

NetApp AIX Host Utilities 6.0 Quick Command Reference

Data ONTAP operating in 7-Mode	
AIX host commands	
cfgmgr [-l name] [-v] [-I install_device]	Configures devices. Optionally, installs device software by running the programs specified in the Configuration Rules object class.
chvg [-S -R] vgname	Suspends/resumes I/O on the specified volume group. Use this command for snapshot copies.
df	Lists all mounted file systems.
iostat [-a] [-T] [-d hdiskN] interval	Displays host I/O statistics.
lsattr -El hdiskN	Lists attributes of <i>hdiskN</i> (including queue depth and WWNs).
lsattr -El fcsN	Lists attributes of FC HBA number <i>N</i> including max queue depth (<i>num_cmd_elems</i>).
lscfg [-v] [-p] [-l dev]	Lists extra configuration info about <i>dev</i> . Use lscfg -vl fsc0 to display HBA FW revision.
lsdev -C [-c class] [-s subclass] [-t type] [-F format] [-H] [-l name]	Displays devices in the system and their characteristics. lsdev -Cc disk lists all disks in the system. lsdev -Cc adapter lists all adapters in the system. lsdev -Cl 'lsdev -Cl hdiskN -F "parent" -F "parent" displays the parent HBA for <i>hdiskN</i> .
lspath	Displays information about paths to an MPIO capable device. For information on command line options, see the man page.
mkdev -l dev	Loads/reloads device driver instance for device <i>dev</i> .
oslevel [-r]	Displays the AIX technology (maintenance) level.
rmdev [-d] -l dev	Unloads or deletes device driver instance.
smit fs	SMIT fastpath to file system operations.
smit install	SMIT fastpath to software installation and maintenance.
smit lv	SMIT fastpath to logical volume operations.
smit vg	SMIT fastpath to volume group operations.
iostat [-a] [-d] [interval]	Displays host I/O statistics.
lspp -l [fileset]	Lists installed software. Can use wildcards (*) for fileset.
Oslevel -r	Reports the latest installed maintenance level of the system.
Management commands	
igroup create { -f } [-t aix] initiator_group [node ...]	Creates a new initiator group (“-f” for fcp). Optionally specifies the initiator node names (<i>node...</i>) or adds them using the igroup add command.
igroup add initiator_group node	Adds a node to a specified initiator group.
igroup show [-v] [initiator_group]	Displays the nodes in the specified initiator group. Omit <i>initiator_group</i> to see all igroups.
lun setup	Interactive LUN creation. Combines the lun create , igroup create , igroup add , and lun map command functions.
lun create -s size [-t aix] [-o noreserve] lun_path	Manual LUN creation. Enter <i>size</i> as integer bytes with one of the following suffixes: m (megabytes), g (gigabytes), or t (terabytes).
lun map lun_path initiator_group [lun_id]	Makes that LUN accessible to initiators in that igroup. Provide a LUN ID or take the default (the lowest available value).
lun show [-v -m -c] [all mapped offline online unmapped -g initiator_group lun_path]	Displays general (-v), mapping (-m), or clone (-c) information about all or a specified subset of LUN(s).
lun clone start lun_clone_path	Clones a LUN.
lun create -b snapshot-lun-path lun_path	Creates (writable) LUN storage at this LUN path.
lun destroy [-f] lun_path...	Destroys the specified LUNs and all their data. Use -f if LUN is in use.
lun move lun_path to lun_path	Moves a LUN to a new path in the same volume.
lun online offline lun_path	Enables and disables block-protocol access to a LUN
lun stats [-z -k] [lun_path]	Displays block access statistics for the specified LUN. Use -z to clear

	statistics; -o for extended stats; and -a to display stats for all LUNs.
vol options vol_name nosnap on	Turns off scheduled snapshots for a volume containing LUNs. Strongly recommended to enable use of space reservations.
Notes	
- Space reservations are on by default at the LUN level unless you include the -o noreserve option to the lun create command. - Space Reservations can be set on the qtree, file, or LUN level - qtree level: qtree reservation qtree_path [enable disable] - LUN level: lun set reservation lun_path [enable disable] - Turn off scheduled snapshots: snap sched vol_name 0 0 0 or vol options vol_name nosnap on - Set the snap reserve on the volume containing LUNs to 0: snap reserve volx 00	
FC service management commands	
fcpcfg [adapter [up down] [partner {adapter None } -partner] [mediatype { ptp auto loop }]]	Configures the FC target adapters on the filer. Note: For the NearStore family it is required to put the ports into loop mode.
fcpcfg show adapter [-v] [adapter]	Displays target adapter information.
fcpcfg show initiator [-v] [adapter]	Displays information about initiators connected.
fcpcfg start stop	Starts and stops the FC service.
fcpcfg status	Displays status of FC service.
NetApp host commands	
dotpaths [-hqv] [hdiskN ...]	In non-ALUA environments, sets the path priorities.
sanlun fcpcfg show adapter [-c [-v] [adapter_name] all]]	Displays information about the host HBA(s). sanlun fcpcfg show adapter -c provides the igroup command needed for entering on the storage system.
sanlun lun show all	Lists available LUNs as seen by the sanlun utility.
sanlun lun show [-v] [-d host_device_name all filer_name filer_name:path_name]	Displays information about LUN(s) mapped to this host.
sanlun lun show -p [all filer_name filer_name:path_name]	Displays multipathing information about LUN(s) mapped to this host.
VIO sever commands	
oem_setup_env	Places the padmin user into the OEM software install and setup environment mode to enable VIO server to become root or run Host Utilities/storage system commands such as sanlun . Server stays in this mode until you enter exit command.
cfgdev[-dev name]	Configures devices and can be used to get the server to discover the new LUNs.
lsmap	Displays the mapping between the physical, logical, and virtual devices. For information about command line options, see the man page.
lsdev	Displays information about devices in a VIO server environment. For information about command line options, see the man page.
mkvdev	Adds a virtual device to the system . For information about command line options, see the man page.
Troubleshooting questions and solutions	
Are the network parameters, especially duplex and jumbo frame (mtu) setting, compatible on host and storage system? (ifconfig)	
Can the storage system and host communicate across the network? (ping storage_system_IP_address from host console; ping host_IP_address from storage system console)	
Is the protocol licensed and enabled? (fcpcfg status and fcpcfg config or license entered from the storage system)	
Can the storage system see the host HBA(s)? (fcpcfg show initiator)	
Are the LUN(s) mapped and online? (lun show -v mapped)	
Are the LUNs in a good state? (lun show)	
Is the NetApp AIX Host Utilities software installed? (lspp -l "NetApp.*")	
Can the switch see the storage system and the host?	
Check cables for a bad cable by checking LEDs on HBAs, and switches.	
Check patch, driver, and firmware levels against the NetApp Support site (oslevel -r and lspp -l).	

Check errpt information (run errpt -a for verbose errors).	
Performance issues? Check LUN queues and HBA queues (LUN throttling not supported on AIX; throttle_borrow must be set to 0).	
If using jumbo frames, verify that jumbo frames are configured on all switches between the host and storage system.	
Check the log file on the storage system (/etc/messages) for error messages.	
Search the NetApp Service and Support Knowledgebase at https://kb.netapp.com/support/index?page=home for information about the problem.	
Useful resources	
NetApp Support Site (http://support.netapp.com/)	All NetApp documentation and software downloads.
NetApp Interoperability Matrix Tool at http://support.netapp.com/NOW/products/interoperability/ or Product Library page at http://support.netapp.com/documentation/productsatoz/index.html	Contains the latest information on supported hardware and software for NetApp configured hosts.