

VMware ESX QuickRef Card v0.1

Homepage: <http://www.fejf.de>

Warning: The commands in *italic* should only be used if instructed by vmware-support (or if you know what you are doing...).

esxcfg-Commands

esxcfg-advcfg	Set/Get Advanced Configuration Parameters (stored in <code>/etc/vmware/esx.conf</code>)
esxcfg-auth	Configure authentication (ADS, NIS, Kerberos)
<i>esxcfg-boot</i>	<i>Configure Boot-Options</i>
esxcfg-configcheck	Checks format of <code>/etc/vmware/esx.conf</code> (e.g. used after <code>esx-updates</code>)
esxcfg-dumppart	Configure partition for core-dumps after PSOD
esxcfg-firewall	Configure ESX-Server firewall
esxcfg-hwiscsi	Configure hardware iSCSI initiators
esxcfg-info	Get information about hardware, resources, storage, ... of the ESX-Server
<i>esxcfg-init</i>	<i>Used internally on boot</i>
esxcfg-linuxnet	Setup/Remove linux network devices (<code>ethX</code>)
esxcfg-module	Enable/Disable/Add new/Query VMKernel modules and set/get parameters for them
esxcfg-mpath	Configure multipathing for Fibre-Channel and iSCSI
esxcfg-nas	Configure NFS-datastores ("NFS-client")
esxcfg-nics	Configure physical nics (<code>vmnicX</code>)

esxcfg-pciid	Recreate PCI-device list <code>/etc/vmware/{pci.ids, pcitable, pcitable.linux, vmware-device.map}</code> from the configuration files <code>/etc/vmware/pciid/*.xml</code>
esxcfg-rescan	Rescan a SCSI/FC/iSCSI adapter
esxcfg-resgrp	Configure resource groups
esxcfg-route	Configure the VMKernel default route
esxcfg-swiscsi	Configure/Rescan software iSCSI initiator
<i>esxcfg-upgrade</i>	<i>Used for upgrades from ESX2.x to ESX3</i>
esxcfg-vmhbadevs	Get information about attached LUNs with <code>/dev/sdX</code> mappings
esxcfg-vmknic	Add/Remove/Configure VMKernel NICs
esxcfg-vswif	Add/Remove/Configure ServiceConsole NICs
esxcfg-vswitch	Add/Remove/Configure Virtual Switches

esx-Commands

<i>esxnet-support</i>	<i>Diagnostic information about Console NICs (Gives Errors in ESX-3.5.0)</i>
esxtop	Live Statistics of Virtual Machines (with VM-Names)
esxupdate	Tool for updating ESX-3.x

vmware-Commands

<i>vmware-authd</i>	<i>for internal use only (authentication)</i>
vmware-cmd	⇒ see vmware-cmd section
vmware-configcheck	Check Virtual Machine configuration files (*.vmx)
<i>vmware-config.pl</i>	<i>Configure ESX-hostd port, recompile/install VMware VmPerl Scripting API</i>
<i>vmware-hostd</i>	<i>Demon for VI Client connections (should only be started by <code>mgmt-vmware start-script</code>)</i>
vmware-hostd-support	Creates <code>/var/log/vmware/hostd-support.tgz</code>
<i>vmware-mkinitrd</i>	<i>Creates <code>initrd</code> (initial ramdisk)</i>
vmware-vim-cmd	⇒ see vmware-vim-cmd section
vmware-vimdump	Get information about ESX-Server configuration and Virtual Machines
vmware-vimsh	Interactive shell - comparable to <code>vmware-vim-cmd</code> with additional commands
<i>vmware-watchdog</i>	<i>Watchdog-Demon to keep <code>vmware-hostd</code> running (should only be started by <code>mgmt-vmware start-script</code>)</i>
vmware-webAccess	WebAccess-Demon for browser based management (should only be started by <code>vmware-webAccess start-script</code>)

vm-Commands

vmfsqhtool	Prints UUID of a device header
vmfsqueuetool	Formats all partitions in vmfs queue
vmkchdev	Manage PCI devices (give control over the device to VMKernel or Service Console)
vmkdump	Manage VMKernel dump partition
vmkerrcode	Give description of VMKernel error codes base on decimal or hex value
vmkfstools	Create/Remove/Configure VMFS-Filesystems and Virtual Machine <i>.vdisk</i> files (Virtual Disk File)
vmkiscsid	iSCSI demon
vmkiscsi-device	iSCSI device information
vmkiscsi-ls	List iSCSI devices
vmkiscsi-tool	Configure software iSCSI initiator
vmkiscsi-util	Get information about iSCSI devices
vmkloader	Load and unloads the VMKernel
vmkload_mod	Load/Unload VMKernel modules (e.g. device drivers)
vmklogger	Create logmessages (like logger for VMKernel messages)
vmkpcidivvy	<i>deprecated</i>
vmkping	Ping on VMKernel network
vmkuptime.pl	Creates HTML output with Uptime/Downtime/Availability
vmres.pl	<i>deprecated</i>
vmsnap_all	Snapshot all Virtual Machines on a ESX-Server
vmsnap.pl	<i>deprecated</i>

vmstat	(this is a standard linux command - lists memory/disk access statistics)
vm-support	Creates /etc/init.d/ esx-<i><date>.tgz</i>
vmware	<i>internal use - can not be started manually</i>

Other Commands

vdf	Show free disk space of mounted partitions (like df with vmfs-support)
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Start-Scripts

Scripts inside /etc/init.d/

mgmt-vmware	Start/Stop/Restart the demon for the VI-Client connections
vmkhalt	<i>internal use - can not be started manually</i>
vmware	<i>internal use - can not be started manually</i>
vmware-functions	<i>internal use - can not be started manually</i>
vmware-late	<i>internal use - can not be started manually</i>
vmware-vmkauthd	<i>internal use - can not be started manually</i>
vmware-vpax	Start/Stop/Restart the demon for the Virtual Center connections
vmware-webAccess	Start/Stop/Restart the demon for the Web-Interface connections

Running Processes

The commands in *italic* are standard Linux commands.

cimserver	<i>http://www.dmtf.org/standards/cim/</i>
cimservera	<i>http://www.dmtf.org/standards/cim/</i>
crond	<i>Schedule jobs at specific intervals</i>
gpm	<i>Mouse support in the text console</i>
init	<i>First process which runs every other process</i>
klogd	<i>Kernel log demon</i>
logger	<i>Logs messages to /var/log</i>
sshd	<i>Provides secure shell access</i>
syslogd	<i>Log/Filter demon with a remote logging ability</i>
vmware-hostd	<i>Demon for VI Client connections</i>
vmkload_app	<i>Loads vmware applications (internal use only)</i>
vmklogger	<i>Logs VMKernel messages to /var/log/vmware</i>
wsmamd	<i>Web Services Mangement</i>
vmware-vmkauthd	<i>Demon for user authentication</i>
vmware-vmx	<i>Provides context for a Virtual Machine (internal use only)</i>
vmware-watchdog	<i>Checks if vmware processes are running (no connection test => does not restart hung processes)</i>
vpax	<i>Virtual Center agent</i>
webAccess	<i>Web-Interface (TomCat-Server)</i>
xinetd	<i>Listen on network ports for other demons and start them on-demand</i>

vmware-cmd Commands

Commands for a Virtual Machines
(`vmware-cmd -h`).

<code>getconnectedusers</code>	List name and IP of connected users (non-working with esx3.5.0?)
<code>getstate</code>	Show current state of VM (Off/On/...)
<code>start</code>	Start a VM
<code>stop</code>	Stop a VM
<code>reset</code>	Reset a VM
<code>suspend</code>	Suspend a VM
<code>setconfig</code>	Set a variable in the vmx-configuration-file
<code>getconfig</code>	Get a variable from the vmx-file
<code>setguestinfo</code>	Set guest info variable
<code>getguestinfo</code>	Get guest info variable
<code>getproductinfo</code>	Get various product info
<code>connectdevice</code>	Connect a device
<code>disconnectdevice</code>	Disconnect a device
<code>getconfigfile</code>	Get path/filename of config file
<code>getheartbeat</code>	Get current heartbeat
<code>gettoolslastactive</code>	Time since last notification from vmware-tools (in seconds)
<code>getresource</code>	Get a VM resource
<code>setresource</code>	Set a VM resource
<code>hassnapshot</code>	Determine if VM has a snapshot
<code>createsnapshot</code>	Create a snapshot
<code>revertsnapshot</code>	Revert to last snapshot
<code>removesnapshots</code>	Remove all snapshots
<code>answer</code>	Answer a question (if VM requires input)

vmware-vim-cmd Commands

There are too many `vmware-vim-cmd` commands to list them all in this quickref. You can get an overview of the commands by running `vmware-vim-cmd` without an option. The commands are divided in subfolders. To get help there run it with the subfolder name (e.g. `vmware-vim-cmd hostsvc`):

<code>hostsvc/</code>	ESX-Server commands
<code>internalsvc/</code>	ESX-Server internal commands
<code>proxysvc/</code>	Web-SDK proxy commands
<code>solo/</code>	???
<code>vimsvc/</code>	VirtualCenter commands
<code>vmsvc/</code>	VM commands

Config Files

Normally you don't need to edit the config files by hand. It's better to use the tools which VMware provides for these cases (e.g. network configuration with `vmware-vswif` changes ip of the Service Console, the necessary config files and `vmware-advcfg` changes settings in `/etc/vmware/esx.conf`).

<code>/etc/vmware/*</code>	General VMware configuration files (ESX Server)
<code>/etc/opt/vmware/*</code>	General VMware configuration files (VirtualCenter)
<code>/opt/LGTOaam512/config/*</code>	VMware HA configuration
<code>/proc/vmware/*</code>	Get/Set VMKernel variables directly
<code>/usr/lib/vmware/hostd/docroot</code>	Default Web-Interface (with link to Web-Access, VI-Client download etc)
<code>/usr/lib/vmware/webAccess/tomcat/apache-tomcat-5.5.17/conf</code>	Web-Interface Configuration (Apache Tomcat Server)

Log Files

(Logs are in `/var/log/vmware/` if no other path is specified)

<code>/etc/syslog.conf</code>	Configure logging behaviour
<code>esxcfg-boot.log</code>	Boot messages
<code>esxcfg-firewall.log</code>	List of executed firewall commands and log messages
<code>esxcfg-linuxnet.log</code>	LinuxNet messages
<code>esxupdate.log</code>	Debug messages for updates
<code>hostd.log</code>	hostd messages
<code>vpx-iupgrade.log</code>	Logs for package installations/removals by Virtual Center (e.g. output of <code>rpm -hiv VMware-vpxa-2.5.0-64192.1386.rpm</code>)
<code>vpx/vpxa.log</code>	Virtual Center Agent messages
<code>vmfsqueuetool.log</code>	VMFSQueueTool messages
<code>webAccess</code>	Web-Access messages
<code>/proc/vmware/log</code>	VMKernel messages
<code>/var/log/storage-Monitor</code>	VMKernel storage monitor messages
<code>/var/log/vmkernel</code>	VMKernel messages (info messages only)
<code>/var/log/vmkproxy</code>	VMKernel userworld proxy messages
<code>/var/log/vmksummary</code>	VMKernel messages (notice and higher)
<code>/var/log/vmkwarning</code>	VMKernel warning messages

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