Instalação do RHEL em um servidor UCS C240 M5 autônomo.

Contents

Introduction

Este artigo descreve o procedimento para instalar o RHEL na configuração RAID local em um servidor UCSC C240 M5 autônomo.

Configuração usada

UCSC-C240-M5L
Controladora RAID: HBA SAS Cisco 12G (UCSC-SAS-M5)
HDDs do setor 4K
CIMC: 3.1(3 bis)
OS: RHEL 7.3

Prerequisites

1. Baixe o ISO do RHEL e o ISO do controlador:

   RHEL: rhel-server-7.3-x86_64-boot.iso

   ISO do driver: [ucs-cxxx-drivers-linux.3.1.3.iso](#)

   (No ISO, navegue para Storage -> LS -> UCSC-SAS-M5 -> RHEL -> RHEL7.3 -> mpt3sas-23.00.00.00_el7.3-1.x86_64.iso.gz)

2. Se você extrair o arquivo mpt3sas-23.00.00.00_el7.3-1.x86_64.iso.gz, você obterá o driver ISO -> mpt3sas-23.00.00.00_el7.3-1.x86_64.iso

3. Da mesma forma, se estiver usando um controlador UCSC-RAID-M5 em seu servidor, você poderá navegar até o driver correspondente.

Procedimento

Etapa 1. Como o servidor tem drives de setor de 4k, realizaremos uma inicialização UEFI. O pedido de inicialização deve ser semelhante a:

Etapa 2. Abra o KVM e mapeie o ISO do RHEL:

Etapa 3. Pressione F6 e inicialize a partir da UEFI: vDVD1.24 mapeado para Cisco vKVM

Etapa 4.Selecione a opção "Install Red Hat Enterprise Linux 7.3" (Instalar o Red Hat Enterprise Linux 7.3) e pressione
"e"
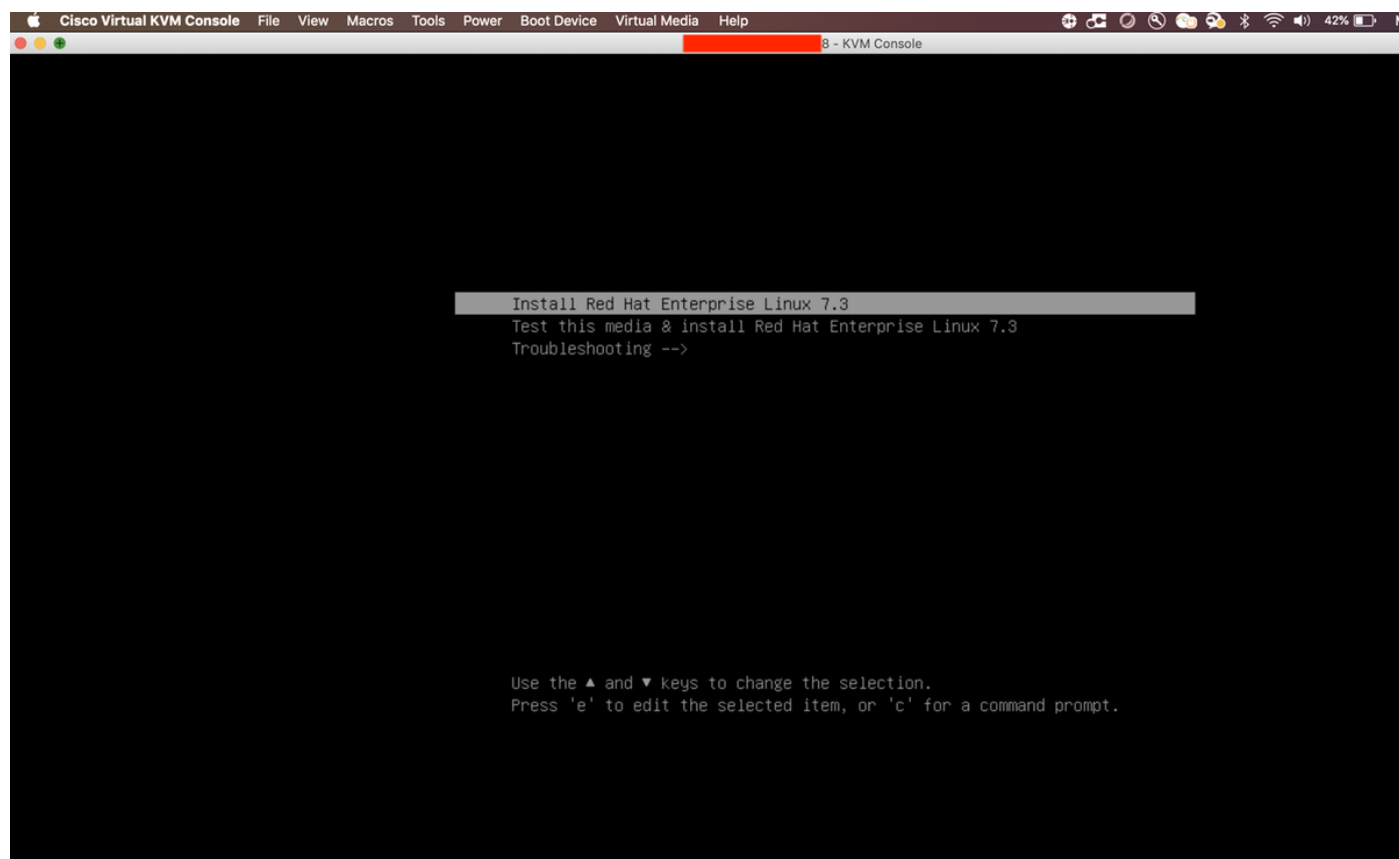
Etapa 5. Você verá a tela abaixo:
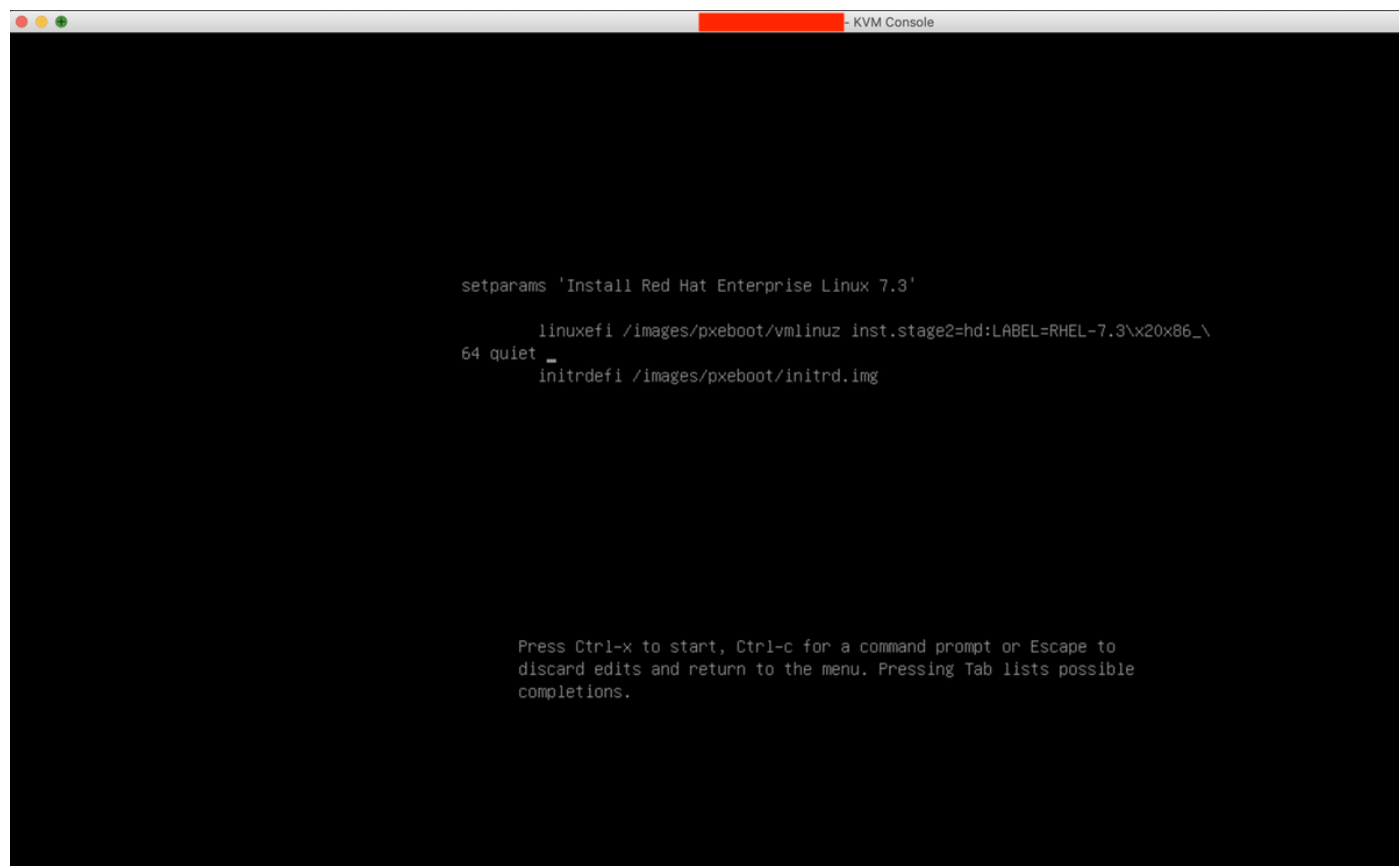
Etapa 6. Digite o comando "linux dd" e faça uma ação Ctrl + x

```
setparams 'Install Red Hat Enterprise Linux 7.3'

            linuxefi /images/pxeboot/vmlinuz inst.stage2=hd:LABEL=RHEL-7.3\x20x86_\
64 quiet linux dd_
            initrdefi /images/pxeboot/initrd.img




            Press Ctrl-x to start, Ctrl-c for a command prompt or Escape to
            discard edits and return to the menu. Pressing Tab lists possible
            completions.
```

Passo 7. O comando acima iniciará o modo Interativo:

```
[   18.162151] i8042: Can't read CTR while initializing i8042
[  OK  ] Started Show Plymouth Boot Screen.
[  OK  ] Reached target Paths.
[  OK  ] Reached target Basic System.
[  OK  ] Started Device-Mapper Multipath Device Controller.
         Starting Open-iSCSI...
[  OK  ] Started Open-iSCSI.
         Starting dracut initqueue hook...
[   22.750254] nouveau 0000:60:00.0: priv: HUB0: 10ecc0 ffffffff (1e40822c)
[   22.824043] nouveau 0000:60:00.0: DRM: Pointer to TMDS table invalid
[   22.824060] nouveau 0000:60:00.0: DRM: Pointer to flat panel table invalid
[   23.399872] nouveau 0000:61:00.0: priv: HUB0: 10ecc0 ffffffff (1a40822c)
[   23.463012] nouveau 0000:61:00.0: DRM: Pointer to TMDS table invalid
[   23.463029] nouveau 0000:61:00.0: DRM: Pointer to flat panel table invalid
[   24.037598] nouveau 0000:62:00.0: priv: HUB0: 10ecc0 ffffffff (1d40822c)
[   24.101383] nouveau 0000:62:00.0: DRM: Pointer to TMDS table invalid
[   24.101400] nouveau 0000:62:00.0: DRM: Pointer to flat panel table invalid
[   24.676850] nouveau 0000:63:00.0: priv: HUB0: 10ecc0 ffffffff (1c40822c)
[   24.740881] nouveau 0000:63:00.0: DRM: Pointer to TMDS table invalid
[   24.740897] nouveau 0000:63:00.0: DRM: Pointer to flat panel table invalid
[  OK  ] Created slice system-driver\x2dupdates.slice.
         Starting Driver Update Disk UI on tty1...
[  OK  ] Started Show Plymouth Boot Screen.
[  OK  ] Reached target Paths.
[  OK  ] Reached target Basic System.
[  OK  ] Started Device-Mapper Multipath Device Controller.
         Starting Open-iSCSI...
[  OK  ] Started Open-iSCSI.
         Starting dracut initqueue hook...
[  OK  ] Created slice system-driver\x2dupdates.slice.
         Starting Driver Update Disk UI on tty1...
DD: starting interactive mode

(Page 1 of 1) Driver disk device selection
    /DEVICE  TYPE     LABEL            UUID
 1) sda1     vfat     ESXi             591C-E3E2
 2) sda2     vfat                      4C6C-A2D4
 3) sda3     VMFS_vol                  5aa6e18d-304835ba-1711-4c776d996e2e
 4) sda5     vfat                      4C6C-A2CA
 5) sda6     vfat                      4C6C-A2CD
 6) sda8     vfat                      4C6C-A2C8
 7) sr0      iso9660  RHEL-7.3\x20x86_64  2016-10-19-17-41-40-00
# to select, 'r'-refresh, or 'c'-continue: _
```

Etapa 8. Desmapeie o ISO do RHEL e mapeie o ISO do driver da controladora:

Etapa 9. Digite "r" para atualizar a lista de discos de driver:

Etapa 10. Agora você verá a lista ISO do driver da controladora. Digite "7" e faça a seleção:

```
[   23.463012] nouveau 0000:61:00.0: DRM: Pointer to TMDS table invalid
[   23.463029] nouveau 0000:61:00.0: DRM: Pointer to flat panel table invalid
[   24.037598] nouveau 0000:62:00.0: priv: HUB0: 10ecc0 ffffffff (1d40822c)
[   24.101383] nouveau 0000:62:00.0: DRM: Pointer to TMDS table invalid
[   24.101400] nouveau 0000:62:00.0: DRM: Pointer to flat panel table invalid
[   24.676850] nouveau 0000:63:00.0: priv: HUB0: 10ecc0 ffffffff (1c40822c)
[   24.740881] nouveau 0000:63:00.0: DRM: Pointer to TMDS table invalid
[   24.740897] nouveau 0000:63:00.0: DRM: Pointer to flat panel table invalid
[  OK   ] Created slice system-driver\x2dupdates.slice.
           Starting Driver Update Disk UI on tty1...
[  OK   ] Started Show Plymouth Boot Screen.
[  OK   ] Reached target Paths.
[  OK   ] Reached target Basic System.
[  OK   ] Started Device-Mapper Multipath Device Controller.
           Starting Open-iSCSI...
[  OK   ] Started Open-iSCSI.
           Starting dracut initqueue hook...
[  OK   ] Created slice system-driver\x2dupdates.slice.
           Starting Driver Update Disk UI on tty1...
DD: starting interactive mode

(Page 1 of 1) Driver disk device selection
     /DEVICE   TYPE      LABEL              UUID
 1) sda1      vfat      ESXi               591C-E3E2
 2) sda2      vfat                         4C6C-A2D4
 3) sda3      VMFS_vol                     5aa6e18d-304835ba-1711-4c776d996e2e
 4) sda5      vfat                         4C6C-A2CA
 5) sda6      vfat                         4C6C-A2CD
 6) sda8      vfat                         4C6C-A2C8
 7) sr0       iso9660   RHEL-7.3\x20x86_64 2016-10-19-17-41-40-00
# to select, 'r'-refresh, or 'c'-continue: r

(Page 1 of 1) Driver disk device selection
     /DEVICE   TYPE      LABEL              UUID
 1) sda1      vfat      ESXi               591C-E3E2
 2) sda2      vfat                         4C6C-A2D4
 3) sda3      VMFS_vol                     5aa6e18d-304835ba-1711-4c776d996e2e
 4) sda5      vfat                         4C6C-A2CA
 5) sda6      vfat                         4C6C-A2CD
 6) sda8      vfat                         4C6C-A2C8
 7) sr0       iso9660   CDROM              2017-05-26-05-44-09-00
# to select, 'r'-refresh, or 'c'-continue: 7
DD: Examining /dev/sr0
mount: /dev/sr0 is write-protected, mounting read-only

(Page 1 of 1) Select drivers to install
 1) [ ] /media/DD-1/rpms/x86_64/kmod-mpt3sas-23.00.00.00_el7.3-1.x86_64.rpm
# to toggle selection, or 'c'-continue: _
```

Etapa 11. Digite '1' e 'c' para continuar:

```
 [    24.101400] nouveau 0000:62:00.0: DRM: Pointer to flat panel table invalid
 [    24.676850] nouveau 0000:63:00.0: priv: HUB0: 10ecc0 ffffffff (1c40822c)
 [    24.740881] nouveau 0000:63:00.0: DRM: Pointer to TMDS table invalid
 [    24.740897] nouveau 0000:63:00.0: DRM: Pointer to flat panel table invalid
 [  OK  ] Created slice system-driver\x2dupdates.slice.
          Starting Driver Update Disk UI on tty1...
 [  OK  ] Started Show Plymouth Boot Screen.
 [  OK  ] Reached target Paths.
 [  OK  ] Reached target Basic System.
 [  OK  ] Started Device-Mapper Multipath Device Controller.
          Starting Open-iSCSI...
 [  OK  ] Started Open-iSCSI.
          Starting dracut initqueue hook...
 [  OK  ] Created slice system-driver\x2dupdates.slice.
          Starting Driver Update Disk UI on tty1...
 DD: starting interactive mode

 (Page 1 of 1) Driver disk device selection
      /DEVICE   TYPE      LABEL             UUID
  1) sda1      vfat      ESXi              591C-E3E2
  2) sda2      vfat                        4C6C-A2D4
  3) sda3      VMFS_vol                    5aa6e18d-304835ba-1711-4c776d996e2e
  4) sda5      vfat                        4C6C-A2CA
  5) sda6      vfat                        4C6C-A2CD
  6) sda8      vfat                        4C6C-A2C8
  7) sr0       iso9660   RHEL-7.3\x20x86_64  2016-10-19-17-41-40-00
 # to select, 'r'-refresh, or 'c'-continue: r

 (Page 1 of 1) Driver disk device selection
      /DEVICE   TYPE      LABEL             UUID
  1) sda1      vfat      ESXi              591C-E3E2
  2) sda2      vfat                        4C6C-A2D4
  3) sda3      VMFS_vol                    5aa6e18d-304835ba-1711-4c776d996e2e
  4) sda5      vfat                        4C6C-A2CA
  5) sda6      vfat                        4C6C-A2CD
  6) sda8      vfat                        4C6C-A2C8
  7) sr0       iso9660   CDROM             2017-05-26-05-44-09-00
 # to select, 'r'-refresh, or 'c'-continue: 7
 DD: Examining /dev/sr0
 mount: /dev/sr0 is write-protected, mounting read-only

 (Page 1 of 1) Select drivers to install
  1) [ ] /media/DD-1/rpms/x86_64/kmod-mpt3sas-23.00.00.00_el7.3-1.x86_64.rpm
 # to toggle selection, or 'c'-continue: 1

 (Page 1 of 1) Select drivers to install
  1) [x] /media/DD-1/rpms/x86_64/kmod-mpt3sas-23.00.00.00_el7.3-1.x86_64.rpm
 # to toggle selection, or 'c'-continue:
```

Etapa 12. O driver .rpm está dentro do arquivo .iso. Você pode receber um aviso de que "DD repo content not a file" (Não é um arquivo), mas é apenas um aviso - o driver teria sido instalado.

Etapa 13. Você deve estar no menu "Seleção do dispositivo do disco do driver" novamente. Desmapeie o ISO do driver e mapeie o ISO do RHEL novamente. Pressione "r" para atualizar e depois - pressione "c" para continuar com a instalação do RHEL. O instalador deve ser capaz de reconhecer o controlador RAID e os discos gerenciados por ele.

Create Image

✓ Activate Virtual Devices

✓ rhel-server-7.3-x86_64-boot.iso Mapped to CD/DVD
   Map Removable Disk ...
   Map Floppy ...

```
   3) sda3      VMFS_vol
   4) sda5      vfat
   5) sda6      vfat
   6) sda8      vfat
   7) sr0       iso9660   RHEL-7.3\x20x86_64
# to select, 'r'-refresh, or 'c'-continu

(Page 1 of 1) Driver disk device selection
    /DEVICE    TYPE      LABEL           UUID
 1) sda1       vfat      ESXi            591C-E3E2
 2) sda2       vfat                      4C6C-AZD4
 3) sda3       VMFS_vol                  5aa6e18d-304835ba-1711-4c776d996e2e
 4) sda5       vfat                      4C6C-AZCA
 5) sda6       vfat                      4C6C-AZCD
 6) sda8       vfat                      4C6C-AZC8
 7) sr0        iso9660   CDROM           2017-05-26-05-44-09-00
# to select, 'r'-refresh, or 'c'-continue: 7
DD: Examining /dev/sr0
mount: /dev/sr0 is write-protected, mounting read-only

(Page 1 of 1) Select drivers to install
 1) [ ] /media/DD-1/rpms/x86_64/kmod-mpt3sas-23.00.00.00_el7.3-1.x86_64.rpm
# to toggle selection, or 'c'-continue: 1

(Page 1 of 1) Select drivers to install
 1) [x] /media/DD-1/rpms/x86_64/kmod-mpt3sas-23.00.00.00_el7.3-1.x86_64.rpm
# to toggle selection, or 'c'-continue: 1

(Page 1 of 1) Select drivers to install
 1) [ ] /media/DD-1/rpms/x86_64/kmod-mpt3sas-23.00.00.00_el7.3-1.x86_64.rpm
# to toggle selection, or 'c'-continue: 1

(Page 1 of 1) Select drivers to install
 1) [x] /media/DD-1/rpms/x86_64/kmod-mpt3sas-23.00.00.00_el7.3-1.x86_64.rpm
# to toggle selection, or 'c'-continue: c
DD: Extracting: kmod-mpt3sas
DD: WARNING: DD repo content not a file: /media/DD-1/rpms/x86_64/repodata

(Page 1 of 1) Driver disk device selection
    /DEVICE    TYPE      LABEL           UUID
 1) sda1       vfat      ESXi            591C-E3E2
 2) sda2       vfat                      4C6C-AZD4
 3) sda3       VMFS_vol                  5aa6e18d-304835ba-1711-4c776d996e2e
 4) sda5       vfat                      4C6C-AZCA
 5) sda6       vfat                      4C6C-AZCD
 6) sda8       vfat                      4C6C-AZC8
 7) sr0        iso9660   CDROM           2017-05-26-05-44-09-00
# to select, 'r'-refresh, or 'c'-continue:
```
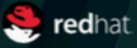
redhat

INSTALLATION SUMMARY

RED HAT ENTERPRISE LINUX 7.3 INSTALLATION

⌨ us

Help!

LOCALIZATION

🕐 **DATE & TIME**
Americas/New York timezone

⌨ **KEYBOARD**
English (US)

á **LANGUAGE SUPPORT**
English (United States)

SOFTWARE

⚠ **INSTALLATION SOURCE**
Setting up installation source...

⚠ **SOFTWARE SELECTION**
Installation source not set up

SYSTEM

⚠ **INSTALLATION DESTINATION**
No disks selected

🔍 **KDUMP**
Kdump is enabled

➡ **NETWORK & HOST NAME**
Not connected

🔒 **SECURITY POLICY**
Not ready

Quit   Begin Installation

We won't touch your disks until you click 'Begin Installation'.

⚠ Please complete items marked with this icon before continuing to the next step.

Done

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

223.57 GiB	5589.03 GiB	5589.03 GiB	5589.03 GiB	
ATA Mircon_5100_MTFD	**TOSHIBA MG04SCA60EA**	**TOSHIBA MG04SCA60EA**	**TOSHIBA MG04SCA60EA**	**TO**
sda / 79 KiB free	sdf / 5589.03 GiB free	sdg / 5589.03 GiB free	sdh / 5589.03 GiB free	sd

Specialized & Network Disks

Add a disk...

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.*

0 disks selected; 0 B capacity; 0 B free   Refresh...

⚠ No disks selected; please select at least one disk to install to.