studywiz

Linux - CentOS 6 Install Guide

Information:
This simple guide is intended to assist System Administrators in the Installation of CentOS for Studywiz hosting.
The CentOS web site can be found here http://www.centos.org/
In short, CentOS is an open source repackage of Red Hat Enterprise Linux (RHEL).
If you require an Operating System with support we recommend Red Hat Enterprise Linux.
http://www.redhat.com/
RHEL and CentOS and the only supported and recommended Linux versions for Studywiz and these two distributions provide the most capable and powerful platform for running Studywiz.

CentOS 6.0 x86_64 was used for the images in this guide. To get the most from your hardware, the 64Bit versions (x86_64) should be installed. Note that both physical and Virtual servers are suitable.

As detailed in the "pre install check list" document, a Studywiz server should be dedicated to the task of serving Studywiz.
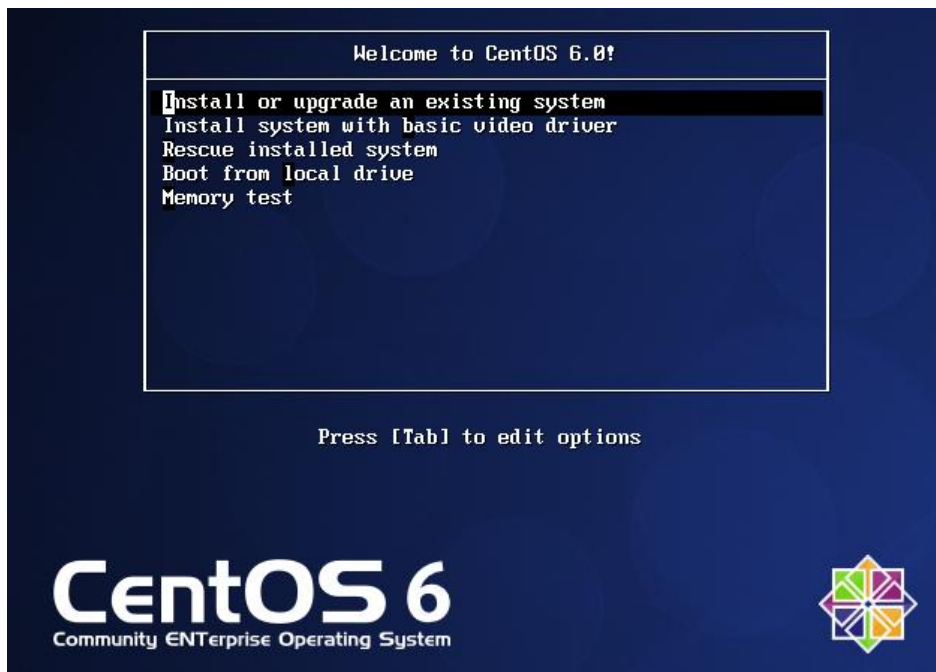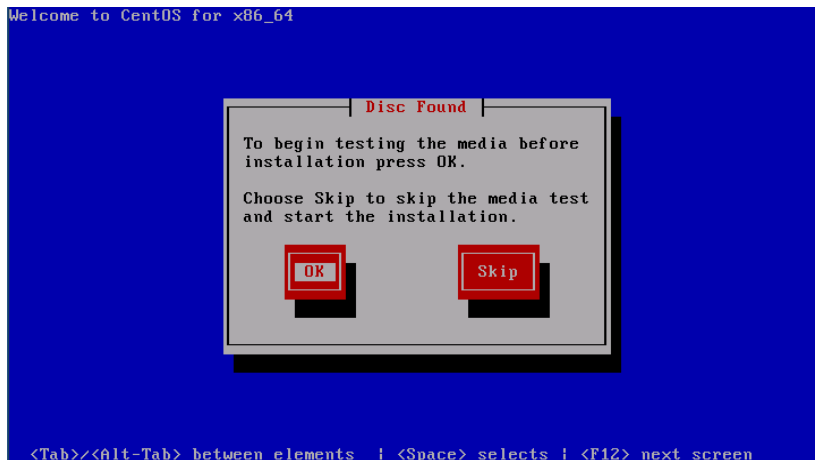Running this install will wipe any existing data from the server.

Important:
Under most circumstances the Installer will suggest a disk layout scheme with most of the space devoted to a large /home volume. This is undesirable for a Studywiz server. Please be sure to remove this volume and allocate the space to the root (/) volume.
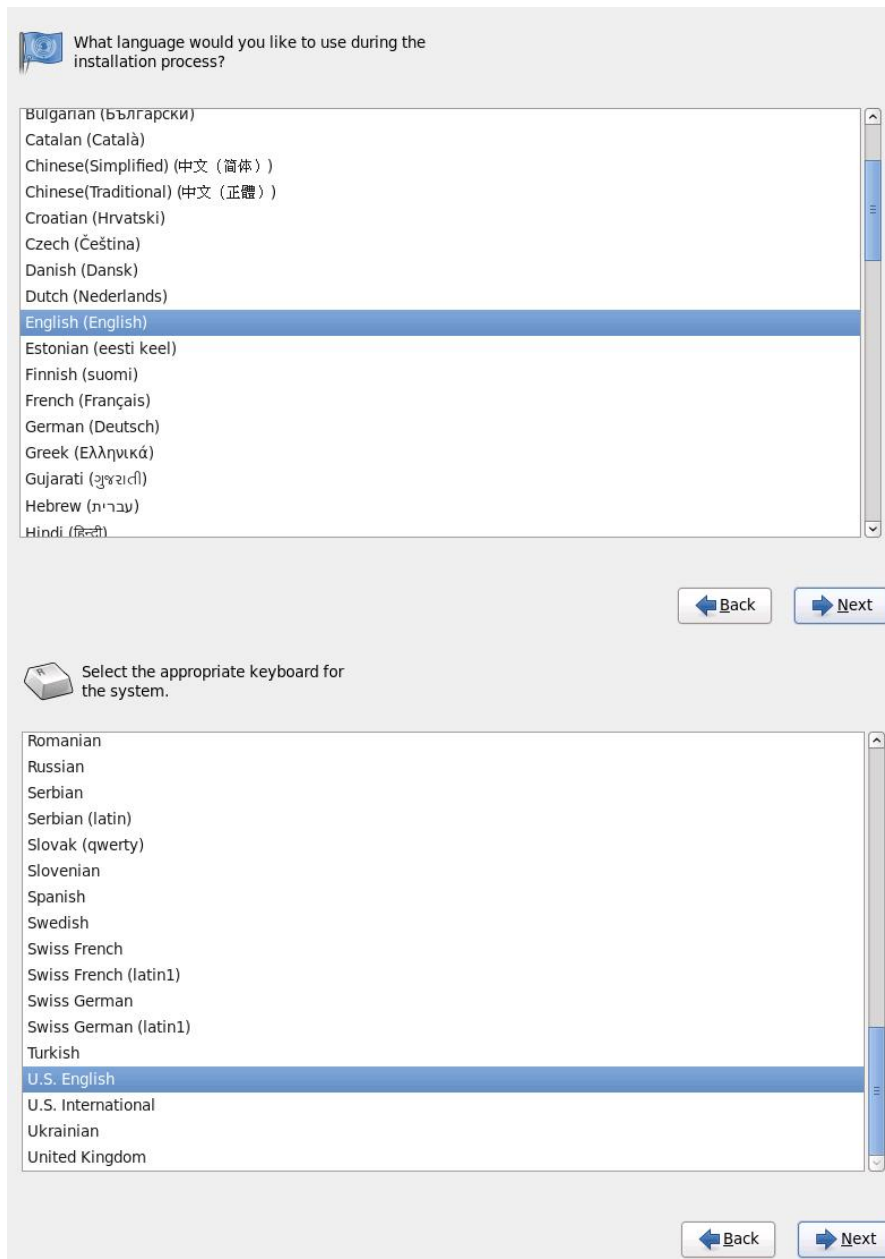
Getting Started
Most users will select the top menu option.

If you have not already done so, we recommend that you check the disk.

Select the English language and then your keyboard type.

Basic Storage will suit most setups.

What type of devices will your installation involve?

○ **Basic Storage Devices**
  Installs or upgrades to typical types of storage devices. If you're not sure which option is right for you, this is probably it.

○ **Specialized Storage Devices**
  Installs or upgrades to enterprise devices such as Storage Area Networks (SANs). This option will allow you to add FCoE / iSCSI / zFCP disks and to filter out devices the installer should ignore.

You may receive this warning from the installer. If you do, Re-initialize all and continue.

Warning

Error processing drive:

pci-0000:00:10.0-scsi-0:0:0:0
20480MB
VMware, VMware Virtual S

This device may need to be reinitialized.

REINITIALIZING WILL CAUSE ALL DATA TO BE LOST!

This action may also be applied to all other disks needing reinitialization.

Device details:
pci-0000:00:10.0-scsi-0:0:0:0

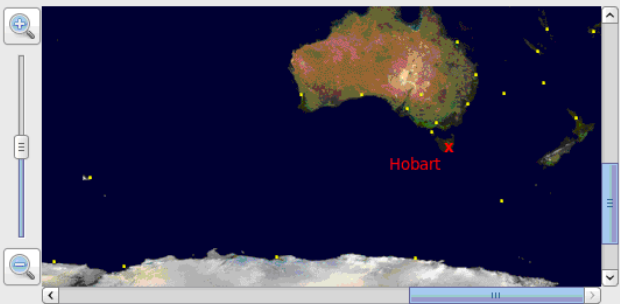[Ignore] [Ignore all] [Re-initialize] [Re-initialize all]

Set the Servers name, this can be the full name of your Studywiz deployment (FQDN) if you don't have a specific name for your server.
Skip the network setup.

Please name this computer. The hostname identifies the computer on a network.

Hostname: server1.studywiz.com

[Configure Network]

[Back] [Next]

Select your location

Please select the nearest city in your time zone:

Selected city: Hobart, Australia (Tasmania - most locations)

Australia/Hobart

☑ System clock uses UTC

Set the root password

The root account is used for administering the system. Enter a password for the root user.

Root Password: ●●●●●●●●●●

Confirm: ●●●●●●●●●●

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Use all space should be used for almost all installs.
Critically, check ""Review and modify partitioning layout"

Which type of installation would you like?

Use All Space
Removes all partitions on the selected device(s). This includes partitions created by other operating systems.

Tip: This option will remove data from the selected device(s). Make sure you have backups.

Replace Existing Linux System(s)
Removes only Linux partitions (created from a previous Linux installation). This does not remove other partitions you may have on your storage device(s) (such as VFAT or FAT32).

Tip: This option will remove data from the selected device(s). Make sure you have backups.

Shrink Current System
Shrinks existing partitions to create free space for the default layout.

Use Free Space
Retains your current data and partitions and uses only the unpartitioned space on the selected device(s), assuming you have enough free space available.

Create Custom Layout
Manually create your own custom layout on the selected device(s) using our partitioning tool.

☐ Encrypt system
☑ Review and modify partitioning layout

Back | Next

Correcting the disk layout - /home
You can skip this section if you do not need to alter your disk layout.
The use of LVM is highly recommended, as this allows for easier volume resizing or similar operations in the future.

You can see below that the installer is going to proceed with a large /home volume.

Select it by clicking on it.
Click delete

We now have a large chunk of free space that needs to be added to the root (/) volume.

Select the root volume and click edit.

Update the size field so that it is the same as the max size value, this will use up all free space.

Edit Logical Volume: lv_root

Mount Point:	/
File System Type:	ext4
Logical Volume Name:	lv_root
Size (MB):	4072
☐ Encrypt	(Max size is 17960 MB)

Cancel   OK

You will now see that all free space is used up.
This is correctly configured for Studywiz use.

LVM Volume Group vg_cent6 (19976 MB)

vg_cent6-lv_root
17960 MB

vg_cent6
2016 MB

Device	Size (MB)	Mount Point/ RAID/Volume	Type	Format	
▽ LVM Volume Groups					
▽ vg_cent6	19976				
lv_root	17960	/	ext4	✓	
lv_swap	2016		swap	✓	
▽ Hard Drives					
▽ sda (/dev/sda)					
sda1	500	/boot	ext4	✓	
sda2	19979	vg_cent6	physical volume (LVM)	✓	

Install boot loader, normally no change required.

☑ Install boot loader on /dev/sda.   Change device

☐ Use a boot loader password   Change password

Boot loader operating system list

Default	Label	Device	
⊙	CentOS	/dev/mapper/vg_server1-lv_root	Add
			Edit
			Delete

Package selection

Choose Basic server and check "Customise now"

The default installation of CentOS is a minimum install. You can optionally select a different set of software now.

- ○ Desktop
- ○ Minimal Desktop
- ○ Minimal
- ● Basic Server
- ○ Database Server
- ○ Web Server
- ○ Virtual Host

Please select any additional repositories that you want to use for software installation.

- ☑ CentOS

[➕ Add additional software repositories] [📝 Modify repository]

You can further customize the software selection now, or after install via the software management application.

- ○ Customize later   ● Customize now

[◀ Back] [➡ Next]

Base System
Servers
Web Services
Databases
System Management
Virtualization
Desktops
Applications
Development
Resilient Storage

- ☐ **Backup Client**
- ☑ **Base**
- ☑ **Compatibility libraries**
- ☐ **Console internet tools**
- ☑ **Debugging Tools**
- ☐ **Dial-up Networking Support**
- ☐ **Directory Client**
- ☐ **FCoE Storage Client**
- ☑ **Hardware monitoring utilities**

Client tools for connecting to a backup server and doing backups.

[Optional packages]

[◀ Back] [➡ Next]

The below is a good general selection of packages for a Studywiz server. Support will install any extra packages that they may require during Studywiz install time. You can of course install any extra packages required for your environment such as postfix for email notifications or SNMP support.

Base system
        Base
        Compatibility libraries
        Debugging tools
        Hardware monitoring utilities
        Large systems performance

Servers
        Server platform

Databases
        MySQL Database client
        MySQL Database server

Once you click next, the install will continue to the end, the reboot screen.
If you are using CD images or have selected packages that reside on disk 2 of the DVD image, you will need to swap a disk or two before the install is completed.
You may now leave the server unattended if you wish.

Once the server has rebooted, there are a couple of post install tasks.
1. system-config-network. Use this tool to enter the server's network configuration.
2. yum –y update. This will fully update the system to the latest package versions.

The server is now ready for Studywiz installation by Studywiz support.
Send the pre install check list to support if you have not already done so.