

Dual Boot Setup Guide

For Microsoft Windows and Linux



Section 1 – Introduction

Due to the ongoing popularity of Windows based operating systems, and the increasing popularity of various version of Linux operating systems, some users might find it useful to have a system that is able to boot two different operating systems as opposed to just one. The purpose of this whitepaper is to explain how to set up a ThinkStation or ThinkPad system with a dual operating system boot configuration.

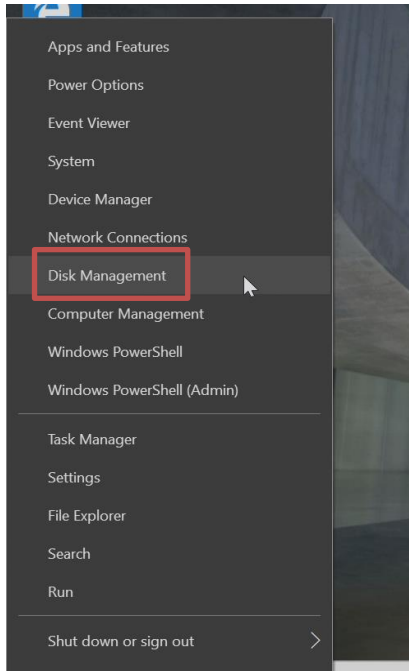
Prerequisites:

- Windows installation media
- Linux installation media

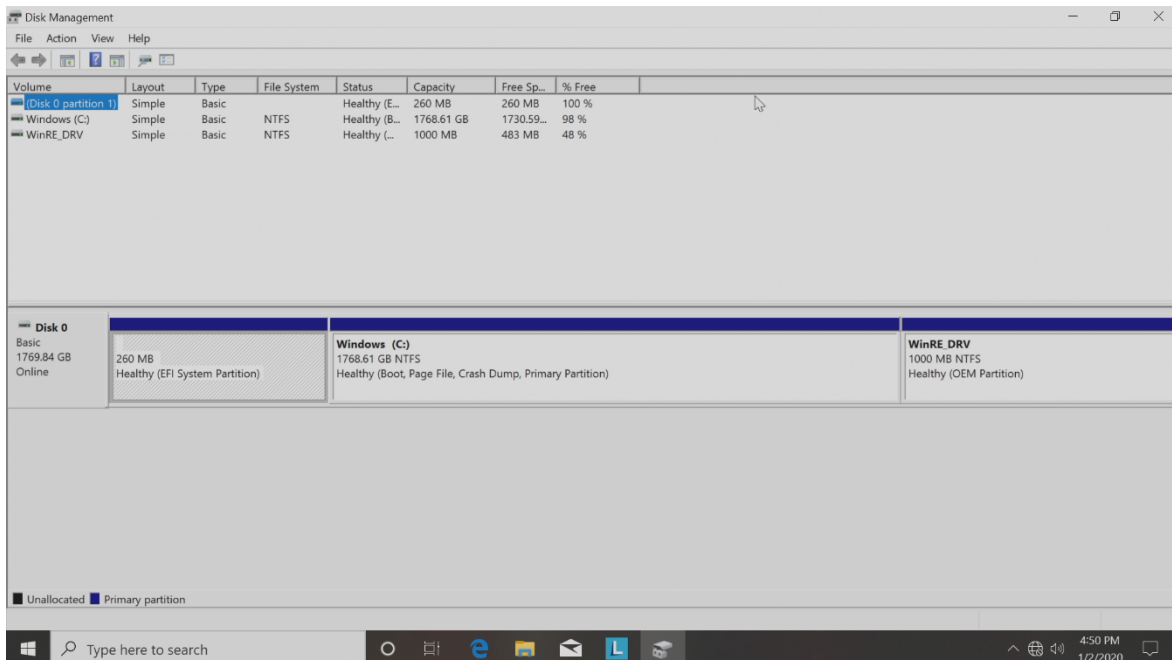
Section 2 – Shrink Windows Partition

Assuming the user already has Windows installed on the system, please refer the following instructions on installation of Linux alongside Windows operating system.

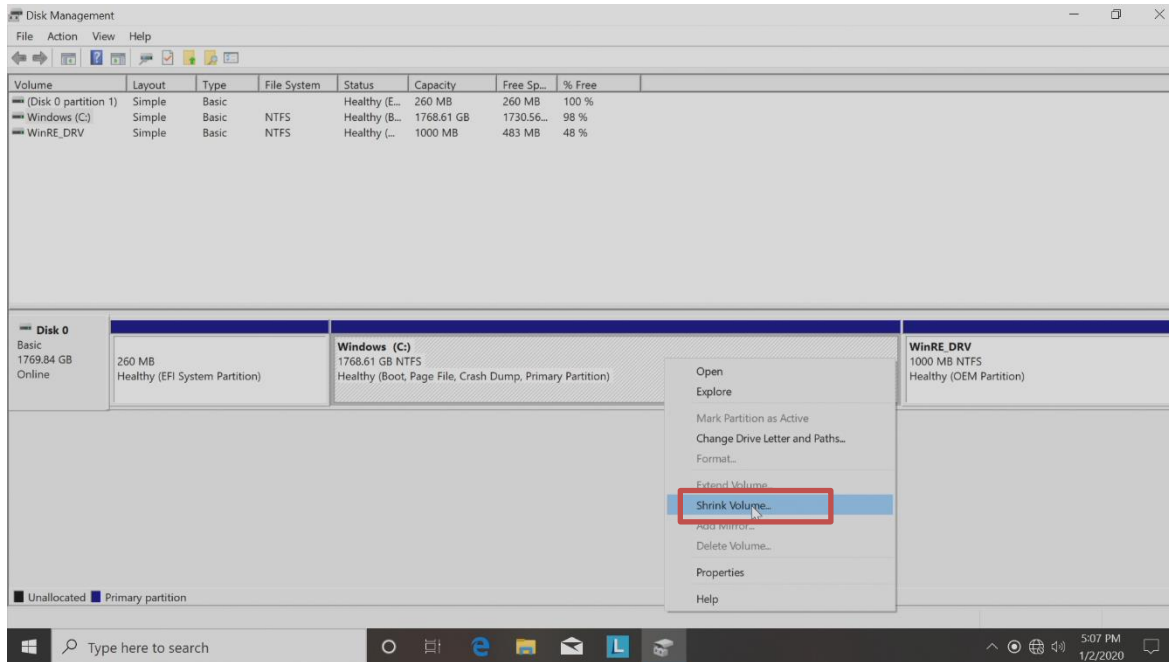
Step 1: Right click on the start icon and select “Disk Management”.



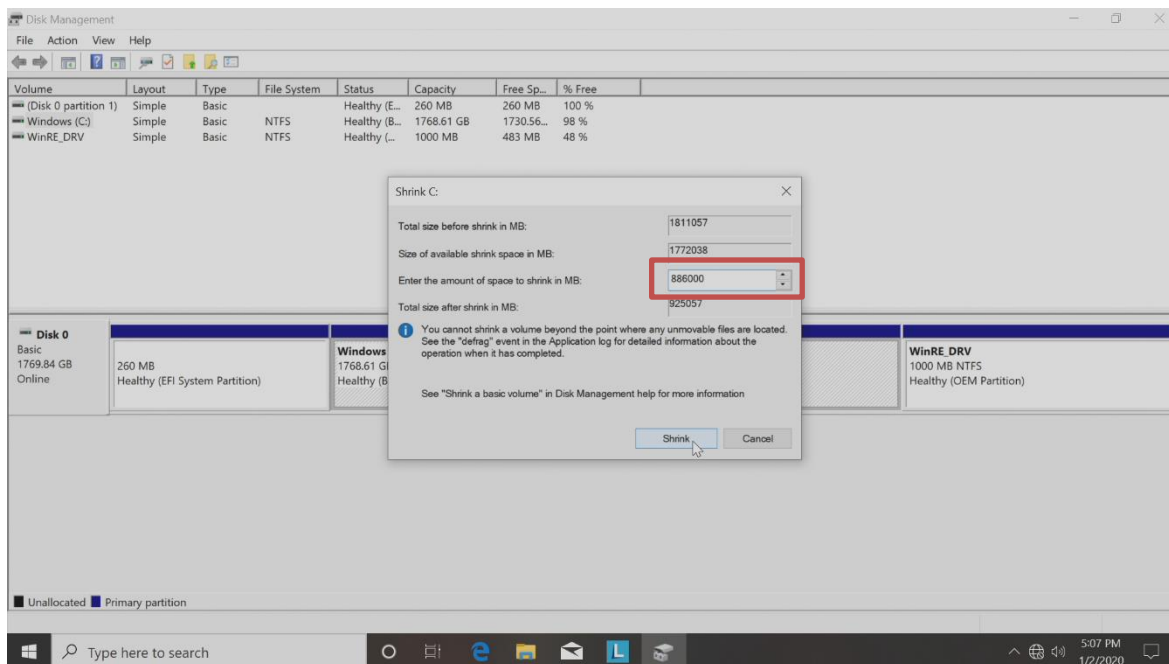
Step 2: The Disk Management utility enables the user to view and manage the disk drives.



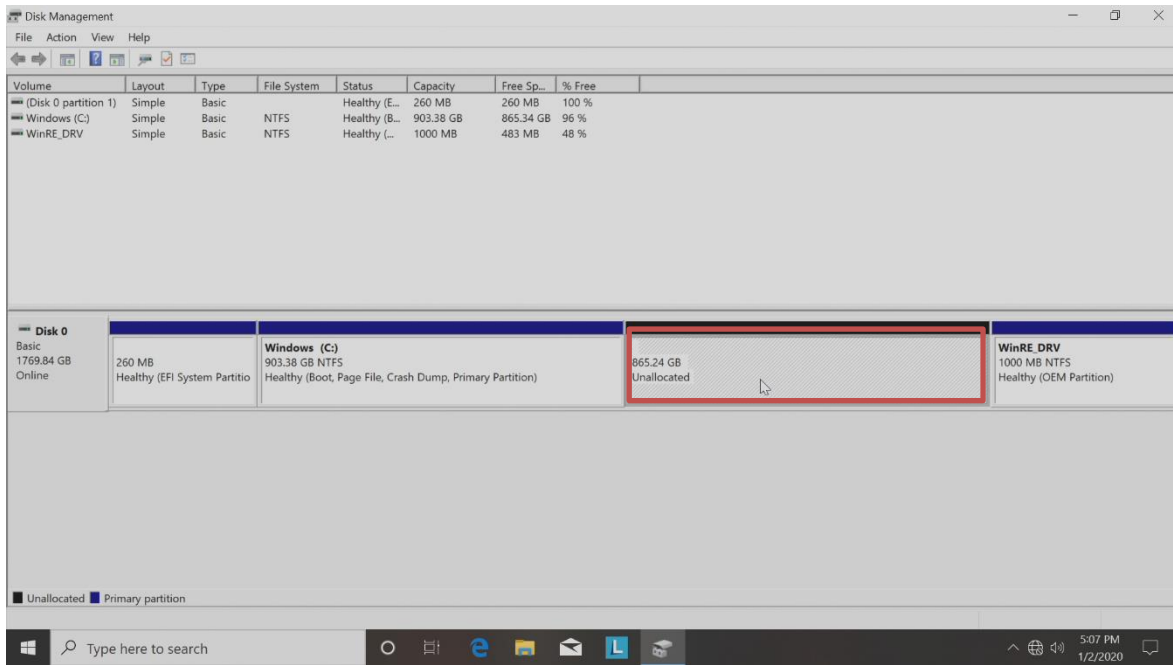
Step 3: Shrink volume C in order to make space for Linux. Right click on volume C and select “Shrink Volume”.



Step 4: Enter the amount of space you would like to free for the second operating system in MB and hit “Shrink”.



Step 5: Verify the newly created unallocated space once the shrinking is complete.

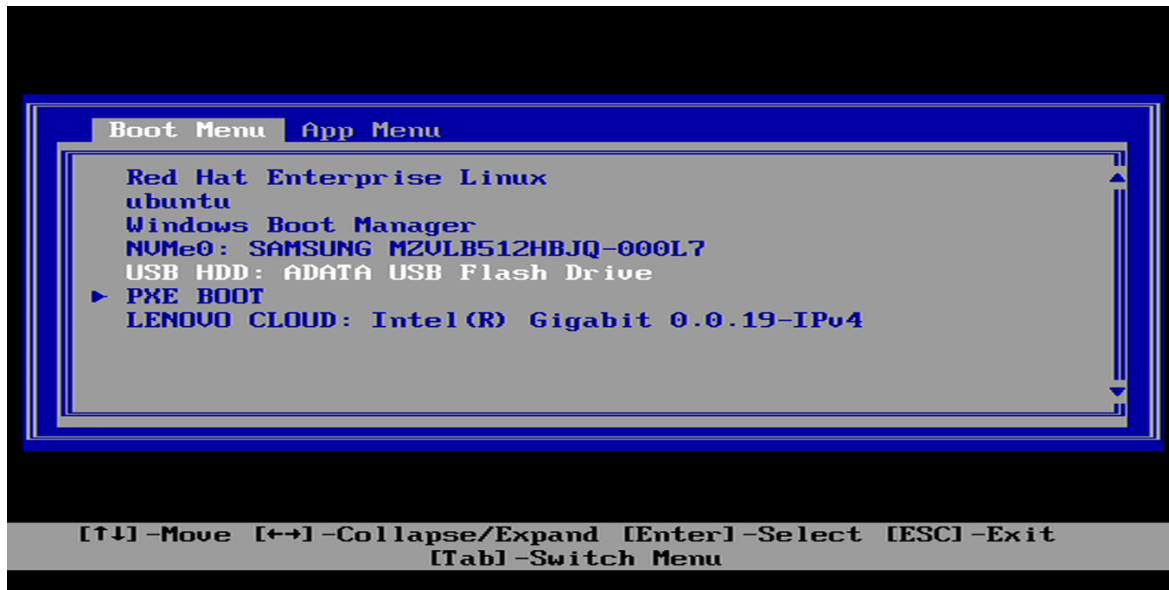


Step 6: Reboot the system.

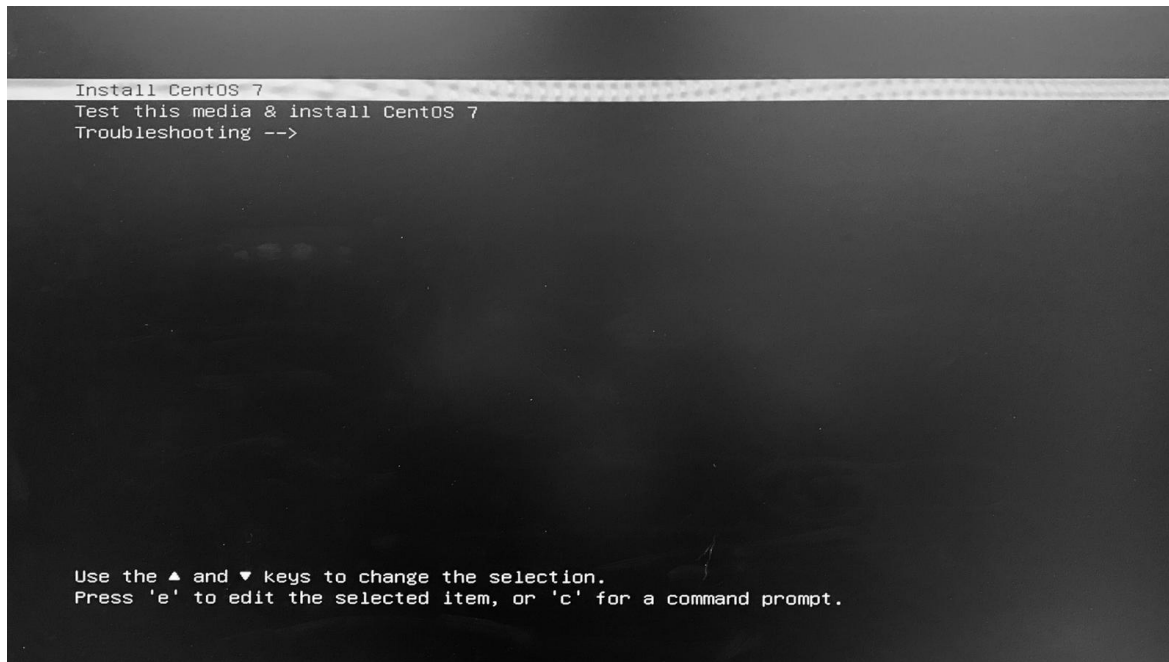


Section 3 – Linux Distro Installation

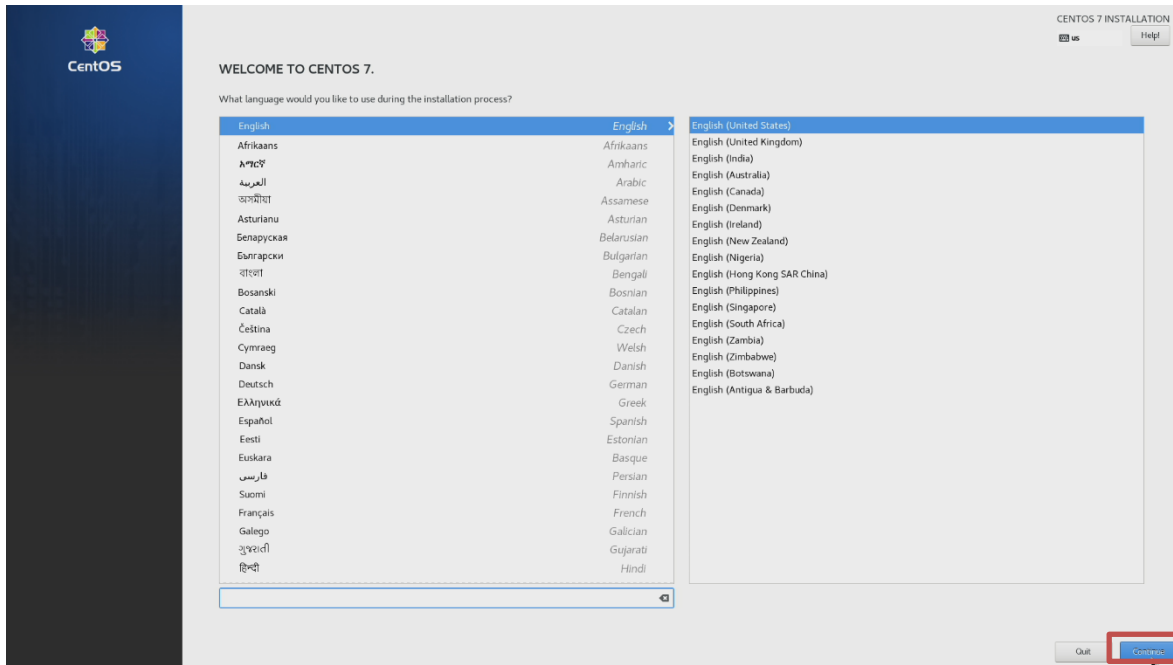
Step 7: Insert Linux boot key into the system and press F12. Select the Linux bootable media from the boot menu.



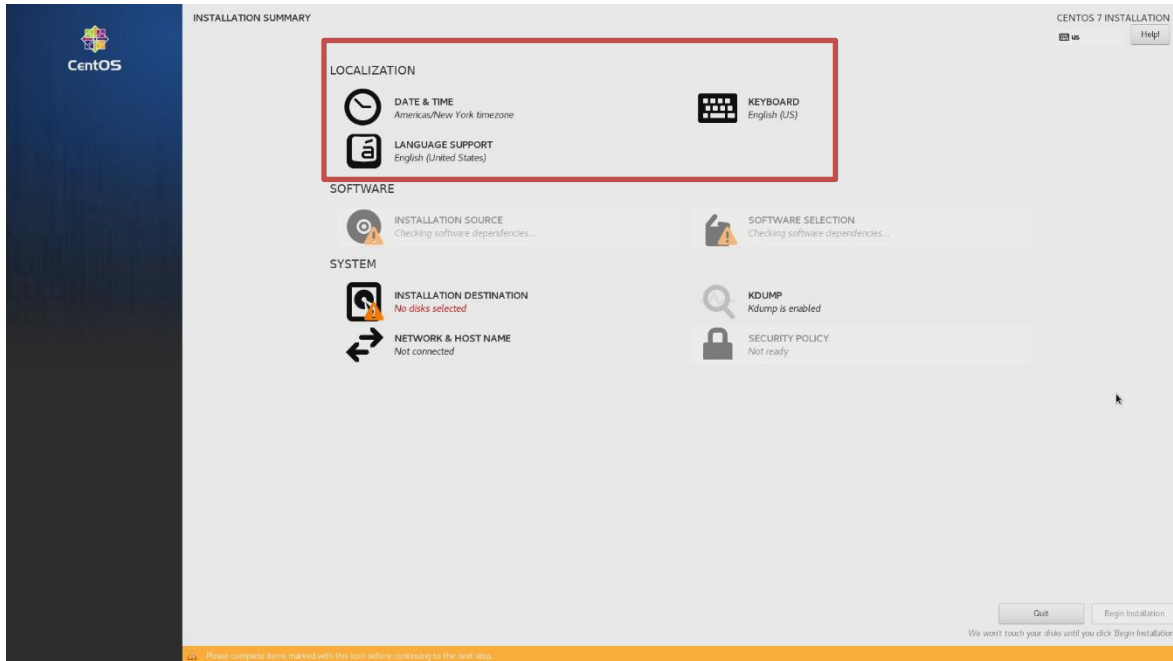
Step 8: Select "Install CentOS 7" and press enter.



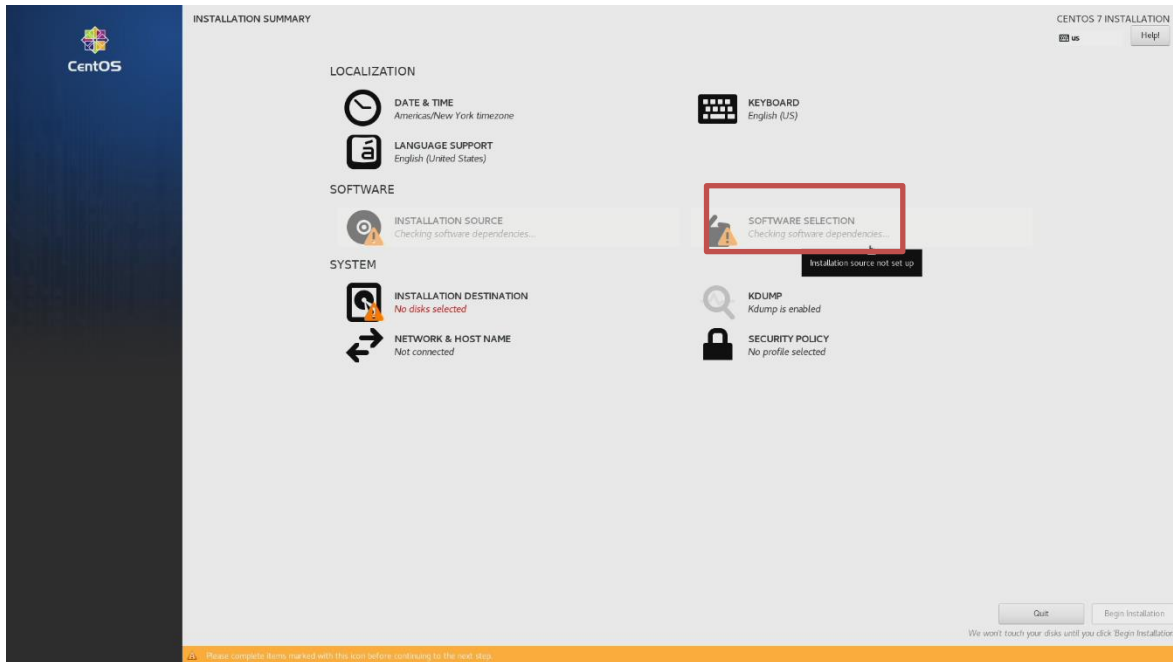
Step 9: Select the appropriate language and press “Continue”.



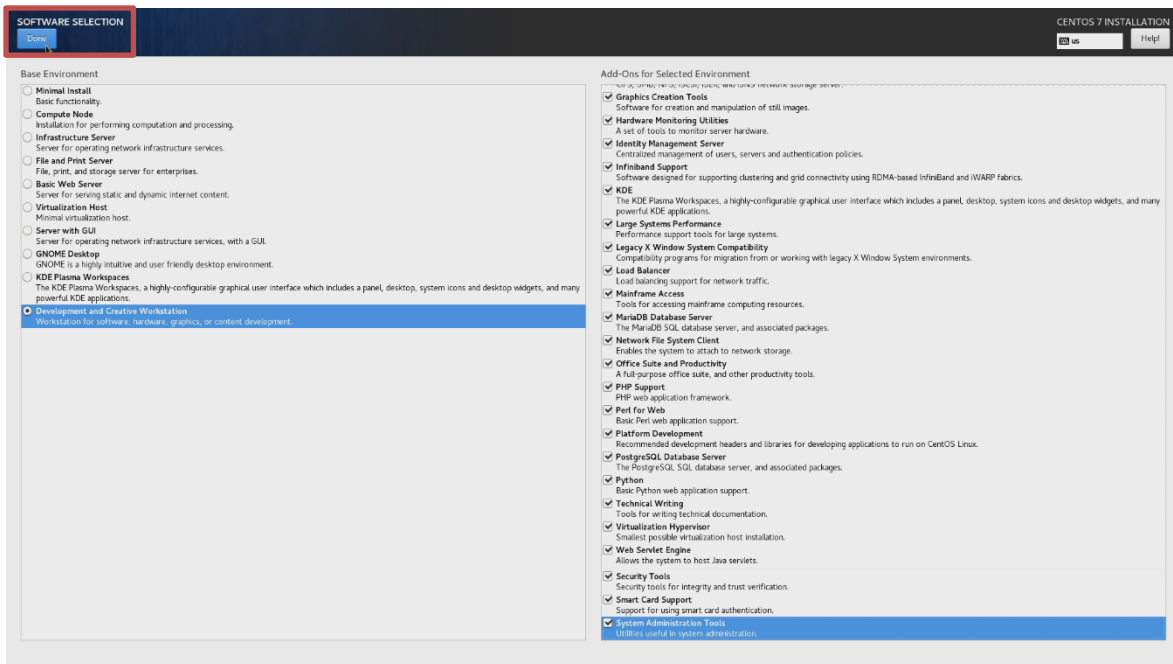
Step 10: Adjust the “Date & Time”, “Keyboard” and “Language Support” accordingly by selecting each one.



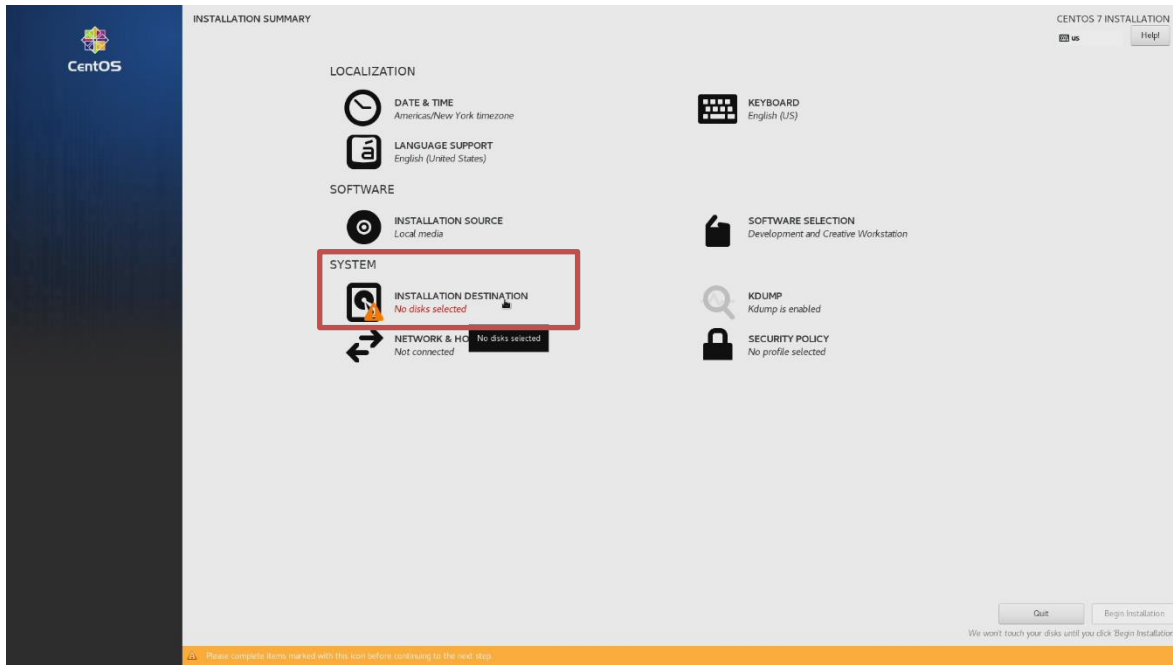
Step 11: Select “Software Selection” and choose the type of software to install.



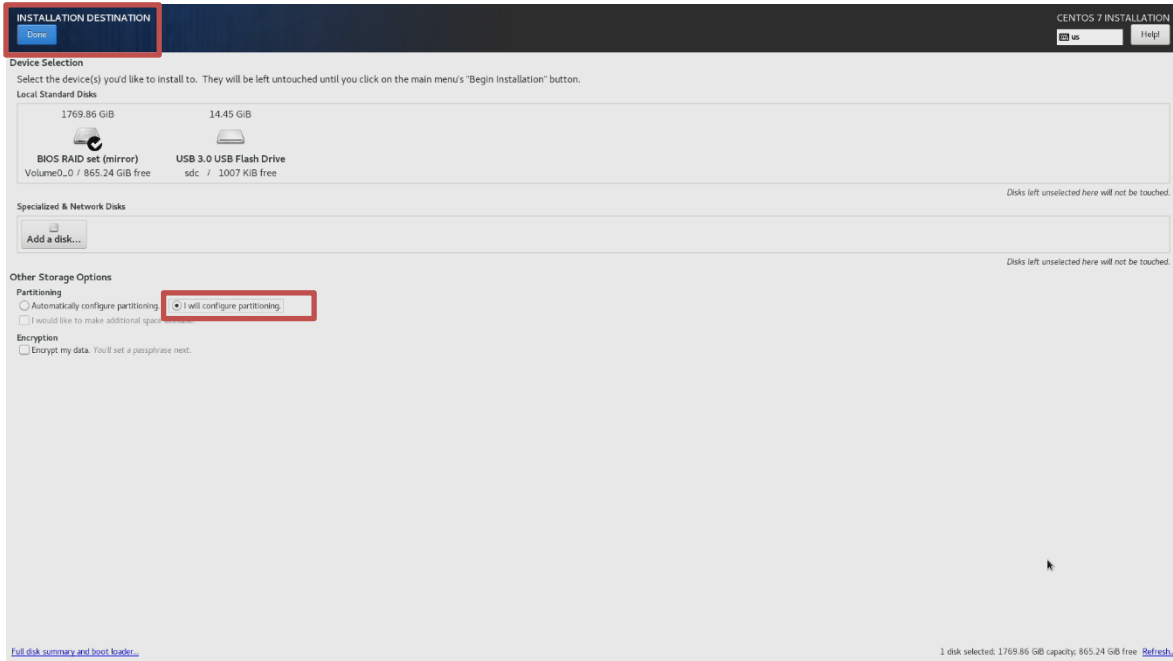
Step 12: In this example, “Development and Creative Workstation” was selected for the “Base Environment” and all “Add-Ons” were selected. Once done selecting, click “Done” in the top left corner.



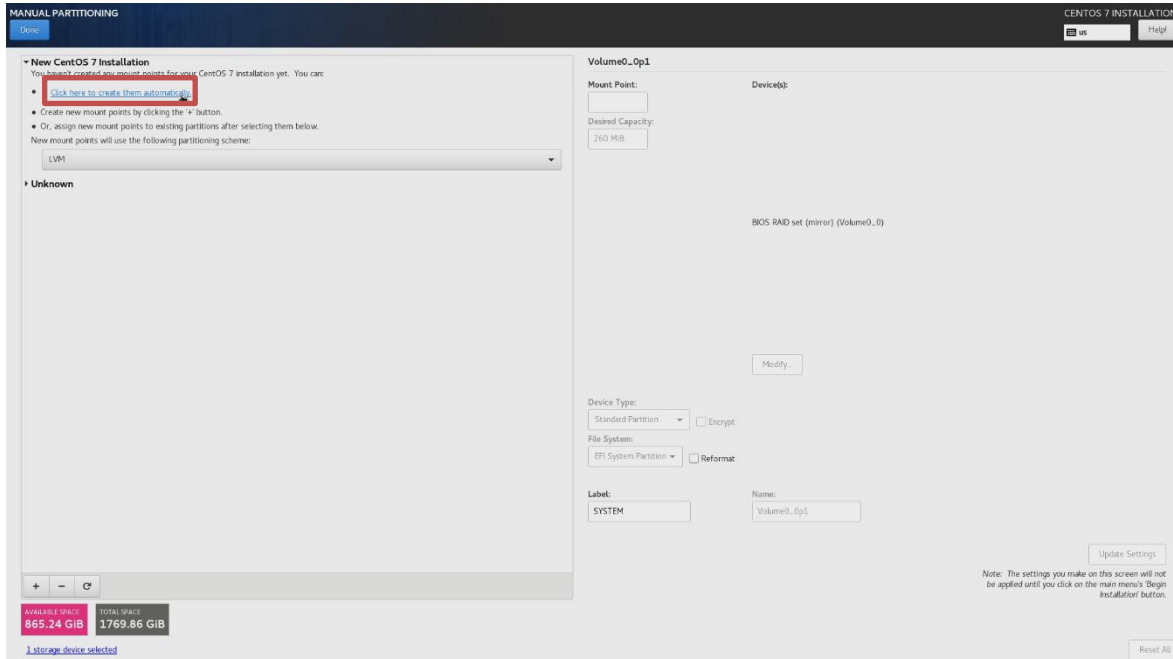
Step 13: Select “Installation Destination”.



Step 14: Select the device on where to install the operating system and select “I will configure partitioning” under other storage options. Click “Done” once done.



Step 15: Under manual partitioning section select “Click here to create them automatically”.



MANUAL PARTITIONING CENTOS 7 INSTALLATION

[Done](#) en us Help

New CentOS 7 Installation
 You haven't created any mount points for your CentOS 7 installation yet. You can:

- [Click here to create them automatically.](#)
- Create new mount points by clicking the '+' button.
- Or, assign new mount points to existing partitions after selecting them below.

New mount points will use the following partitioning scheme:

LVM

Unknown

Volume0_0p1

Mount Point: Device:

Desired Capacity:

BIOS RAID set (mirror) (Volume0_0)

Modify

Device Type: Encrypt

File System: Reformat

Label: Name:

Update Settings

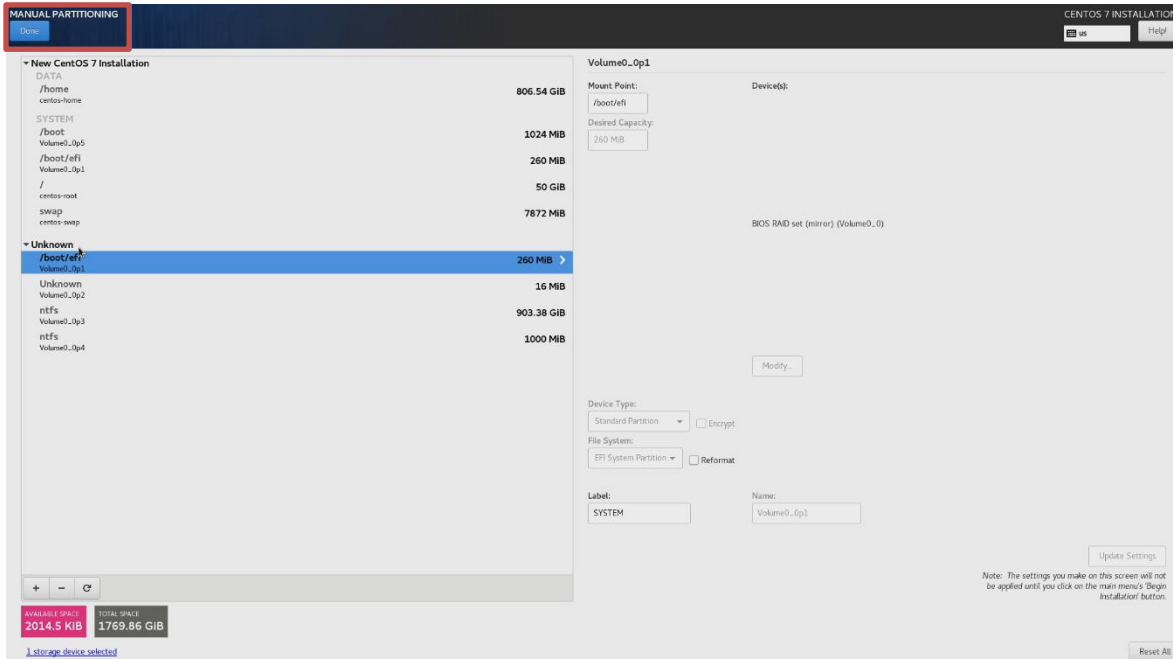
Note: The settings you make on this screen will not be applied until you click on the main menu's Begin Installation button.

Reset All

AVAILABLE SPACE: **865.24 GiB** TOTAL SPACE: **1769.86 GiB**

[Storage device selected](#)

Step 16: You can view the automatically created disk partitions inside the new operating system. Click “Done” once done viewing.



MANUAL PARTITIONING CENTOS 7 INSTALLATION

[Done](#) en us Help

New CentOS 7 Installation

DATA:

/home	centos-home	806.54 GiB
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SYSTEM:

/boot	Volume0_0p5	1024 MiB
/boot/efi	Volume0_0p1	260 MiB
/	centos-root	50 GiB
swap	centos-swap	7872 MiB

Unknown

/boot/efi	Volume0_0p1	260 MiB
Unknown	Volume0_0p2	16 MiB
ntfs	Volume0_0p3	903.38 GiB
ntfs	Volume0_0p4	1000 MiB

Volume0_0p1

Mount Point: Device:

Desired Capacity:

BIOS RAID set (mirror) (Volume0_0)

Modify

Device Type: Encrypt

File System: Reformat

Label: Name:

Update Settings

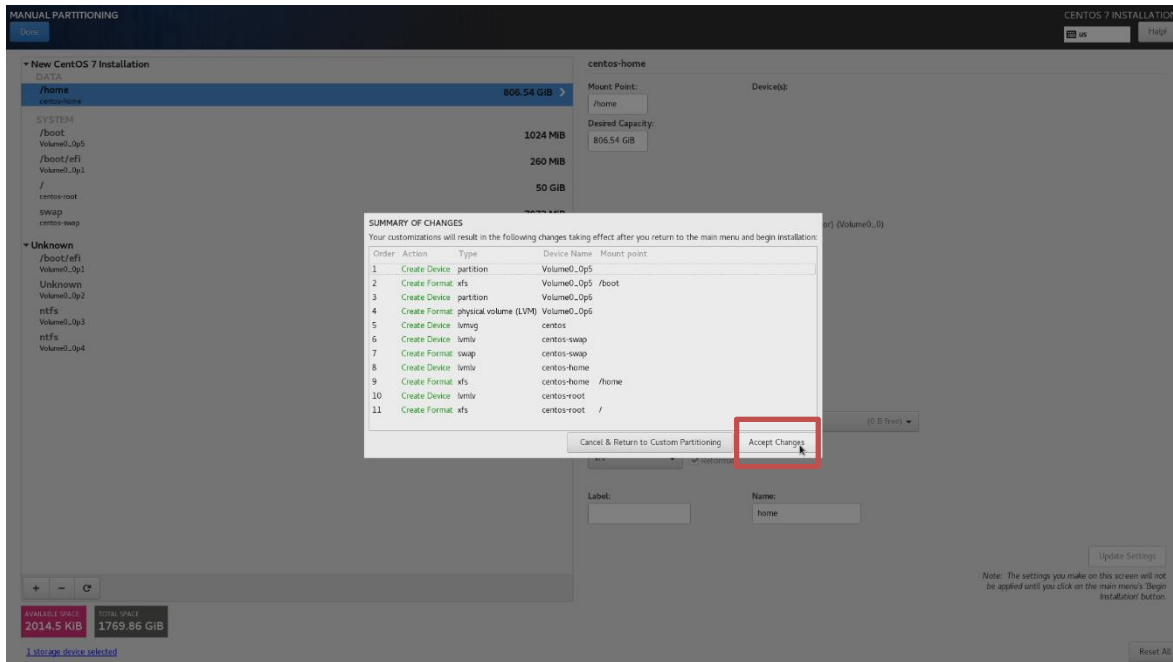
Note: The settings you make on this screen will not be applied until you click on the main menu's Begin Installation button.

Reset All

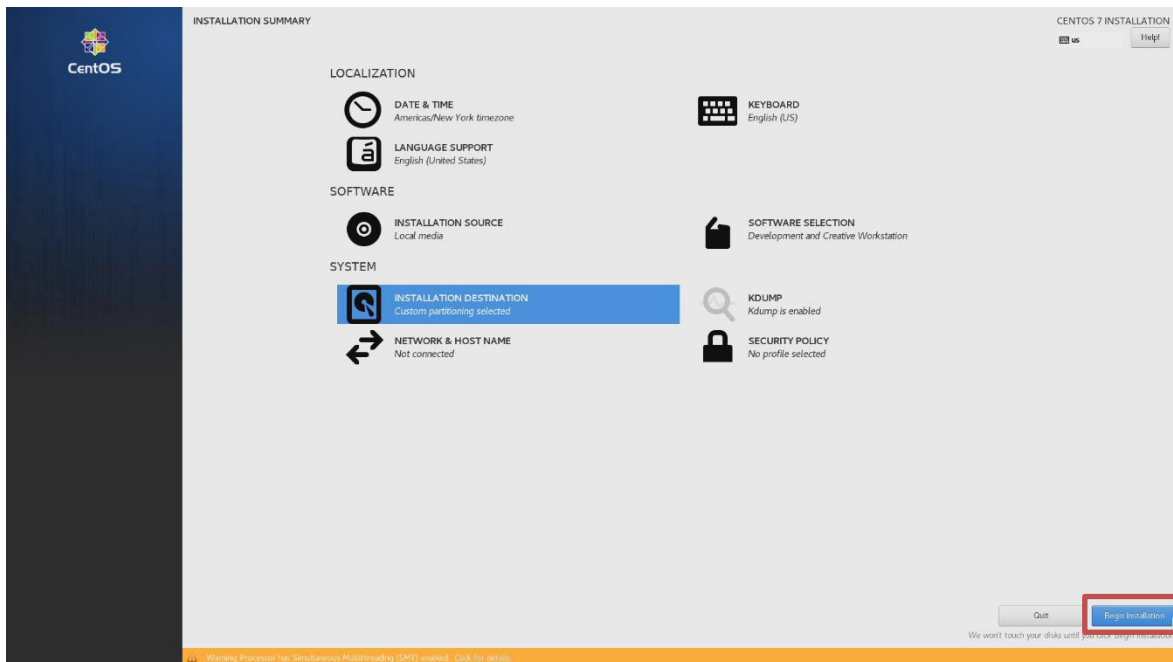
AVAILABLE SPACE: **2014.5 KiB** TOTAL SPACE: **1769.86 GiB**

[Storage device selected](#)

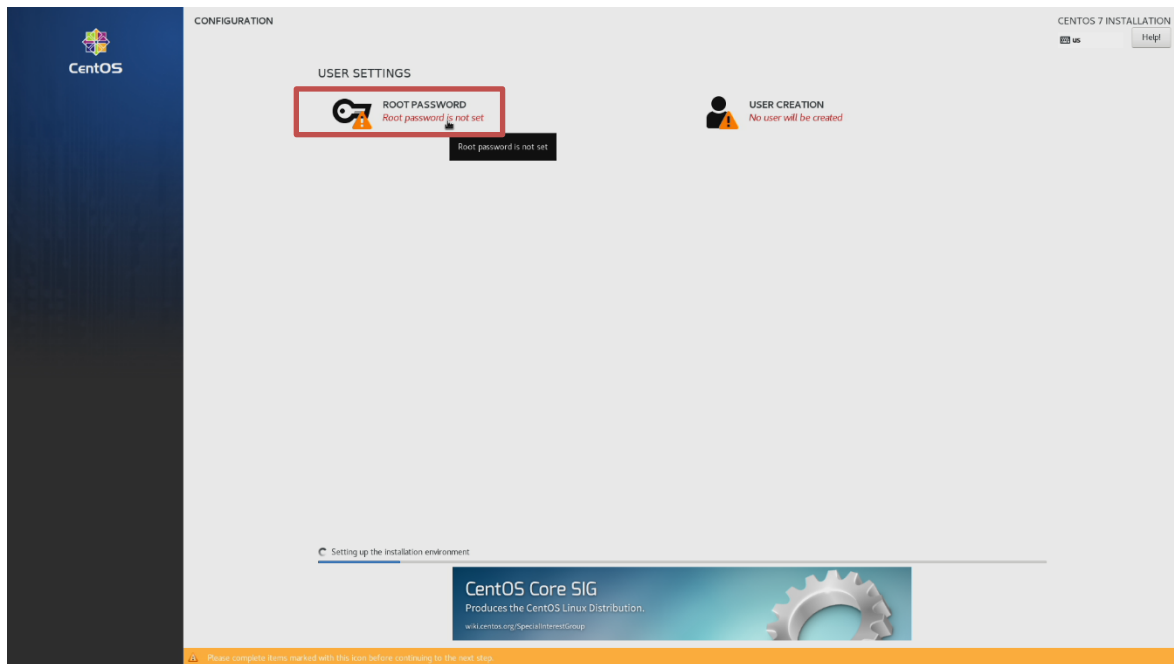
Step 17: Verify the summary of changes and select “Accept Changes”.



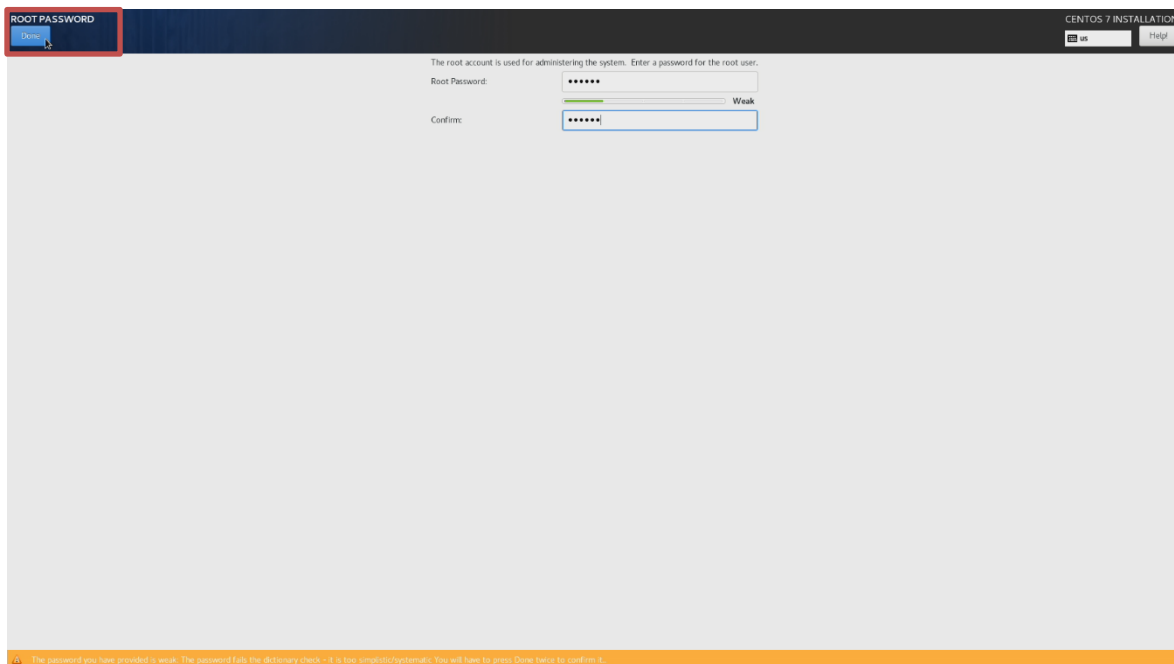
Step 18: Select “Begin Installation” in the bottom right.



Step 19: Select “Root Password”.



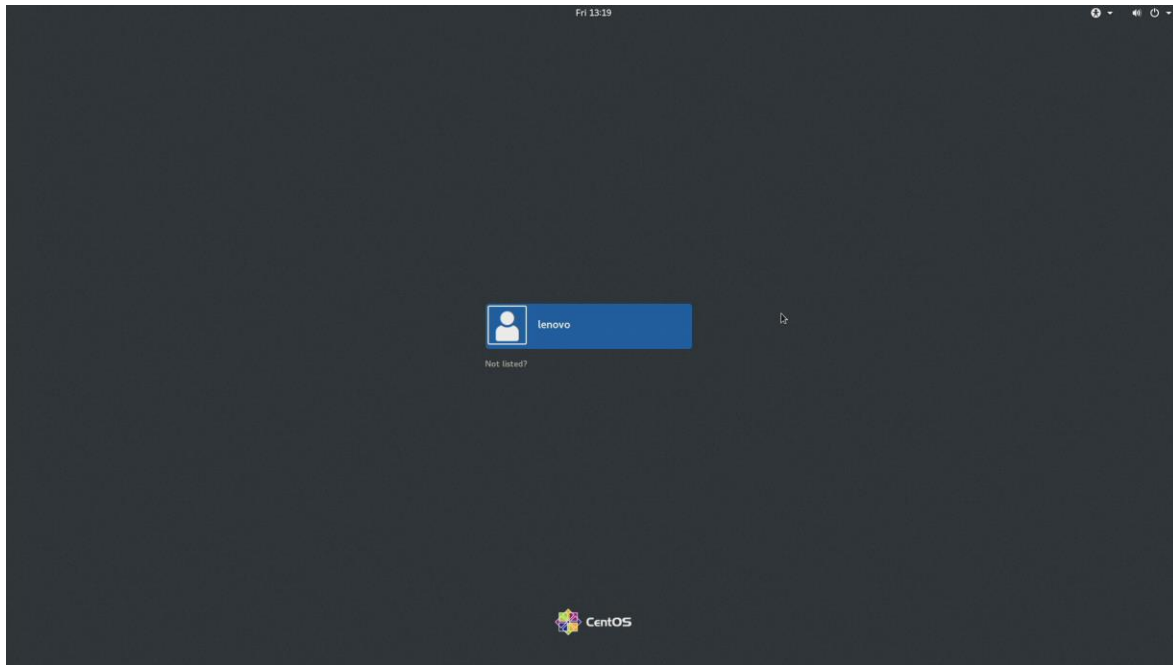
Step 20: Enter a root password in both boxes below and select “Done” in top left corner.



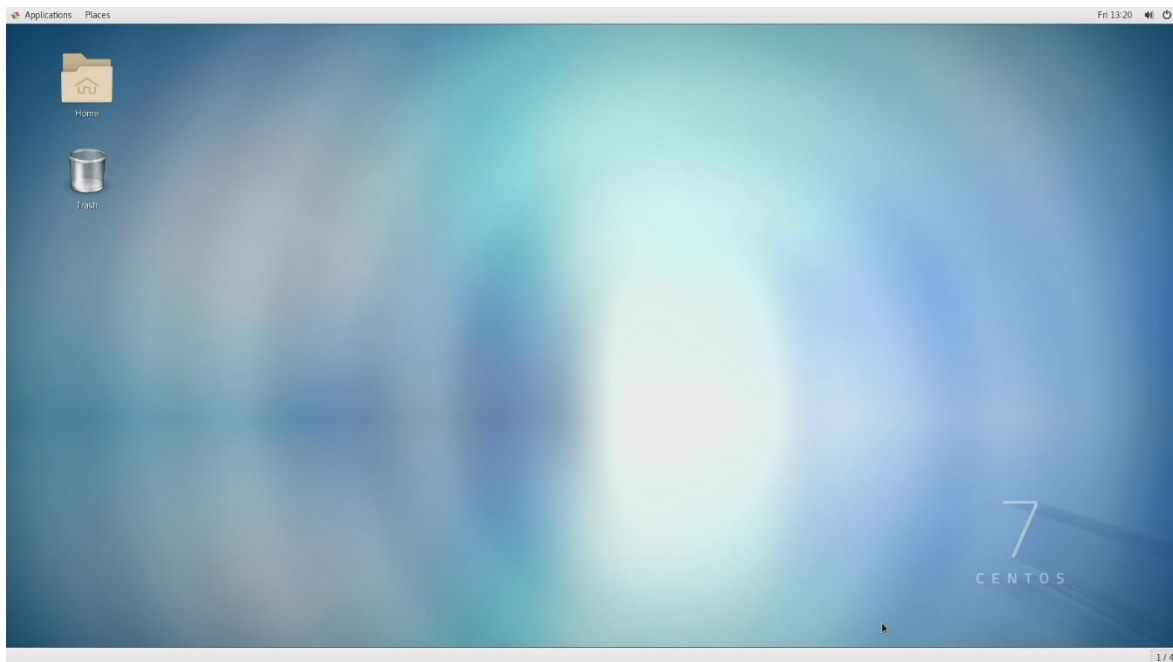
Step 21: Select “User Creation” and fill in the appropriate details. Select “Done” from the top left corner once done.

Step 22: Once the installation completes, select “Reboot”.

Step 23: Log in by using the login credentials created above.



Step 24: Linux Desktop screen.



Section 4 – Switching Between Operating Systems

Users can switch operating systems to boot from the boot menu.

Step 25: Boot into the boot menu by pressing the function F12 key at the “Lenovo” splash screen and select the appropriate operating system.

```
Startup Device Menu
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SATA 1: Intel Volume0
├─ UEFI: CentOS
├─ UEFI: Windows Boot Manager
├─ UEFI: CentOS
Network 1:
├─ Legacy: IBA CL Slot 00FE v0110
├─ UEFI: PXE IPV4 Intel(R) Ethernet Connection (H) I219-LM
├─ UEFI: PXE IPV6 Intel(R) Ethernet Connection (H) I219-LM
Network 2:
├─ Legacy: IBA GE Slot 0400 v1555
├─ UEFI: PXE IPV4 Intel(R) I210 Gigabit Network Connection
├─ UEFI: PXE IPV6 Intel(R) I210 Gigabit Network Connection
Enter Setup

↑ and ↓ to move selection
```

Section 5 – Revision History

Version	Date	Author	Changes/Updates
1.0	01/15/2020	Sayali Pawar	Initial launch release