


openSUSE Linux – Installation Baseline

This document describes openSUSE 13.2 OS Linux installation.

To to this you need to boot from bootable openSUSE installation DVD or PXE and choose “Installation”



Language
English (US)

Keyboard Layout
English (US)

Language,
Keyboard and
License Agreement

License Agreement

License Translations...

LICENSE AGREEMENT
openSUSE® 13.2

This agreement governs your download, installation, or use of openSUSE 13.2 and its updates, regardless of the delivery mechanism. openSUSE 13.2 is a collective work under US Copyright Law. Subject to the following terms, The openSUSE Project grants to you a license to this collective work pursuant to the GNU General Public License version 2. By downloading, installing, or using openSUSE 13.2, you agree to the terms of this agreement.

openSUSE 13.2 is a modular Linux operating system consisting of hundreds of software components. The license agreement for each component is generally located in the component's source code. With the exception of certain files containing the "openSUSE" trademark discussed below, the license terms for the components permit you to copy and redistribute the component. With the potential exception of certain firmware files, the license terms for the components permit you to copy, modify, and redistribute the component, in both source code and binary code forms. This agreement does not limit your rights under, or grant you rights that supersede, the license terms of any particular component.

openSUSE 13.2 and each of its components, including the source code, documentation, appearance, structure, and organization, are copyrighted by The openSUSE Project and others and are protected under copyright and other laws. Title to openSUSE 13.2 and any component, or to any copy, will remain with the aforementioned or its licensors, subject to the applicable license. The "openSUSE" trademark is a trademark of SUSE LLC in the US and other countries and is

Help

Abort

Back

Next

Initializing Network Configuration

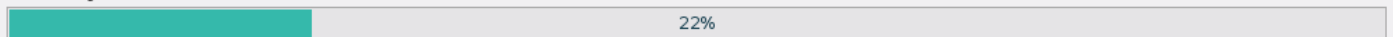
- ✓ Detect network devices
- Read driver information
- Read device configuration
- Read network configuration
- Read firewall settings
- Read hostname and DNS configuration
- Read installation information
- Read routing configuration
- Detect current status

These packages need to be installed:

none

Install **Cancel**

Detecting network devices...



Help

Abort

Back

Next

Network Settings

Overview

Hostname/DNS

Routing

Name	IP Address	Device	Note
RTL-8139/8139C/8139C+	Not configured		
Virtual Ethernet Card 0	Not configured		

RTL-8139/8139C/8139C+ BusID : 0000:00:04.0

Unable to configure the network card because the kernel device (eth0, wlan0) is not present. This is mostly caused by missing firmware (for wlan devices). See dmesg output for details.

Add

Edit

Delete

Help

Abort

Back

Next

Network Settings

[Overview](#)[Hostname/DNS](#)[Routing](#)

Name	IP Address	Device	Note
RTL-8139/8139C/8139C+	Not configured		
Virtual Ethernet Card 0	Not configured		

Virtual Ethernet Card 0 (Not connected)

MAC : aa:18:0a:14:02:c9

BusID : vif-0

Device Name: eth0

The device is not configured. Press **Edit** to configure.

[Add](#)[Edit](#)[Delete](#)[Help](#)[Abort](#)[Back](#)[Next](#)

Network Card Setup

[General](#)[Address](#)[Hardware](#)

Device Type

Ethernet

Configuration Name

eth0

☐ No Link and IP Setup (Bonding Slaves) ☐ Use iBFT Values☒ Dynamic Address

DHCP

DHCP version 4 only

☐ Statically Assigned IP Address

IP Address

Subnet Mask

Hostname

Additional Addresses

IPv4 Address Label

IP Address

Netmask

Add

Edit

Delete

Help

Cancel

Back

Next

Network Settings

[Overview](#)[Hostname/DNS](#)[Routing](#)

Hostname and Domain Name

Hostname

2OCT-CONTEXT-PRODUCT

Domain Name

l-suse-rev4.os.ORG.pool

- ☐ Change Hostname via DHCP No interface with dhcp
- ☒ Assign Hostname to Loopback IP

Modify DNS Configuration

Custom Policy Rule

[Only Manually](#)

Name Servers and Domain Search List

Name Server 1Name Server 2Name Server 3

Domain Search

[Help](#)[Abort](#)[Back](#)[Next](#)

DNS → Automatic

Network Settings

[Overview](#)[Hostname/DNS](#)[Routing](#)

Default IPv4 Gateway

Device

Default IPv6 Gateway

Device

Routing Table

Destination ▴	Gateway	Genmask	Device	Options

[Add](#)[Edit](#)[Delete](#)☐ Enable IPv4 Forwarding☐ Enable IPv6 Forwarding[Help](#)[Release Notes...](#)[Abort](#)[Back](#)[Next](#)

Installation Options

- ☐ Add Online Repositories Before Installation
- ☐ Include Add-on Products from Separate Media

[Help](#)[Release Notes...](#)[Abort](#)[Back](#)[Next](#)

Suggested Partitioning

- Create swap volume `/dev/xvda1` (1.89 GiB)
- Create root volume `/dev/xvda2` (8.10 GiB) with `btrfs`
- Create subvolume `boot/grub2/i386-pc` on device `/dev/xvda2`
- Create subvolume `boot/grub2/x86_64-efi` on device `/dev/xvda2`
- Create subvolume `home` on device `/dev/xvda2`
- Create subvolume `opt` on device `/dev/xvda2`
- Create subvolume `srv` on device `/dev/xvda2`
- Create subvolume `tmp` on device `/dev/xvda2`
- Create subvolume `usr/local` on device `/dev/xvda2`
- Create subvolume `var/crash` on device `/dev/xvda2`
- Create subvolume `var/lib/mailman` on device `/dev/xvda2`
- Create subvolume `var/lib/named` on device `/dev/xvda2`
- Create subvolume `var/lib/pgsql` on device `/dev/xvda2`
- Create subvolume `var/log` on device `/dev/xvda2`
- Create subvolume `var/opt` on device `/dev/xvda2`
- Create subvolume `var/spool` on device `/dev/xvda2`
- Create subvolume `var/tmp` on device `/dev/xvda2`

[Edit Proposal Settings](#)[Create Partition Setup...](#)[Expert Partitioner...](#)[Help](#)[Release Notes...](#)[Abort](#)[Back](#)[Next](#)

Preparing Hard Disk

Hard Disk

☐ 1: 1. Disk, 10.00 GiB, /dev/xvda,

☒ Custom Partitioning (for experts)

[Help](#)

[Release Notes...](#)

[Abort](#)

[Back](#)

[Next](#)

Expert Partitioner

System View

20CT-CONTEXT-PRODUCT

Hard Disks

xvda

RAID

Volume Management

Crypt Files

Device Mapper

NFS

Btrfs

tmpfs

Unused Devices

Device Graph

Mount Graph

Installation Summary

Settings

Hard Disk: /dev/xvda

Overview

Partitions

Unpartitioned 10.00 GiB									
Device	Size	F	Enc	Type	FS Type	Label	Mount Point	Start	End

Add...

Edit...

Move...

Resize...

Delete...

Expert... ▾

Help

Release Notes...

Abort

Back

Accept

Add Partition on /dev/xvda

Formatting Options

- ☒ Format partition
File System

Swap

Options...

- ☐ Do not format partition
File system ID:

0x82 Linux swap

- ☐ Encrypt Device

Mounting Options

- ☒ Mount partition
Mount Point

swap

Fstab Options...

- ☐ Do not mount partition

Fstab Options:

Mount in /etc/fstab by

- ☐ Device Name Device ID
☒ Volume Label Device Path
☐ UUID

Volume Label

swap

Swap Priority

Arbitrary Option Value

OK

Cancel

Help

Help

Release Notes...

Abort

Back

Finish

Add Partition on /dev/xvda

Formatting Options

- ☒ Format partition
File System

BtrFS

Options...

- ☐ Do not format partition
File system ID:

0x83 Linux

☐ Encrypt Device

Mounting Options

- ☒ Mount partition
Mount Point

/

Fstab Options...

- ☐ Do not mount partition

Subvolume Handling

Fstab Options:

Mount in /etc/fstab by

- ☐ Device Name Device ID
☒ Volume Label Device Path
☐ UUID

Volume Label

system

- ☐ Mount Read-Only
☒ No Access Time
☐ Mountable by User
☐ Do Not Mount at System Start-up

Arbitrary Option Value

OK

Cancel

Help

Help

Release Notes...

Abort

Back

Finish

Expert Partitioner

System View

- 20CT-CONTEXT-PRODUCT
 - Hard Disks
 - xvda
 - RAID
 - Volume Management
 - Crypt Files
 - Device Mapper
 - NFS
 - Btrfs
 - tmpfs
 - Unused Devices
 - Device Graph
 - Mount Graph
 - Installation Summary
 - Settings

Hard Disk: /dev/xvda

Overview

Partitions

xvda2 9.51 GiB									
Device	Size	F	Enc	Type	FS Type	Label	Mount Point	Start	End
/dev/xvda1	502.03 MiB	F		Linux swap	Swap	swap	swap	0	63
/dev/xvda2	9.51 GiB	F		Linux native	Btrfs	system	/	64	1304

Add...

Edit...

Move...

Resize...

Delete...

Expert... ▾

Help

Release Notes...

Abort

Back

Accept

Suggested Partitioning

- Create swap volume `/dev/xvda1` (502.03 MiB)
- Create root volume `/dev/xvda2` (9.51 GiB) with `btrfs`
- Create subvolume `boot/grub2/i386-pc` on device `/dev/xvda2`
- Create subvolume `boot/grub2/x86_64-efi` on device `/dev/xvda2`
- Create subvolume `home` on device `/dev/xvda2`
- Create subvolume `opt` on device `/dev/xvda2`
- Create subvolume `srv` on device `/dev/xvda2`
- Create subvolume `tmp` on device `/dev/xvda2`
- Create subvolume `usr/local` on device `/dev/xvda2`
- Create subvolume `var/crash` on device `/dev/xvda2`
- Create subvolume `var/lib/mailman` on device `/dev/xvda2`
- Create subvolume `var/lib/named` on device `/dev/xvda2`
- Create subvolume `var/lib/pgsql` on device `/dev/xvda2`
- Create subvolume `var/log` on device `/dev/xvda2`
- Create subvolume `var/opt` on device `/dev/xvda2`
- Create subvolume `var/spool` on device `/dev/xvda2`
- Create subvolume `var/tmp` on device `/dev/xvda2`

[Edit Proposal Settings](#)

[Create Partition Setup...](#)

[Expert Partitioner...](#)



[Help](#)

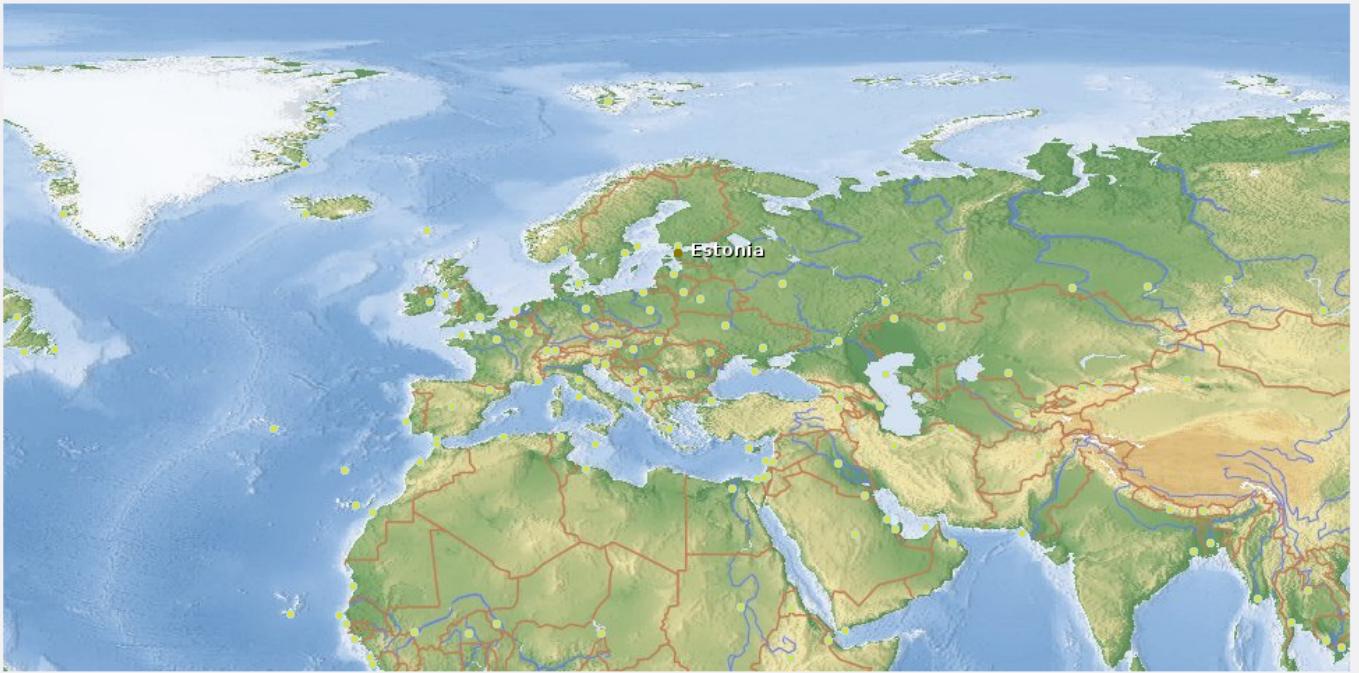
[Release Notes...](#)

[Abort](#)

[Back](#)

[Next](#)

Clock and Time Zone



Region

Europe

Time Zone

Estonia

☒ Hardware Clock Set to UTC

Date and Time: 2015-01-27 - 06:16:14

[Other Settings...](#)

[Help](#)

[Release Notes...](#)

[Abort](#)

[Back](#)

[Next](#)

Desktop Selection

The desktop environment on your computer provides the graphical user interface for your computer, as well as a suite of applications for email, Web browsing, office productivity, games, and utilities to manage your computer.

openSUSE offers a choice of desktop environments. The most widely used desktop environments are GNOME and KDE, and they are equally supported under openSUSE. Both desktop environments are easy to use, highly integrated, and have an attractive look and feel. Each desktop environment has a distinct style, so personal taste determines which is the most appropriate desktop for you.

☐ **GNOME Desktop**



☐ **KDE Desktop**



☐ **Other**

- ☐ XFCE Desktop
- ☐ LXDE Desktop
- ☐ Minimal X Window
- ☒ Minimal Server Selection (Text Mode)

[Help](#)[Release Notes...](#)[Abort](#)[Back](#)[Next](#)

Create New User

User's Full Name

local

Username

local

Password

●●●●●●●●●●

Confirm Password

●●●●●●●●●●

☒ Use this password for system administrator

☐ Receive System Mail

☐ Automatic Login

Summary

The authentication method is local /etc/passwd.

The password encryption method is SHA-512.

[Change...](#)

[Help](#)

[Release Notes...](#)

[Abort](#)

[Back](#)

[Next](#)

Installation Settings

Click a headline to make changes.

Booting

- Boot Loader Type: GRUB2
- Status Location: /dev/xvda2 ("/")
- Change Location:
 - Do not install bootcode into MBR ([install](#))
 - Install bootcode into "/" partition ([do not install](#))

Software

- Product: openSUSE
- System Type: Minimal Server Selection (Text Mode)
- Patterns:
 - + Base System
 - + YaST Installation Packages
 - + Software Management
- Size of Packages to Install: 819.1 MiB

Default systemd target

- Text mode

System

- [System and Hardware Settings](#)

Firewall and SSH

- Firewall will be enabled ([disable](#))
- SSH port will be open ([block](#))
- SSH service will be enabled ([disable](#))

Clone System Configuration

- The AutoYaST profile will not be saved ([write it](#)).



[Export Configuration](#)

[Help](#)

[Release Notes...](#)

[Abort](#)

[Back](#)

[Install](#)

Performing Installation

[Slide Show](#)
[Details](#)
[openSUSE Release Notes](#)

Media	Remaining	Packages	Time
Total	793.84 MiB	366	
openSUSE-13.2-0			
Medium 1	793.84 MiB	366	

Actions performed:

Installing cracklib-dict-full-2.8.12-64.1.2.x86_64.rpm (installed size 10.46 MiB)
 Installing file-magic-5.19-3.1.2.x86_64.rpm (installed size 3.46 MiB)
 Installing filesystem-13.2-4.3.1.x86_64.rpm (installed size 0 B)
 Installing openSUSE-release-dvd-13.2-1.28.x86_64.rpm (installed size 66 B)
 Installing patterns-openSUSE-minimal_base-conflicts-20141007-2.1.x86_64.rpm (installed size 68 B)
 Installing terminfo-base-5.9-52.2.3.x86_64.rpm (installed size 1.07 MiB)
 Installing unzip-doc-6.00-26.1.2.x86_64.rpm (installed size 402.2 KiB)
 Installing glibc-2.19-16.2.5.x86_64.rpm (installed size 6.35 MiB)
 Installing update-alternatives-1.16.10-8.1.2.x86_64.rpm (installed size 65.8 KiB)
 Installing traceroute-2.0.20-1.2.x86_64.rpm (installed size 103.3 KiB)
 Installing sysfsutils-2.1.0-152.1.2.x86_64.rpm (installed size 88.7 KiB)
 Installing prctl-1.6-2.1.2.x86_64.rpm (installed size 35.2 KiB)

Installing prctl-1.6-2.1.2.x86_64.rpm (installed size 35.2 KiB)

100%

Installing Packages... (Remaining: 793.84 MiB, 366 packages)

27%

[Help](#)
[Abort](#)
[Back](#)
[Next](#)

For VM we create X=9 GB system disk and Y=1 GB swap disk.

For HW servers we create 20 GB<X<100 GB system disk and Y=RAM/2 GB swap disk.

For logging we create an additional disk mounted on /media/logs (10 to 30 GB)

Thi first part of installation will be in graphical interface

- 1.1 In “Language” menu choose “English (US)”, “Layout - English (US)” then press Next (---@ Next)
- 1.2 Choose “New Installation”, untick "Use Automatic Configuration" ---@ Next
- 1.3 Set “Region” → Europe, “Time Zone” → Estonia ---@ "Next"
- 1.4 Choose “Desktop” → Other → Minimal server selection (Text Mode) ---@ Next
- 1.5 ---@ Create Partition setup
 - 1.5.1 “Hard Disk” → Custom partitioning ---@ "Next"
 - 1.5.2 “System View” → Hard Disks → {DISK_NAME}
 - 1.5.3 ---@ Expert → “Create new partition table” → MSDOS ---@ Yes
 - 1.5.4 ---@Add → “New partition Type” → Primary partition ---@ Next
 - 1.5.4.1 “New partition size” → Custom Size → X GB ---@ Next
 - 1.5.4.2 “Formatting options” → File System ---@ Swap
 - 1.5.4.3 “Mounting Options” → Mount Point = swap
 - 1.5.4.4 ---@ Fstab options -> “Mount in /etc/fstab by” → Volume Label
 - 1.5.4.5 In “Volume Label” enter (=) swap ---@ OK ---@ Finish
 - 1.5.5 ---@Add → “New partition Type” → Primary partition ---@ Next
 - 1.5.5.1 “New partition size” → Y GB ---@ Next
 - 1.5.5.2 “Formatting options” → File System ---@ Ext4
 - 1.5.5.3 ---@ Options → Directory index feature -> YES ---@ OK
 - 1.5.5.4 “Mounting Options” → Mount Point = /
 - 1.5.5.5 ---@ Fstab options -> “Mount in /etc/fstab by” → Volume Label
 - 1.5.5.6 “Volume Label”= system
 - 1.5.5.7 “No Access Time“ → YES ---@ OK ---@ Finish
 - 1.5.6 ---@ Accept ---@ Next
- 1.6 “User's Full Name” = local, “Password” = !local1, “Automatic login” → NO ---@ "Next"
- 1.7 “Really use this password” ---@ Yes
- 1.8 “Firewall & SSH” → “SSH service ...” ---@ enable and open
- 1.9 ---@ Booting → “Boot loader” ---@ GRUB → Propose new .. ---@ OK ---@ OK
- 1.10 ---@Install ---@ Install

The second part of installation will be in text interface

- 1.1 “Hostname” = opensuse{VERSION}, “Domain Name” = template, “Change hostname via DHCP” → YES, “Assign Hostname to Loopback IP” → NO ---@ “Next”
- 1.2 “Network Configuration” → Use Following Configuration ---@ “Next”
- 1.3 “Test Internet connection” → No, Skip this test ---@ “Next”
- 1.4 Skip autorefresh & all updates
- 1.5 “Release notes” ---@ Next
- 1.6 “Installation completed” ---@ Finish

We need a small amount of customization

- 1.1 login as root
- 1.2 copy scripts to /etc/faster/cmdb
 - 1.2.1.1 zypper --gpg-auto-import-keys --non-interactive in --no-recommends subversion
 - 1.2.1.2 svn co --non-interactive --force <https://svn.edss.ee/sys/cmdb> --username faster --password faster
- 1.3 yast bootloader → delete unused kernels and set “xen kernel - DomU” as default for Xen DomU host and “openSUSE ... (default)” kernel for others hypervisors
- 1.4 reboot linux