How to extend your disk size with the CPTR 2224 OpenSUSE image.

Due to the size of updates, many students need to make the OpenSUSE drive with the operating system larger. Since the image is using logical volume management or lvm, this can be done rather easily.

The first step is add a new virtual disk drive to our virtual machine. The example will create a virtual disk drive of 10GB. You may choose a different size, but you will need to change the size parameter on the command line.

The next screen shots show adding a 10GB hard disk to your OpenSUSE image.

Home

msctc-linux

mail_merge_XP

Lectcomm_13_1

msctc-linux

Select the option Edit virtual machine settings before starting the virtual machine.

ual machine

Play virtual machine

Edit virtual machine settings

vmware

Virtual Machine Settings

Hardware | **Options**

Device	Summary
Memory	768 MB
Processors	1
Hard Disk (SCSI)	10 GB
CD/DVD (IDE)	Using file openSUSE-11.3-DV...
Network Adapter	Bridged
Network Adapt...	NAT
USB Controller	Present
Sound Card	Auto detect
Display	Auto detect

Click on the Add button.

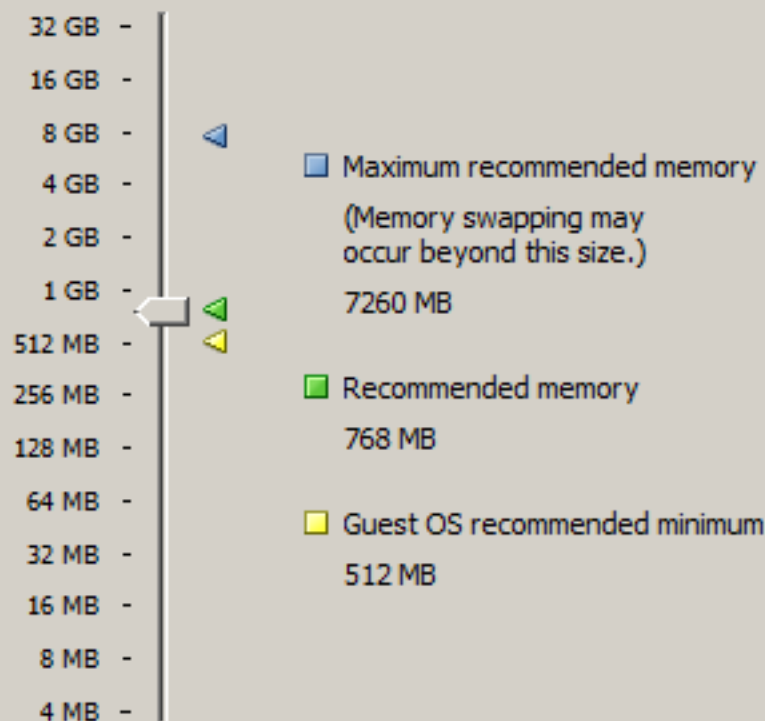### Memory

Specify the amount of memory allocated to this virtual machine. The memory size must be a multiple of 4 MB.

Memory for this virtual machine: 768 MB

- 32 GB
- 16 GB
- 8 GB
- 4 GB
- 2 GB
- 1 GB
- 512 MB
- 256 MB
- 128 MB
- 64 MB
- 32 MB
- 16 MB
- 8 MB
- 4 MB

☐ Maximum recommended memory

(Memory swapping may occur beyond this size.)

7260 MB

☐ Recommended memory

768 MB

☐ Guest OS recommended minimum

512 MB

Add...   Remove

OK   Cancel   Help

Virtual Machine Settings ✕

Select Hard Disk

Memory

Specify the amount of memory allocated to this virtual machine. The memory size must be a multiple of 4 MB.

...izard ✕

...pe

...e of hardware do you want to install?

🖳 Network Adap
🔌 USB Controller
🔊 Sound Card
🖥 Display

Hardware

💽 Hard Disk
💿 CD/DVD Drive
💾 Floppy Drive
🖧 Network Adapter
🔌 USB Controller
🔊 Sound Card
🔀 Parallel Port
🔲 Serial Port
🖨 Printer
🧭 Generic SCSI Device

Explanation

Add a hard disk.

MB

...mended memory
...ng may
...is size.)

...memory

...mended minimum

< Back   Next >   Cancel

Add...   Remove

OK   Cancel   Help

Virtual Machine Settings

Hard

D

Network Adap
USB Controller
Sound Card
Display

Memory

Specify the amount of memory allocated to this virtual machine. The memory size must be a multiple of 4 MB.

MB

u want to use?

Disk

⦿ Create a new virtual disk

A virtual disk is composed of one or more files on the host file system, which will appear as a single hard disk to the guest operating system. Virtual disks can easily be copied or moved on the same host or between hosts.

⦾ Use an existing virtual disk

Choose this option to reuse a previously configured disk.

⦾ Use a physical disk (for advanced users)

Choose this option to give the virtual machine direct access to a local hard disk.

mended memory

ng may

is size.)

emory

mended minimum

< Back   Next >   Cancel

Add...   Remove

OK   Cancel   Help

Virtual Machine Settings

Hardware | Options

Memory

Specify the amount of memory allocated to this virtual machine. The memory size must be a multiple of 4 MB.

You want the disk to be a SCSI disk.

[ ] MB

Sound Card
Display

...disk do you want to create?

○ IDE

● SCSI (Recommended)

mended memory

ng may
s size.)

memory

mended minimum

< Back | Next > | Cancel

Add... | Remove

OK | Cancel | Help

Virtual Machine Settings

Hardware | Options

Device	Summary
Memory	768 MB
Processors	1
Hard Disk (SCS)	
CD/DVD (IDE)	
Network Adap	
Network Adap	
USB Controller	
Sound Card	
Display	

Memory

Specify the amount of memory allocated to this virtual machine. The memory size must be a multiple of 4 MB.

MB

Add Hardware Wizard

Specify Disk Capacity

How large do you want this disk to be?

Maximum disk size (GB):   10

Recommended size for OpenSUSE: 20 GB

☐ Allocate all disk space now.

Allocating the full capacity can enhance performan
physical disk space to be available right now. If yo
space now, the virtual disk starts small and grows a

◉ Store virtual disk as a single file

○ Split virtual disk into multiple files

Splitting the disk makes it easier to move the virtua
computer but may reduce performance with very la

< Back

I changed the size to 10GB. The command line example assumes a 10GB disk. You may choose another number, but you must change the appropriate command line parameters. I really don't recommend less than 10GB.

Leave the other settings as shown.

Add...   Remove

OK   Cancel   Help

Virtual Machine Settings

Hardware | Options

Device	Summary
Memory	768 MB
Processors	1
Hard Disk (SCS	
CD/DVD (IDE)	
Network Adap	
Network Adap	
USB Controller	
Sound Card	
Display	

Memory

Specify the amount of memory allocated to this virtual machine. The memory size must be a multiple of 4 MB.

___ MB

Add Hardware Wizard

Specify Disk File

Where would you like to store the disk file?

Disk file

This virtual disk file will store the configuration details of the physical disk.

msctc-linux-0.vmdk [Browse...]

There is no need to change this filename.

[< Back] [Finish] [Cancel]

mended memory
ng may
is size.)

memory

mended minimum

[Add...] [Remove]

[OK] [Cancel] [Help]

Virtual Machine Settings

Hardware | Options

Device	Summary
🖳 Memory	768 MB
🖧 Processors	1
🖴 Hard Disk (SCSI)	10 GB
🖴 New Hard Disk ...	10 GB
💿 CD/DVD (IDE)	Using file openSUSE-11.3-DV...
🖧 Network Adapter	Bridged
🖧 Network Adapt...	NAT
🔌 USB Controller	Present
🔊 Sound Card	Auto detect
🖥 Display	Auto detect

Disk file

msctc-linux-0.vmdk

We will have another disk drive once we click OK.

Add... | Remove

OK | Cancel | Help

At this point, you need to be at the command prompt or use putty to login.

Now you need to type su and root's password to become root.

Enter the command, rescan-scsi-bus.sh -w -l

Enter the command, pvcreate /dev/sdb

Enter the command, vgextend /dev/system /dev/sdb

Enter the command, lvextend -L +10G /dev/system/root

Enter the command, resize2fs /dev/system/root

You should see your volume /dev/system/root is larger.