

Linux Installation:

(CentOS7 - Recommended)



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CentOS7

CentOS is an open-source Linux distribution based on Red Hat Enterprise Linux (RHEL). CentOS 7 is viewed as the preferred option for web hosting due to its stability and active developer community.

In this Lecture, learn how to install CentOS 7 in a few simple steps.



Prerequisites

- **Recommended minimum of 10GB of free disk space**
- **CentOS 7 ISO install file**

Follow the Steps to Install CentOS 7

- **If you are only looking to update or upgrade CentOS, see [How to Upgrade or Update CentOS](#).**

Step 1: Download CentOS 7

To download the official and up-to-date CentOS 7 ISO file, navigate to <https://www.centos.org/download/>.

Our recommendation for non-enterprise environments is to download the DVD ISO option, which includes the GUI. We recommend the Minimal ISO option only for production enterprise environments.



Download CentOS

As you download and use CentOS Linux, the CentOS Project invites you to [be a part of the community as a contributor](#). There are many ways to contribute to the project, from documentation, QA, and testing to coding changes for [SIGs](#), providing mirroring or hosting, and helping other users.

DVD ISO

Minimal ISO

ISOs are also available [via Torrent](#).

How to [verify your iso](#)

If you plan to create USB boot media, please [read this first](#) to avoid damage to your system.

If the above is not for you, [alternative downloads](#) might be.

The [release notes](#) are continuously updated to include issues and incorporate feedback from users.

Need a Cloud or Container Image?

[Amazon Web Services](#)

[Docker registry](#)

[More download choices](#)

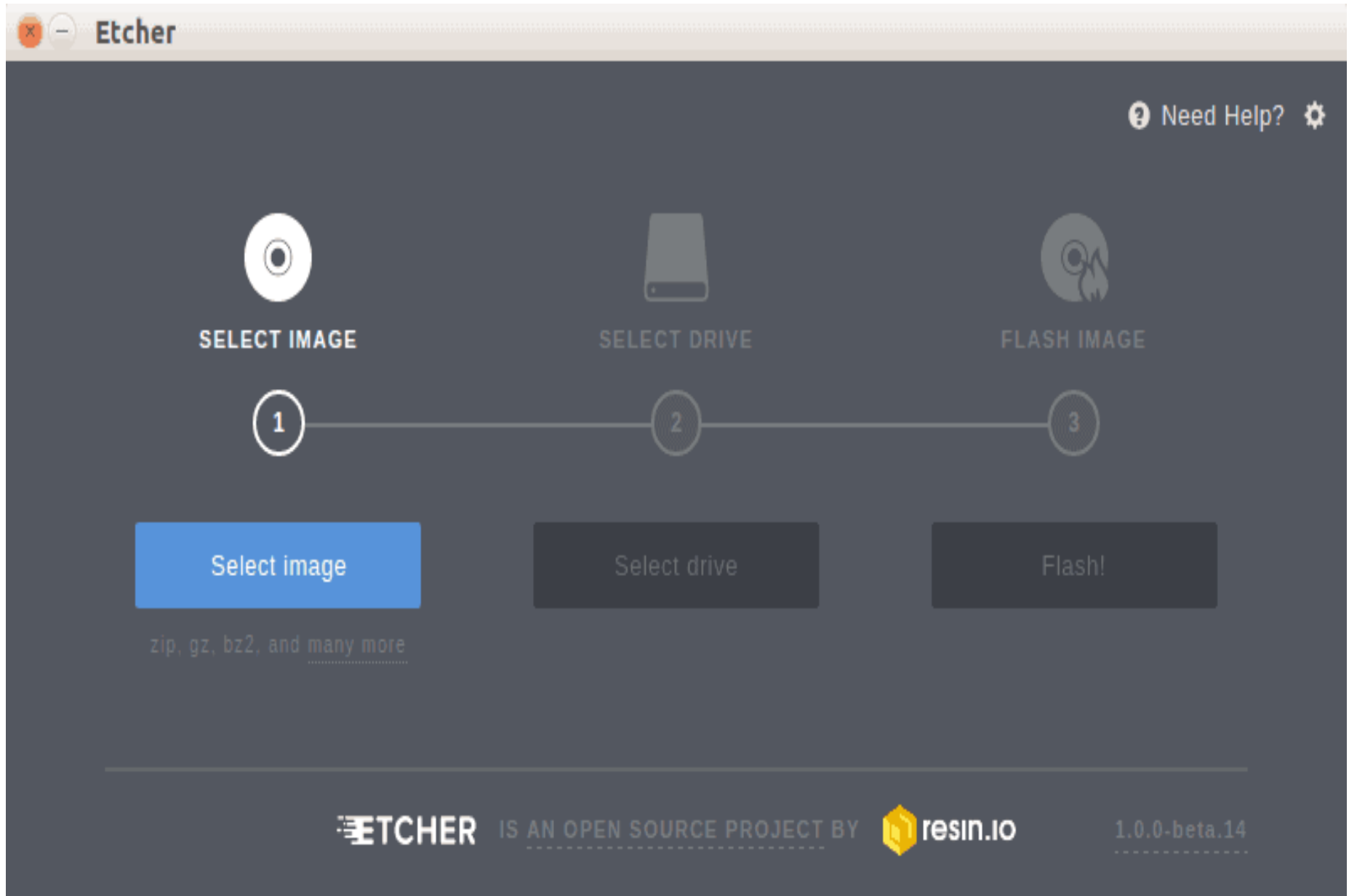
If you're looking for a specific (or geographically local) mirror, please check out our [list of current mirrors](#)

To check the status of a mirror, please visit [mirror-status.centos.org](#)

Note: Important information to keep in mind for CentOS-based systems is the CentOS 6 EOL in November 2020.

Step 2: Create a Bootable USB or DVD

Now that you have downloaded the ISO image, you can create a bootable USB, burn it on a DVD or load the image on a VM. Several applications can help you create a bootable USB. We recommend using Etcher. Download the application for your system (Windows, macOS or Linux), install and run.



The setup is intuitive and easy:

- 1. Select the CentOS 7 ISO image.**
- 2. Insert the USB flash.**
- 3. Find the USB and select it in the Select drive step.**
- 4. Click Flash.**

Step 3: Boot the CentOS ISO File

- Upon booting the CentOS 7 ISO file, you can begin the installation process. To do so, select Install CentOS 7. That will start the installer's graphical interface.
- If you are booting from a USB, click the Install to Hard Drive icon on the desktop. That will open the installation wizard.

CentOS 7

Install CentOS 7

Test this media & install CentOS 7

Troubleshooting

>

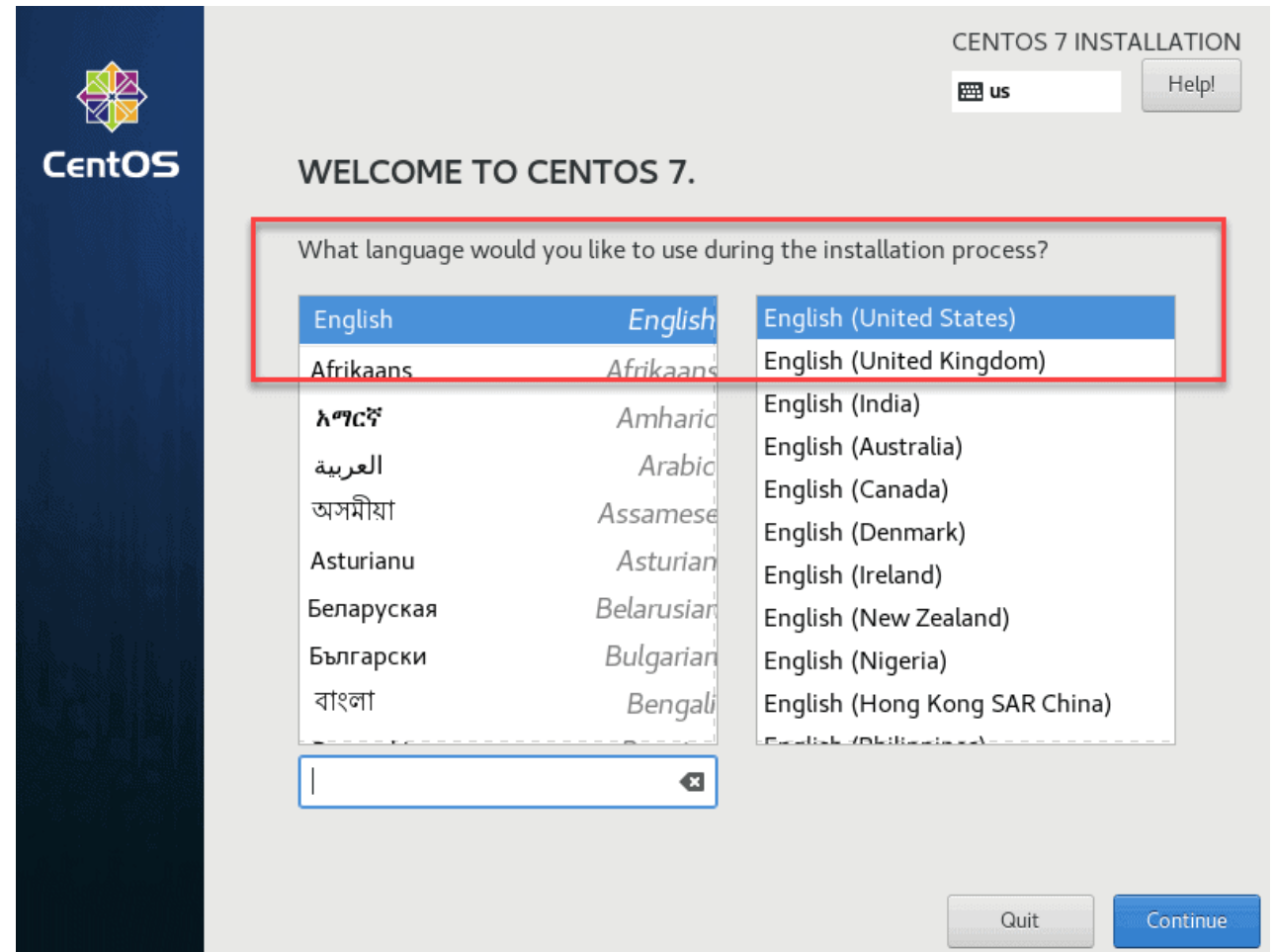
Press Tab for full configuration options on menu items.

Automatic boot in 54 seconds...

Step 4: Install CentOS

Before starting the installation process itself, select which language you would like to use during installation. The default option is English.

Click **Continue** to confirm your selection.



- There are a couple of settings you would want to configure. All items marked with a warning icon must be configured before you begin the installation. System configurations outlined below may differ based on use case.



Set Date and Time

To set a date and time for the system, click the Date & Time icon under the Localization heading. Select a region/time zone on the map of the world as seen below. Once you have selected your time zone, hit Done to save your changes.

DATE & TIME

Done

CENTOS 7 INSTALLATION

us

Help!

Region: Americas City: New York Network Time OFF



10:30 PM

24-hour

AM/PM

04 / 02 / 2019

 You need to set up networking first if you want to use NTP

Keyboard Layout

- Select the Keyboard option under the Localization heading to set the keyboard layout.
- The system default is English (US) and the language you selected in the initial window. Click the plus icon to add more layouts. Move a layout to the top of the list to make it the default option.
- Click the Options button to define a key combination for switching between keyboard layouts. When you are satisfied with the settings defined, select the Done button to confirm the changes.

System Language

- Next, select the **Language Support** option under the Localization heading. The language selected in the **Welcome to CentOS 7** window will be the default system language. If necessary, select additional languages and hit the Done button once you are finished.



Software Selection

Select the Software Selection option under the Software heading. You will see a list of predefined **Base Environment** options and optional add-ons. This part entirely depends on your needs.

- **Minimal Install:** This is the most flexible and least resource-demanding option. Excellent for production environment servers. Be prepared to customize the environment.
- **Predefined Server Options:** If you are 100% certain about the role of your server and don't want to customize it for its role, select one of the predefined server environments.
- **GNOME Desktop and KDE Plasma Workspaces:** These environments include a full graphical user interface.

When you have selected the base environment and optional add-ons, click the Done button. Wait for the system to check for software dependencies before you move on to the next option.

SOFTWARE SELECTION

Done

CENTOS 7 INSTALLATION

us

Help!

Base Environment

☒ **Minimal Install**
Basic functionality.

☐ **Compute Node**
Installation for performing computation and processing.

☐ **Infrastructure Server**
Server for operating network infrastructure services.

☐ **File and Print Server**
File, print, and storage server for enterprises.

☐ **Basic Web Server**
Server for serving static and dynamic internet content.

☐ **Virtualization Host**
Minimal virtualization host.

☐ **Server with GUI**
Server for operating network infrastructure services, with a GUI.

☐ **GNOME Desktop**
GNOME is a highly intuitive and user friendly desktop environment.

☐ **KDE Plasma Workspaces**
The KDE Plasma Workspaces, a highly-configurable graphical user interface which includes a panel, desktop, system icons and desktop widgets, and many powerful KDE applications.

Add-Ons for Selected Environment

☐ **Debugging Tools**
Tools for debugging misbehaving applications and diagnosing performance problems.

☐ **Compatibility Libraries**
Compatibility libraries for applications built on previous versions of CentOS Linux.

☐ **Development Tools**
A basic development environment.

☐ **Security Tools**
Security tools for integrity and trust verification.

☐ **Smart Card Support**
Support for using smart card authentication.

☐ **System Administration Tools**
Utilities useful in system administration.

Select Installation Destination

- Click the **Installation Destination** option under the System heading. Check your machine's storage under the Local Standard Disks heading. CentOS 7 will be installed on the selected disk.

Partitioning

Option 1: Automatic Partitioning

- Under the Other Storage Options heading, select the **Automatically configure partitioning** checkbox. This ensures the selected destination storage disk will automatically partition with the /(root), /home and swap partitions. It will automatically create an LVM logical volume in the **XFS file system**.
- If you do not have enough free space, you can reclaim disk space and instruct the system to delete files.
- When finished, click the **Done** button.

Partitioning

Option 2: Manual Partitioning

- Select the **I will configure partitioning** checkbox and choose **Done**.
- If you want to use other file systems (such as ext4 and vfat) and a non-LVM partitioning scheme, such as btrfs. This will initiate a configuration pop-up where you can set up your partitioning manually.
- This is an advanced option that depends on your requirements.

Configuring KDUMP

KDUMP is enabled by default.

- To disable the KDUMP kernel crash dumping mechanism, select the KDUMP option under the System heading and uncheck the Enable kdump checkbox. Click the Done button to confirm your changes.
- **Note:** KDUMP captures system information at the time of a crash. It helps you diagnose the cause of the crash. When enabled, kdump reserves a portion of system memory.

Network and Hostname

KDUMP is enabled by default.

- Click the Network & Host Name option under the System heading.
- For the hostname, type in the fully qualified domain name of your system. In our example, we will set the Hostname as my_server.phoenixnap.com, where my_server is the hostname while phoenixnap.com is the domain.

NETWORK & HOST NAME

CENTOS 7 INSTALLATION

Done

us

Help!

Ethernet (enp0s3)
Intel Corporation 82540EM Gigabit Ethernet Controller (



Ethernet (enp0s3)

Disconnected

OFF

Hardware Address

Speed 1000 Mb/s

+

-

Configure...

Host name: server.phoenixnap.com

Apply

Current host name: localhost

- Select **Configure...** and select to add **IPv4** settings or **IPv6** settings depending on what you have. Add static IP addresses to help identify your computer on the network. Bear in mind that your network environment's settings define these values.

NETWORK & HOST NAME CENTOS 7 INSTALLATION

Editing enp0s3

Connection name: enp0s3

General Ethernet 802.1X Security DCB Proxy **IPv4 Settings** IPv6 Settings

Method: Manual

Addresses

| Address | Netmask | Gateway | |
|---------|---------|---------|--------|
| | | | Add |
| | | | Delete |

DNS servers:

Search domains:

DHCP client ID:

☐ Require IPv4 addressing for this connection to complete

Routes...

Cancel Save

To add a static IP address:

1. Select Manual from the *Method* drop-down.
 2. Click the Add button to add a static IP address.
 3. Enter the information for your network domain.
 - IP Address
 - Netmask Address
 - Gateway Address
 - DNS Servers Address
- Click Save to confirm your changes.

- By default, all detected ethernet connections are disabled. Click the ON/OFF toggle to enable the connection. After the installation of CentOS, follow our guide to learn more details about configuring your network settings.
- Note: Is CentOS the best option for your server? Refer to the Ubuntu VS CentOS article to see a comparison between the two and decide which one is best for you.

Security Policy

Select the Security Policy option under the System heading. Choose a profile from the list and hit Select profile. Hit the Done button to confirm your selection.

Start the Installation Process

Once everything is set up according to your liking, hit **Begin Installation** to start the install. This will start the initial installation process.



Define Root Password

- To define the root user, select the **Root Password** icon.
- Select a **Root Password** and re-enter it in Confirm field.
- Root user accounts should consist of at least 12 characters, including uppercase and lowercase letters, numbers, and special characters. We cannot stress enough the importance of a well-defined root password.
- Click the **Done** button to proceed.

ROOT PASSWORD

CENTOS 7 INSTALLATION

Done

us

Help!

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

Root Password:

.....

Strong

Confirm:

.....

Create User

- To begin, select the **User Creation** option.
- Add a new system account user by defining the full name, user name, and password. We recommend you check the Make this user administrator and Require a password to use this account checkboxes. This will grant the user root privileges.

After you fill in all of the fields and define a **secure password**, select **Done** in the upper-left corner of the screen. Wait for the installation process to complete.

CREATE USER CENTOS 7 INSTALLATION

[Done](#) us [Help!](#)

Full name

User name

Tip: Keep your user name shorter than 32 characters and do not use spaces.

☒ Make this user administrator

☒ Require a password to use this account

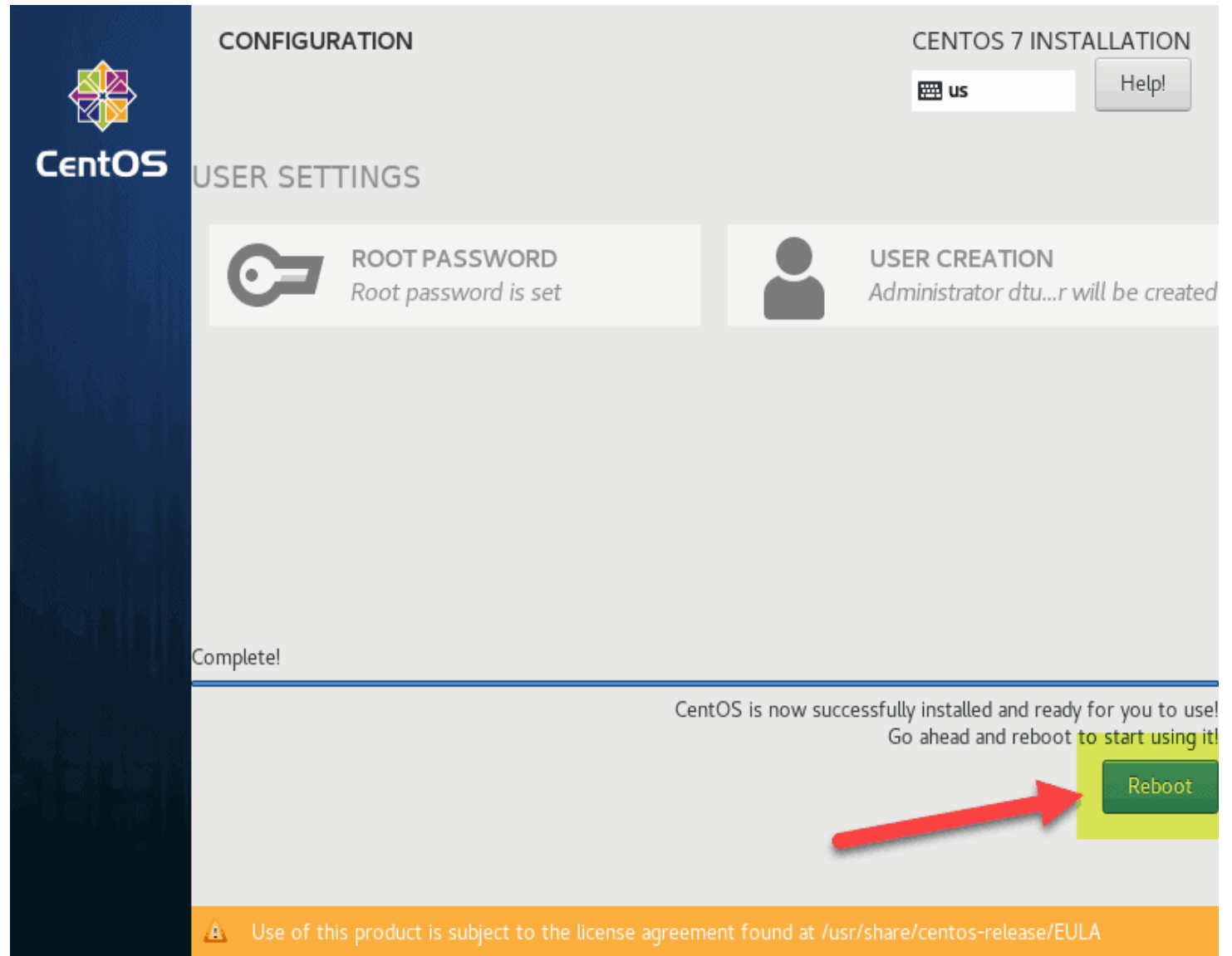
Password

Strong

Confirm password

[Advanced...](#)

Before you start using your new CentOS installation, reboot the system. Click the Reboot button.



THANK YOU

