

SLP Cheatsheet

Common SLP Related Commands

Show EMM Image list of Images that were backed up to an SLP STU [-I / -U]

```
nbstlutil list / nbstlutil list -lifecycle <name> / nbstlutil list -backupid <sid_value> / nbstlutil list -image_state <value> / nbstlutil list -copy_state <value> / nbstlutil list -frag_state <value>
nbstlutil list -mediaid <media_id> -state 3
```

Activate /Inactivate SLP operations

```
nbstlutil inactive -lifecycle <lifecycle name> / nbstlutil deactivate -backupid <backupid>
nbstlutil active -lifecycle <lifecycle name> / nbstlutil activate -backupid <backupid>
```

Cancel pending operations on selected image

```
nbstlutil cancel -backupid <backupid> / nbstlutil cancel -lifecycle <lifecycle>
```

Show status on Incomplete copies of Lifecycle Managed images

```
nbstlutil stilist -lifecycle <lifecycle name> / nbstlutil stilist -backupid <backupid> / nbstlutil stilist -image_state <value> / nbstlutil stilist -image_incomplete / nbstlutil stilist -image_inactive
```

List Storage Units

```
nbstl -l / nbstu -L
```

Image | Copy | Frag | States

1	NOT_STARTED		NOT_STARTED		ACTIVE
2	IN_PROCESS		IN_PROCESS		TO_BE_DELETED
3	COMPLETE		COMPLETE		ELIGIBLE_FOR_EXPIRATION
9	NOT_STARTED & INACTIVE		NOT_STARTED & INACTIVE		N/A
10	IN_PROCESS & INACTIVE		IN_PROCESS & INACTIVE		N/A

SLP Unified (VX) Logs

Master Server

```
vxlogcfg -a -p 51216 -o 111 -s DebugLevel=6 -s DiagnosticLevel=6 (nbemm)
vxlogcfg -a -p 51216 -o 143 -s DebugLevel=6 -s DiagnosticLevel=6 (mds / Included in 111, no separate log)
vxlogcfg -a -p 51216 -o 116 -s DebugLevel=6 -s DiagnosticLevel=6 (nbpem)
vxlogcfg -a -p 51216 -o 117 -s DebugLevel=6 -s DiagnosticLevel=6 (nbjm)
vxlogcfg -a -p 51216 -o 118 -s DebugLevel=6 -s DiagnosticLevel=6 (nbrb)
vxlogcfg -a -p 51216 -o 226 -s DebugLevel=6 -s DiagnosticLevel=6 (nbstserv)
vxlogcfg -a -p 51216 -o 272 -s DebugLevel=6 -s DiagnosticLevel=6 (expmgr)
vxlogcfg -a -p 51216 -o 137 -s DebugLevel=6 -s DiagnosticLevel=6 (libraries)
vxlogcfg -a -p 51216 -o 219 -s DebugLevel=6 -s DiagnosticLevel=6 (rem - Included in 111, no separate log)
vxlogcfg -a -p 51216 -o 230 -s DebugLevel=6 -s DiagnosticLevel=6 (rdsm)
```

Media Server

```
vxlogcfg -a -p 51216 -o 220 -s DebugLevel=6 -s DiagnosticLevel=6 (dps / media - Included in 222, no separate log)
vxlogcfg -a -p 51216 -o 221 -s DebugLevel=6 -s DiagnosticLevel=6 (mpms / media - Included in 222, no separate log)
vxlogcfg -a -p 51216 -o 202 -s DebugLevel=6 -s DiagnosticLevel=6 (stssvc / media - included in 222, no separate log)
vxlogcfg -a -p 51216 -o 222 -s DebugLevel=6 -s DiagnosticLevel=6 (nbrms / media)
vxlogcfg -a -p 51216 -o 230 -s DebugLevel=6 -s DiagnosticLevel=6 (rdsm / media + master)
vxlogcfg -a -p 51216 -o 137 -s DebugLevel=6 -s DiagnosticLevel=6 (libraries / no separate log file)
```

SLP Legacy Logs

```
/usr/opens/netbackup/logs/bpbrm (Media Server)
/usr/opens/netbackup/logs/bptm (Media Server)
/usr/opens/netbackup/logs/bpdm (Media Server)
/usr/opens/netbackup/logs/bpbkar (Media Server)
/usr/opens/netbackup/logs/admin (Master Server)
```

Additional information to gather

```
nbdb_unload (the tables to look at which you already have)
/usr/opens/var/global/nbstserv
/usr/opens/netbackup/db/ss
/Netbackup/db/jobs/trylogs
Netbackup/db/error/log_<ctime>
**sometimes it is necessary to gather bpbdm on master as well and also up 156 on both master & media.
Note: ExpMgr writes to 51216-226 in NetBackup 7.x
```

nbemmcmd -changesetting -common_server_for_dup < default |preferred |required> -machinename master server name

default - The default option (default) instructs NetBackup to try to match the destination media server with the source media server

preferred - The preferred option instructs NetBackup to search all matching media server selections for the source

required - The required option instructs NetBackup to search all media server selections for the matching source

How to change the duplication session interval

By default, the duplication manager in nbstserv starts a new duplication session 300 seconds after the previous session ends. You can alter the delay time for testing purposes by:

- (1) the session timer can be modified without cycling nbstserv
- (2) edit the parameter DUPLICATION_SESSION_INTERVAL_MINUTES in the LIFECYCLE_PARAMETERS
- (3) To force a new session to start: nbstserv new_session -force

Minimum of x2 duplication sessions to complete processing for an image

The way the code works, it takes at least two dup sessions to complete processing for an image – one to kick off the dup job and one to process the results. There have been several problems reports where people have run into disk full conditions they didn't expect because their test case filled the disk before any of the copies could be moved to eligible-for-expiration state

SLP definitions not store in /usr/opens/netbackup/db/class

SLP definitions can be found in /usr/opens/netbackup/db/ss

SLP Cheatsheet

Reroute SLP to different media server

```
nbstl <storagelifecycle unit> -L -all_versions
```

This gives us all the versions of the SLP in question.

Then change the particular version of the SLP which are in queue so they use the new parameters.

```
nbstl SLP_Unit1 -modify_version -version 8 -residence stu1,stu2,stu3 -pool NetBackup,offsite,__NA__ -as __NA__,__NA__,__NA__ -rl 3,9,3
```

Create Advanced Diskpool

```
nbdevconfig -creatests -storage_server <server name> -stype AdvancedDisk -st 5 -media_server <media server>
```

```
tpconfig -add -storage_server <server name> -stype AdvancedDisk -sts_user_id ANYTHING -password ANYTHING -st 1
```

```
nbdevconfig -previewdv -stype AdvancedDisk -storage_server <server name> -media_server <media server> -dvlist /tmp/dvlist
```

```
nbdevconfig -createdp -stype AdvancedDisk -dp Advance_DiskPool -storage_servers <server name> -dvlist /tmp/dvlist
```

The LIFECYCLE_PARAMETERS file is resides in /usr/opensv/netbackup/db/config on UNIX and Linux master servers and <install path>\veritas\netbackup\db\config on Windows master servers.

MIN_GB_SIZE_PER_DUPLICATION_JOB 8 / Default value: 8 GB.

Adjusting this value, indicated in gigabytes, affects the number and size of duplication jobs.

If the MIN_GB_SIZE_PER_DUPLICATION_JOB setting is small, more duplication jobs are created. If it is large, fewer, larger duplication jobs are created.

MAX_GB_SIZE_PER_DUPLICATION_JOB 25 / Default value: 25 GB.

This entry controls the maximum size of a duplication job. (When a single image is larger than the maximum size, that one image will be put into its own duplication job.)

MAX_MINUTES_TIL_FORCE_SMALL_DUPLICATION_JOB 30 / Default value: 30 minutes

This value allows duplication jobs to be submitted that do not meet the minimum size criterion

DUPLICATION_SESSION_INTERVAL_MINUTES 5 / Default 5 minutes.

Frequency nbstserv looks to see if enough backups have completed and decides whether or not it is time to submit a duplication job(s)

IMAGE_EXTENDED_RETRY_PERIOD_IN_HOURS 2 / Default 2 hours

After duplication of an image fails 3 times, this is the time interval between subsequent retries

DUPLICATION_GROUP_CRITERIA 0 | 1

0 = Use the SLP name / 1 = Use the duplication job priority. Use 1 to indicate that batches be created based on the duplication job priority from the SLP definition

"STEP LADDER" RECOVERY

There are other parameters which are very helpful during recovery (informally called the "step ladder" recovery:

TRESHOLD_JOB_COUNT 100

- Enable/Disable logic

- 0 is default

- Values greater than 1 will enable logic at the Start of Nbtserv.

- A value of "0" (zero) disables the logic

- If > 0 nbstserv will check the number of Active/Queued duplication jobs. If the job count is lower than the number specified the logic will be used.

SESSION_RUN_TIME_MIN 60

- This setting specifies the time in minutes that will elapse before batching logic is suspended and duplication jobs are submitted under a time controlled session.

- If there are remaining images needing processing, the timer will be doubled and image batching will continue until the timeout is reached again.

- The timer will double up to 5 times before the logic is disabled and normal batching continues (i.e. 10, 20, 40, 80, 160 minutes).

- Default is 60 minutes.

- All images are queried without regard to which SLP it came from.

- The "MIN_GB_SIZE_PER_DUPLICATION_JOB" is also disregarded while the logic is active.

MAX_SESSION_RUNTIME_MIN 24

- Default is 24 hours.

- Specifies the maximum time for a controlled session after the initial time setting has doubled 5 times.

TechNotes

TECH153154

Best practices for using Storage Lifecycle Policies and Auto Image Replication in NetBackup 7.1

TECH75047

Best practices for configuring NetBackup with Storage Lifecycle Policies 6.x – 7.0

TECH158430

Best practice when making multiple copies of backups to tape and deduplicating disk storage

TECH137745

How to create a SLP image copy from a particular backup image copy

TECH72168

Synthetic backup images are not duplicated by Storage Lifecycle Policies (SLP).

TECH156228

Need to change default inline duplication (ITC) behavior of Storage Lifecycle Policies (SLP)

TECH153549

How do you stop NetBackup from starting SLP dups on startup of the master server

TECH78174

Using Storage Lifecycle Policies with synthetic backups

TECH153976

Hotfix for NetBackup 7.1 to resolve NetBackup stopping processing Storage Lifecycle Policies in high image backlog environments.

HOWTO43578

Incomplete SLP duplication jobs

HOWTO43377

Limitations of SLP reports

HOWTO43395

Known Issues with SLP reports

HOWTO34763

When changes to storage lifecycle policies become effective on Windows

HOWTO33719

When changes to storage lifecycle policies become effective on Unix

HOWTO34526

NetBackup disk storage units in storage lifecycle policies on Windows

HOWTO33486

NetBackup disk storage units in storage lifecycle policies on Unix

HOWTO50593

About storage lifecycle policies with Instant Recovery snapshots