

HighPoint Rocket RAID Controller RR3700/R700 CentOS Installation Guide

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1. Overview

The purpose of this document is to provide clear instructions on how to install and use RR3700/R700 RAID Controller on CentOS 7.6 system.

2. Installing CentOS 7.6 on RR3700/R700 RAID Controller

If you would like to install CentOS 7.6 onto drives attached to RR3700/R700 RAID Controllers, please perform the following operations:

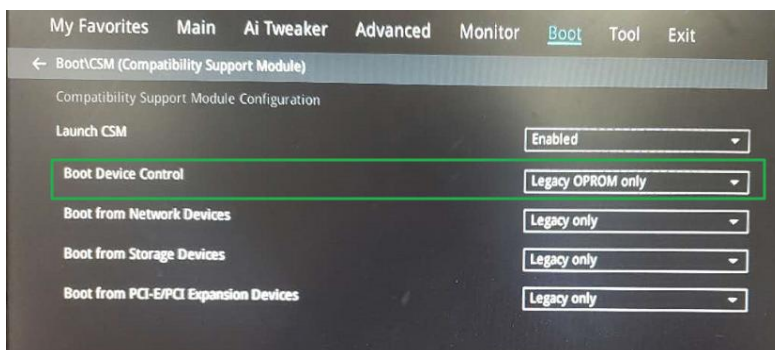
Step 1 Prepare Your Hardware for Installation

After you attach your HDDs to R710 controllers, you can use RR3700/R700 BIOS Utility to configure your HDDs as RAID arrays, or just use them as single disks.

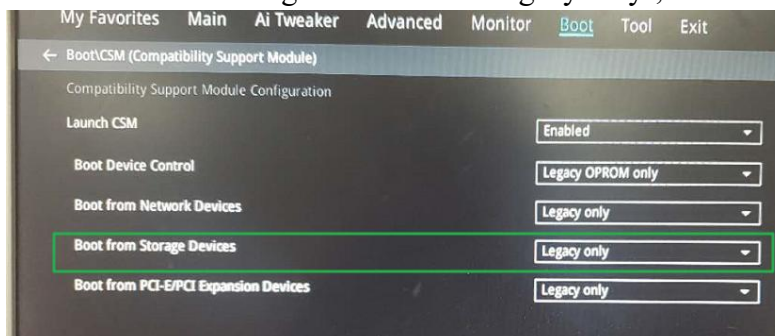
Before installation, you must remove all the disk drives, which are not physically attached to RR3700/R700 RAID controller from your system.

Step 2 Check System Boot Settings

1. Set Boot setting with ASUS PRIME Z390-A motherboard as an example
 - a. Set 'Boot Device Control' to 'Legacy OPROM only' or 'UEFI and Legacy OPROM';



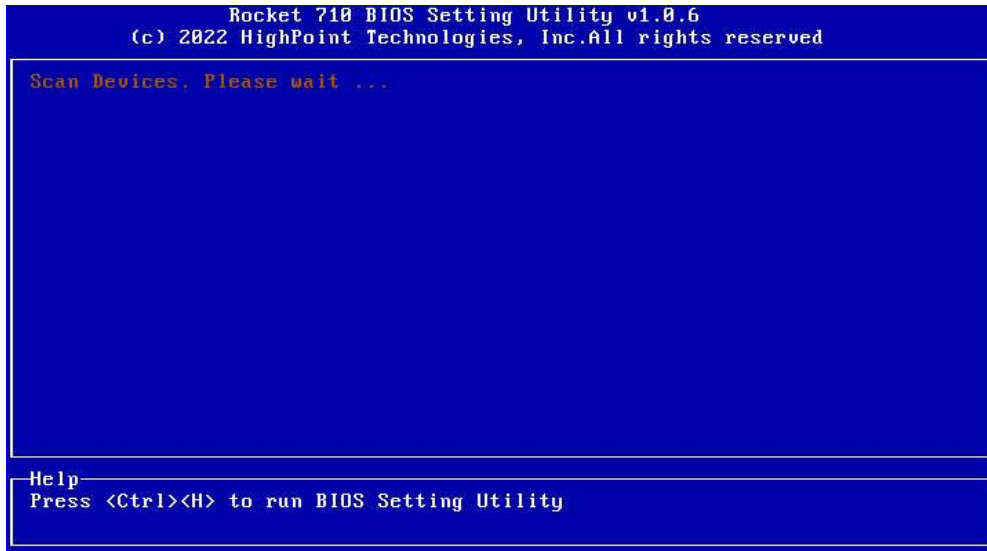
- b. Set 'Boot from Storage Devices' to 'Legacy only';



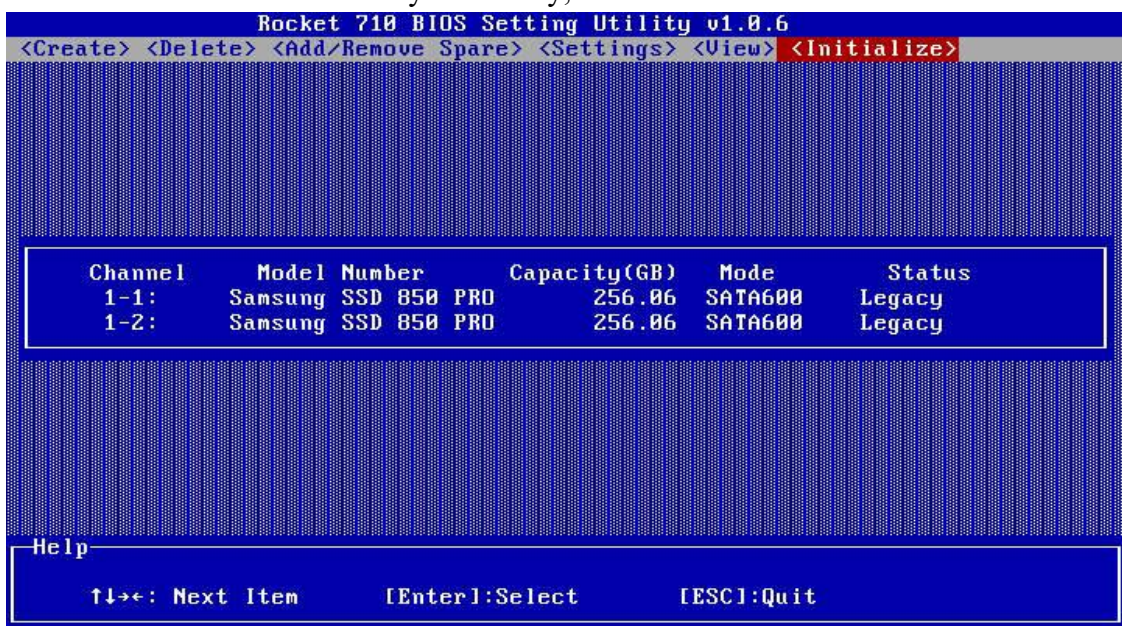
Step 3 Create Arrays with BIOS Utility (e.g. RAID1)

1. Run RocketRAID BIOS setting Utility

- Press 'Ctrl + H' key combination to access the **RocketRAID RR3700/R700 BIOS Setting Utility**;

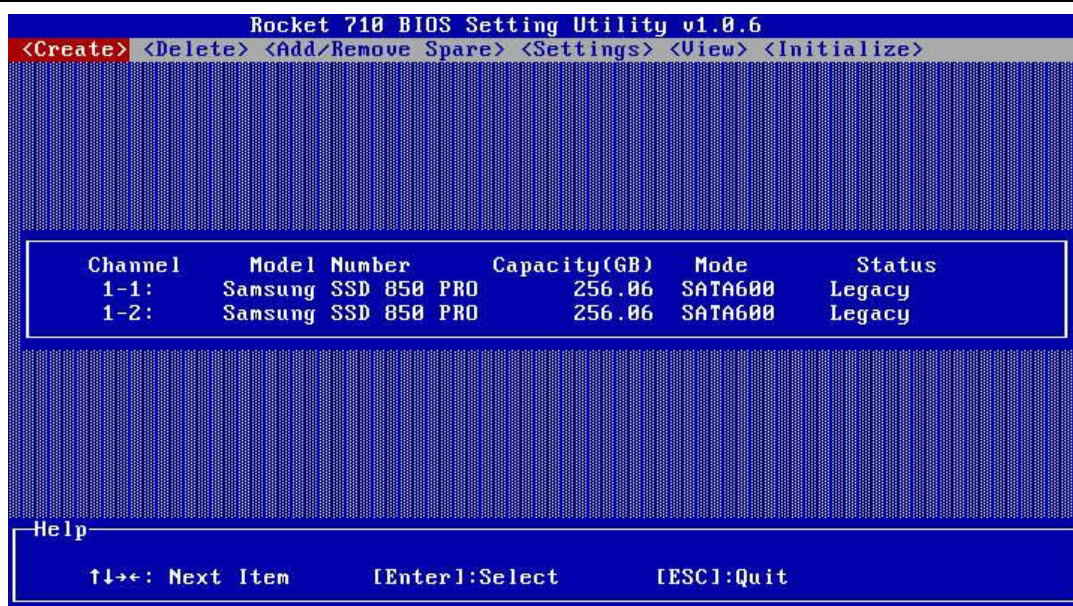


- The BIOS Utility will display information about hard drives attached to the adapter. Make sure all attached drives are detected by this utility;



2. Initializing Disks:

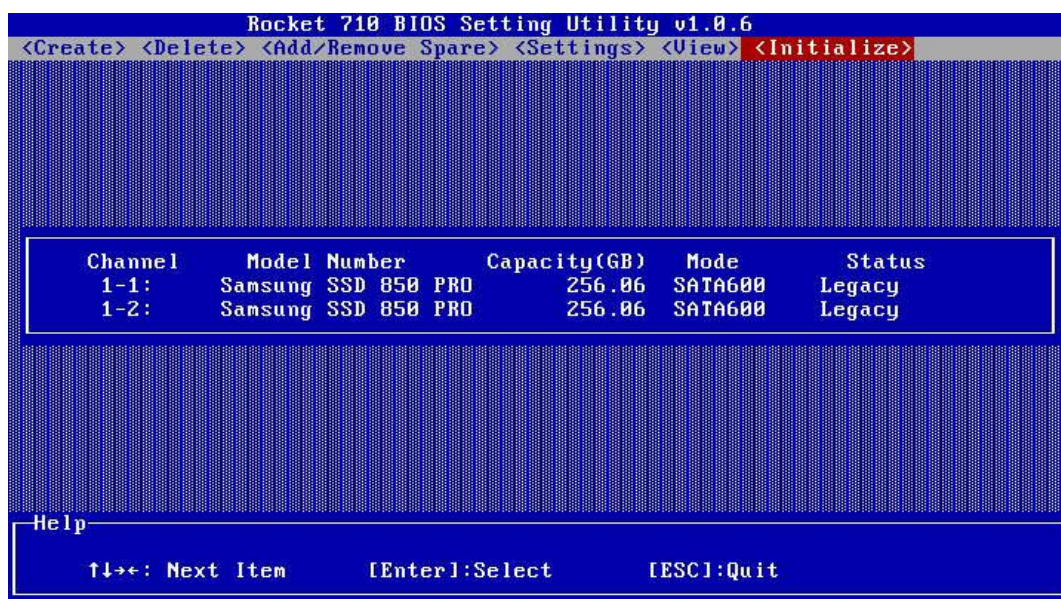
- Before creating a RAID array, the disks must be initialized. Select the **Initialize** command from the toolbar, and press **Enter** key;
- Highlight the target disks using the arrow keys, and then press the **Enter** key;

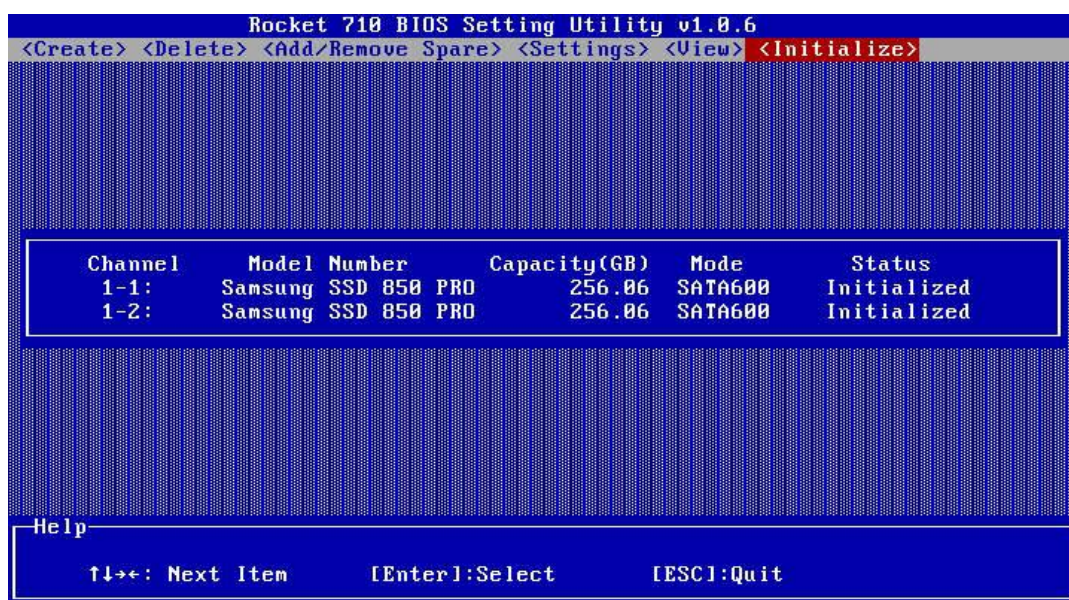


Warning: Initialization will destroy all pre-existing data on the selected hard disks.

Only initialize disks that do not contain critical data;

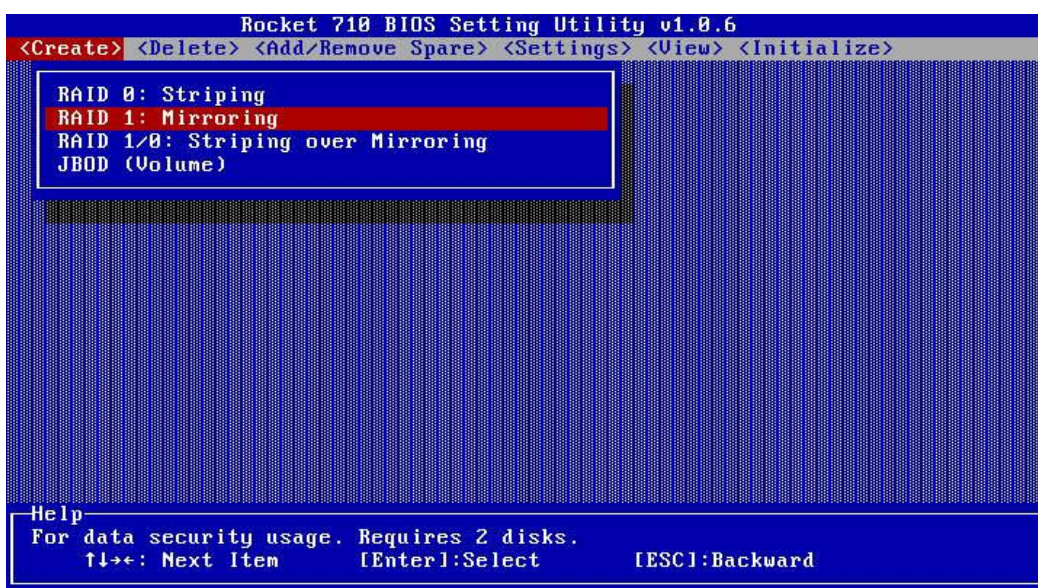
- c. Once initialized, these disks can be used to create RAID arrays. These disks will be displayed as '**Initialized**' (under Status).



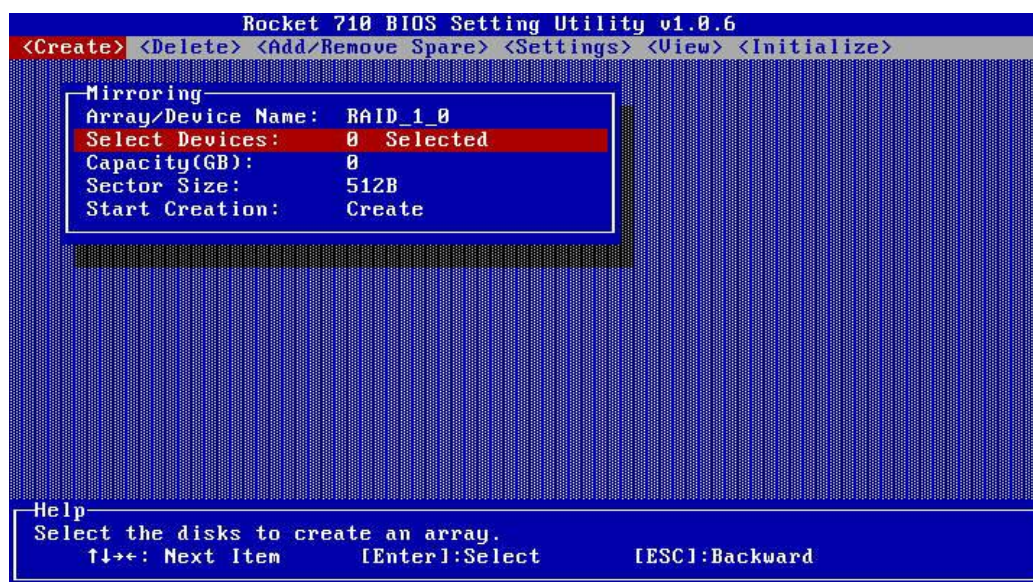


3. Create Arrays

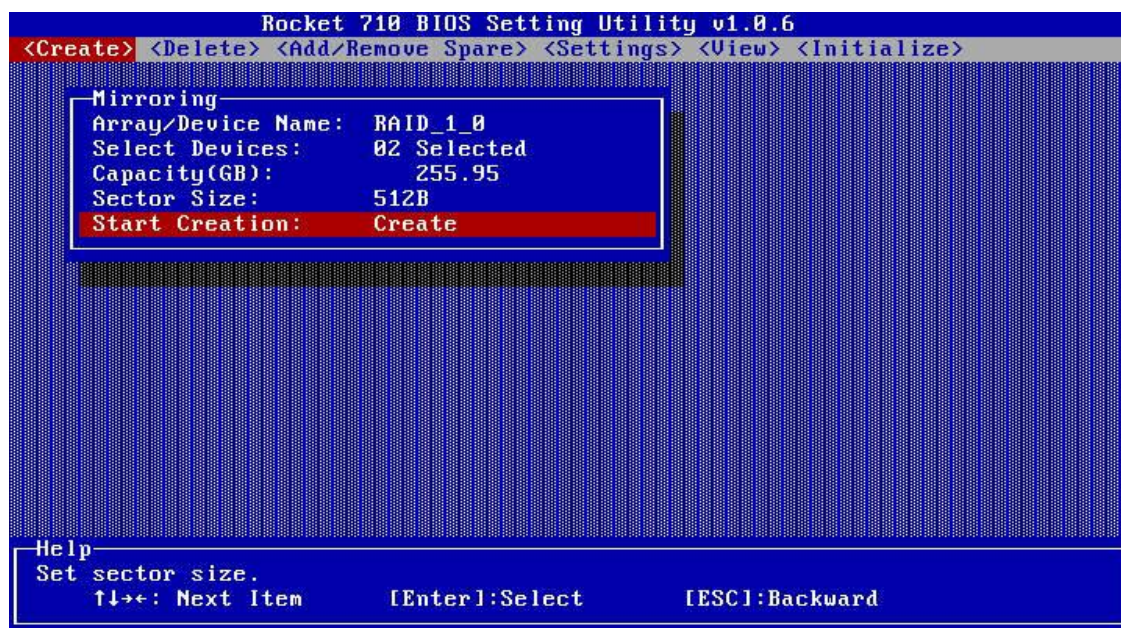
- Select **Create** from the toolbar and press **Enter** key;
- Use the arrow keys to select the RAID level and press **Enter** key;

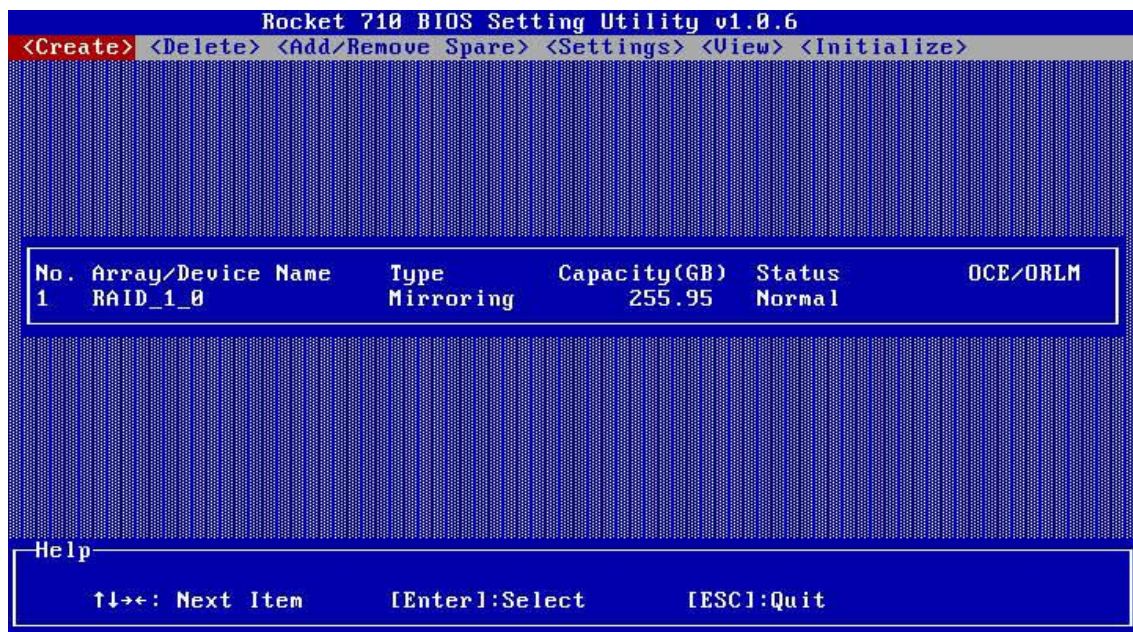


- On the **Create** menu, use the arrow keys to highlight the **Select Devices** item and press **Enter** key;

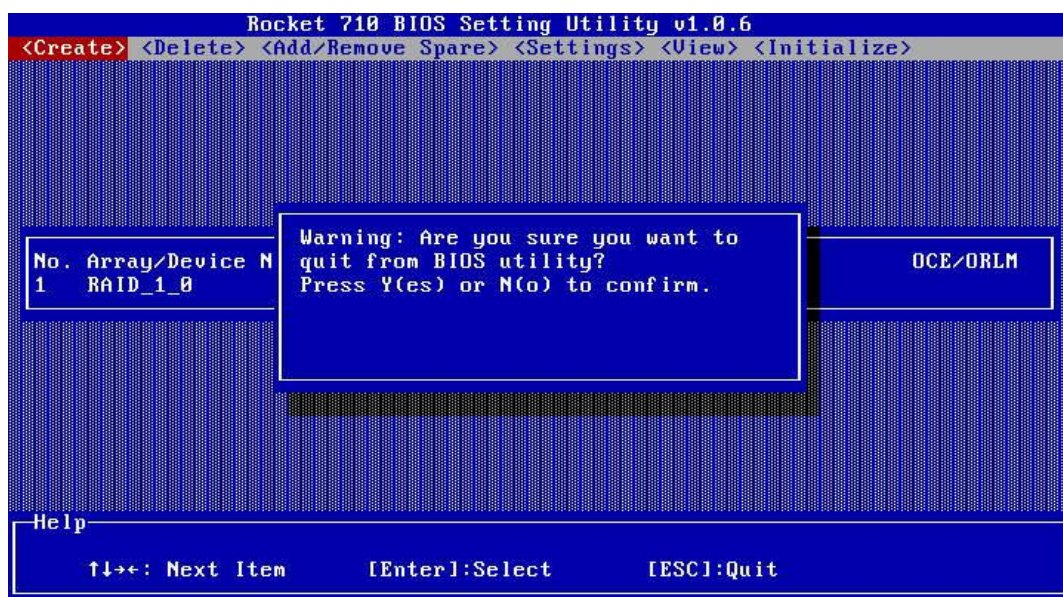


- d. Highlight the target disks that you want to use, and press **Enter** key to select them;
- e. To complete the creation procedure, use the arrow key to highlight the **Start Creation** item and press **Enter** key. Press the **Y (yes)** key to create the array, or **N (no)** key to cancel the creation process;





- f. Press **ESC** to exit BIOS Utility.



Step 4 Install CentOS 7.6

1. Install RR3700/R700 Driver

- a. Unzip RR3700/R700 driver package to root dir (/) of a USB flash drive, and insert the USB flash drive to the motherboard;

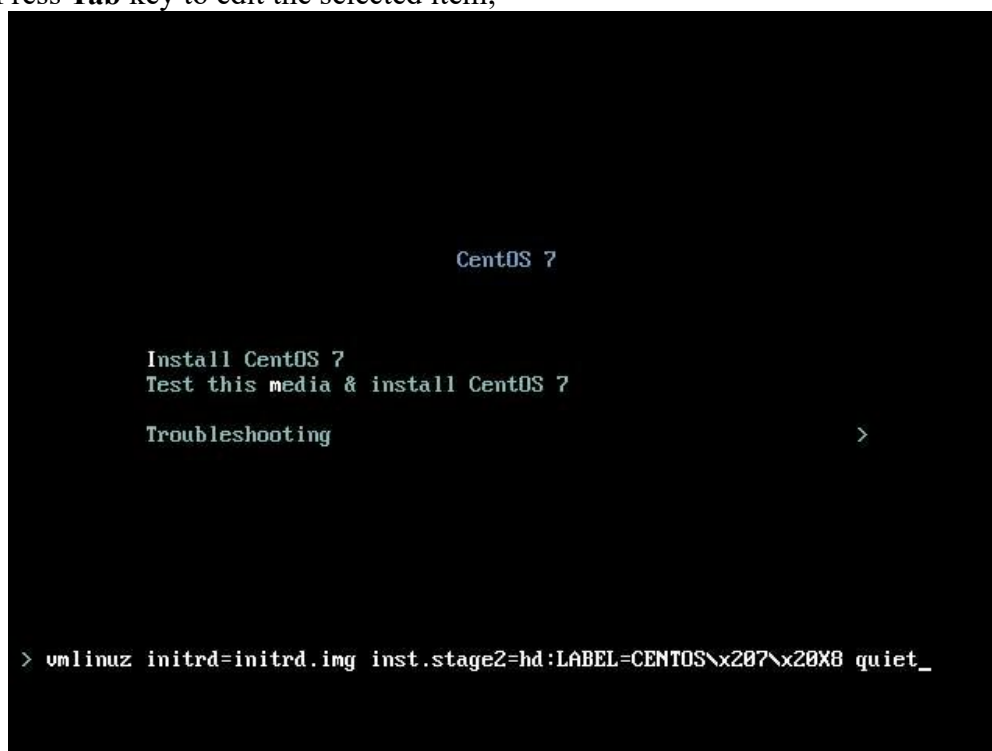
Note

Make sure your USB flash drive is recognized by CentOS. Recommended **ext4** format

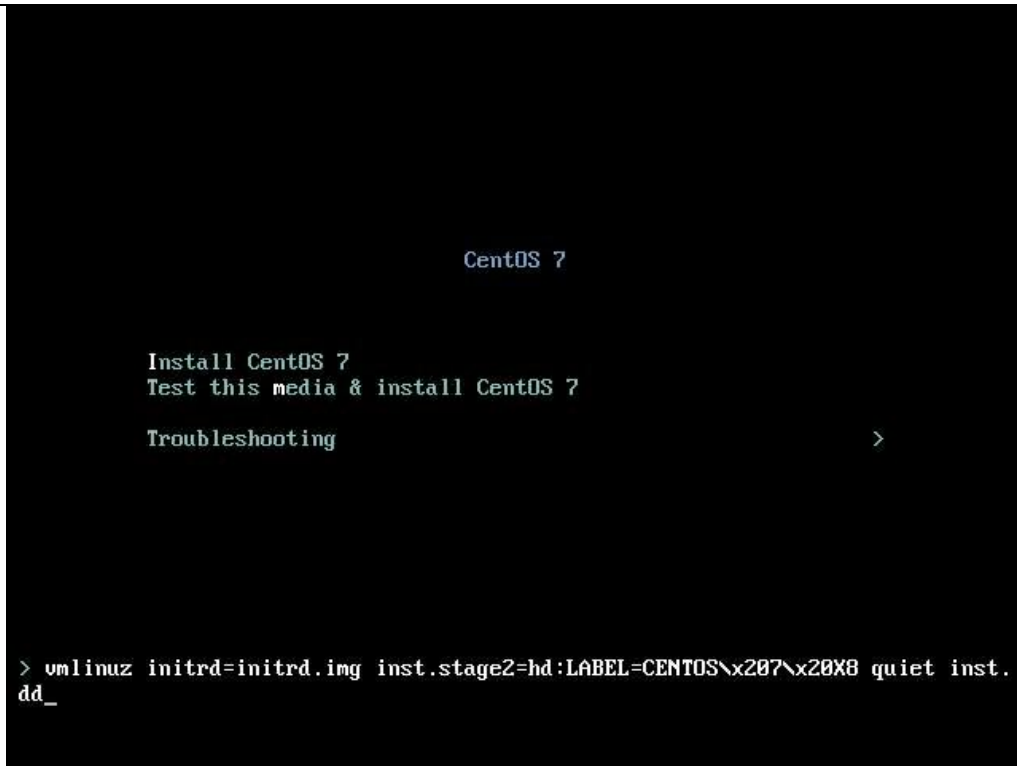
- b. Booting from **installation DVD disc**;
- c. When the Installation screen appears move cursor to '**Install CentOS Linux 7**';



- d. Press **Tab** key to edit the selected item;



- e. At the end of command line, append '**inst.dd**' and press **Enter** key to start install driver;



- f. Command '1' and press **Enter** key to select driver disk device;

```
(Page 1 of 1) Driver disk device selection
 /DEVICE  TYPE      LABEL              UUID
 1) sdb1   vfat       32\x20GB           245C-E62C
 2) sda1   vfat       CENTOS\x207\x20X8  0C83-1F51
# to select, 'r'-refresh, or 'c'-continue: 1
DD: Examining /dev/sdb1
```

- g. Command '1' and press **Enter** key to select driver disk IOS file;

```
(Page 1 of 1) Choose driver disk ISO file
 1) /media/DD-1/kmod-rr3740a-v1.23.9-22_11_24_e17.6.x86_64.iso
# to select, or 'c'-continue: 1
```

- h. Command '1' and press **Enter** key to select driver to install;

```
(Page 1 of 1) Select drivers to install
 1) [ ] /media/DD-2/rpms/x86_64/kmod-rr3740a-v1.23.9-22_11_24_e17.6.x86_64.rpm
# to toggle selection, or 'c'-continue: 1
```

- i. Command 'c' and press **Enter** key to start driver to install;

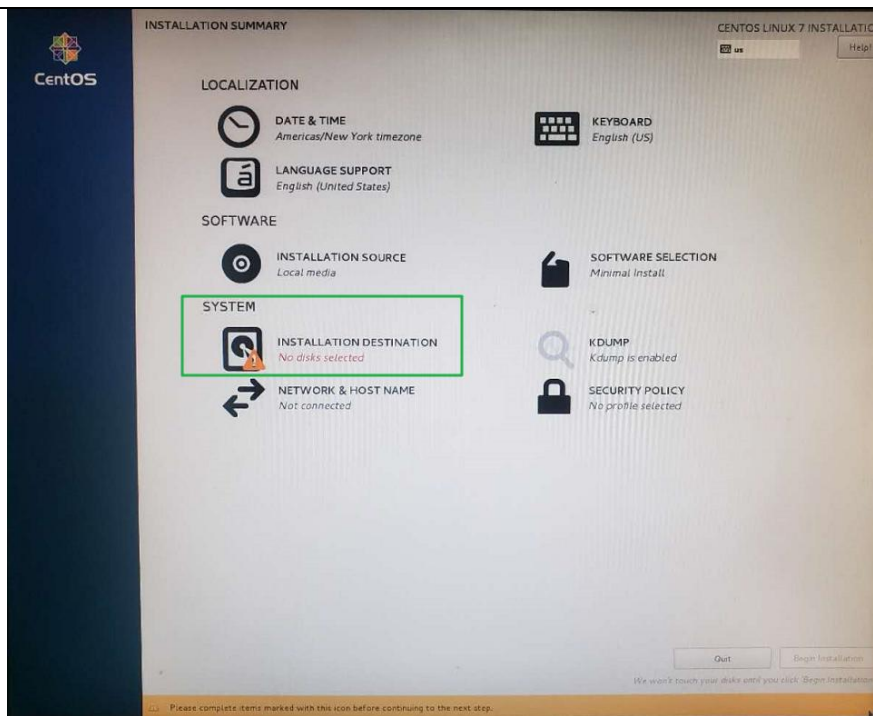
```
(Page 1 of 1) Select drivers to install
 1) [x] /media/DD-2/rpms/x86_64/kmod-rr3740a-v1.23.9-22_11_24_e17.6.x86_64.rpm
# to toggle selection, or 'c'-continue: c_
```

2. Install CentOS

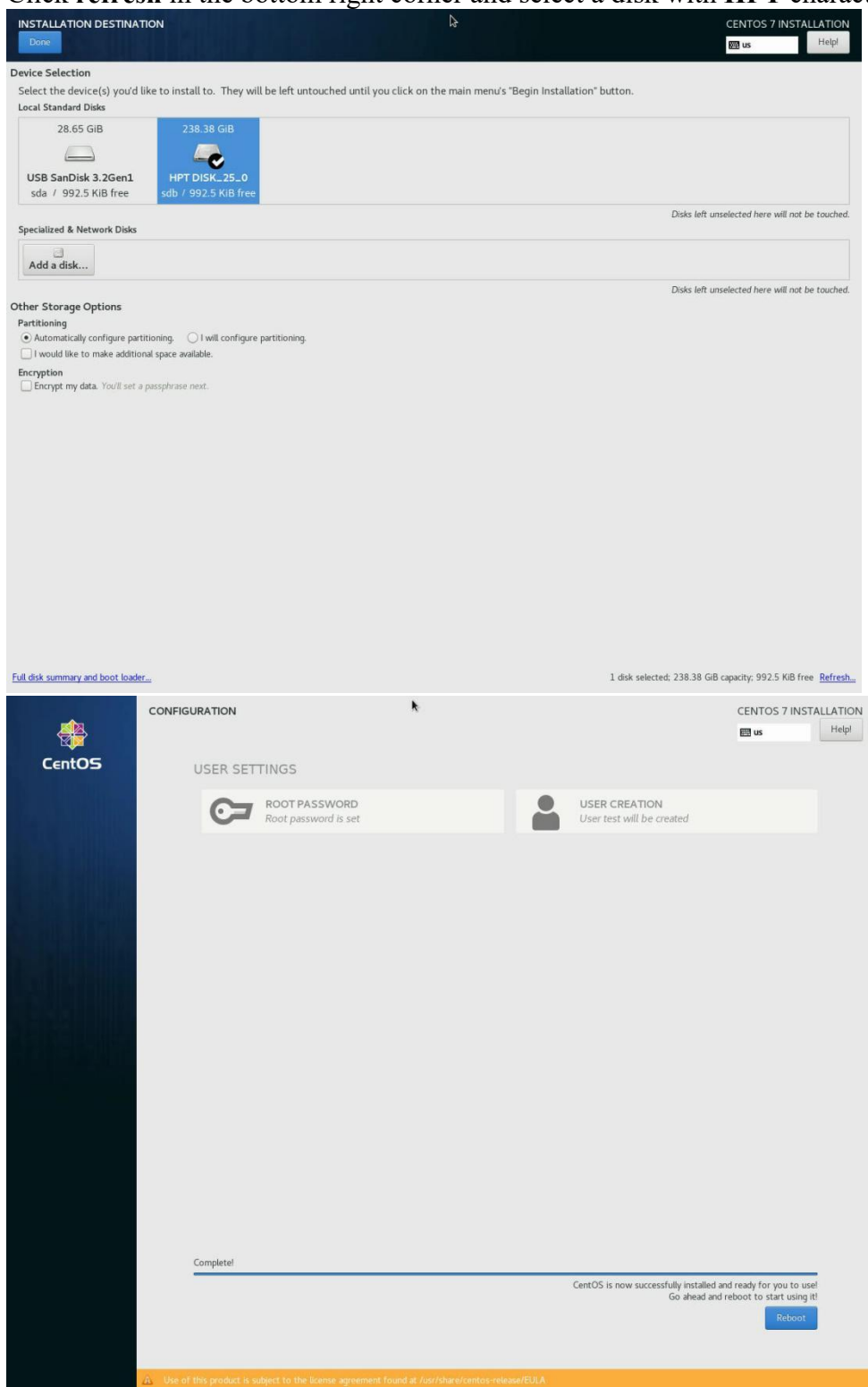
- a. After driver installation is complete, command 'c' and press **Enter** key to start CentOS install;

```
(Page 1 of 1) Driver disk device selection
 /DEVICE  TYPE      LABEL              UUID
 1) sdb1   vfat       32\x20GB           245C-E62C
 2) sda1   vfat       CENTOS\x207\x20X8  0C83-1F51
# to select, 'r'-refresh, or 'c'-continue: c_
```

- b. Unplug the USB flash drive and click **INSTALLATION DESTINATION**;



- c. Click **refresh** in the bottom right corner and select a disk with **HPT** characters for installation.



The image displays two screenshots from the CentOS 7 installation process. The top screenshot is the 'INSTALLATION DESTINATION' screen. It shows a 'Device Selection' section with 'Local Standard Disks'. Two disks are listed: 'USB SanDisk 3.2Gen1' (sda, 28.65 GiB, 992.5 KiB free) and 'HPT DISK_25_0' (sdb, 238.38 GiB, 992.5 KiB free). The 'HPT DISK_25_0' is selected. Below this is a 'Specialized & Network Disks' section with an 'Add a disk...' button. The 'Other Storage Options' section includes 'Partitioning' (with 'Automatically configure partitioning' selected) and 'Encryption' (with 'Encrypt my data' unchecked). At the bottom right, a status bar indicates '1 disk selected; 238.38 GiB capacity; 992.5 KiB free' and a 'Refresh...' link. The bottom screenshot is the 'CONFIGURATION' screen. It shows 'USER SETTINGS' with 'ROOT PASSWORD' (set) and 'USER CREATION' (User test will be created). At the bottom, a progress bar is at 100% and a message states 'CentOS is now successfully installed and ready for you to use! Go ahead and reboot to start using it!' with a 'Reboot' button.

INSTALLATION DESTINATION

Done

CENTOS 7 INSTALLATION

Device Selection

Select the device(s) you'd like to install to. They will be left untouched until you click on the main menu's "Begin Installation" button.

Local Standard Disks

28.65 GiB

238.38 GiB

USB SanDisk 3.2Gen1
sda / 992.5 KiB free

HPT DISK_25_0
sdb / 992.5 KiB free

Disks left unselected here will not be touched.

Specialized & Network Disks

Add a disk...

Disks left unselected here will not be touched.

Other Storage Options

Partitioning

☒ Automatically configure partitioning. ☐ I will configure partitioning.

☐ I would like to make additional space available.

Encryption

☐ Encrypt my data. You'll set a passphrase next.

Full disk summary and boot loader...

1 disk selected; 238.38 GiB capacity; 992.5 KiB free [Refresh...](#)

CONFIGURATION

CENTOS 7 INSTALLATION

USER SETTINGS

ROOT PASSWORD
Root password is set

USER CREATION
User test will be created

Complete!

CentOS is now successfully installed and ready for you to use!
Go ahead and reboot to start using it!

Reboot

Use of this product is subject to the license agreement found at [/usr/share/centos-release/EULA](#)