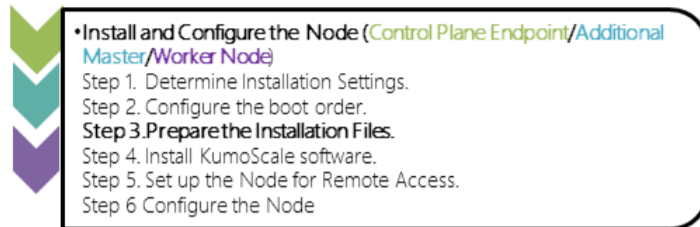


## Step 3 for all Nodes: Prepare the Installation Files

This page explains Step 3 of installing KumoScale for Appliance Mode in a multi-node environment.



Prepare the installation files by following the steps below.

**1. Connect the Platform to the Network.** KumoScale software will sort the connected interfaces according to maximum speed (from lowest to highest), bus information, and Media Access Controller (MAC) address, and choose the slowest for the management port. Connect the management port according to these guidelines or connect the data port(s) after the installation has completed. Certain hardware platforms do not contain a dedicated management interface. In such a case, KumoScale software supports utilizing the data port as a shared data/management interface.

**2. Prepare the Installation Files.** Prepare the installation files according to the type of installation you are performing.

[Network Installation using a PXE Server](#)

[Network Installation using a iPXE Server](#)

[Virtual CD Installation](#)

[USB Installation](#)

**Network Installation using a PXE Server** requires the following files and entries:

- The compressed image for deployment **kumoscale-<KumoScale release>-img.raw**.  
For example, **kumoscale-3.22-15757-img.raw**.
- The initial ramdisk image **initrd-<KumoScale release>.img**  
For example, **initrd-22-15757.img**
- The CentOS™ kernel file **vmlinuz-<KumoScale release>**. For example, **vmlinuz-3.22-15757**

**2a.** Save the files in the PXE server images You can use HTTP or HTTPS for the PXE server URL.

For example, **http://192.0.2.1/images** or **https://192.0.2.1/images**.

**2b.** Copy the initrd and vmlinuz files into one of the PXE server's boot image locations, e.g. **/tftpboot**. If choosing a folder different than **/tftpboot**, be sure to replace it in the next section as well.

**2c.** For installation of KumoScale on the first node of the storage cluster, the first master node, set the value of **kx\_cluster\_vip** to the value of the master VIP. You do not need to supply this parameter for any other node.

**2d.** Add the **pxelinux** menu entry below to your PXE cfg menu. For example:

```
menuentry 'KUMOSCALE Diskless deployer' {
    linuxefi /vmlinuz-3.22-15757 ro copytoram=y panic=30 ip=::::::dhcp ipv6.disable=1 quiet iommu=soft root=live:
    ${img_raw_path} rd.driver.pre=loaop rd.writable.fsimg=1 rd.neednet=1 rd.live.image rd.live.ram=0

    kx_mode=deploy

    initrdefi /initrd-3.22-15757.img
}
```

**2e.** For serial port deployment, add the console redirection as shown in the example below:

```
menuentry 'KUMOSCALE Diskless deployer' {
    linuxefi /vmlinuz-3.22-15757 ro copytoram=y panic=30 ip=::::::dhcp ipv6.disable=1 quiet iommu=soft
    root=live:${img_raw_path} rd.driver.pre=loaop rd.writable.fsimg=1 rd.neednet=1 rd.live.image rd.live.ram=0

    kx_mode=deploy console=tty1 console=ttyS0,115200n8

    initrdefi /initrd-3.22-15757.img
}
```

2f. Verify that the server is connected to the PXE server’s network.

Network Installation using an iPXE Server requires the following files and entries:

- 2a. Place the Golden Image, **img.raw kumoscale-3.22-15757-img.raw**, on image\_path (e.g. - http://10.##.##.##/images/kumoscale-3.22-15757-img.raw).
- 2b Place the initrd-3.22-15757.img and vmlinuz-3.22-15757 artifacts on **/tftpboot** (or any other of your iPXE boot images location).
- 2c. Add the below menu entry on your ipxe menu:

```
:kumoscale-3.22-15757

imgstat

initrd /initrd-3.22-15757.img

chain /vmlinuz-3.22-15757 initrd=initrd-3.22-15757.img ro copytoram=y panic=30 ipv6.disable=1 quiet iommu=soft

root=live:${img_raw_path} rd.driver.pre=loaop rd.writable.fsimg=1 rd.neednet=1 rd.live.image rd.live.ram=0

kx_mode=deploy
```

**Virtual CD Installation.** Virtual CD installation requires the ISO image: **kumoscale-<KumoScale release>.iso**. For example, kumoscale-3.22-15757.iso.

- 2a. Mount or attach the ISO image from either one of the IPMI, iLO or iDRAC of the deployed appliance.

**USB Installation.** The USB artifact is an image that should be deployed to thumb drives using the ./makeusb.sh script. A disk-on-key that was deployed using this script, will be bootable.

**Warning:** Do not connect the bootable USB drive to a production server, since it might delete its content without a prior warning.

- 2a. Confirm the following; needed to run makeusb.sh:

- The Linux rpm or Ubuntu™ deb for **gdisk** is installed.
- You have root access

- 2b. Save the following files in the same folder on a RHEL Linux platform with a connected USB device.

- The compressed image for deployment kumoscale-<KumoScale release>-img.raw.  
For example, kumoscale-22-15757-img.raw.
- The file system image kumoscale-<KumoScale release>-usb.raw.gpg.  
For example, kumoscale-22-15757-usb.raw.gpg.
- The installation scriptsh.

- 2c. Connect the USB device at same RHEL Linux/Ubuntu system and identify the device by referencing the output of the **dmesg** command with the kumoscale-3.22-15757-img.raw file.

- 2d. After all the files are placed on the drive, deploy the USB device /dev/sdx by executing the following:

```
./makeusb.sh /dev/sdx /path/to/files
```

**Note:** You may need to set the access rights of the script for execution.

If the USB is auto-mounted by the operating system, the command above will not function properly. If so, unmount the USB device prior to this step.

**Next:** [Step 4 for all Nodes: Install the KumoScale Software](#)

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