

HP-UX® Host Utilities 5.0 Quick Command Reference

NOTE: The HP-UX Host Utilities 5.0 provide support for both LVM and VxVM with HP-UX 11iv2, and LVM only with HP-UX 11iv3.

Commands for discovering or identifying LUNs	
ioscan -fnC disk	Discovers new disks. A reboot is not required.
ioinit -i	Creates device entries for new devices that are found after an ioscan.
insf -e	Installs device files in the /dev directory for new devices.
tdlist	For HBAs that support the Tachyon driver (td), lists target devices, including hardware paths and block device nodes.
fcdlist	For HBAs that support the fcd driver, lists target devices, including hardware paths and block device nodes.
ls -l /dev/*/group	Lists contents of a volume group directory. Helps to determine which minor numbers are in use.
Commands for using HP-UX Logical Volume Manager (LVM)	
enable_ontap_pvlinks [set show unset]	Because the HP-UX 11iv3 February 2007 release does not support asymmetric logical unit access (ALUA), the default multipathing policy is active/active. Use the enable_ontap_pvlinks command to set the multipathing policy to active/passive, to display the current multipathing policy, and to set the multipathing policy back to active/active for all Data ONTAP LUNs without disturbing other vendors' LUNs.
pvcreate /dev/rdisk/primary_path_disk_device	Initializes a raw disk device for use as a physical volume in a volume group. <i>primary_path_disk_device</i> is the primary path to the disk device with the LUN.
mkknod /dev/vg_name/group c 64 minor_number	Creates a device node on the host for the physical volume group.
vgcreate vg_name /dev/dsk/primary_path	Creates a new volume group.
vgextend [-f] [-A autobackup] [-g pvg_name] [-x extensibility] [-z sparepv] vg_name pv_path	Assigns additional physical volumes to a volume group. The volume group must be active.
vgreduce [-A autobackup] vg_name pv_path	Removes each physical volume specified by a <i>pv_path</i> argument from volume group <i>vg_name</i> .
vgdisplay -v vg_name	Displays information about volume groups.
vgchange -a y/n vg_name /dev/vg_name	Activates or deactivates a volume group.
vgscan	Scans physical volumes for LVM volume groups.
vgimport	Imports an LVM volume group onto the system.
vgexport	Exports an LVM volume group and its associated logical volumes.
lvcreate -L size vg_name	Creates logical volume(s) in LVM volume group with <i>size</i> specifying the total size of the logical volume.
lvextend -L size vg_name	Increases space for LVM logical volume.
ntap_config_paths	Checks available paths to LUNs and reorders those paths (PV-Links only) if necessary.
newfs -F {hfs vxfs} /dev/vg_name/lv_name	Creates a new file system on a logical volume.
mkdir -m 777 /dir_name	Makes a directory for a mountpoint.
mount /dev/vg_name/lv_name /dir_name	Mounts a file system.
Commands for using scsimgr in HP-UX 11iv3	
scsimgr get_stat	Gets basic global statistics.
scsimgr get_stat -D /dev/rdisk/disk0	Gets basic statistics for disk0.
scsimgr get_stat -D /dev/rdisk/disk0 all_lpt	Gets basic statistics for all LUN paths of disk0.
scsimgr -v get_stat -H 64000/0x0/0x0.0x0.0x4000000000000000	Gets all the statistics for a target with the hardware path of 64000/0x0/0x0.0x0.0x4000000000000000.
scsimgr get_info	Gets basic global status and information.
scsimgr -v get_info all_lun	Gets all status information for all the LUNs.
scsimgr get_info -D /dev/rdisk/disk0	Gets basic status information for disk0.
scsimgr get_info -D /dev/rdisk/disk0 all_lpt	Gets basic status information for all LUN paths of disk0.
scsimgr lun_map	Displays LUN path information for all LUNs.
scsimgr lun_map -D /dev/rdisk/disk0	Displays LUN path information for disk0.
scsimgr replace_wwid -D /dev/rdisk/disk0 dsf	Validates replacement of disk0 and reassigns its DSF to the replacing LUN.
scsimgr replace_wwid -D /dev/rdisk/disk0	Unbinds all LUN paths that are associated with disk0.
scsimgr replace_wwid -H 64000/0x0/0x0.0x0.0x4000000000000000	Validates replacement of the LUN with hardware path of 64000/0x0/0x0.0x0.0x4000000000000000 and re-assign its DSF to the replacing LUN.
scsimgr replace_leg_dsf -D /dev/rdisk/c0t5d0	Validates change of LUN to which legacy DSF /dev/rdisk/c0t5d0 is bound.
scsimgr inquiry -D /dev/rdisk/disk272	Displays standard inquiry data for the LUN with DSF /dev/rdisk/disk272.

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Veritas Volume Manager (VxVM) commands	
vxctl enable	Detects new LUNs on the storage system.
vxdisk list	Displays information about disks, including name, disk group, and status.
vxctl stop vxconfigd	Stops the VxVM configuration daemon. Restarts the VxVM configuration daemon.
vxdisksetup -i device_name	Initializes the disk for VxVM. <i>device_name</i> is the name listed for the LUN in the DEVICE column of the vxdisk list command output.
vx dg init dg_name dg_name=device_name	Creates a disk group for the LUN. <i>dg_name</i> is the name you assign to the disk group. <i>device_name</i> is the name listed for the LUN in the DEVICE column of the vxdisk list command output.
/opt/VRTS/bin/vxpfto -g dg_name -t seconds	Increases the Powerfail Timeout interval on a disk group containing LUNs to the specified seconds.
vx dg -g dg_name adddisk dg_name=device_name	Adds a disk to a diskgroup.
vx dg import dg_name	Imports a disk group to make the specified disk group available on the local computer.
vx dg deport dg_name	Disables access to the specified disk group.
vx dg destroy dg_name	Removes a disk group from the system.
vxprint	Displays records from the VxVM configuration.
vx dmpadm listenclosure all	Displays storage enclosure information.
vxddladm listversion	Lists the version numbers of ASLs and minimum VxVM release that is required for each library.
vx dmpadm stat restored	Displays the current values of the Veritas DMP restore daemon.
vx dmpadm stop restore	Stops the Veritas DMP restore daemon.
vx dmpadm start restore interval= seconds policy= policy	Starts the Veritas DMP restore daemon with the specified values.
vxassist -g dg_name make vol_name size	Creates a logical volume.
mkfs -F vxfs /dev/vx/rdisk/dg_name/vol_name	Creates a file system on the logical volume.
mkdir -m 777 /dir_name	Makes a directory for a mountpoint.
mount /dev/vx/dsk/dg_name/vol_name /mnt/dir_name	Mounts a file system.
LUN and igroup information commands	
sanlun fcp show adapter -c	Displays the ONTAP igroup create command with the host's WWPNs. You can copy and paste this command to the storage system command line to create an igroup with the host's WWPNs.
sanlun lun show -p	Shows which block device nodes correspond to LUNs on the storage system. Also shows which paths to the LUN are primary and secondary, and provides information about the multipathing policy.
Fibre Channel (FC) and iSCSI protocol service and adapter management commands	
fcp start stop iscsi start stop	Starts or stops the FC and iSCSI service.
fcp config [adapter [up down]] [partner {adapter None} -partner] [mediatype {ptp auto loop}]	Configures the FC target adapter up or down. Omit up or down to display configurable information. Omit <i>adapter</i> to display all.
fcp show adapter [adapter...]	Displays target adapter information for specified logical adapters.
fcp show initiator [adapter...] iscsi initiator show	Displays information about initiators connected to specified adapters.
iscsi interface [show enable disable]	Displays or configures the network interface to be used by iSCSI.
iscsi nodename [new_nodename]	Displays and sets the iSCSI nodename.
ifconfig [-a] interface	Configures network interface parameters.
ifstat [-z] -a interface	Prints driver statistics.

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FC and iSCSI target status, performance, and troubleshooting commands	
Controller commands	
fc status iscsi status	Displays current status of the FC and iSCSI service.
fc stats [-z] -i interval [-a adapter]	Displays device-level statistics for the specified FC adapter over the specified reporting interval in integer seconds. Use -z to clear statistics. Use -a to display statistics for all adapters.
sysstat -f [interval]	Displays performance statistics. <i>interval</i> is an integer reporting the interval in seconds; default is 15 seconds.
lun stats [-z] -i interval [-o] [-a lun_path]	Displays block access statistics for the specified LUN. Use -z to clear statistics. Use -o for extended stats, -a to display stats for all LUNs.
cf status	Displays the status of the cluster.
fc show cfmode	Displays the current cfmode.
sysconfig -v	Displays system configuration information.
vol status	Displays the status of the volume.
swlist iSCSI-00	Displays if the iSCSI software initiator package is installed.
Host commands	
ioscan -kfnC iscsi	Checks to see if the iSCSI software initiator is installed in the currently executing kernel.
PATH =\$PATH:/opt/iscsi/bin	Adds the path for iscsiutil.
iscsiutil -l	Displays the current iSCSI software initiator name, which is required to build igroups on the storage system.
iscsiutil -a -I x.x.x.x	Adds a statically linked iSCSI target device. x.x.x.x represents the IP address of the storage system.
ioscan -H 255/0	Discovers the operational target device(s).
insf -H 255/0	Creates device files for the target.
iscsiutil -p -O	Displays operational targets.
iscsiutil -u -H CHAP_UNI	Configures Uni-directional CHAP globally.
iscsiutil -u -H CHAP_UNI -I x.x.x.x	Configures Uni-directional CHAP for a specific Discovery Target Address.
iscsiutil -u -W mychapsecret	Configures the CHAP secret globally.
iscsiutil [iscsi-device-file] -p [-S [ssn_inst [-C [cid]] [-V]]]	Displays statistics from the iSCSI software initiator.
LUN and igroup management commands	
vol options vol_name nosnap on	Turns off scheduled snapshots for a volume containing LUNs. It is best to enable use of space reservations.
vol create vol-name{ [-l language-code] [-s {none file volume}] hosting-aggr-name size[k m g t] }	Creates a FlexVol volume.
lun setup	Creates a LUN interactively. Combines the functions of the lun create, igroup create, igroup add, and lun map commands.
lun create -s size [-t aix hpx image netware linux solaris vld vmware windows] lun_path	Creates a LUN manually. Enter <i>size</i> as integer bytes with one of the following suffixes: m (megabytes), g (gigabytes), or t (terabytes).
igroup create { -f -i } [-t ostype] initiator_group [node ...]	Creates a new initiator group (-i for iSCSI, -f for FC).
igroup show [-v] [initiator_group]	Displays the initiator nodes in the specified initiator group. Omit initiator_group to see all igroups.
igroup add initiator_group node...	Adds initiator nodes to the specified igroup.
igroup set [-f] initiator_group alua yes no	Configures ALUA on the igroup.
lun map lun_path initiator_group [lun_id]	Makes the specified LUN accessible to initiators in the specified igroup. Specify optional LUN ID, or take default of lowest available value.
lun show [-v -m -c] [all mapped offline online unmapped lun_path -g initiator_group]	Displays general (-v), mapping (-m), or clone (-c) information about the specified set of LUNs.
lun online offline lun_path...	Enables or disables block-protocol access to the specified LUNs.

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lun move <i>lun_path to_lun_path</i>	Moves a LUN to a new path in the same volume.
lun destroy [-f] <i>lun_path...</i>	Destroys the specified LUNs and all their data. Use -f if LUN is in use.
lun clone create <i>clone_lunpath</i> [-o noreserve] -b <i>parent_lunpath parent_snap</i>	Clones a LUN.
iscsi security add -i <i>initiator</i> -s [CHAP deny none] -p <i>inpassword</i> -n <i>inname</i> [-o <i>outpassword</i> -m <i>outname</i>]	Defines security methods for initiators on the storage system. Use -I for the initiator's name in iqn format; use -s for the method [CHAP/none/deny].
iscsi security default -s [CHAP deny none] -p <i>inpassword</i> -n <i>inname</i> [-o <i>outpassword</i> -m <i>outname</i>]	Sets the default security method for all other initiators not formally defined.
General FC notes	
The FilerView® administration tool can also be used for the preceding commands (http://filer_ip_address/na_admin)	More information at the NetApp NOW® site: http://now.netapp.com
Resources	
http://now.netapp.com	All NetApp documentation and software downloads.
http://now.netapp.com/NOW/knowledge/docs/san/fcp_iscsi_config/	The iSCSI and FC Configuration Guide for your version of Data ONTAP includes information about supported HBAs, switch firmware, host operating systems, volume manager software, and the version of Data ONTAP supported with your host.
http://itrc.hp.com	Download patches for HP-UX operating systems.
HP Web site (http://www.docs.hp.com)	HP's documentation Web site