all Apps in the Group are automatically added. By showing the reason an App will be visible in an organization you can determine why an App can be seen inside that Org. This does mean an App may be listed more than once per Org.
	Note that only resources in Parent organizations are listed, meaning that if Org1 contains Org2 then only the resources in Org1 will be listed against Org1, even though User placed in Org1 will also be able to access the resources in Org2. This means if you were documenting the resources in Org1, you may consider adding the resources of Org2.
	You can use -o to display a specific Org by name or ID.
	Example output
	In this example there are three Orgs. Org Test has an application /boot added by App ID.
	Example usage scenarios
	1) The Actific Administrator wants to confirm which apps are visible in a particular Org. They run reportrbac - mc and place the output in a spreadsheet so they can filter by Org and Resource Type
	2) The Actific Administrator can see that a user is able to access an Application, but that Application has not been added to the Org. They run reportrbac -m -o <org> and find that this App is visible because the Host that owns that App has been added to the Org.</org>

Use	To Get the Report
-r	Roles: To list the rights that each role has (CSV output using -c is recommended). This will list all rights in each role. This report can be very wide so using -c is recommended. A right will only be listed if it is included in at least one Role. You can use -o to display a specific Role by name or ID. Example output In this example you can see how wide the report is. This is a good reason to run it using -c and place the output into a spreadsheet. Example usage scenario
	An Administrator wishes to compare the rights of two roles to see how different they are. They run reportrbac -rc and use filters in a spreadsheet to do the comparison.
-S	Summary: To list a summary view of which roles and organizations each user is in This will list a summary per User of which LDAP Groups this user is a member of, which Roles that user has been assigned and which Orgs that User can access. Note that only assigned Orgs are listed, meaning that if a User can access Org1, which is a parent of Org2, Org2 will not be listed even though the user can access it. In some environments, the number of LDAP Groups a user is a member of can be very extensive. If a user is in a newly mapped LDAP Group (or had their LDAP Group unmapped from a role or an org), but has not logged in since the mapping was changed, the user Roles and Orgs may effectively be out of date. However the used needs to login at least once to update this. Note that on AGM, this report currently does not list LDAP Groups. Also note that if LDAP integration is not in use, no column will be shown for LDAP Groups. You can use -o to display a specific User by name or ID. Example output In this example no LDAP integration exists, so no LDAP Groups are shown. For each user the Role And Org are shown. This output is similar to what was seen in -l, but here it is from the perspective of an individual user rather than an LDAP Group. Example usage scenario An Administrator wishes to confirm which Role and Org a specific user is in. They learn the user name, for example 'av' and then run: reportrbac -s -o av

Use To Get the Report

-u

User Rights: To list the rights that each user has based on their combined roles (CSV output using **-c** is recommended)

This lists all rights that a user has. Because a user can have multiple roles, the total rights of that user is determined by the combination of all the assigned roles. This report shows the combined rights per user. This report is very wide, using **-c** is recommended.

You can use **-o** to display a specific User by name or ID.

Example Output:

In this example describes how wide the report is. For the same reason, Actifio recommends you to use **-c** and place the output into a spreadsheet. You can see the output is very similar to what is shown by -r, but it is from the perspective of a user and shows combined rights based on the number of assigned roles.

Example usage scenario

Because a user called api has two roles, the Administrator wants to understand what the combination of those roles will enable a user to do. They run **reportrbac** -u -o api and can now learn the combined rights.

reportremotededups

Use this command to list the remote dedup jobs. If no parameter is specified, it displays the last two days data. This report lists jobs that created remote dedup images, not the remote dedup images themselves. The images that are created by these jobs may already have expired. To find all images, use reportimages or reportimagecount.

Statistics

The following statistics are provided:

Statistic	Description
VirtSizeGB	Size of the application's disks. For VMs this is the full size of the VMDKs.
AppSizeGB	Size of the data being used by the application.
NewLocal(MB)	New data produced by the dedup image that this job is sending.
DataSent(MB)	New data written to the remote dedup pool for this job.
TotalSent(MB)	The total amount of data sent to the remote site for this job. This includes metadata as well as deduplicated and compressed data.
Saving%	The reduction between TotalSent as a percentage of NewLocal.

Default Sort Order

The default sort order is by event time (old to new). You can also sort by hostname/appname using -s option.

Valid Parameters

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format. The image expiry date is included.
-d <number></number>	Display a different no. of days backwards from now. Job history is retained for 12 weeks.
-l <number></number>	Change the length of the app name from the default of 20 characters.
-n	Exclude the header information.
-0	Show only on-demand jobs.
-p <number></number>	Search for remote-dedups created by a specific policy ID.
-S	Sort the data by hostname/appname rather by date and then hostname/appname.
-W	Change column width to exactly match output data with no truncation.

Example CLI Commands

The following command shows all successful jobs in the remote dedup class:

udsinfo lsjobhistory -filtervalue jobclass=remote-dedup\&status=succeeded

reportremoteimages

Run the reportimages command with option -r to get the required information.

reportrestores

Use this command to see the restore and remote-restore jobs. If no parameter is specified, last two days jobs are displayed by default.

Default Sort Order

The default sort order is by event time (old to new). You can also sort the data by hostname/application name using -s option.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format.
-d	Display historical data, specify the number of days (last 5 days, last 10 days etc.). Example: -d 5 to display last five days data.
-l <number></number>	Change the length of the application name from the default value of 20 characters.
-n	Exclude the header information.
-S	Sort the data by hostname/application name rather by date and then hostname/ application name.
-W	Change column width to exactly match the output data with no truncation.

Example CLI Commands

The following command shows the restore jobs:

udsinfo lsjobhistory -filtervalue jobclass=restore

This command shows the restore jobs that used an image in a remote clusters dedup pool:

udsinfo lsjobhistory -filtervalue jobclass=remote-restore

reportrpo

Use this command to list the most recent consistent image in each job class for each protected application or consistency group. The time and date shown for each job class is the date when the image is created.

Note: If a remote dedup job is created from a local dedup, which is created from a snapshot, then all three jobs shows the same consistency date. There may be many other images in each Job class, this command only shows the most recent.

The LogSmart column shows the most recent available log date. There may be circumstances when the most recent snapshot has a older date than the most recent database log data. This is because as a new snap may be created which has not accumulated any logs yet. To confirm, use the command **reportimages** -axxxx where xxxx is the application ID.

Default Sort Order

The default sort order is by application type, followed by hostname, and application name. To sort by template, use the **-t** option. Consistency groups are always shown by default. Individual apps inside a CG are not listed.

Statistics

The following statistics are provided for each application:

Statistic	Description
AppSizeGB	Size of the data being used by the application.

Valid Parameters

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format.
-d <days></days>	Used with -x (onvault) or -1 (snapshot) to show applications where the most recent image is more than x days old.
-e	Display the most distant (highest) expiration date, instead of consistency dates. Log dates will not be shown. Use -o to display the lowest date. In other words, -e shows when the last expiration job will be run if no more images with a later expiration date are created.
-i	Used with or instead of -m , will ignore mismatched apps where a job is currently running that may remove this mismatch.
-f	Show apps which have the scheduler disabled. These are normally ignored.

Parameter	Use this Parameter to:
-g <number></number>	Forces the -m option to show the policy ID that matches with the depth requested. The default is 1 which is the policy with the shortest retention.
	If -g 2 is used then the policy ID will be the second shortest retention.
	If there are three dedup policies and -g 3 is used then the dedup policy with the longest retention will be shown.
-k <slt></slt>	Only show protected applications using a specified SLT ID/Name. Use the command report policies to get SLT IDs. Names with spaces need to be encased in quotes. Case is ignored, plus if you have two SLTs with names Gold and gold, only one will be shown.
-l <number></number>	Change the length of the application name from its default value of 20 characters.
-m	Only print apps that have mismatched RPO dates between snapshot and other pools.
	If you use -c option you will get both dedup and replicate jobs (where applicable) in separate columns. You can use -x to only examine OnVault. If you use -x you don't need to specify -m . You can use -y to ignore remote-dedup. If you use -y you don't need to specify -m .
	Apps with scheduler disabled will not be examined. You can also use -x and -y and -z as alternate ways to run this.
	This test assumes each jobclass has the same interval, normally daily. So you may get a false policy if for instance snapshot is daily but dedup is weekly.
-n	Exclude the header information.
-0	Show the oldest image in each class rather than the most recent. This also shows the oldest log backup for SQL and Oracle apps. One thing to be aware of is the oldest log may not be applicable to the oldest snapshot. It may apply instead to a dedup image. Also if -e is used to display expiration dates, -o will display the lowest date, which may be in the past if expiration was missed. If no expiration has been missed, then -e combined with -o will effectively show when the next expiration job will run.
-r	Show the RPO of apps that were sent to this Appliance by a remote Appliance.
-S	Sort the data by hostname/appname rather than by date and then hostname/appname.
-t	Sort the data by template/profile first (then host/app name).
-x	When used with or instead of -m , only compares snapshot RPO to OnVault RPO.
-W	Change column width to exactly match output data with no truncation.
-у	When used with or instead of -m , ignores remote-dedup RPO.
-Z	Used with -m , will offer a backup command with sourceimage name of the most recent snapshot or dedup image. Using this may result in intermediate images being ignored, so use this only if you are prepared to skip these images if they exist.

Parameter	Use this Parameter to:
-1	When used with -d shows applications where the most recent Snapshot image is more than x days old.

Example CLI Commands

The following command shows all snapshot images for the application ID 106713. Each field is delimited by a comma. The reportcons command reports the field headed consistencydate.

udsinfo lsbackup -delim , -filtervalue jobclass=snapshot\&appid=106713

Typical Output

The default sort order is by application type. In this example, some applications have a more recent consistent image locally than remotely. The following is sample output from the command:

					1						
	HostName	Acoliane	AppID Template	Profile	VirtSize 890 LogSurt	Snapshot	DirectDedup	Dedup	RenoteDedup	DedupAsync	LiveClone
Exchange	ho-exchange	In-Band	105713 Gold	LocalProfile	100	2015-11-21 10:45		2015-11-21 19:45			
Exchange	ho-exchange	NailbraCatabaseR11	10012 Platinum	RepoteProfil 1	557	2015-11-21 10:14		2015-11-21 10:14	2015-11-21 10:14	2015-11-21 15:41	
FileSystem	db2-linux-prod	1	1867859 Geld	LocalProfile	60	2015-11-21 18:15		2015-11-21 18:15			
FileSystem	db2-linux-prod	/hone	1867861 Gold	LocalProfile	54	2015-11-21 20:46		2015-11-21 08:45			
FileSystem	db2-windows-prod	D()	21385665 Gold	LocalProfile	23	2015-11-22 01:28		2015-11-21 13:28			
FileSystem	demo-oracle-1	/boot	21881855 Platinum	RenoteProfil	0	2015-11-21 15:10		2015-11-21 15:16	2015-11-21 15:16	2015-11-21 15:40	
FileSystem	demo-sol-6	Cil	20944472 Silver	LocalProfile	71	2015-11-21 20:00		2015-11-21 20:08			
EileSystem	ho-sol	C:\	20941151 Gold	LocalProfile	557	2015-11-21 19:00		2015-11-21 19:09			
steSystem	ho-sol	D:\	20941150 Cloud	AwSProfile	2457	2015-11-10 09:10					
FileSystem	Oracle-Prod	1	20075829 Gold	LocalProfile	68	2015-11-22 00:53		2015-11-21 12:53			
MicrosoftHyper-V	hyper-y-linux	Hyper-V-Linux	21520508 Platinum	RemoteProfil	32	2015-11-21 16:57		2015-11-21 16:57	2015-11-21 16:57	2015-11-21 16:12	
HicrosoftHyper-V	hyper-y-sql	Hyper-V-SOL	21006940 Gold	LocalProfile	88	2015-11-21 16:41		2015-11-21 16:41			
Oracle	Oracle-Mask-Prd	dndb	17433999 Gold	LocalProfile	20	2015-11-21 22:05		2015-11-21 22:05			2015-11-16 10:05
Oracle	Oracle-Prod	bigdb	20037997 Gold	LocalProfile	1729	2015-11-21 22:21		2015-11-21 10:21			
Oracle	Oracle-Prod	localdb	21333232 Cloud	AWSProfile	2	2015-11-21 10:49				2015-11-22 00:50	2015-11-10 00:47
Gracle	Oracle-Prod	smalldb	20975834 Gold-LogSmart	LocalProfile	2 120 2015-11-22 02:00:23	2015-11-22 00:03		2015-11-21 12:03			
Gracle	oracle-rac-1	racbigdb	21681349 Gold-LogSmart	LocalProfile	2000 120 2015-11-22 02:01:13	2015-11-22 00:00		2015-11-22 00:05			,
U											(

reportrunningjobs

Use this report to list of jobs that are currently running as well as their sub jobs.

Note: Unlike the Actific Desktop, sub jobs are shown. The Application ID of a sub job is always zero. Each sub job normally works on one volume, so the Virtsize is the size of that volume.

Default Sort Order

The default sort order is by job class and then by job number.

Valid Parameters

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name.
-С	Display the report output in CSV format.
-е	Show every job type. Otherwise cleanup jobs are not displayed.
-f	Follow all jobs currently running as well as their sub jobs unless the report also includes the -p option which allows only the parent jobs to get printed.
-j <jobclass></jobclass>	Display failed jobs for a particular job-class.
-k <number></number>	Issue cancel against snapshots with progress% lower than the number specified when run with -x option
-l <number></number>	Change the length of the app name from the default of 30 characters.
-m	Enter monitor mode. The screen will refresh every 5 seconds for one hour.
-n	Exclude the header information.
-0	Show only on-demand jobs.
-q	Show queued jobs and not the running jobs.
-S	Sort by Hostname/AppName.
-р	Only show parent jobs, this makes the output shorter but less detailed.
-t	Sort the data by job class and then hostname/appname.
-W	Change column width to exactly match output data with no truncation.
-x <hours></hours>	Show jobs that have been running or queued for longer than the number of hours specified. For example, "-q -x 10" will show jobs that are queued for 10 hours or more.

Example CLI Commands

The following command also shows the running jobs: udsinfo lsjob.

You can see the details of a particular running job by using the same command against that job in this format:

udsinfo lsjob Job_0123456

reportsarg

Use this command to run the SARG reports. Every SARG report listed in report list will be run and you can mark each report as passed or failed. You can also run reports with extra options or extra days. The following reports are not run unless the -e option is used:

- reportfctree
- reportnet
- reportperfstats
- reportvms

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-е	Run every report.

reportslaoptions

Use this Actifio report to show all options that are set for each SLA. It allows you to get the SLA ID for each application. Note that applications inside a consistency group do not have an SLA; in this case, only the consistency groups are shown.

Note that dedup async (DAR) can be disabled with two settings: disabledar and dedupasyncoff. If either are set to true then the DAROff column will show true. If enabling DAR via CLI make sure to check both settings.

Default sort order is by app type, then host name then app name. If you wish to sort by template use the -t option.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name
-C	Display the report output in CSV format.
-l <number></number>	Change the length of the app name from the default of 20 characters.
-n	Exclude the header information.
-t	Sort the data by template/profile first (then app type/host/app name).
-W	Change column width to exactly match output data with no truncation.

Example CLI Commands

The following command also shows the SLA options:

udsinfo lssla

reportslaviolations

Use this command to see the most recent SLA violations. By default, SLA violations that occur because the scheduler has been turned off are NOT shown. Use the option **-s** to include them.

The default sort order is by hostname/appname and then by date.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:				
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.				
-C	Display the report output in CSV format.				
-d <number></number>	Display the SLA violations that occurred in a recent number days. Specify the number of days (last 5 days, last 10 days etc.). Example: -d 5 to display the SLA Violations that occurred in last five days.				
-e	To include schedule off SLA violations, which by default are not shown.				
-j <job class=""></job>	 To only display SLA violations for a particular job class. The valid job classes are: dedup dedupasync directdedup remotededup secondhop snapshot 				
-n	Exclude the header information.				
-p	 Show the policy ID instead of the policy name (only if a policy ID is available). This option has two features that are worth noting. If the app is no longer protected then the policy name will be printed, not the policy ID. If the CSV output is selected and the -p option is selected, then the udstask backup command syntax will be printed. This will help you rerun that job. 				
-S	Sort the data by hostname/application name instead by date.				
-t	Show only the total quantity of applications that had an SLA Violation per job-class.				
-W	Change column width to exactly match output data with no truncation.				

Statistics

The following statistics are provided for each application:

Statistic	Description
Expected	Number of jobs that are expected to run.
Tolerance	Number of failed jobs that are tolerated (normally zero).
Succeeded	Number of successful jobs.
Failed	Number of failed jobs.

Example CLI Commands

The following command shows the SLA violations:

udsinfo lssnmpevent

reportsnappool

Use this command to display snapshot pool usage. This command runs in real time so there is a pause while processing occurs.

Statistics

The following statistics are provided for each job (either at 3am, or the last time when updated):

Statistic	Description				
Vols	Is the number of volumes in the most recent image, not including log disks				
AppSize (GB)	The size of the data being used by the application.				
VDisks	Is the number of VDisks being used by this application				
Stage(GB)	Is the used bytes size of the staging disks (named vm-) that are not log data disks.				
Snap(GB)	Is the used bytes size of the snapshot disks (named fc-) that are not protecting log data disks.				
Logs(GB)	Is the used bytes size of all disks (both vm- and fc-) being used to hold log data.				
Mount(GB)	Is the used bytes size of the mounted images (named rs-). These are a form of snapshot.				
Mirror(GB)	For local applications is the used bytes size of the DAR and Streamsnap snapshots (named fc-)				
Mirror(GB)	For remote applications is the used bytes size of the DAR and Streamsnap staging disks (named vm-) and snapshots of those disks (named fc-)				
LiveClone(GB)	Is the used bytes size of the LiveClone images (named vm-). These are a form of staging disk				
Rehydrate(GB)	Is the used bytes size of disks being used to rehydrate from dedup (named ct-)				
Clone(GB)	Is the used bytes size of disks created by clone jobs (named rs-). These are a form of staging disk.				
Total(GB)	Is the sum of all used bytes. Image mode disks will be included in this even though they are not summed elsewhere				

- ActifioInternal are VDisks that are used internally by Actifio. They should not be changed or deleted. Use -u to list them.
- AllocatedEmpty is space that is allocated to the pool but which is not yet being used by any VDisk. This empty space will be used first (this is CDS only).
- LeakedVDisks are VDisks that are not attached to an image, but should be. If they still exist after 24 hours, report them to Actifio CSE to investigate. Use -u to list them.
- ManuallyDefined are VDisks have been created manually and are often image mode disks. Use -u to list them.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:					
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.					
-C	Display the report output in CSV format.					
-е	Measure usage for every pool. This means every VDisk in every pool is examined.					
-f	Show fixed output. Do not scan for real time usage but instead show usage as at 3am. Can be used with -z.					
-l <number></number>	Change the width of the application name from the default 20 characters.					
-n	Exclude the header information.					
-p <pool name=""></pool>	To select a different pool to the default snapshot pool (which is the pool named act_per_pool000)					
-S	Sort the data by HostName/AppName					
-t	Sort the data by Template/HostName/AppName					
-U	Print VDisks that are either Actifio internal, leaked or manually defined so they can be investigated					
-V	Print number of VDisks in each category of usage.					
-X	Print extra stats. this will print totals for certain columns					
-у	Diagnostic mode, use only under direction from support. Will print VDisk names for a specific App ID (must be an ID not a name)					
-Z	Force an update of the statistics when used with -f.					

Example CLI commands

The following command also shows the snapshot pool usage:

udsinfo lssnappoolstat

reportsnaps

Use this command to list the snapshot jobs. If you specify no parameters, it displays all the successful snapshot jobs for the last two days. This command lists the jobs that created snapshot images, not the snapshot images themselves. The images created by these jobs may already have expired. To find all images, use reportimages or reportimagecount.

The capture type reflects whether this snapshot job was able to use a previous snapshot as a base.

A full backup indicates that there are no previous snapshot (indicted by the presence of only one source_ID in the job history).

An incremental backup indicates that the option is available to compare the delta between two snapshot (indicated by the presence of two source_IDs in the job history rather than just one). There may be situations where a full backup occurs however, such as when VMware loses CBT information, forcing a full ingest even though a previous image exists.

Statistics

The following statistics are provided for each snapshot job:

Statistic	Description
VirtSizeGB	Size of the application's disks. For VMs this is the full size of the VMDKs
AppSizeGB	Size of the data being used by the application.
DataCopiedMB	New application data found by the snapshot job.
ChangeRate%	The percentage that data copied is of application size.

Default Sort Order

The default sort order is by event time (old to new). You can also sort by hostname/appname using -s option.

Valid Parameters

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-b	Not show log only snapshots. DB and Log+DB are shown.
-C	Display the report output in CSV format.
-d <number></number>	Display historical data, specify the number of days (last 5 days, last 10 days etc.). Example: -d 5 to display last five days data.
-f	Only show full copy snapshots.
-l <number></number>	Change the length of the application name from the default 20 characters.

Parameter	Use this Parameter to:
-N	Exclude the header information.
-0	Display only on-demand jobs.
-p <number></number>	Search for snapshots created by a specific policy ID.
-r <number></number>	To only show snapshots with a change rate that is higher than the value entered.
-t <type></type>	Search for snapshots that used a specific transport (nfs, nbd, sideband or sb).
-S	Sort by hostname/appname rather than by date and then hostname/appname
-W	Change column width to exactly match output data with no truncation

Note: Image expiry date is also printed when CSV output is selected.

Example CLI Commands

To display snapshot jobs use the following CLI command:

udsinfo lsjobhistory -filtervalue jobclass=snapshot

reportstats

Use this command to list interesting job stats. If you specify no parameters you will get all snapshot, direct to dedup, dedup, and remote-dedup jobs performed in the last two days.

Statistics

The following statistics are provided for each node:

Statistic	Description
VirtSizeGB	Size of the Applications Disks. For VMs this is the full size of the VMDKs.
AppSizeGB	Size of the data being used by the application.
DataCopiedMB	New application data that was found by the snapshot job.
BytesReadMB	New data scanned by the dedup engine.
PostCompressMB	New data written to the dedup pool for this job.
DataSentMB	Total amount of data sent to the remote site for this job.

Default Sort Order

The default sort order is by event time (old to new). You can also sort by hostname/appname using -s option.

Valid Parameters

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format.
-d <number></number>	Display historical data, specify the number of days (last 5 days, last 10 days etc.). Example: -d 5 to display last five days data.
-l <number></number>	Change the length of the application name from the default of 20 characters.
-n	Exclude the header information.
-0	Show only on-demand jobs.
-S	Sort the data by hostname/appname rather than by date and then hostname/appname
-W	Use this command to change column width to match output data with no truncation.

Typical Output

This example shows the job statistics for the application ID 1802612 for last two days. See the work-flow of snapshot job to dedup job to remote dedup job. The following is sample output from the command:

Actifio:s	a-hq:admin:	reportstats	-a1882612 -d	2									
StartDate	StartTime	JobName	JobClass	PolicyName	HostName	AppName	AppID	Duration	VirtualSizeGB	AppSizeGB	DataCopiedMB	BytesReadMB	PostCompressMB
2014-08-2	7 08:18:37	Job_1915614	snapshot	24hSnap	vg-db2-win-a	VQ-DB2-WIN-A	1882612	00:01:12	120.0	100.3	57.344		
2014-08-2	7 08:19:51	Job_1915643	dedup	24hDedup	vg-db2-win-a	VQ-DB2-WIN-A	1882612	00:00:08	120.0	100.3		52.312	3.058
2014-08-2	7 08:20:01	Job_1915652	remote-dedup	24hReplicate	vq-db2-win-a	VQ-DB2-WIN-A	1882612	00:00:34	120.0	100.3			
2014-08-2	7 22:31:26	Job_1920446	snapshot	24hSnap	vq-db2-win-a	VQ-DB2-WIN-A	1882612	00:01:05	120.0	100.3	15.360		
2014-08-2	7 22:32:59	Job_1920500	snapshot	24hSnap	vq-db2-win-a	VQ-DB2-WIN-A	1882612	00:00:59	120.0	100.3	3.072		
2014-08-2	8 08:19:56	Job_1924962	dedup	24hDedup	vg-db2-win-a	VQ-DB2-WIN-A	1882612	00:00:07	120.0	100.3		25.562	1.623
2014-08-2	8 08:20:07	Job_1924966	remote-dedup	24hReplicate	vg-db2-win-a	VQ-DB2-WIN-A	1882612	00:00:33	120.0	100.3			
2014-08-2	8 22:33:00	Job_1930421	snapshot	24hSnap	vq-db2-win-a	VQ-DB2-WIN-A	1882612	00:01:00	120.0	100.3	18.432		

Example CLI Commands

Use the **udsinfo lsjobhistory** command against individual jobs to see the job statistics.

reportstreamsnaps

Use this to list StreamSnap jobs. If you specify no parameters, you will see all successful StreamSnap jobs performed in the last two days. This report lists jobs that created StreamSnap images, not the StreamSnap images themselves. The images created by these jobs may already expired. Use reportimages or reportimagecount to see those jobs

Statistics

The following statistics are provided for each job:

Statistic	Description
Virtual Size	Size of the application's disks. For VMs this is the full size of the VMDKs.
AppSize	Size of the data being used by the application.
DataCopiedMB	New data that was found by the snapshot for this job
BytesSentMB	Total amount of data sent to the remote site for this job
BytesWrittenMB	Amount of data written into the relevant pool at the remote site
WANReduction%	The savings% of Bytes Sent to Bytes Written (100 - BytesSentMB/BytesWrittenMB)

Default Sort Order

The default sort order is by job start date. You can also sort by hostname/appname using **-s** option.

Valid Parameters

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-b	To not show LogReplicate jobs. DB and Log+DB StreamSnaps will be shown
-C	Display the report output in CSV format. Image expiry date is also included.
-d <number></number>	Display historical data, specify the number of days (last 5 days, last 10 days etc.).
-l <number></number>	Change the length of the application name from the default value of 20 characters.
-n	Exclude the header information.
-0	Show only on-demand jobs.
-S	Sort the data by hostname/appname rather than by date and then hostname/appname.
-W	Change column width to exactly match output data with no truncation.

Parameter	Use this Parameter to:
-X	To print additional statistics on wait time when CSV output is selected.

Example CLI Commands

Use the following CLI command to see the snapshot jobs:

udsinfo lsjobhistory -filtervalue jobclass=streamsnap
reportsweeps

Use this command to list successful, canceled, or running garbage collection and sweep jobs. While the report name only refers to sweeps, in fact all garbage collection related jobs will be listed including any that are currently running.

Sweep jobs identify blocks in the dedup pool that are not owned by any image.

Incremental sweeps remove short lived blocks created by things like Dedup-Async jobs.

For a sweep to remove unowned blocks, garbage collection must have detected that block as unowned on two Garbage Collection jobs. Sweep jobs will only remove data from 64KB blocks where the percentage of unowned data in that block exceeds the sweep threshold. The lower the threshold the longer the sweep job will run and the more un-owned data it will remove.

Supplemental Information

The following additional information is provided for each job in non-delimiter mode or when -s option is used:

- **GCThreshold**: Determines the dedup pool requirements to be perform a full Garbage Collection (GC).
- **GC Scheduled**: Determine how often the GC is scheduled.
- GC Schedule Date: Determines the next scheduled date of GC if the GC is enabled.
- GC Enabled: Determines whether GC is enabled or disabled.
- **Sweep Enabled**: Determines whether the sweep option is enabled or disabled.
- Sweep Threshold: Determines how intensive the sweep is.

Supplemental information printed at the start of this report cannot display in CSV format or if the no header option is selected. You can use **-s** option to display the supplemental information including with the **-c** option in which case it will not display in horizontal view.

Statistics

The following statistics are provided for each job (unless -s option is used):

Statistic	Description
SpaceReclaimed (GB)	Blocks removed from the dedup pool by a sweep job type.
SpaceSwept (GB)	The sweep threshold determines how much actual space is swept.

Default Sort Order

The default sort order is by event time (old to new).

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-C	Display the report output in CSV format.
-n	Exclude the header information.
-S	Print only the supplemental information.

Typical Output

The initial settings are shown in this example:

Actifio:amazon:admin> reportsweeps

GC Parameters	Setting
GC Threshold	65%
GC Scheduled	Every 4 weeks
GC Schedule Date	Sat May 02 01:00:00 EDT 2015
GC Enabled	Yes
IGC Scheduled	Yes
Sweep Enabled	Yes
Sweep Threshold	50%
-	

Actifio:sa-hq:admine <u>GC</u> Parameters GC Enabled GC Scheduled GC Threshold GC Schedule Date Sweep Enabled Sweep Threshold	reportsweeps Setting Yes Every 1 weeks 60% (Dedup currently Wed Nov 02 07:20:00 E Yes 50%	74%) DT 2016						
StartDate	EndDate	JobName	JobClass	Status	Progress	Duration	SpaceReclaimed(GB)	SpaceSwept(GB)
2016-05-15 13:00:00	2016-05-15 13:01:09	sweep_24869516	gc	succeeded	n/a	00:01:09	n/a	n/a
2016-05-16 13:00:00	2016-05-16 13:01:10	sweep_24873391	gc	succeeded	n/a	00:01:10	n/a	n/a
2016-05-17 13:00:00	2016-05-17 13:01:10	sweep_24878838	gc	succeeded	n/a	00:01:10	n/a	n/a
2016-05-18 07:20:00	2016-05-18 10:51:41	gc_24882168	gc	succeeded	n/a	03:31:41	n/a	n/a
2016-05-18 13:00:00	2016-05-18 13:40:11	sweep_24884844	gc	succeeded	n/a	00:40:11	60.7	84.0
2016-05-19 13:00:00	2016-05-19 13:01:12	sweep_24893347	gc	succeeded	n/a	00:01:12	n/a	n/a
2016-05-20 13:00:00	2016-05-20 13:01:12	sweep_24900078	gc	succeeded	n/a	00:01:12	n/a	n/a
2016-05-21 13:00:00	2016-05-21 13:01:13	sweep_24902382	gc	succeeded	n/a	00:01:13	n/a	n/a
2016-05-22 13:00:00	2016-05-22 13:01:13	sweep_24904738	gc	succeeded	n/a	00:01:13	n/a	n/a
2016-05-23 13:00:00	2016-05-23 13:01:13	sweep_24908496	gc	succeeded	n/a	00:01:13	n/a	n/a
2016-05-24 13:00:00	2016-05-24 13:01:15	sweep_24924668	gc	succeeded	n/a	00:01:15	n/a	n/a
2016-05-25 07:20:00	2016-05-25 10:43:16	gc_24950710	gc	succeeded	n/a	03:23:16	n/a	n/a
2016-05-25 13:00:00	2016-05-25 13:28:16	sweep_24958205	gc	succeeded	n/a	00:28:16	56.0	68.0

Example CLI commands

Use the following command to see garbage collection jobs:

udsinfo lsjobhistory -filtervalue jobclass=gc

Use the following command to see the currently running garbage collection jobs:

udsinfo lsjob -filtervalue jobclass=gc

reportunprotected

Use this command to see all unprotected applications. By default, applications marked as ignored are not displayed. If an application lists volumes or size, this is from the last image for that particular application. If it lists images then it means that the unprotected application is still consuming space, which you can reclaim by expiring such images.

Use this command with host ID they will get all unprotected applications on that host.

Valid Parameters

The following are the valid parameters:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display a specific application by ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format.
-i	Hide the ignored applications.
-l <number></number>	Change the length of the application name from the default value of 25 characters.
-n	Exclude the header information.
-S	Sort the data by hostname/appname rather than by date and then hostname/ appname.
-W	Change column width to exactly match output data with no truncation.

Example CLI Commands

When a template and a resource profile are applied to an application, it creates an SLA. You can use the below mentioned command to display applications with:

udsinfo lsapplication

You can display SLAs (which are effectively a combination of a template and profile with an application) with:

udsinfo lssla

If you know the application ID, you can confirm whether the SLA exists for an application by searching as shown below:

udsinfo lssla -filtervalue appid=1098211, where the application ID is 1098211

If the application is not protected, you cannot see any output.

Use host ID "4353" to view list of all unprotected applications on that host.

		1075			
Actifio:friday13:	admin> reportunprotected -a	4353			
Арртуре	HostName	AppName	Appid	Ignored	InstanceStatus
FileSystem	sun116-103.sqa.actifio.com	/	13020241	NotIgnored	n/a
FileSystem	sun116-103.sqa.actifio.com	/export	13020238	NotIgnored	n/a
FileSystem	sun116-103.sqa.actifio.com	/export/home	13020237	NotIgnored	n/a
FileSystem	sun116-103.sqa.actifio.com	/export/home/brad	13020236	NotIgnored	n/a
FileSystem	sun116-103.sqa.actifio.com	/export/home/grid	13020235	NotIgnored	n/a
FileSystem	sun116-103.sqa.actifio.com	/export/home/oracle	13020234	NotIgnored	n/a
FileSystem	sun116-103.sqa.actifio.com	/rpool	13020233	NotIgnored	n/a
FileSystem	sun116-103.sqa.actifio.com	/system/zones	13020232	NotIgnored	n/a
FileSystem	sun116-103.sqa.actifio.com	/var	13020240	NotIgnored	n/a
FileSystem	sun116-103.sqa.actifio.com	/var/share	13020239	NotIgnored	n/a
FileSystem	sun116-103.sqa.actifio.com	/var/share/pkg	13020231	NotIgnored	n/a
FileSystem	sun116-103.sqa.actifio.com	/war/share/pkg/repositories	13020230	NotIgnored	n/a
Oracle	sun116-103.sqa.actifio.com	onedb	13020242	NotIgnored	n/a

reportvaults

Use this command to list OnVault jobs. If you specify no parameters you will get all OnVault jobs performed in the last two days. Note that this Appliance is currently set to retain 12 weeks of job history. The column in the report listing The column reporting whether a job is incremental or full will always show 'FULL' if the change rate was 100%.

Statistics

The following statistics are provided for each job:

Statistic	Description
Virtual Size	Size of the application disks. For VMs, this is the full size of the VMDKs.
AppSize	Size of the data used by the application.
DataCopied(GB)	Shows the data that was copied to create this image to OnVault

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display information about a specific application using the application ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format.
-d <number></number>	Display a different number of days backwards from now. Job history is retained for 12 weeks.
-е	Show all jobs including canceled and failed jobs.
-j <job class=""></job>	Display either OnVault or DirectOnVault.
-l <number></number>	Change the length of the application name from its default value of 20 characters.
-N	Exclude the header information.
-0	Show only on-demand jobs.
-p <number></number>	To search for jobs created by a specific policy ID.
-S	Sort the data by hostname/appname rather than by date and then hostname/appname.
-W	Change column width to exactly match output data with no truncation.

Example CLI command

Use the command **reportvaults** to see the output:

[05:31:02] wta29u29:~ # reportvaults											
StartDate	StartTime	JobName	JobClass	PolicyName	HostName	AppName	AppID	Duration	VirtSize(GB)	AppSize(GB)	DataCopied(GE
2018-03-20	00:06:09	Job_5719141	OnVault	SS-Valut	SQL2012CLU01SP.SQA	GHKCon_Grp23	5207006	00:16:31	120.0	0.1	0.
2018-03-20	00:06:09	Job_5719140	OnVault	SS-Valut	ASHOk-RHEL-Unix	GHK-CG1GRP	5442725	00:19:20	11.6	0.6	0.
2018-03-21	1 00:00:33	Job_5731139	OnVault	SS-Valut	SQL2012CLU01SP.SQA	GHKCon_Grp23	5207006	00:17:20	120.0	0.1	0.

reportvdisks

Run the reportsnappool command with option -v to get the required information.

reportvms

Use this command to list VM discovery statistics. It displays the VMs that have not been discovered by an Actifio appliance. The output is displayed in eight sections as shown below:

Statistics

The following statistics are provided for each node:

Section	Output
Section 1	Displays cluster names from defined vCenters. If a vCenter is defined but cannot be contacted then an error message is shown. The Type column clearly lists the Clusters and standalone ESX hosts.
Section 2	Displays VMs that are detected by the Actifio appliance by connecting to the vCenters (list them by vCenter Cluster Name UUID). Typically, this list should match every VM in the environment.
Section 3	Displays VMs that are already defined to Actifio (listed by AppID SLTName Name UUID). This is the same list you can get with the command reportapps .
Section 4	Displays VMs that are known to VMware but not known to Actifio. These can be discovered (list them by vCenter Cluster VMName UUID). This list provides the VMs that administrators chosen not to discover in Actifio or new VMs that are yet be discovered. This section is empty if auto discovery option is enabled.
Section 5	Displays extra VMs that are known to Actifio but not to any of the vCenters that responded (list them by UUID). This list is populated by VMs that are deleted in vCenter but not from Actifio appliance.
Section 6	Displays detected VMs with duplicate names (list them by vCenter Cluster VMName UUID). This is not an issue for Actifio but may cause operational confusion.
Section 7	Displays detected VMs with duplicate UUIDs (list them by vCenter Cluster VMName UUID). This is not an issue for Actifio but may cause operational confusion.
Section 8	Displays the numerical totals of each section.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-C	See the report output in CSV format.

Parameter	Use this Parameter to:
-V	Show VMs with include or exclude VMDK settings. Output can be modified using -u option to print on line per VMDK as opposed to one line per VM.
-i	Search for Independent disks. Output can be modified using -u option to print on line per VMDK as opposed to one line per VM. Use -a to display a specific VM.

reportworkflows

Use this command to report to list all workflows.

Valid Parameters

The following options are available:

Parameter	Use this Parameter to:
-a <id name=""></id>	Display information about a specific application using the application ID or Name. Names with spaces or special characters will need to be encased in single quotes.
-C	Display the report output in CSV format.
-d <number></number>	When used with -s limits the number of days checked for work-flow status, which will ignore work-flows run earlier than the days requested.
-n	Exclude the header information.
-р	Sort by prepmount host instead of sorting by Apptype,Hostname,AppName,WorkflowName
-S	Instead print the most recent run status of each workflow
-t	Sort by target host instead of sorting by Apptype,Hostname,AppName,WorkflowName. This will print one line for each target host if a work-flow has multiple target hosts.
-W	Sort by workflow name instead of sorting by Apptype,Hostname,AppName,WorkflowName

Example CLI command

Use the command **reportworkflows** to see the output:

Actifio:friday13:admin> reportworkflows													
WorkflowName	ID	SourceAppty	pe SourceHostNa	me	SourceAppName	SourceAppID	EnableStatus	ScheduleType	ScheduleTime	Туре	PrepmountHost		
	TargetHosts		TargetApp	Label									
test656756756	7 17985109	ConsistGrp	sun116-101.s	qa.actifio.com	SunRACGroup	17305333	Enabled	Scheduled	00:01 AM	DirectMount	<no mount="" prep=""></no>		
	172.16.29.237		<not app="" aware=""></not>	-									
DMkarra	17122108	ConsistGrp	WIN-M4E1A51P	'VM7	win-karra	17118070	Enabled	OnDemand	n/a	DirectMount	<no mount="" prep=""></no>		
	WIN-M4E1A51PVM7		winxgrp	-									
hgf	16766993	LVM Volume	db2target		rcdb	16346138	Enabled	OnDemand	n/a	LiveClone	<no mount="" prep=""></no>		
	<no found="" hosts=""></no>		<not app="" aware=""></not>	live									
da	7539989	Oracle	172.16.29.23	7	ORA122DB	7538412	Enabled	Scheduled	13:16	DirectMount	<no mount="" prep=""></no>		
	172.16.29.237		youssef	-									
bug	4011800	Oracle	devrac2-n1		dev12cdb	4010973	Enabled	Scheduled	18:17	LiveClone	devrac2-n1		
	devrac2-n1		testdb	dwdw									
SODB	17359908	Oracle	hpvm16.sqa.a	ctifio.com	orcl	13543756	Enabled	OnDemand	n/a	DirectMount	<no mount="" prep=""></no>		
	hpvm16.sqa.actifi	o.com	sodb	-									