

<b>COMMANDS TO DEPLOY AN ESX SERVER</b>	
<b>Configure ESX Server Networking</b>	
Display physical NIC configuration	<code>esxcfg-nics -l</code>
Set physical NIC's speed and duplex	<code>esxcfg-nics -s speed -d duplex vswitch_name</code>
Add a virtual switch	<code>esxcfg-vswitch -a vswitch_name:#_ports</code>
Check to see if a virtual switch already exists	<code>esxcfg-vswitch -c vswitch_name</code>
Add a portgroup (for either SC, VMkernel or VMs)	<code>esxcfg-vswitch -A portgroup_name vswitch_name</code>
Check to see if a portgroup already exists	<code>esxcfg-vswitch -C portgroup_name</code>
Link a physical NIC to a virtual switch	<code>esxcfg-vswitch -L vmnic# vswitch_name</code>
Unlink a physical NIC from a virtual switch	<code>esxcfg-vswitch -U vmnic# vswitch_name</code>
Display virtual switch configuration	<code>esxcfg-vswitch -l</code>
Add a VMkernel port	<code>esxcfg-vmknic -a -i IP_addr -n netmask VMkernel_port_name</code>
Display VMkernel ports	<code>esxcfg-vmknic -l</code>
Set the VMkernel port gateway	<code>esxcfg-route gateway_IP_address</code>
Display the VMkernel default gateway	<code>esxcfg-route</code>
Add a service console interface (vswif)	<code>esxcfg-vswif -a -i IP_addr -n netmask -p sc_port_name vswif#</code>
Display service console interfaces	<code>esxcfg-vswif -l</code>
<b>Configure ESX Server iSCSI Storage</b>	
Display iSCSI software adapter settings	<code>esxcfg-swiscsi -q</code>
Enable (-e) or disable (-d) the iSCSI software adapter	<code>esxcfg-swiscsi -e -OR- esxcfg-swiscsi -d</code>
Display the software iSCSI node name	<code>vmkiscsi-tool -I -l vmhba40</code>
Display the software iSCSI node alias	<code>vmkiscsi-tool -k -l vmhba40</code>
Discover iSCSI targets	<code>vmkiscsi-tool -D -a target_IP_address vmhba40</code>
Display discovered iSCSI targets	<code>vmkiscsi-tool -T -l vmhba40</code>
Rescan for iSCSI LUNs	<code>esxcfg-rescan vmhba40</code>
Display iSCSI LUNs	<code>vmkiscsi-tool -L -l vmhba40</code>
<b>Manage Datastores</b>	
List device file names associated with a server's LUNs	<code>esxcfg-vmhbadevs</code>
Map VMFS volumes to their LUNs and vmhba name	<code>esxcfg-vmhbadevs -m</code>
Create one or more partitions on a LUN	<code>fdisk device_file_name</code>
Display the partition table for the specified LUN	<code>fdisk -l device_file_name</code>
Create a VMFS volume	<code>vmkfstools -C vmfs3 -S VMFS_volume_label partition_address (vmhba#.#.#)</code>
Map label names with physical VMFS volumes	<code>ls -l /vmfs/volumes</code>
Change the VMFS volume label	<code>ln -sf /vmfs/volumes/UUID /vmfs/volumes/new_label_name</code>
Display VMFS volume metadata	<code>vmkfstools -P -h /vmfs/volumes/volume_label</code>
Extend a VMFS volume	<code>vmkfstools -Z VMFS_extent name_of_existing_VMFS</code>
Remove a VMFS volume extent	Recreate the VMFS volume
Display VMFS and service console filesystem usage	<code>vdf -h</code>
<b>Configure Services</b>	
Synchronize the VI Client to reflect command-line changes	<code>service mgmt-vmware restart</code>

<b>COMMANDS TO SECURE AN ESX SERVER</b>	
<b>Configure Service Console Firewall</b>	
Display the current firewall settings	<code>esxcfg-firewall -q</code>
Display the firewall setting for a specific service	<code>esxcfg-firewall -q service_name</code>
Enable all incoming (or outgoing) ports	<code>esxcfg-firewall -allowIncoming (or -allowOutgoing)</code>
Block all incoming (or outgoing) ports	<code>esxcfg-firewall -blockIncoming (or -blockOutgoing)</code>
Enable (-e) or disable (-d) a service in the firewall	<code>esxcfg-firewall -e service_name -OR- esxcfg-firewall -d service_name</code>
List all available services	<code>esxcfg-firewall -s</code>
Open a port (not required for management use) in the firewall	<code>esxcfg-firewall -o port,protocol,direction,name</code>
Close a port in the firewall	<code>esxcfg-firewall -c port,protocol,direction</code>
<b>Configure Password Aging</b>	
Configure password aging using pam_cracklib.so	<code>esxcfg-auth -usecrack=retries min_length lc uc d oc ❶</code>
Configure password aging using pam_passwdqc.so	<code>esxcfg-auth -usepamqc=N1 N2 min_passphrase_length N3 N4 match ❷</code>

❶ where lc, uc, d, or oc, if set, will decrement the minimum password length

❷ where N1, N2, N3 and N4 are # required chars for a password using one-, two-, three- or four- character classes respectively

<b>COMMANDS TO PROTECT YOUR DATA USING VCB</b>	
List ways to identify the VM to backup	<code>vcbVmName &lt;hup&gt; -s ipaddr:VM_IP_address ❸</code>
Perform a full VM backup	<code>vcbMounter &lt;hup&gt; -a name:VM_display_name -t fullvm -r directory_to_place_backup</code>
Create a VM snapshot	<code>vcbSnapshot &lt;hup&gt; -c moref:moref_value snapshot_name</code>
Get a list of disks in a VM snapshot	<code>vcbSnapshot &lt;hup&gt; -l ssid:snapshot_ID</code>
Remove a snapshot	<code>vcbSnapshot &lt;hup&gt; -d vmid_value ssid_value</code>
Export a virtual disk	<code>vcbExport -d exported_virtual_disk_name -s virtual_disk_name</code>
Restore an individual virtual disk	<code>vmkfstools -i exported_virtual_disk_name restored_virtual_disk_name</code>
Restore a complete virtual machine (perform on service console only)	<code>vcbRestore &lt;hup&gt; -s directory_to_restore_to</code>
Mount a virtual disk file (perform on VCB Proxy only)	<code>mountvm -d backed_up_virtual_disk_filename -cycleId mount_point_name</code>
Unmount a virtual disk file (perform on VCB Proxy only)	<code>mountvm -u mount_point</code>

❸ <hup> = -h hostname\_of\_VirtualCenter\_Server\_or\_ESX\_Server -u user -p passwd

<b>FAULT ANALYSIS TOOLS</b>	
Restart a service	<code>service service_name restart</code>
Display the last time the system was rebooted	<code>last reboot</code>
Check IP connectivity	<code>ping ip_address_or_hostname</code>
Check IP connectivity using the VMkernel stack	<code>vmkping ip_address</code>
Gather debugging information (on ESX Server)	<code>vm-support</code>
Gather debugging information (on VirtualCenter Server)	<code>cscript vc-support.wsf</code>
Display ESX Server resource utilization	<code>esxtop</code>
Capture performance snapshots	<code>vm-support -S -i time_between_snapshots -d snapshot_duration</code>
Replay performance snapshots	<code>esxtop -R vm_support_directory_path</code>
Start VirtualCenter Server in standalone mode	<code>vpzd -s</code>
Re-initialize VirtualCenter Server's database	<code>vpzd -b</code>