

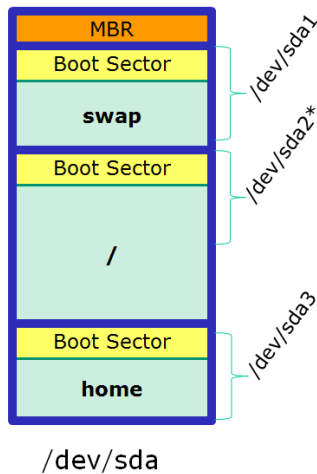
## OpenSUSE 11 Install (110)

OpenSUSE 11 installation into a custom VM with non-default partitions.

Requirements:

- OpenSUSE-11 DVD ISO files  
<http://iso.linuxquestions.org/>
- VMWare Server 1.05 or higher  
<http://www.vmware.com/products/server/>

Desired Installation:



```

title openSUSE 11.0 - 2.6.25.5-1.1
root (hd0,1)
kernel /boot/vmlinuz-2.6.25.5-1.1-pae root=/dev/sda2 resume=/dev/sda1 splash=silent showopts vga=0x317
initrd /boot/initrd-2.6.25.5-1.1-pae
    
```

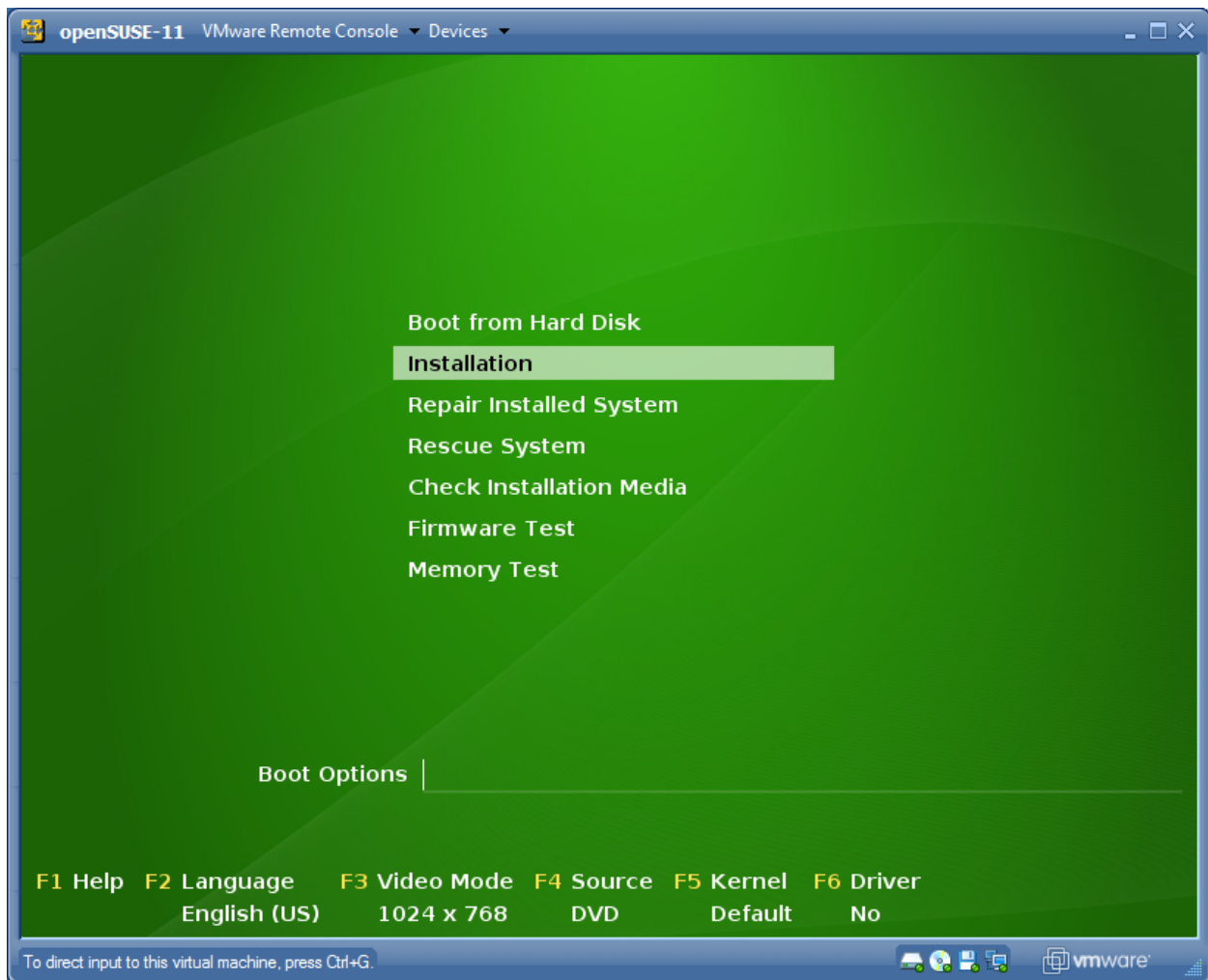
Location	Type	Boot Code	Usage	Size
MBR		Microsoft		
/dev/sda1	Primary		swap	512 MB
/dev/sda2	Primary	GRUB	/	4.2 GB
/dev/sda3	Primary		/home	remaining

#### Create VM:

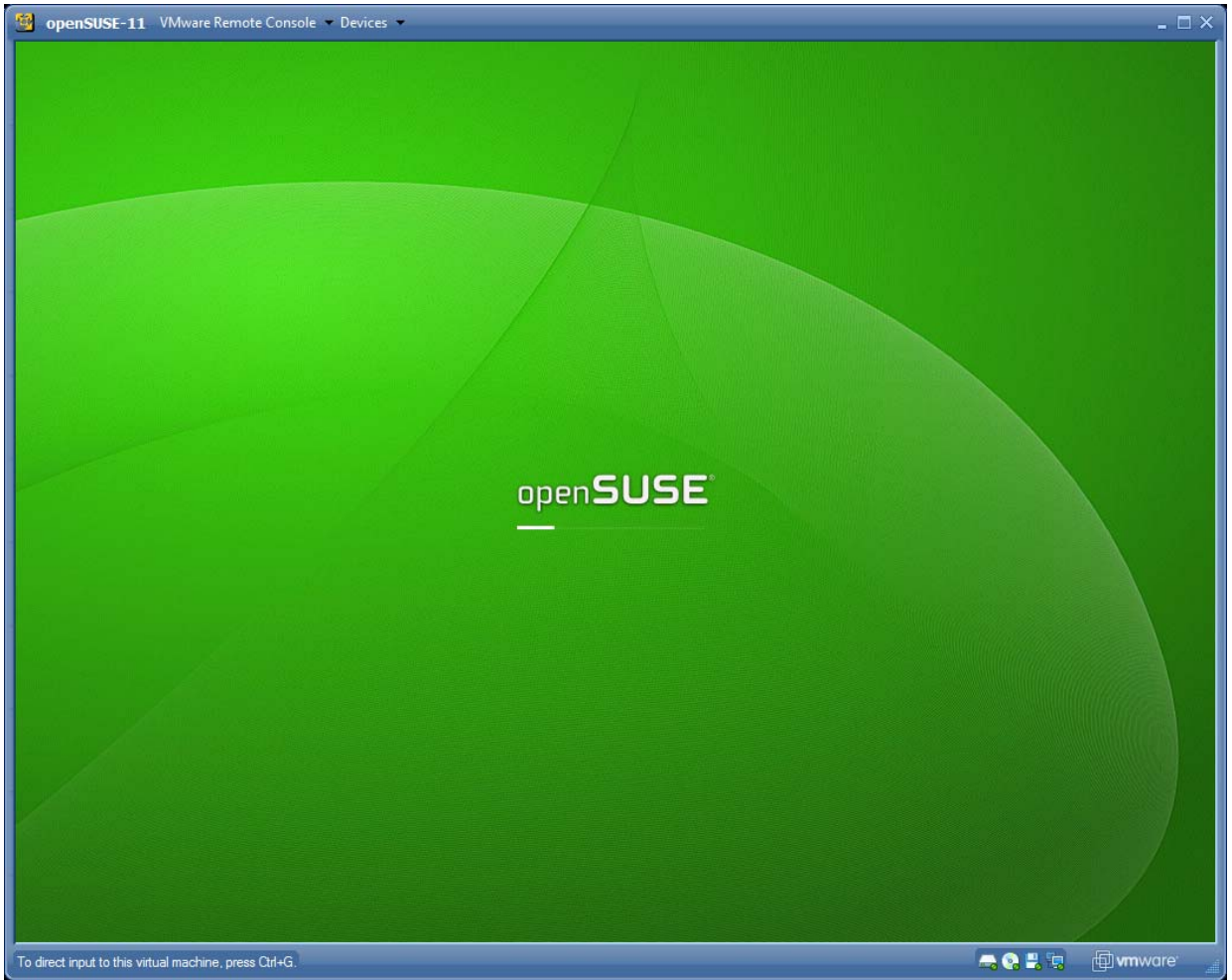
- Custom
- OS: Linux, Version: SUSE Linux
- Name: openSUSE-11
- Access rights: Not private (uncheck)
- VM Account: User that powers on the VM
- # processors: One
- 512K memory
- Bridged networking
- SCSI Adapter: LSI Logic
- Create a new virtual disk
- SCSI
- 5 GB drive, do not allocate space now (uncheck)

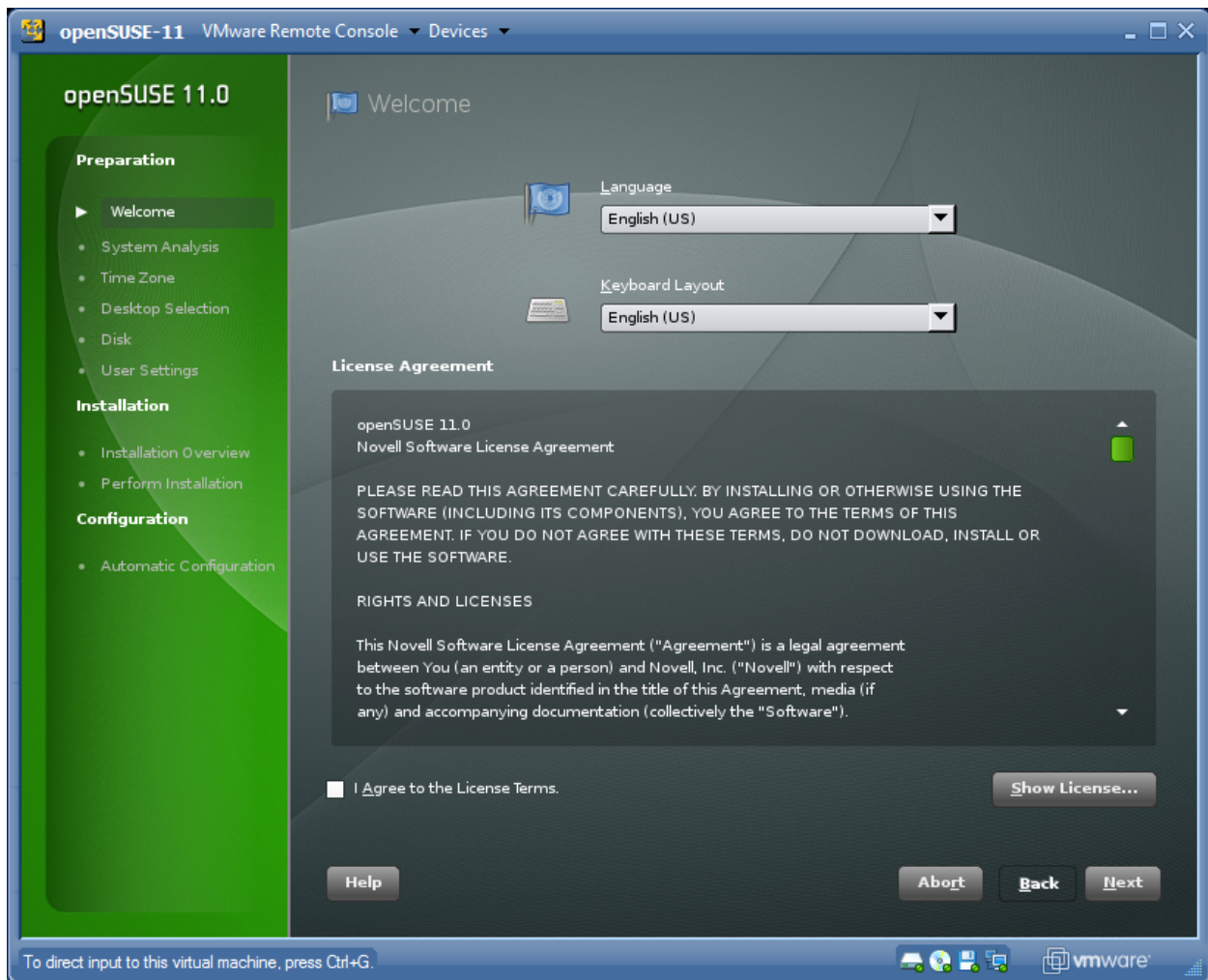
#### DVD and Floppy

- Edit VM settings
- Disconnect floppy (Remove check: Connect at power on, Use physical drive)
- "Insert" OpenSUSE 11 DVD (Check: Connect at power on, Use ISO image: browse to OpenSUSE DVD ISO file)
- Power on VM

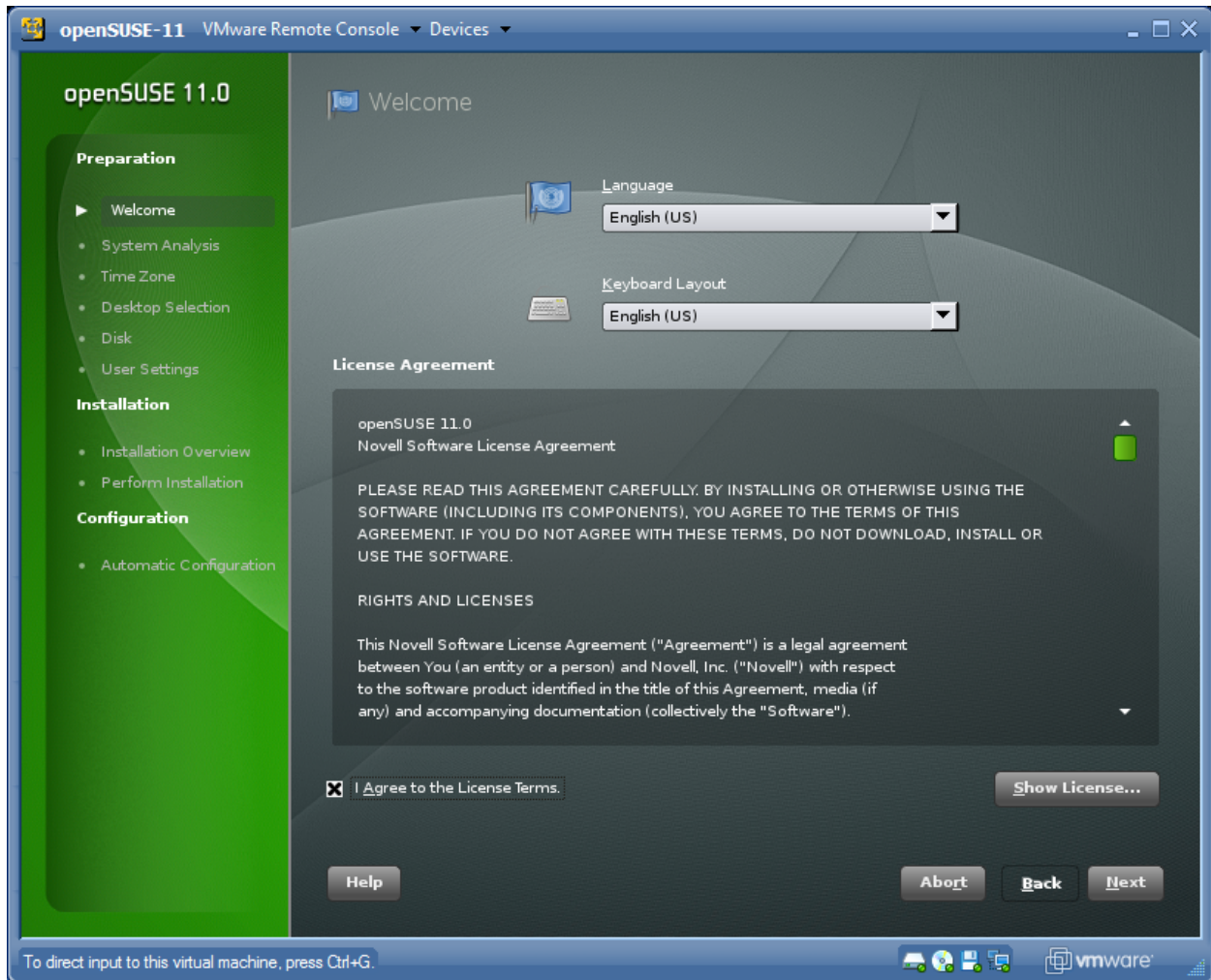


- Down arrow to Installation and hit Enter





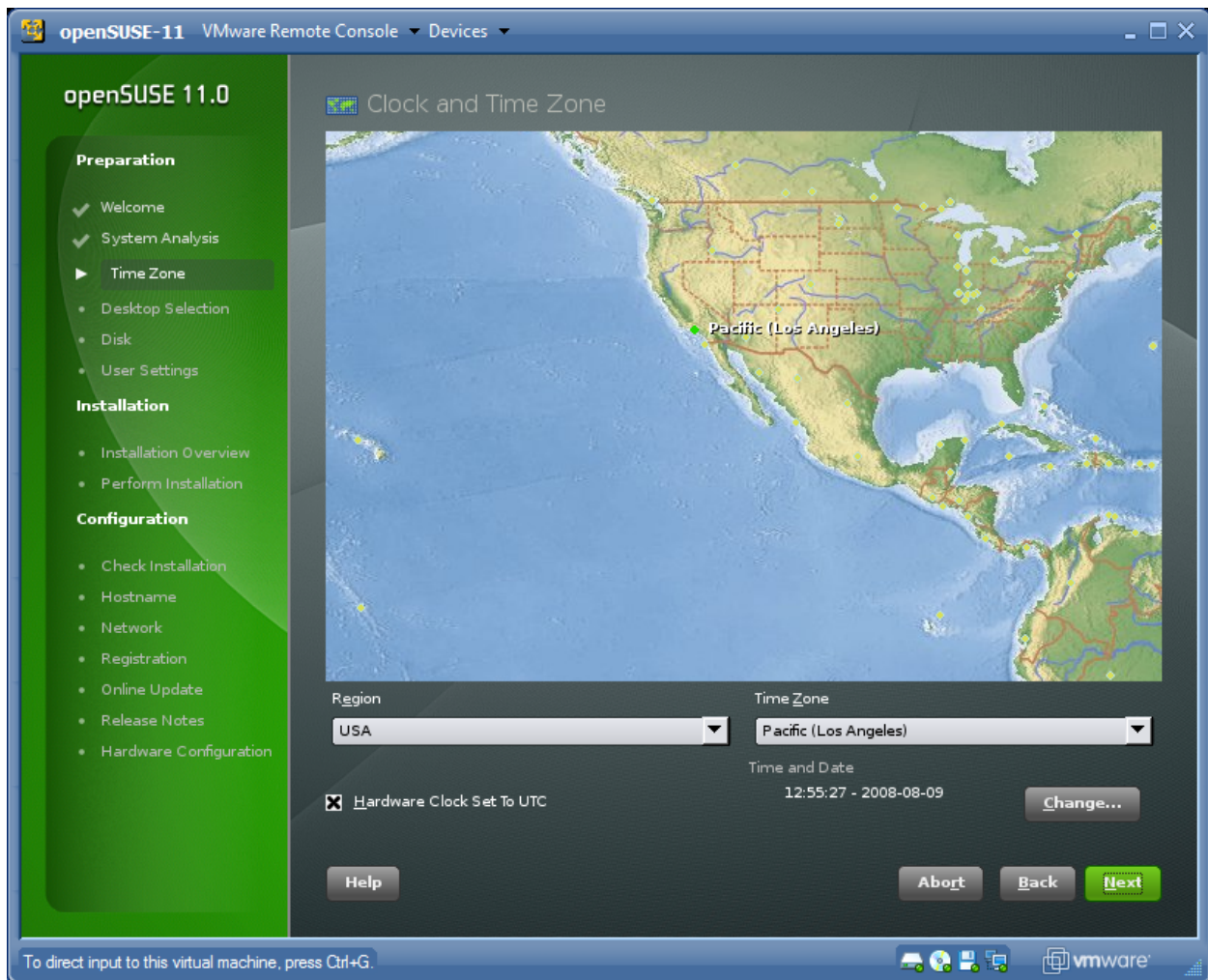
- Check: I agree to the license terms (if you do of course)



- Click Next



- Make sure New Installation is checked
- Uncheck Use Automatic Configuration
- Click Next

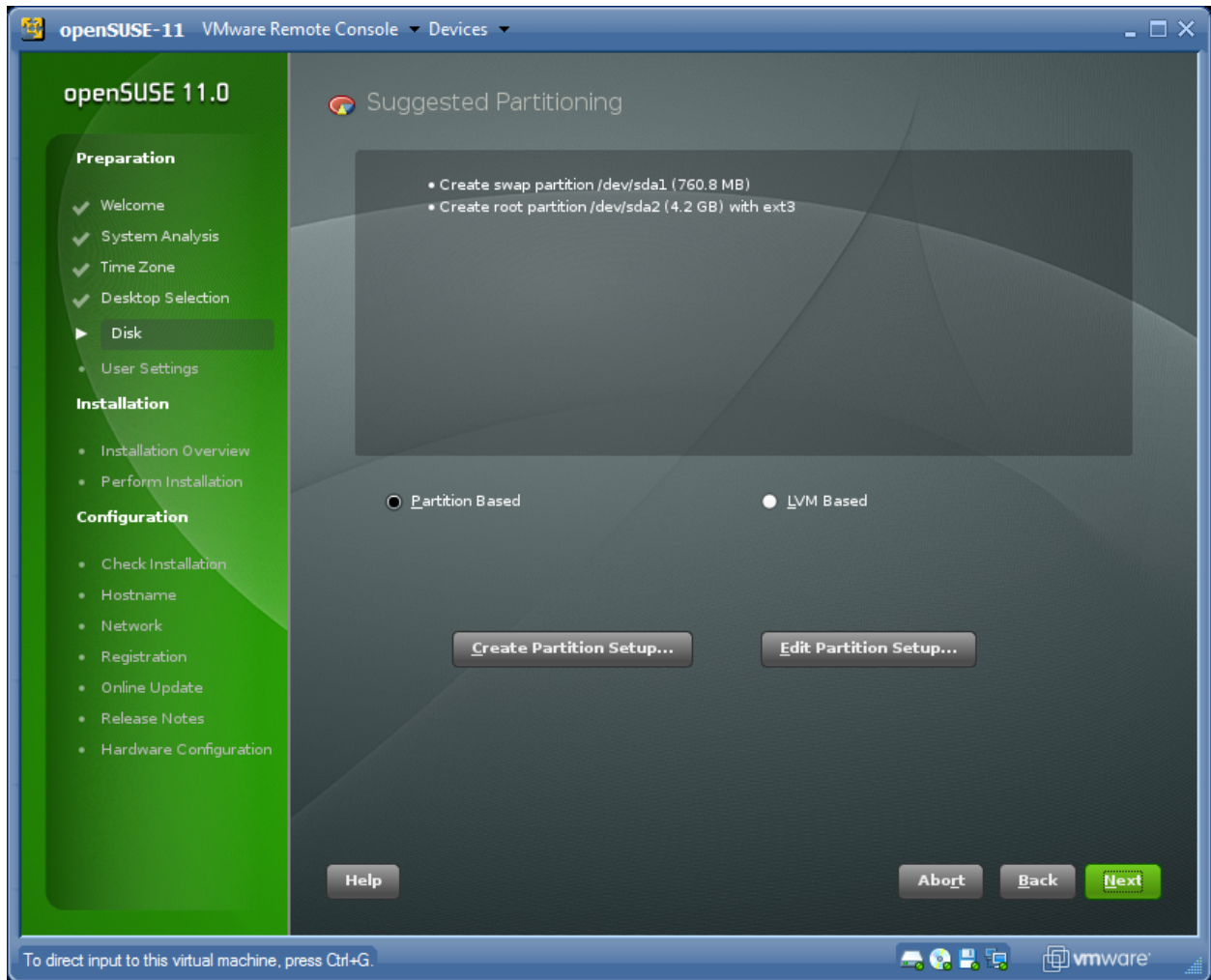


- Select your time zone
- Click Next

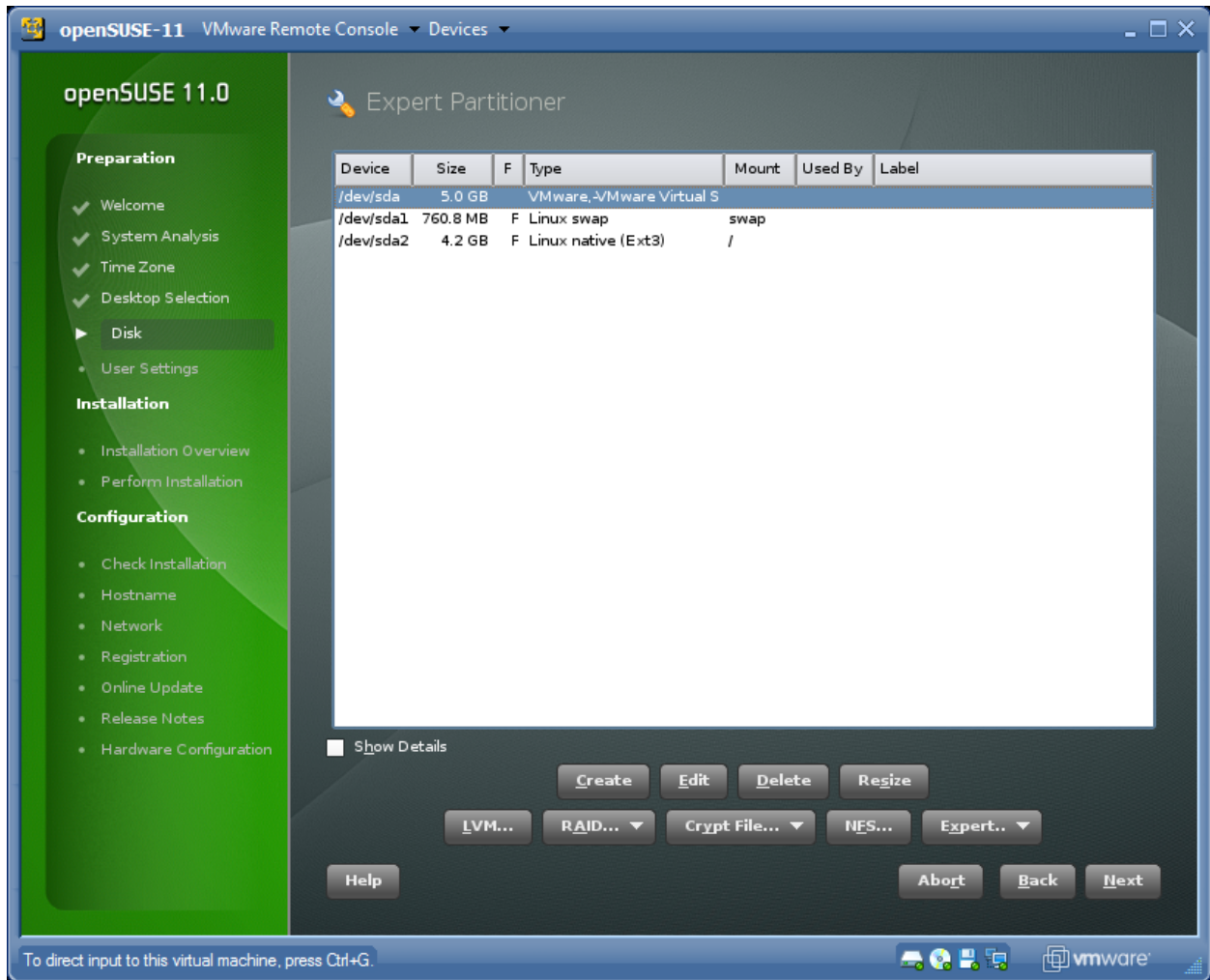




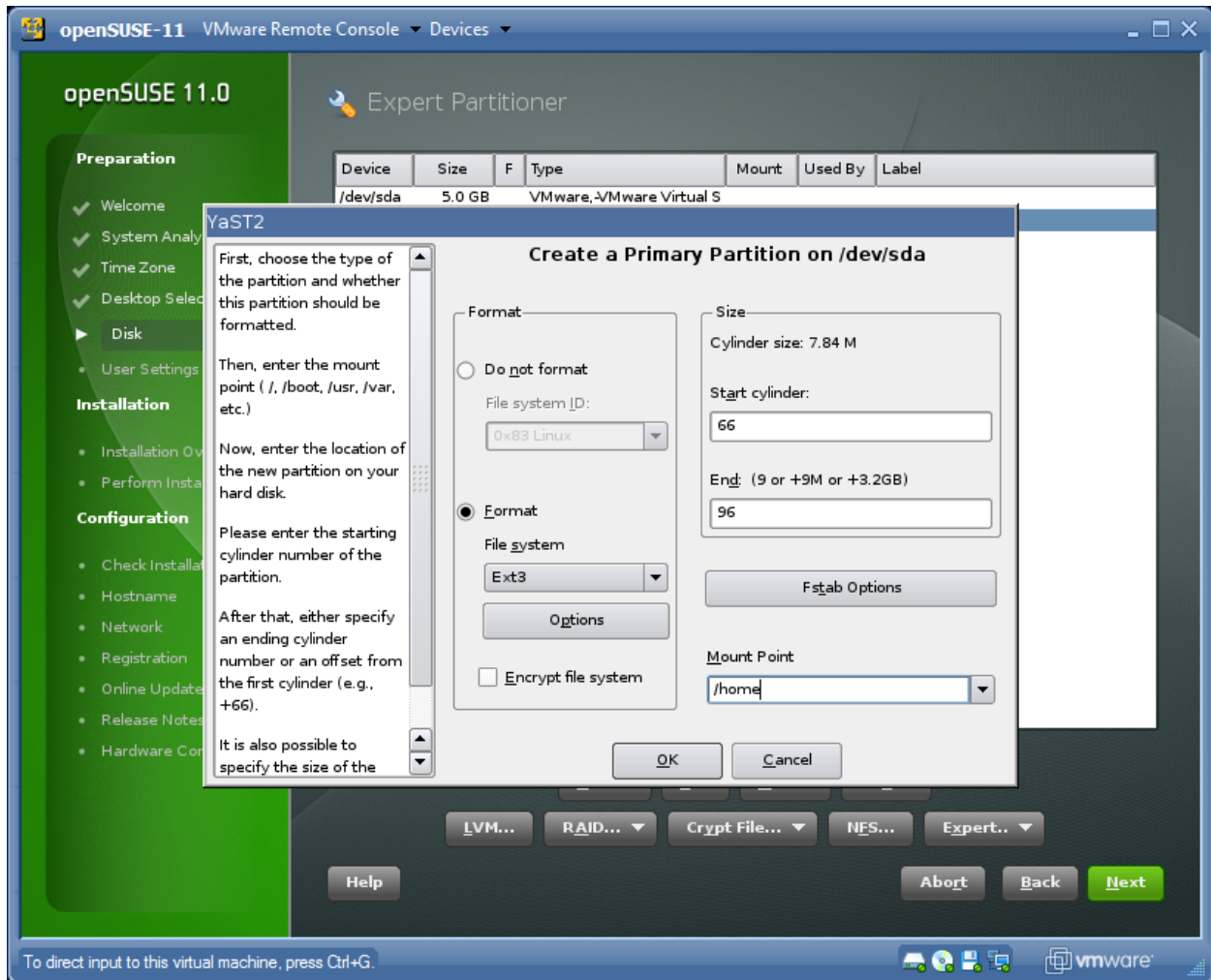
- Choose your desktop, try KDE if you want to try something new
- Click Next



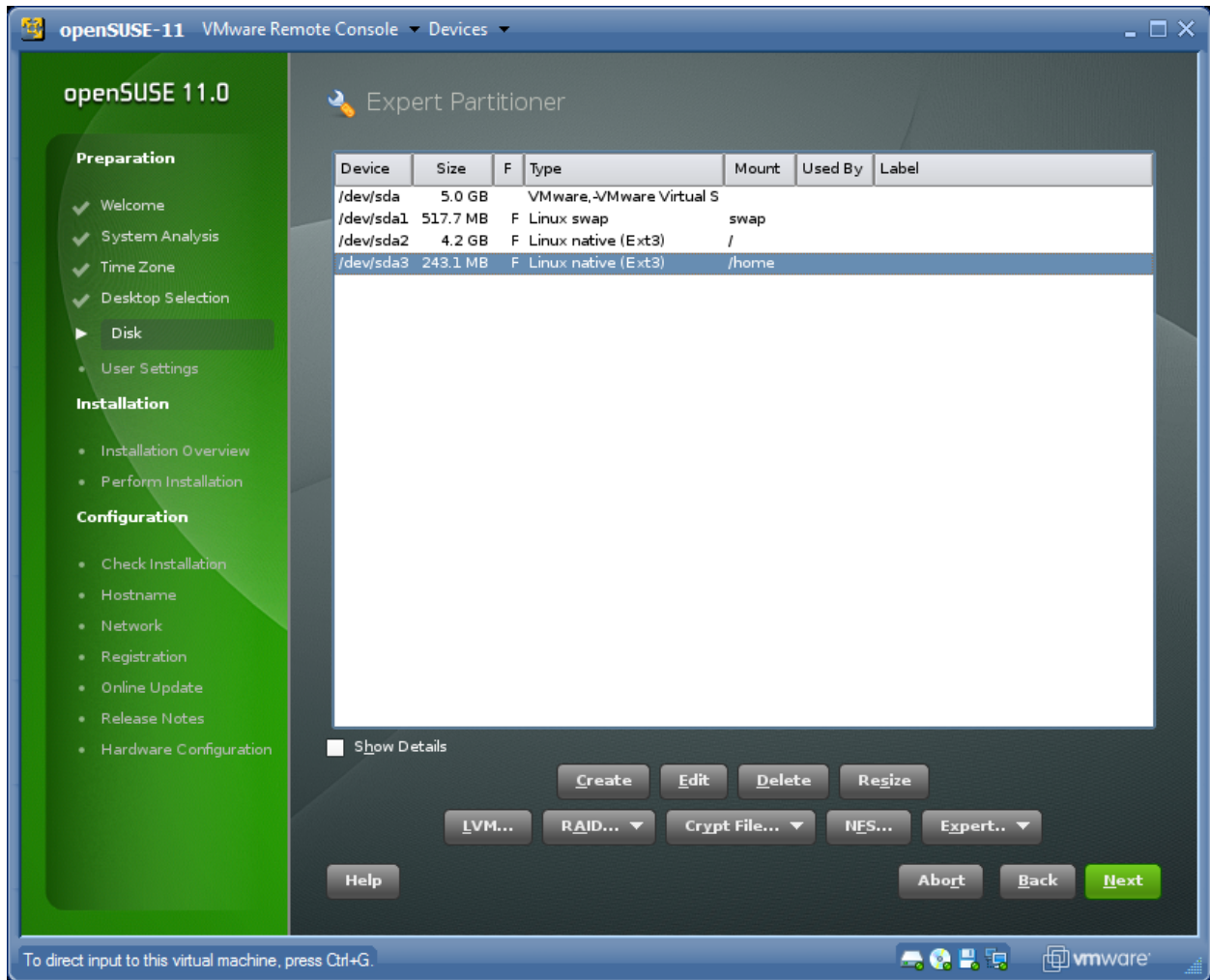
- Click Edit Partition Setup...



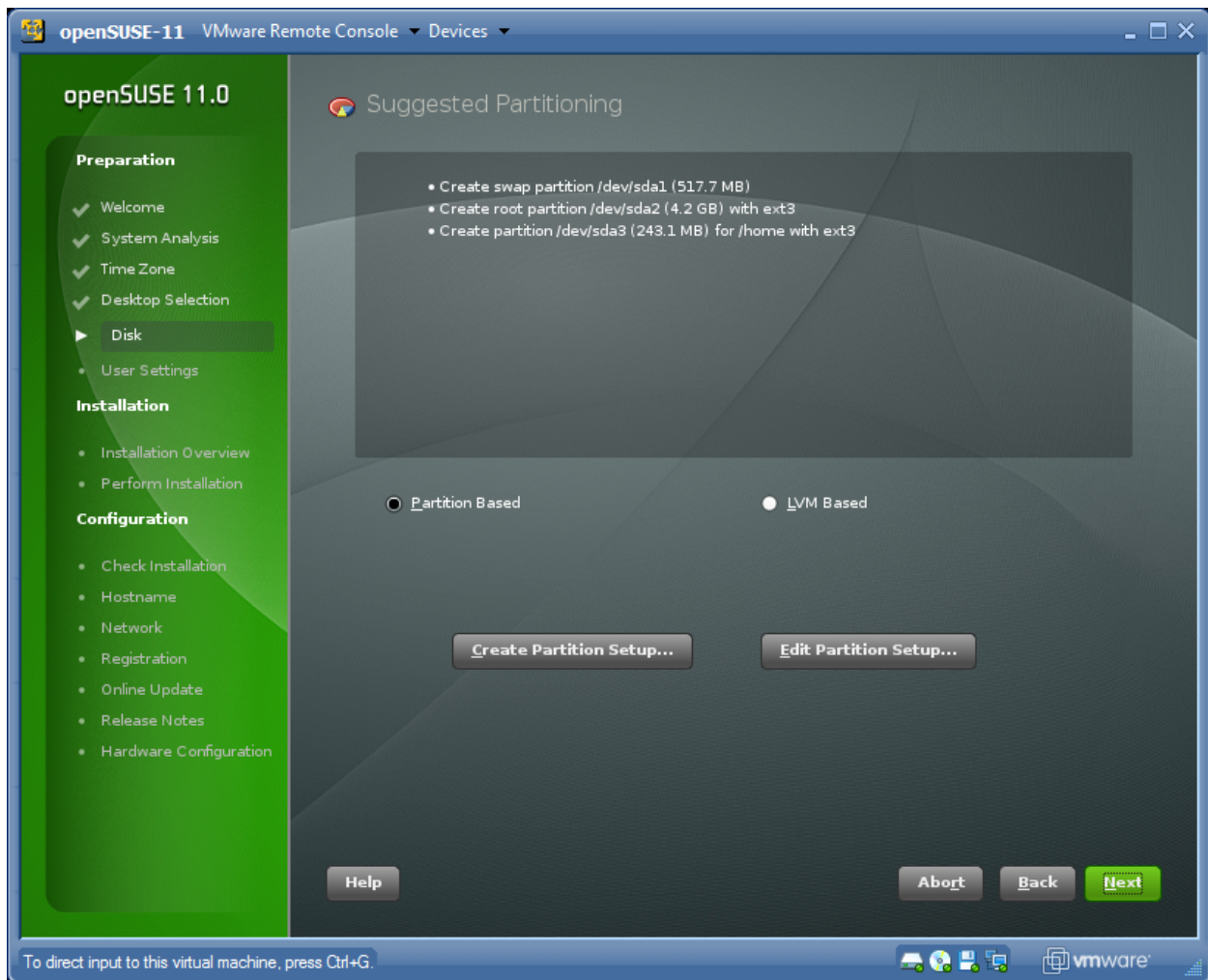
- Edit swap partition and reduce to 512MB



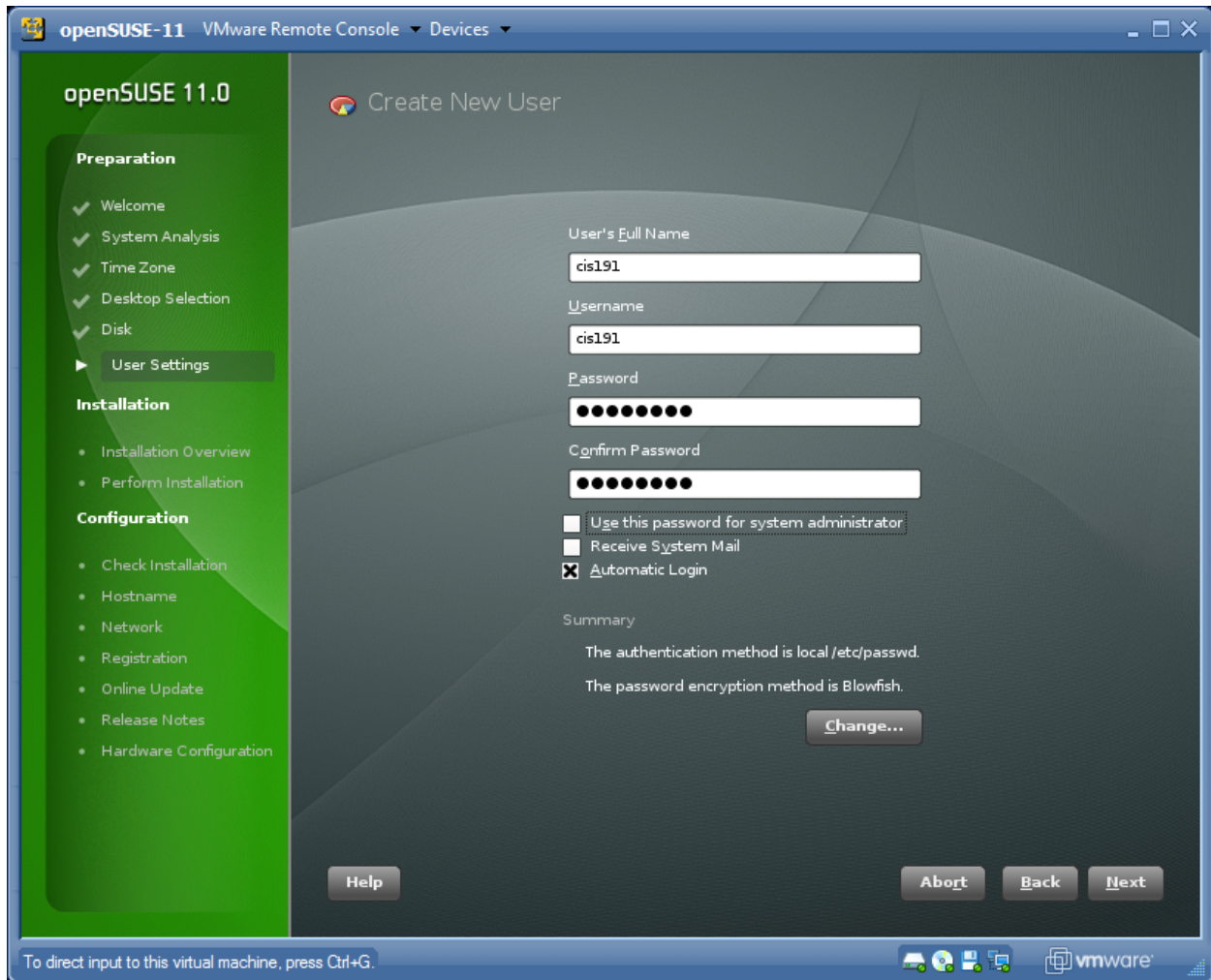
- Create a /home partition using the space freed up from reducing swap space



- Click Next



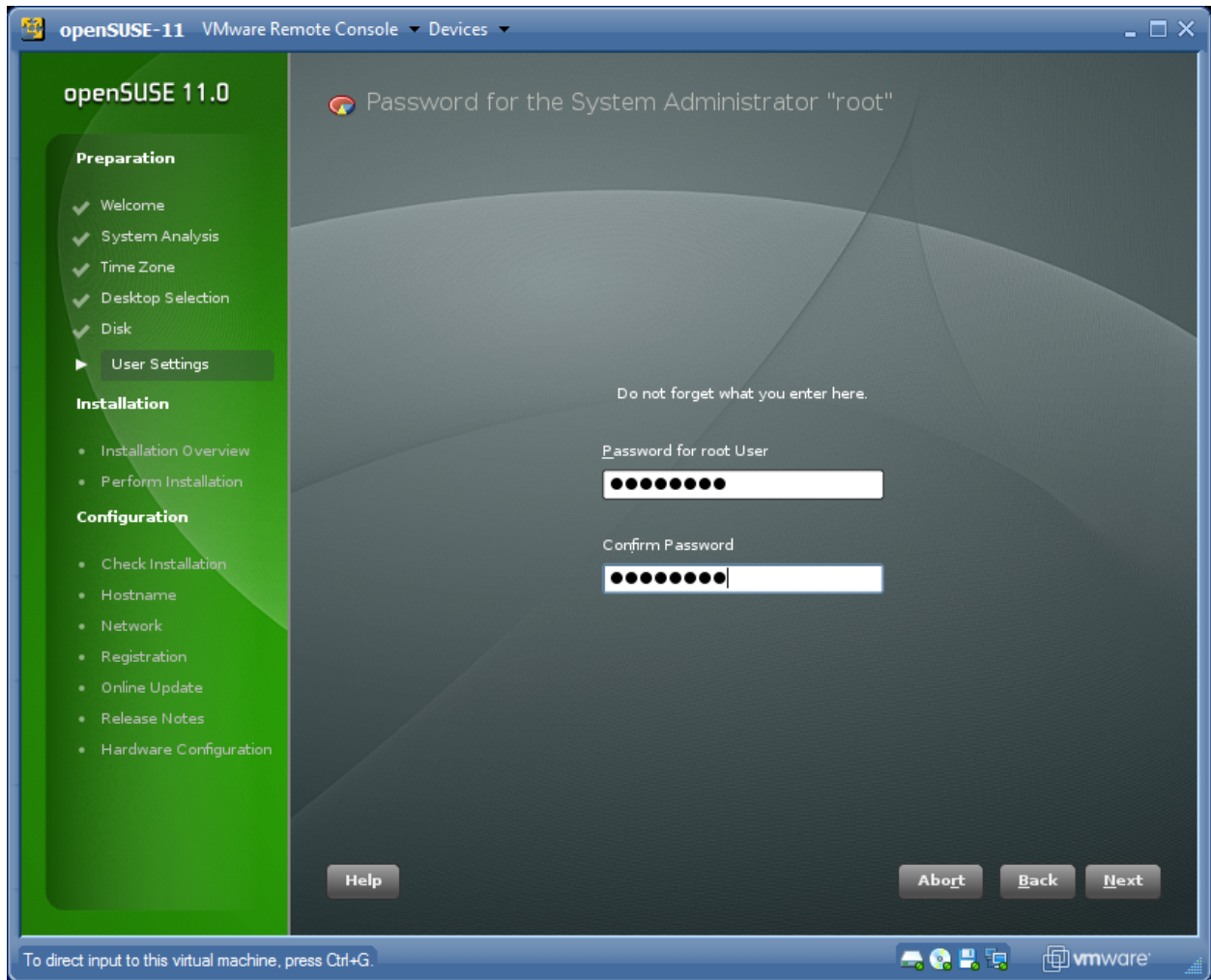
- Click Next



- Add normal user account
- Uncheck: Use this password for system administrator

From: <http://www.schneier.com/blowfish.html>

Blowfish is a symmetric block cipher that can be used as a drop-in replacement for DES or IDEA. It takes a variable-length key, from 32 bits to 448 bits, making it ideal for both domestic and exportable use. Blowfish was designed in 1993 by Bruce Schneier as a fast, free alternative to existing encryption algorithms. Since then it has been analyzed considerably, and it is slowly gaining acceptance as a strong encryption algorithm. Blowfish is unpatented and license-free, and is available free for all uses.

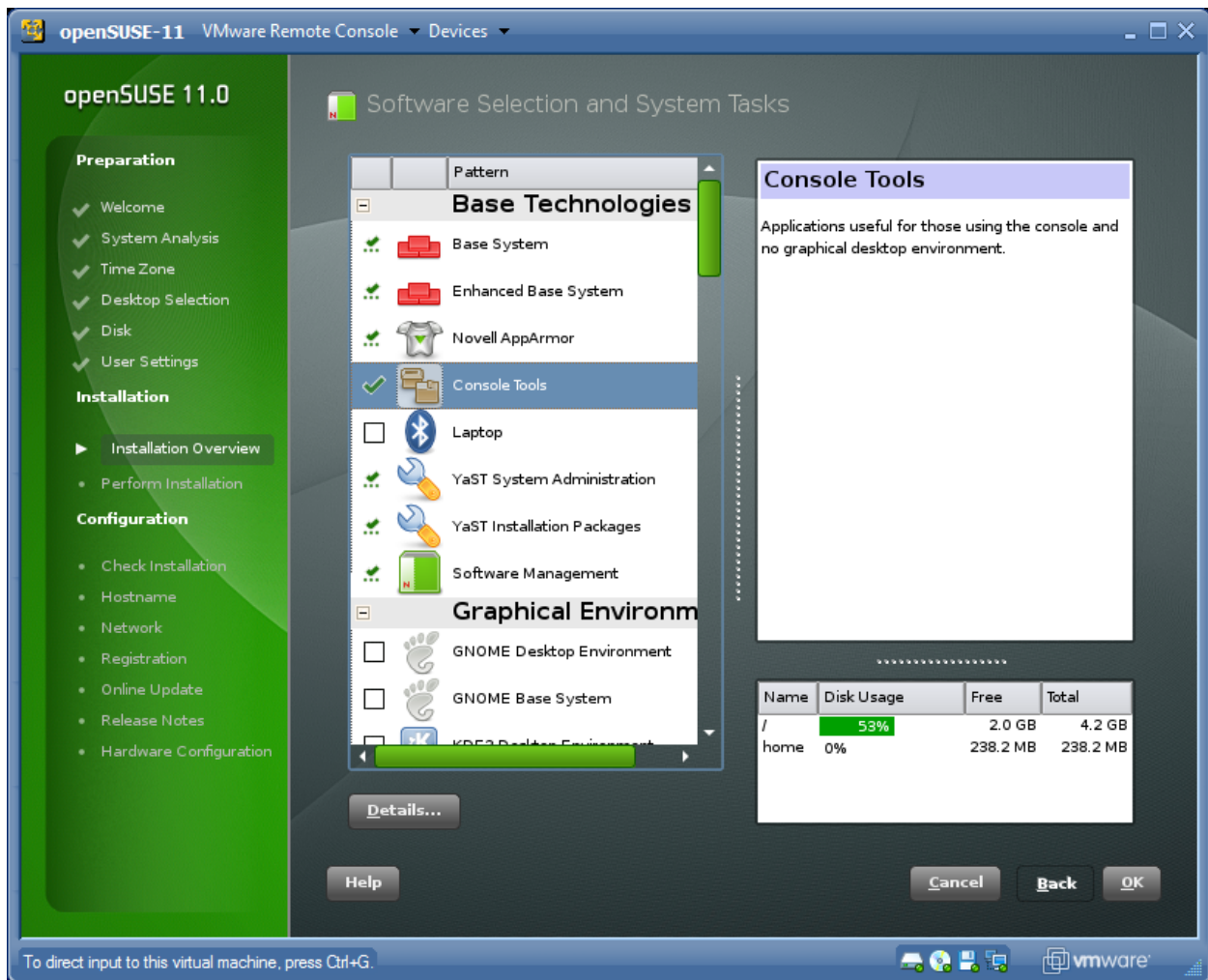


- Add root password





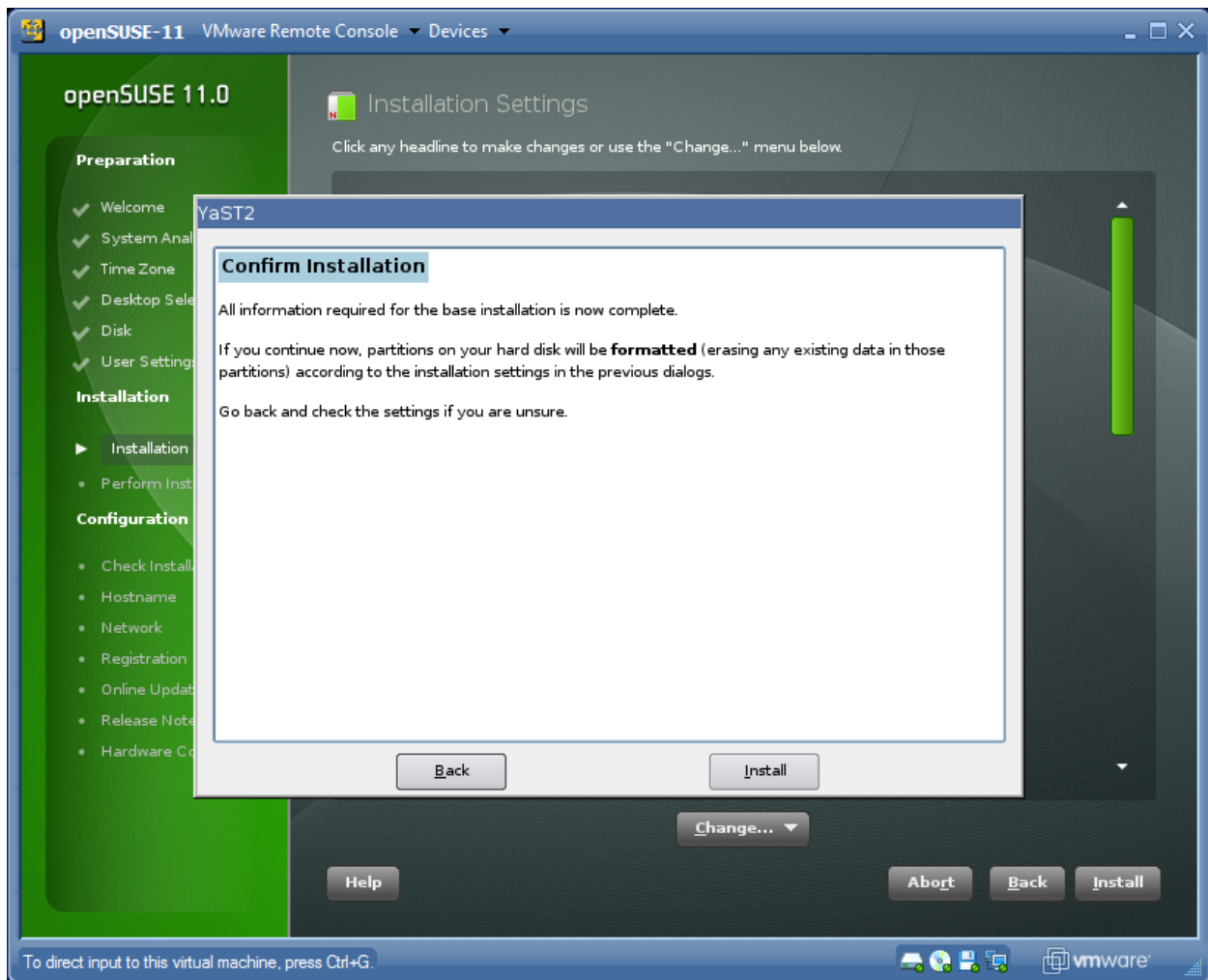
- Click Change... (Software)



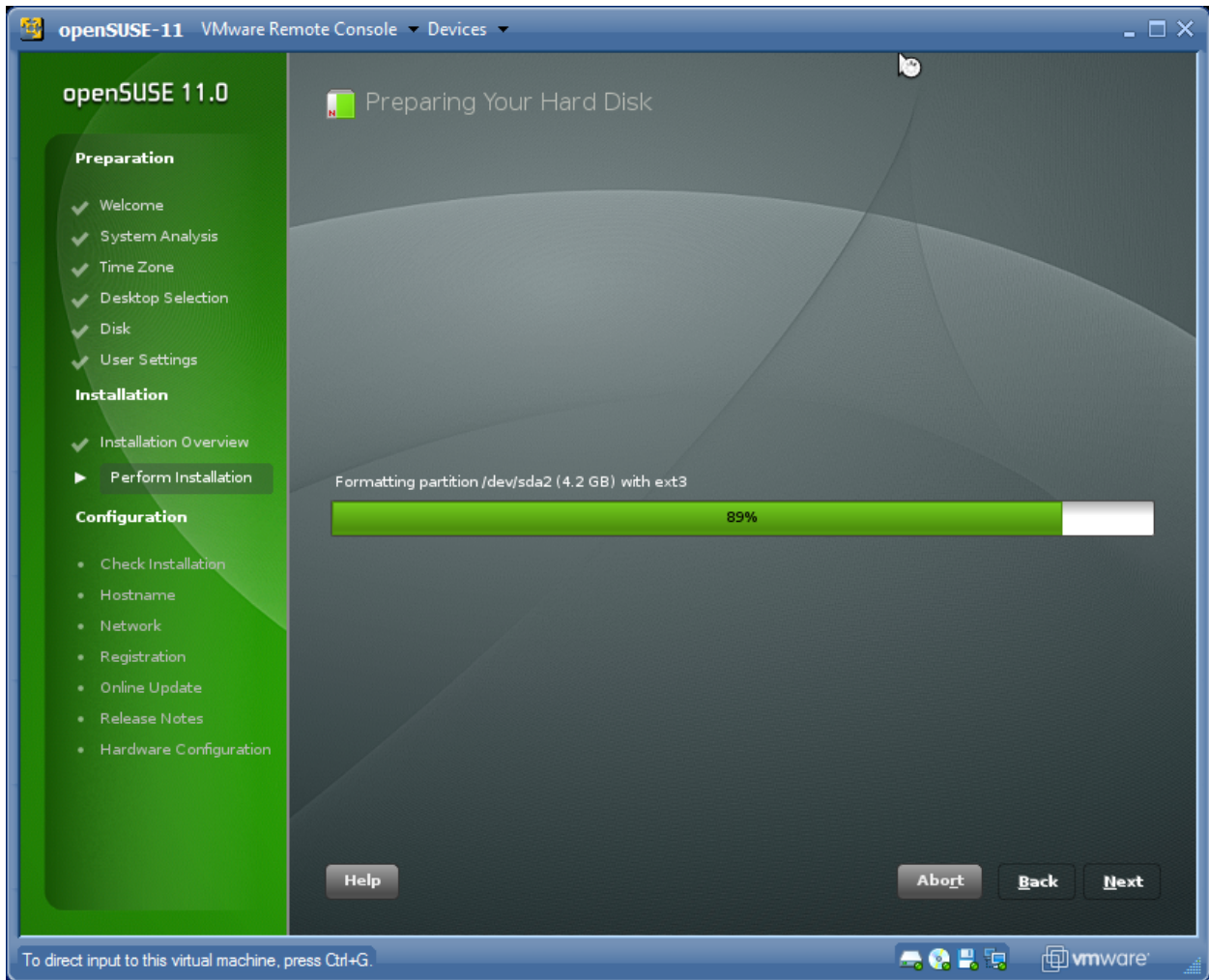
- Add Console Tools under Base Technology
- Click OK



- Click Install



- Click Install to confirm



openSUSE-11 VMware Remote Console ▾ Devices ▾

# openSUSE 11.0

## Deploying Installation Images

**Preparation**

- ✓ Welcome
- ✓ System Analysis
- ✓ Time Zone
- ✓ Desktop Selection
- ✓ Disk
- ✓ User Settings

**Installation**

- ✓ Installation Overview
- ▶ Perform Installation

**Configuration**

- Check Installation
- Hostname
- Network
- Registration
- Online Update
- Release Notes
- Hardware Configuration

Image deployed

100%

Deploying Images...

27%

Help Abort Back Next

To direct input to this virtual machine, press Ctrl+G.

vmware

## openSUSE 11.0

### Preparation

- ✓ Welcome
- ✓ System Analysis
- ✓ Time Zone
- ✓ Desktop Selection
- ✓ Disk
- ✓ User Settings

### Installation

- ✓ Installation Overview
- ▶ Perform Installation

### Configuration

- Check Installation
- Hostname
- Network
- Registration
- Online Update
- Release Notes
- Hardware Configuration

## Package Installation

### Slide Show

Details

Release Notes



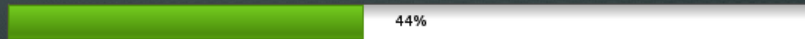
### Connect and Communicate

You can communicate more effectively with openSUSE 11.0 because it provides a complete set of tools for Web browsing and e-mail management—it even includes the newest Voice over IP technology.

openSUSE includes Mozilla Firefox, one of the best Web browsers in the world. Firefox includes all the features you need to enjoy the Web, including the Java, Adobe Acrobat Reader, RealPlayer, and Macromedia Flash plugins. Firefox 3.0 also boasts lightning-fast performance, and a number of improvements designed to protect your privacy and prevent phishing attacks.

Also included with openSUSE are Novell Evolution and Kontact, complete e-mail and contact management applications. For instant messaging, openSUSE features easy to use IM clients that support all of the popular protocols: AIM, Google Talk, Jabber, MSN, Yahoo!, Groupwise, and many others.

Remaining: 833.69 MB / 06:37

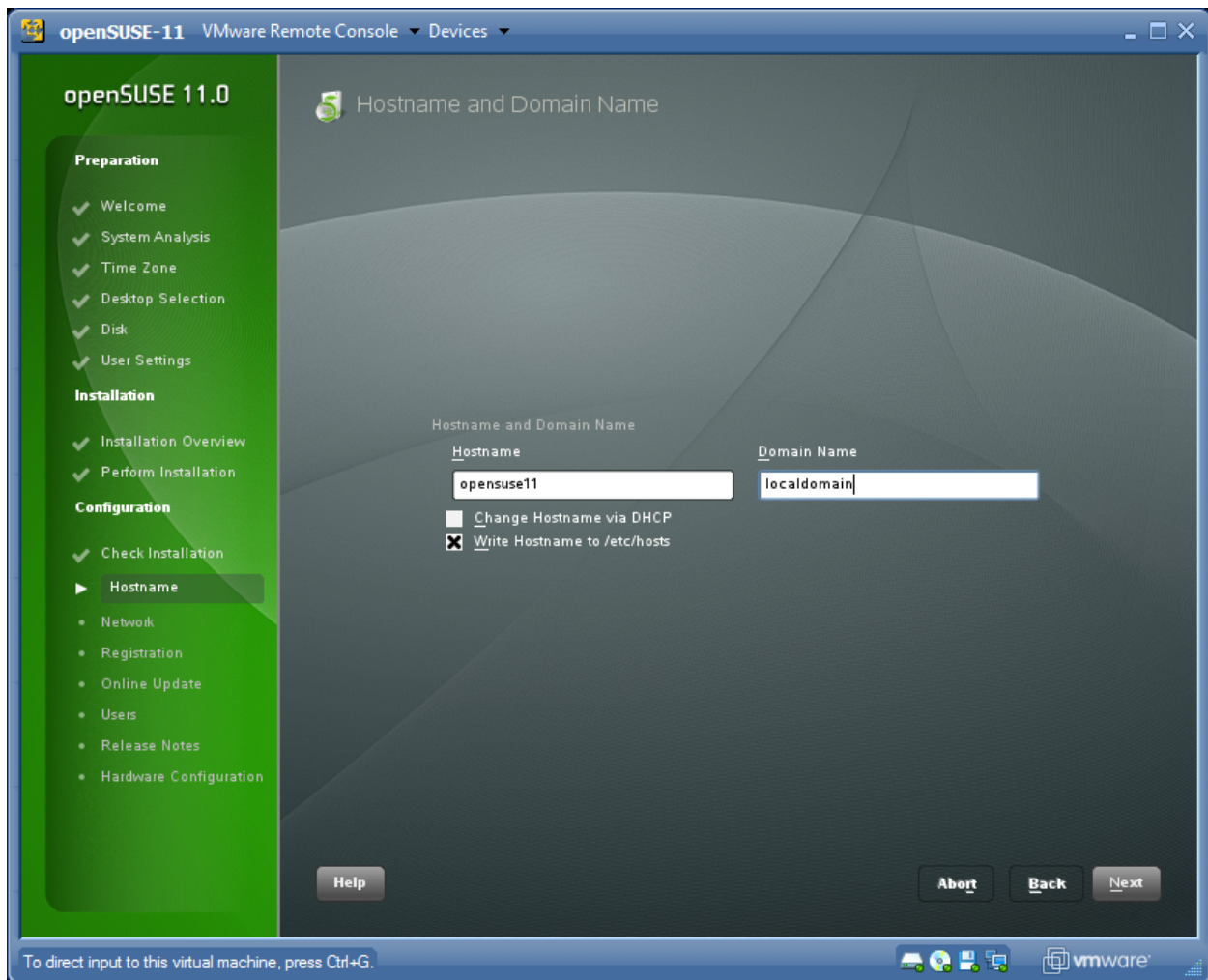


Help

Abort

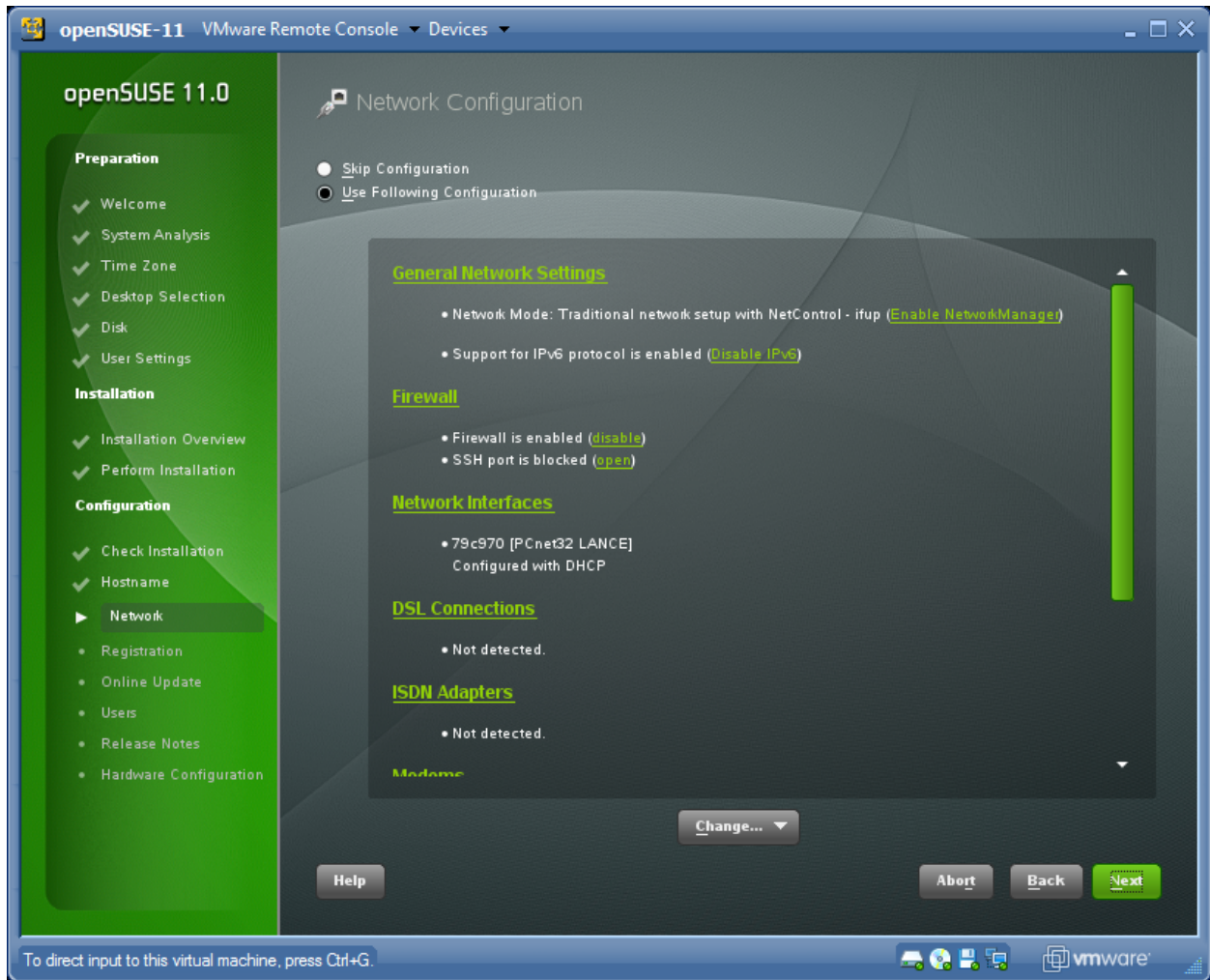
Back

Next



- Type in hostname
- Uncheck: Change Hostname via DHCP

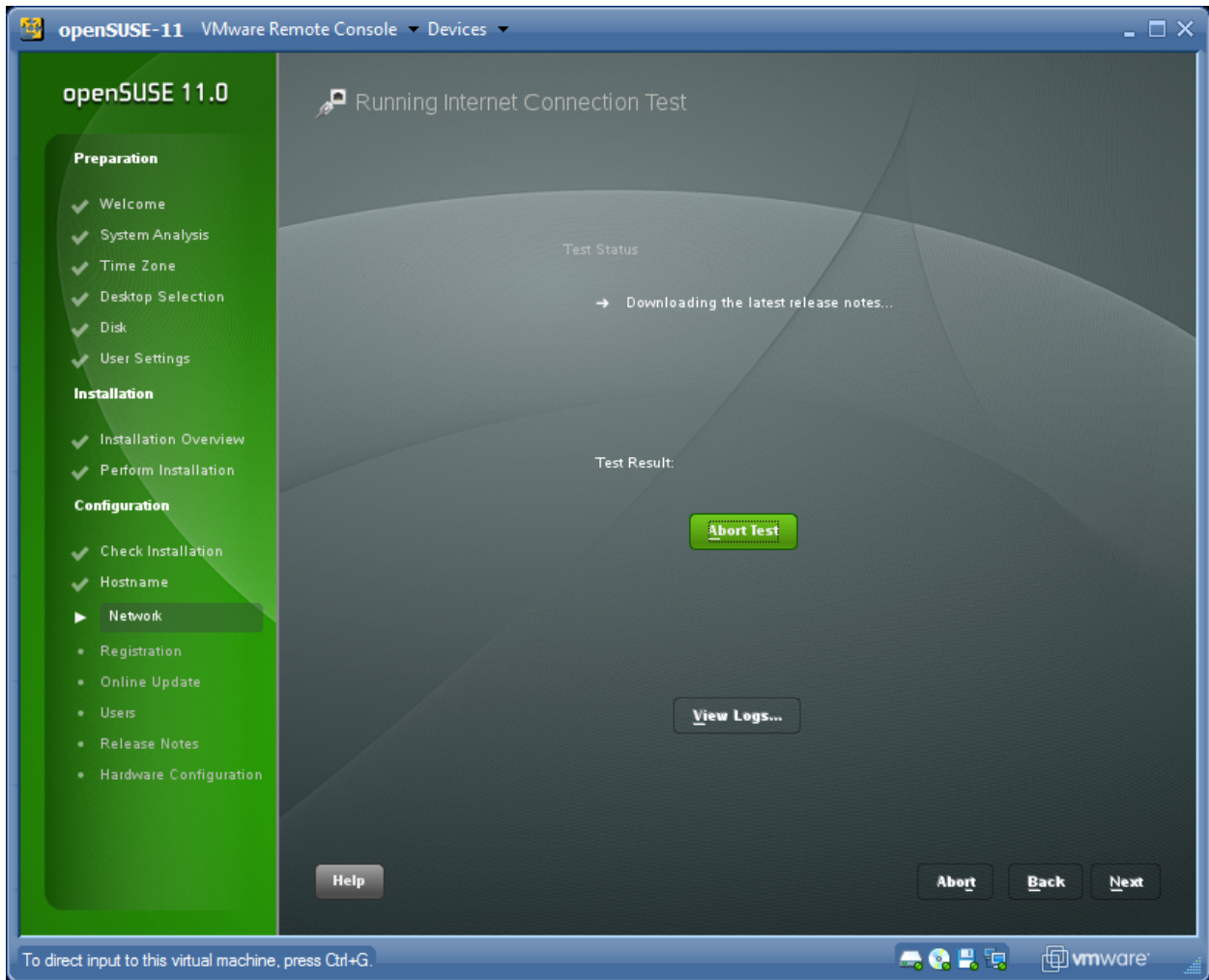


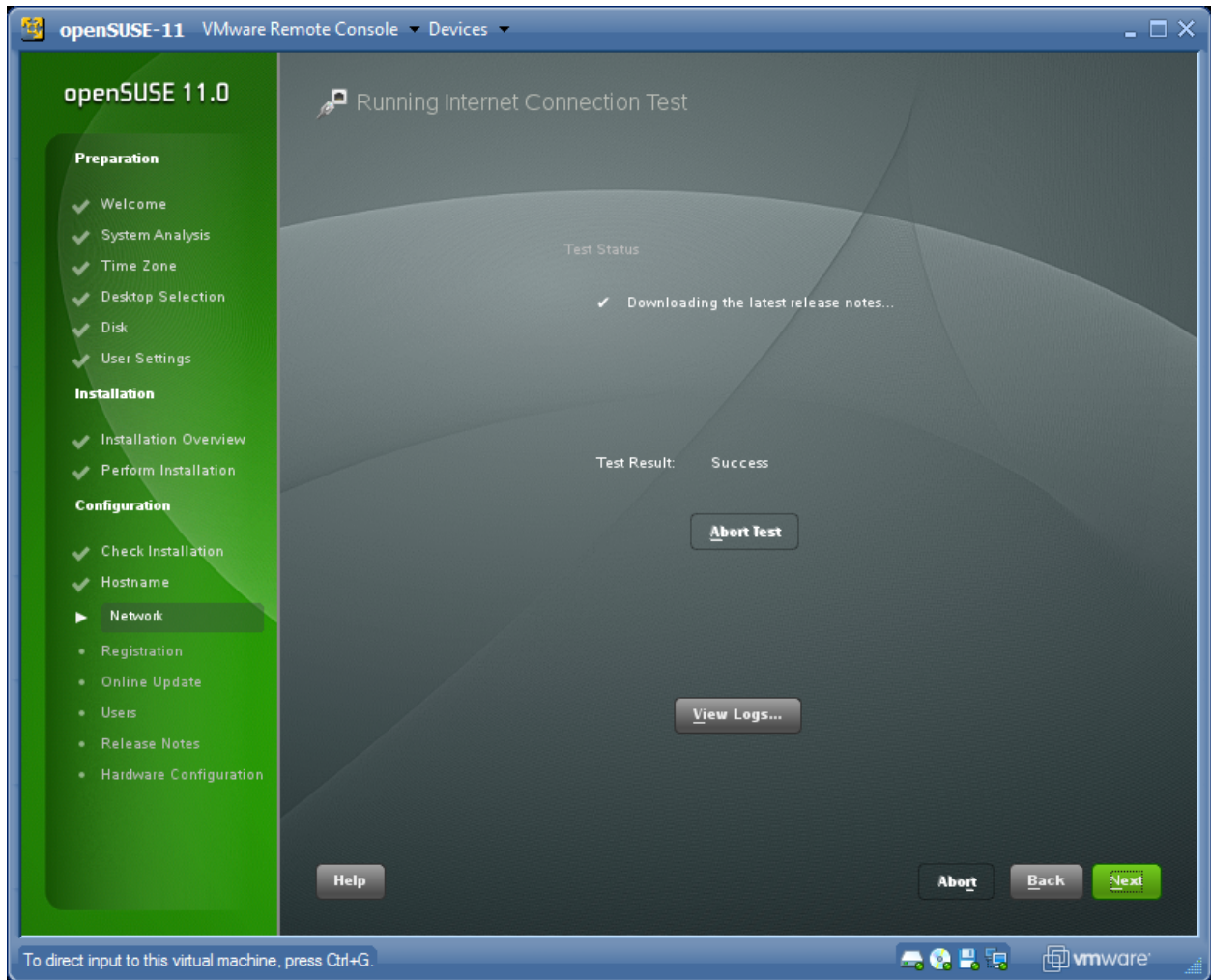


- Click Next



- Click Next





- Click Next



- Click Next

openSUSE-11 VMware Remote Console ▾ Devices ▾

# openSUSE 11.0

**Preparation**

- ✓ Welcome
- ✓ System Analysis
- ✓ Time Zone
- ✓ Desktop Selection
- ✓ Disk
- ✓ User Settings

**Installation**

- ✓ Installation Overview
- ✓ Perform Installation

**Configuration**

- ✓ Check Installation
- ✓ Hostname
- ✓ Network
- ▶ **Registration**
  - Online Update
  - Users
  - Release Notes
  - Hardware Configuration

Adding the Repository...

- Probe Source Type
- Download Descriptions
- Rebuild Cache
- Load Data

YaST2  
Setting up online update source...

Downloading: <http://download.opensuse.org/.../repodata/primary.xml.gz> - 124.44 kB/s (on average 66.83 kB/s)

75%

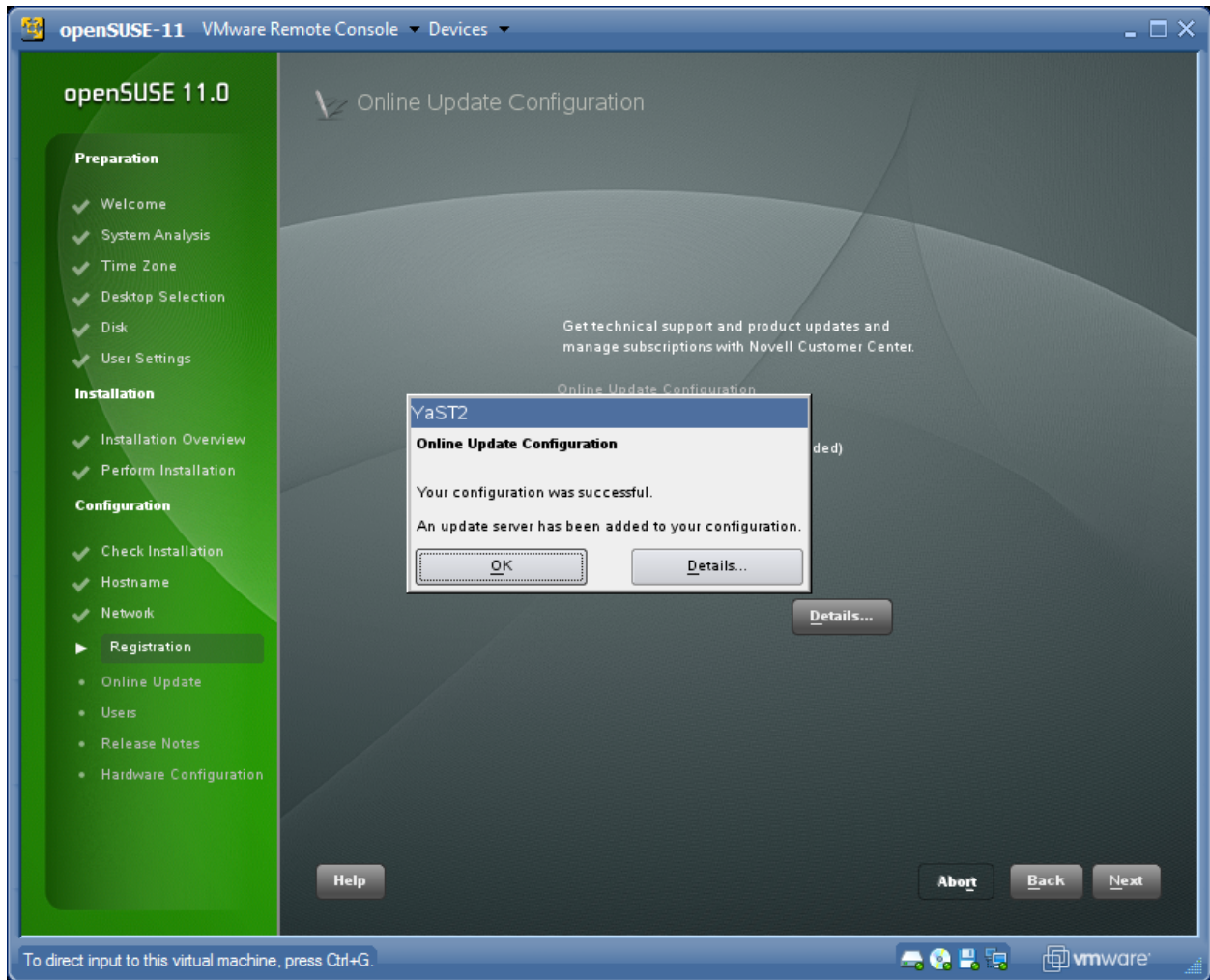
Adding the Repository...

0%

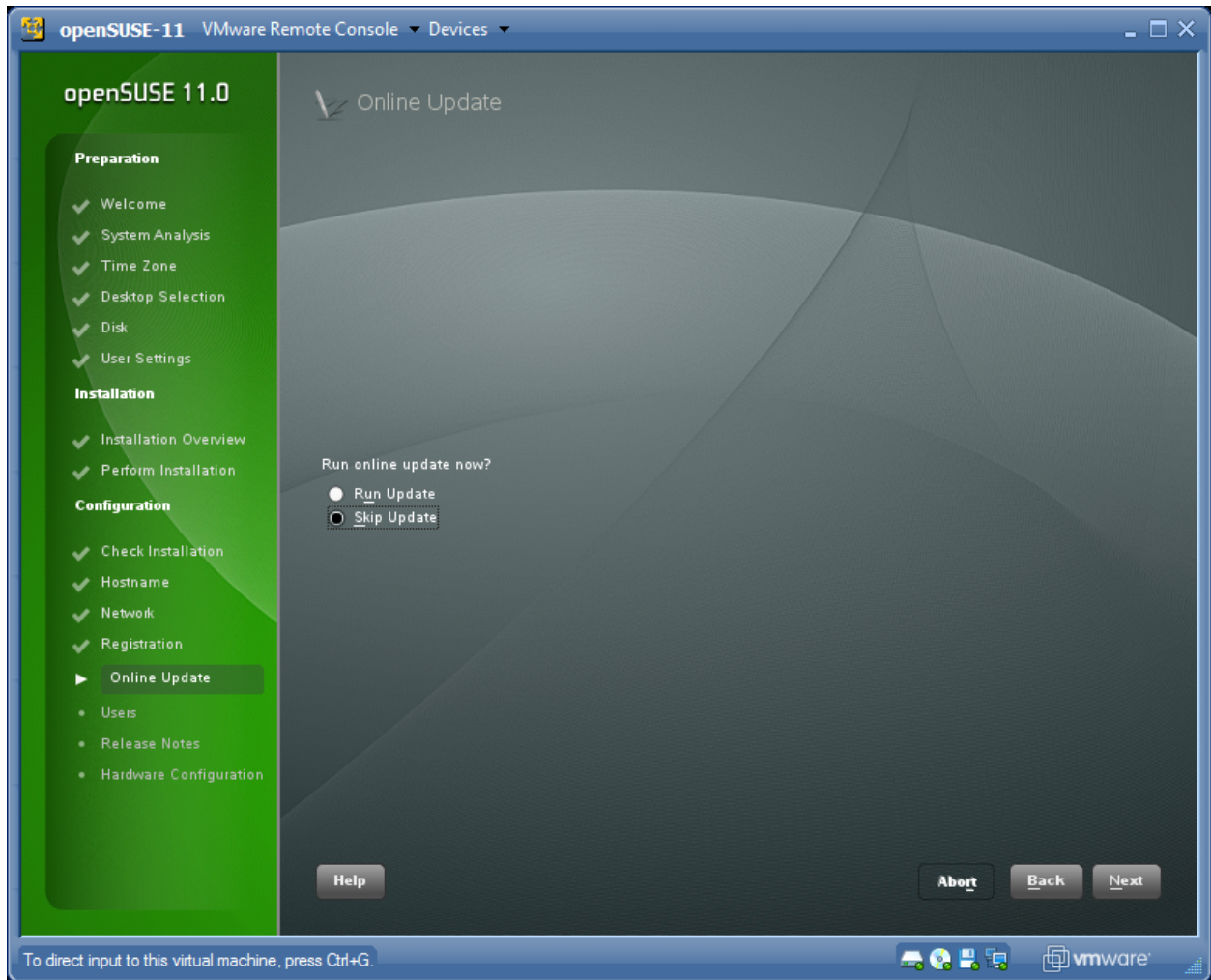
Help Abort Back Next

To direct input to this virtual machine, press Ctrl+G.

vmware

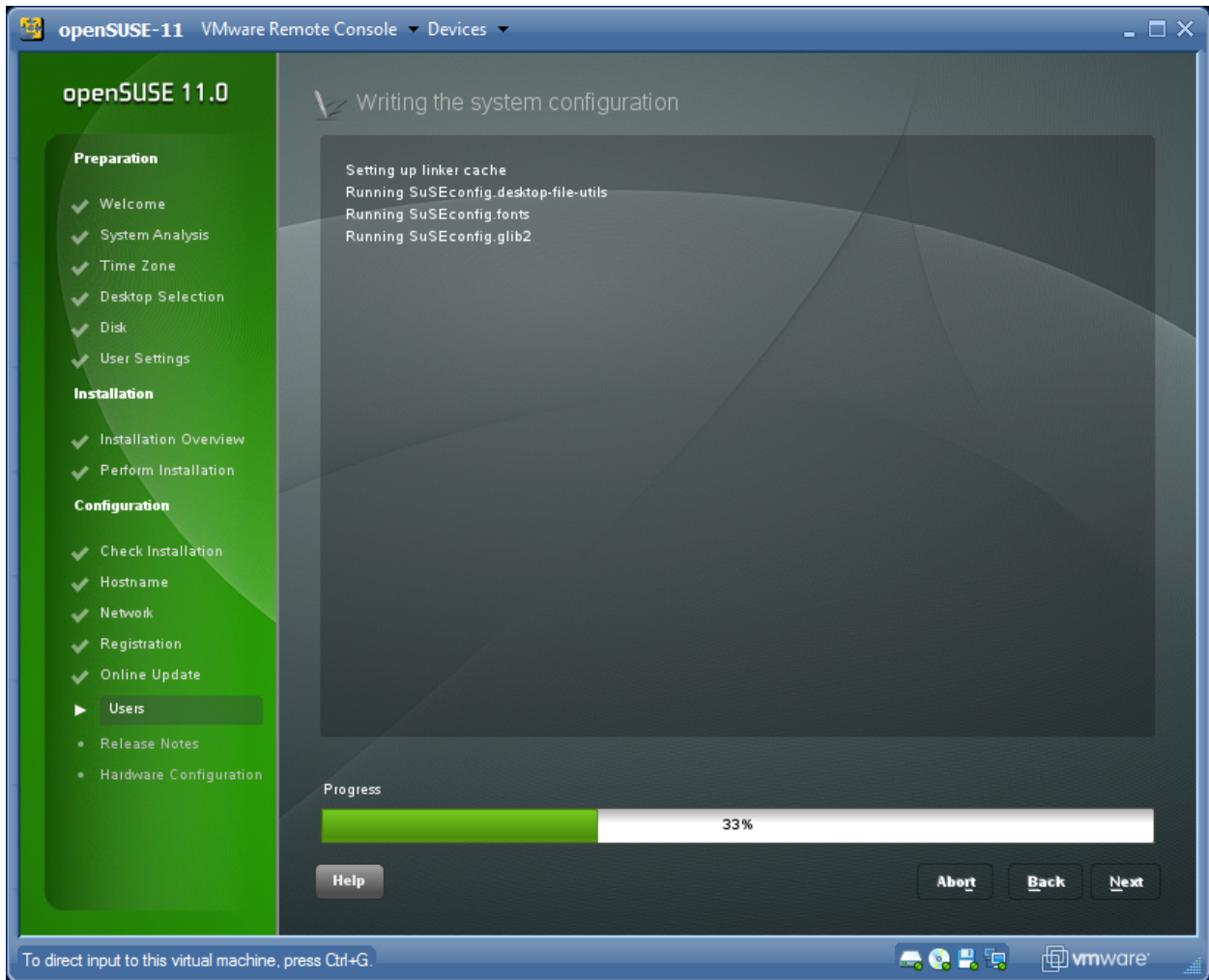


- Click OK



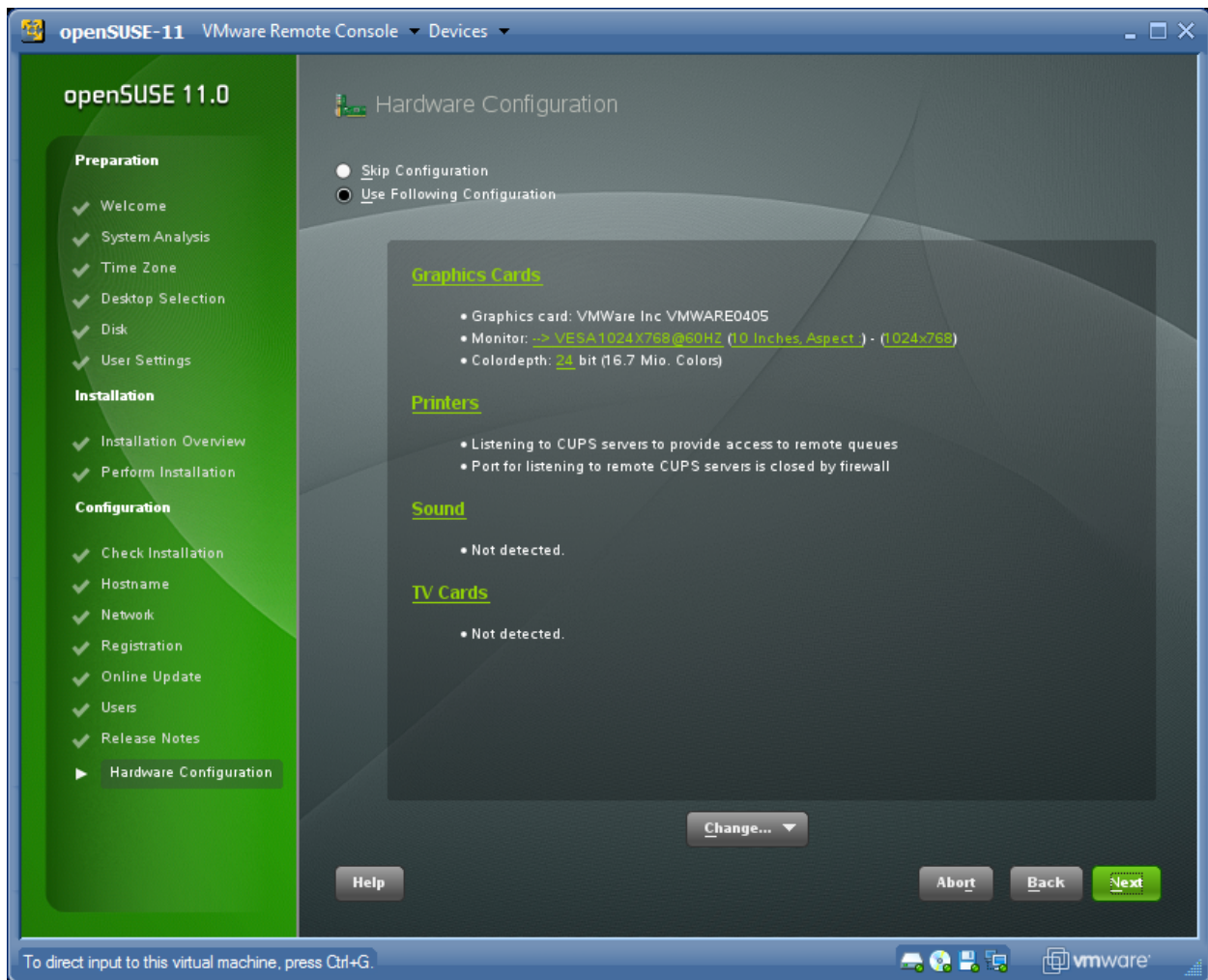
- Choose: Skip Update
- Click Next



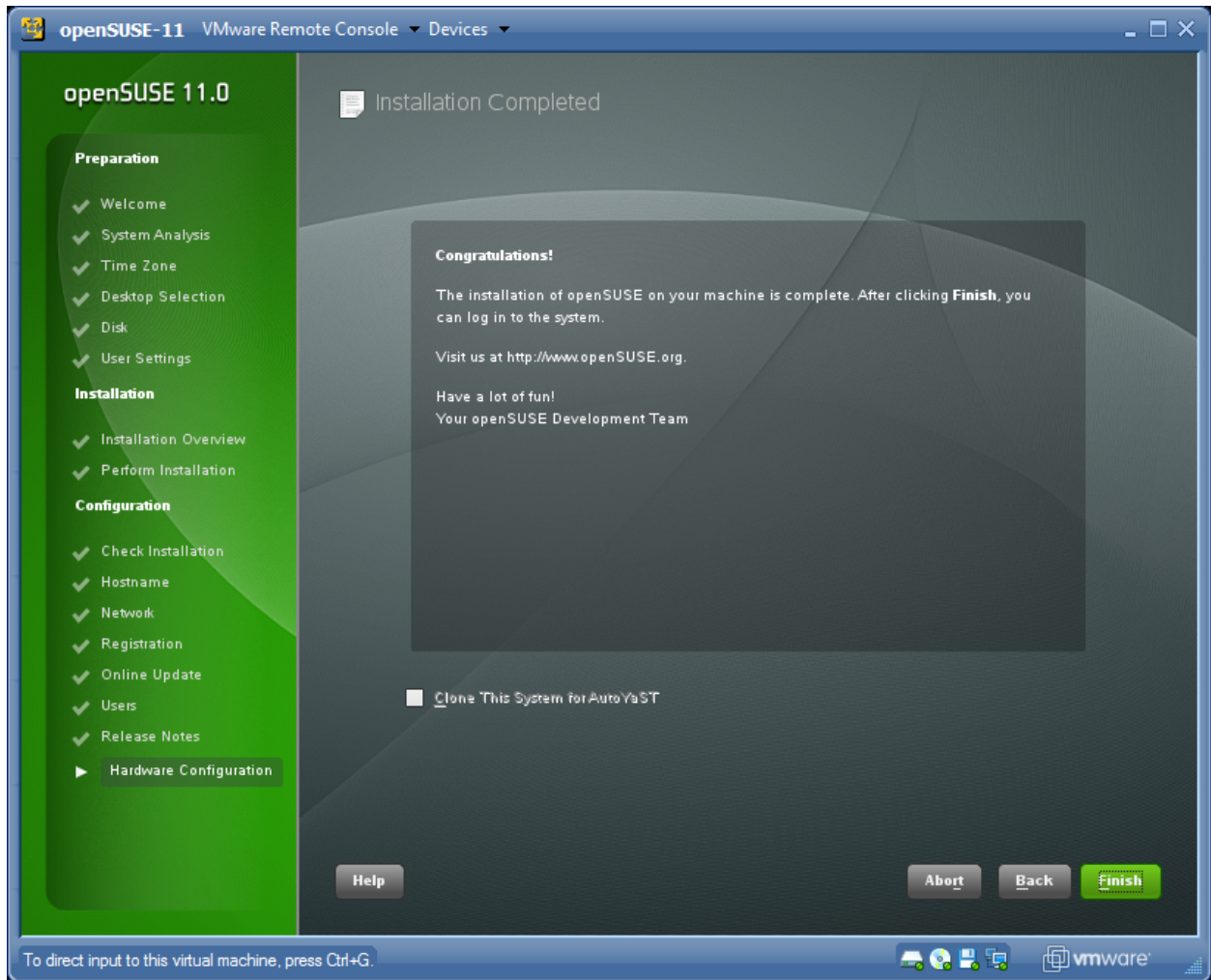




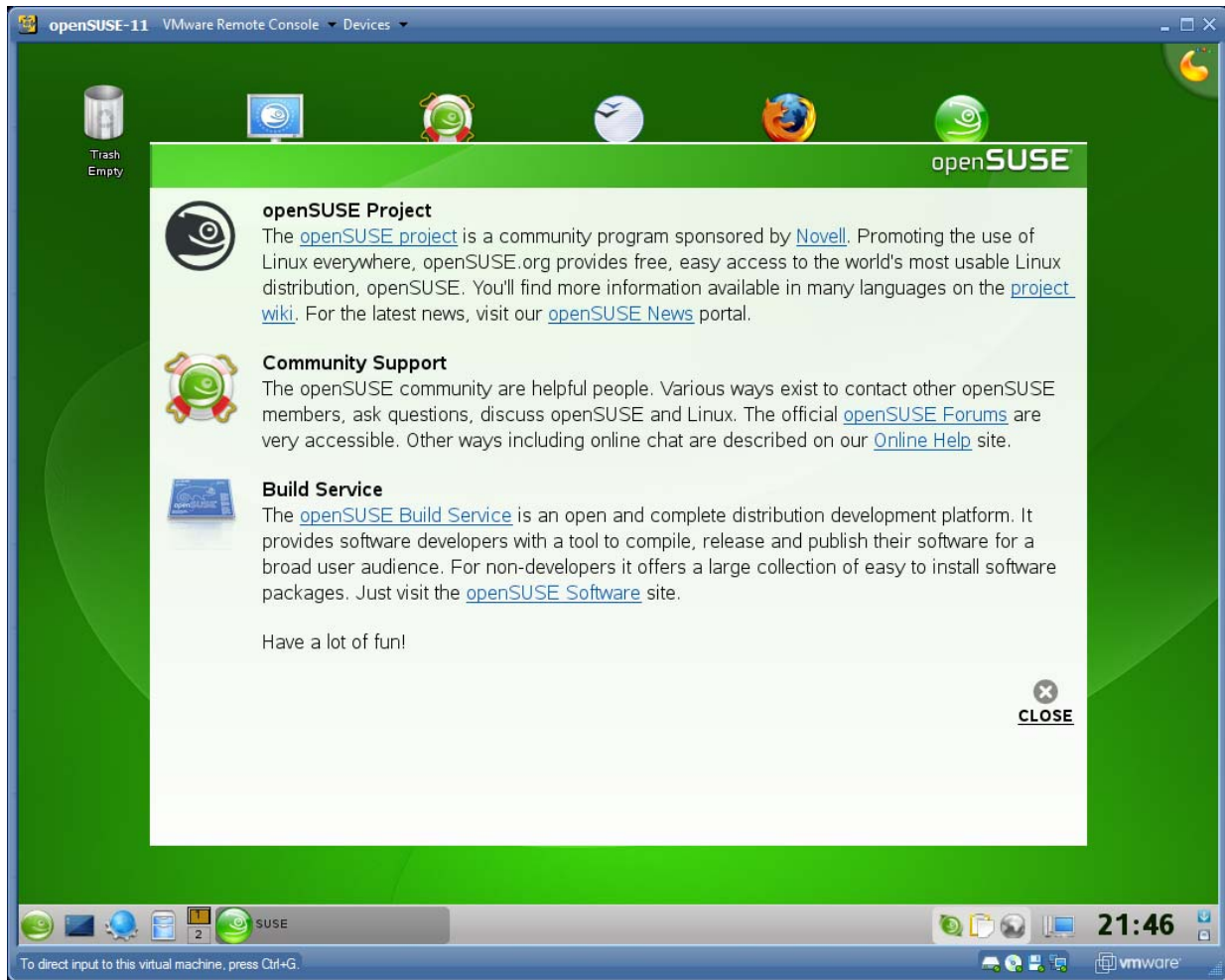
- Click Next



- Click Next



- Click Finish



- Click Close



Here is what you should have now on your new VM:

```
opensuse11:~ # fdisk -l
```

```
Disk /dev/sda: 5368 MB, 5368709120 bytes
255 heads, 63 sectors/track, 652 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes
Disk identifier: 0x0002de72
```

Device	Boot	Start	End	Blocks	Id	System
/dev/sda1		1	66	530113+	82	Linux swap / Solaris
/dev/sda2	*	98	652	4458037+	83	Linux
/dev/sda3		67	97	249007+	83	Linux

Partition table entries are not in disk order

```
opensuse11:~ #
```

Note that sda3 is listed after sda2. This is because we created it in the space freed up by shrinking the swap partition.

```

opensuse11:~ # mount
/dev/sda2 on / type ext3 (rw,acl,user_xattr)
proc on /proc type proc (rw)
sysfs on /sys type sysfs (rw)
debugfs on /sys/kernel/debug type debugfs (rw)
udev on /dev type tmpfs (rw)
devpts on /dev/pts type devpts (rw,mode=0620,gid=5)
/dev/sda3 on /home type ext3 (rw,acl,user_xattr)
securityfs on /sys/kernel/security type securityfs (rw)
fusectl on /sys/fs/fuse/connections type fusectl (rw)
none on /proc/sys/fs/binfmt_misc type binfmt_misc (rw)
none on /proc/fs/vmblock/mountPoint type vmblock (rw)
opensuse11:~ #

```

Note: We have swap space in sda1, / on sda2 and /home on sda3

```

opensuse11:~ # more /boot/grub/menu.lst
# Modified by YaST2. Last modification on Sat Aug  9 20:47:49 UTC 2008
default 0
timeout 8
##YaST - generic_mbr
gfxmenu (hd0,1)/boot/message
##YaST - activate

###Don't change this comment - YaST2 identifier: Original name: linux###
title openSUSE 11.0 - 2.6.25.5-1.1
    root (hd0,1)
    kernel /boot/vmlinuz-2.6.25.5-1.1-pae root=/dev/sda2 resume=/dev/sda1
splash
=silent showopts vga=0x317
    initrd /boot/initrd-2.6.25.5-1.1-pae

###Don't change this comment - YaST2 identifier: Original name: failsafe###
title Failsafe -- openSUSE 11.0 - 2.6.25.5-1.1
    root (hd0,1)
    kernel /boot/vmlinuz-2.6.25.5-1.1-pae root=/dev/sda2 showopts ide=nodma
apm=
off acpi=off noresume nosmp noapic maxcpus=0 edd=off x11failsafe vga=0x317
    initrd /boot/initrd-2.6.25.5-1.1-pae

###Don't change this comment - YaST2 identifier: Original name: floppy###
title Floppy
    rootnoverify (hd0,1)
    chainloader (fd0)+1
opensuse11:~ #

```

Note: openSUSE's grub.conf file is menu.lst rather than grub.conf. This is like Ubuntu 8.04.

```

opensuse11:~ # xxd /dev/sda | more
00000000: 31c0 8ed0 bc00 7c8e c08e d8bf 1e06 bele  1.....|.....
0000010: 7c50 57b9 e201 f3a4 b900 02f3 abcb 80fa  |PW.....
0000020: 8f7e 02b2 8052 52bb 9407 8daf 2a00 8a46  .~...RR.....*..F
0000030: 0466 8b7e 0866 033e b306 84c0 740b 807e  .f~.f.>....t~
0000040: 0080 7505 6689 3e84 0b83 c510 83c3 0980  ..u.f.>.....

```

```

0000050: fbb8 75da b8e1 00c1 e002 89c6 668b ac00  .u.....f...
0000060: 0866 85ed 7519 b8c5 06be bb06 e8a5 0089  .f..u.....
0000070: c6e8 9a00 5a31 c0cd 13cd 18fb f4eb fc66  ....Zl.....f
0000080: 892e b306 beab 06b4 425a 52cd 13b8 d906  ....BZR.....
0000090: 72d7 a000 7c84 c074 03a1 fe7d 3d55 aab8  r...|..t...}=U..
00000a0: e906 75c5 6689 ee5a e955 7510 0001 0000  .u.f..Z.Uu....
00000b0: 7c00 0000 0000 0000 0000 0045 7272 6f72  |.....Error
00000c0: 2000 0d0a 004e 6f20 6163 7469 7665 2070  ....No active p
00000d0: 6172 7469 7469 6f6e 0044 6973 6b20 7265  artition.Disk re
00000e0: 6164 2065 7272 6f72 004e 6f20 6f70 6572  ad error.No oper
00000f0: 6174 696e 6720 7379 7374 656d 0049 6e76  ating system.Inv
0000100: 616c 6964 2043 4853 2072 6561 6400 e803  alid CHS read...
0000110: 00be c206 60ac b40e bb01 00cd 10ac 84c0  ....`.....
0000120: 75f4 61c3 0000 0000 0000 0000 0000 0000  u.a.....
0000130: 0000 0000 0000 0000 0000 0000 0000 0000  .....
0000140: 0000 0000 0000 0000 0000 0000 0000 0000  .....
0000150: 0000 0000 0000 0000 0000 0000 0000 0000  .....
0000160: 0000 0000 0000 0000 0000 0000 0000 0000  .....
0000170: 0000 0000 0000 0000 0000 0000 0000 0000  .....
0000180: 0000 0000 0000 0000 0000 0000 0000 0000  .....
0000190: 1c80 b600 0000 0000 0000 0000 0000 0000  .....
00001a0: 0000 0000 0000 0000 0000 0000 0000 0000  .....
00001b0: 0000 0000 0000 0000 72de 0200 0000 0001  .....r.....
00001c0: 0100 82fe 3f41 3f00 0000 832d 1000 8000  ....?A?.....-....
00001d0: 0161 83fe bf8b 21c7 1700 6b0c 8800 0000  .a....!...k.....
00001e0: 0142 83fe 3f60 c22d 1000 5f99 0700 0000  .B...?`.-..._.....
00001f0: 0000 0000 0000 0000 0000 0000 0000 55aa  .....U.
0000200: 0000 0000 0000 0000 0000 0000 0000 0000  .....
opensuse11:~ #

```

Note: MBR has conventional boot code in it.

```

opensuse11:~ # xxd /dev/sda2 | more
0000000: eb48 9000 0000 0000 0000 0000 0000 0000  .H.....
0000010: 0000 0000 0000 0000 0000 0000 0000 0000  .....
0000020: 0000 0000 0000 0000 0000 0000 0000 0000  .....
0000030: 0000 0000 0000 0000 0000 0000 0000 0302  .....
0000040: ff00 0080 b9c7 5900 0008 fa90 90f6 c280  ....Y.....
0000050: 7502 b280 ea59 7c00 0031 c08e d88e d0bc  u....Y|.l.....
0000060: 0020 fba0 407c 3cff 7402 88c2 52be 817d  . .@|<.t...R..}
0000070: e836 01f6 c280 7456 b441 bbaa 55cd 135a  .6....tV.A..U..Z
0000080: 5272 4b81 fb55 aa75 45a0 417c 84c0 783e  RrK..U.uE.A|..x>
0000090: 7505 83e1 0174 3766 8b4c 10be 057c c644  u....t7f.L...|.D
00000a0: ff01 668b 1e44 7cc7 0410 00c7 4402 0100  ..f..D|....D...
00000b0: 6689 5c08 c744 0600 7066 31c0 8944 0466  f.\.D..pf1..D.f
00000c0: 8944 0cb4 42cd 1372 05bb 0070 eb7d b408  .D..B..r...p.}..
00000d0: cd13 730a f6c2 800f 84e8 00e9 8d00 be05  ..s.....
00000e0: 7cc6 44ff 0066 31c0 88f0 4066 8944 0431  |.D..f1...@f.D.1
00000f0: d288 cac1 e202 88e8 88f4 4089 4408 31c0  .....@.D.1.
0000100: 88d0 c0e8 0266 8904 66a1 447c 6631 d266  ....f..f.D|f1.f
0000110: f734 8854 0a66 31d2 66f7 7404 8854 0b89  .4.T.f1.f.t...T..
0000120: 440c 3b44 087d 3c8a 540d c0e2 068a 4c0a  D.;D.}<.T.....L.
0000130: fec1 08d1 8a6c 0c5a 8a74 0bbb 0070 8ec3  ....l.Z.t...p..
0000140: 31db b801 02cd 1372 2a8c c38e 0648 7c60  1.....r*....H|`
0000150: 1eb9 0001 8edb 31f6 31ff fcf3 a51f 61ff  ....1.1.....a.
0000160: 2642 7cbe 877d e840 00eb 0ebe 8c7d e838  &B|...}.@.....}.8
0000170: 00eb 06be 967d e830 00be 9b7d e82a 00eb  ....}.0....}.*..

```



```
0000180: fe47 5255 4220 0047 656f 6d00 4861 7264 .GRUB .Geom.Hard
0000190: 2044 6973 6b00 5265 6164 0020 4572 726f Disk.Read. Erro
00001a0: 7200 bb01 00b4 0ecd 10ac 3c00 75f4 c300 r.....<.u...
00001b0: 0000 0000 0000 0000 0000 0000 0000 0000 .....
00001c0: 0000 0000 0000 0000 0000 0000 0000 0000 .....
00001d0: 0000 0000 0000 0000 0000 0000 0000 0000 .....
00001e0: 0000 0000 0000 0000 0000 0000 0000 0000 .....
00001f0: 0000 0000 0000 0000 0000 0000 0000 55aa .....U.
0000200: 0000 0000 0000 0000 0000 0000 0000 0000 .....
opensuse11:~ #
```