



Host Settings Affected by HP-UX Host Utilities

The HP-UX Host Utilities sometimes recommend that settings on the host be modified. These recommendations are based on research and internal testing. Testers use different settings before arriving at the recommendations.

The values listed here apply to the 6.0 version of the Host Utilities.

The recommended values might differ based on which environment you are using.

- The HP-UX Host Utilities support the following environments:
 - Veritas Dynamic Multipathing (DMP)
 - Native MPIO

Note: To make it immediately clear which environment is being used, this document sometimes specifies “DMP” for the Veritas DMP environment and “MPIO” for the HP-UX native environment. In some cases, the commands you use might vary depending on which drivers you are using. In those cases, both the environment and driver types are specified.

Recommended settings when using Veritas VxVM and DMP

You can run the Host Utilities with Veritas Volume Manager (VxVM) and Dynamic Multipathing (DMP). It is recommended that you use the appropriate values.

- The restore daemon settings. The values for the DMP restore daemon's policy and interval tuneables determine how frequently the daemon checks paths between the host and the storage system and which paths it checks. You need to supply values for the following two settings:
 - The restore daemon interval. Specify the number of seconds between polls.
Systems set to a longer polling interval take longer to detect path recoveries, which can impact storage system performance during a failover operation.
 - The restore daemon policy. Specify which paths the restore daemon should check during polls.
If you set the value to `check_disabled`, the daemon only checks the disabled paths. If you set this to `check_all`, it checks all the paths between the storage system and the host.

Note: The values recommended for the restore daemon are based on testing done at the time the Host Utilities was created.

Parameter	Default Value	Recommended Value	Description
alua_enabled (scsimgr)	TRUE	FALSE	Indicates whether ALUA functionality is enabled by default. A value of false (0) implies that by default ALUA functionality will be ignored and a value of true (1) implies that by default ALUA functionality will be handled for the devices supporting it.

dmp_restore_interval	300	60	Specify the number of seconds between polls. Systems set to a longer polling interval take longer to detect path recoveries, which can impact storage system performance during a failover operation.
dmp_restore_policy	check_disabled	check_disabled	Specify which paths the restore daemon should check during polls. If you set the value to check_disabled, the daemon only checks the disabled paths.
dmp_log_level	1	4	The level of detail to which DMP console messages are displayed.
dmp_fast_recovery	OFF	OFF	Whether DMP should attempt to obtain SCSI error information directly from the HBA interface.
dmp_probe_idle_lun	ON	ON	Controls whether the path restoration kernel thread probes idle LUNs.
iopolicy	MinimumQ	MinimumQ	Determines the I/O policy that is used to balance the I/O load across multiple paths to a disk array or enclosure in a system.

Restore daemon settings:

For Host Utilities using Veritas Storage Foundation 5.0 and later, it is recommended that you use the following values for the restore daemon:

- restore daemon interval:
60
- restore daemon policy:
check_disabled

When you enter `vxddmpadm stat restore`, the sample output might look similar to the following:

```
The number of daemons running : 1
The interval of daemon: 60
The policy of daemon: check_disabled
```

For information about how to set these values, see the Veritas documentation.

Recommended Host Utilities settings for MPIO environment

If you are using MPIO, the Host Utilities require that you use single-image cfmode.

Parameter	Default Value	Recommended Value	Description
transient_secs	120	120	Seconds to wait after a LUN has gone OFFLINE before failing I/Os.
leg_mpath_enable	TRUE	TRUE	Default setting of tunable to enable or disable multi-pathing on legacy DSF of a LUN.
max_q_depth	8	8	Default maximum queue depth.
path_fail_secs	120	120	Timeout in seconds before declaring a LUN path offline.
load_bal_policy	round_robin	round_robin	I/O load balancing policy.
alua_enabled	TRUE	TRUE	Indicates whether ALUA functionality is enabled by default. A value of false (0) implies that by default ALUA functionality will be ignored and a value of true (1) implies that by default ALUA functionality will be handled for the devices supporting it.
esd_secs	30	30	Maximum time in seconds for the transmission of an I/O.

Note: For information about how to set these values, see the man page of `scsimgr(1M)`.