Installazione di RHEL su un server UCS C240 M5 autonomo.

Sommario

Introduzione

In questo documento viene descritta la procedura di installazione di RHEL sulla configurazione RAID locale in un server UCS C240 M5 standalone.

Configurazione utilizzata

UCS-C240-M5L
Controller RAID: HBA SAS Cisco 12G (UCS-SAS-M5)
Dischi rigidi 4K
CIMC 3.1, paragrafo 3 bis
Sistema operativo: RHEL 7.3

Prerequisiti

1. Scaricare RHEL ISO e Controller Driver ISO:

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

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

   (In ISO, selezionare Storage -> LS -> UCSC-SAS-M5 -> RHEL -> RHEL7.3 -> mpt3sas-23.00.00_el7.3-1.x86_64.iso.gz)

2. Se si estrae il file mpt3sas-23.00.00.00_el7.3-1.x86_64.iso.gz, si otterrà il driver ISO -> mpt3sas-23.00.00_el7.3-1.x86_64.iso

3. Analogamente, se si utilizza un controller UCS-RAID-M5 nel server, è possibile passare al driver corrispondente.

Procedura

Passaggio 1. Poiché il server dispone di unità settoriali 4k, verrà eseguito un avvio UEFI. L'ordine di avvio dovrebbe essere simile al seguente:

Passaggio 2. Aprire lo switch KVM e mappare lo standard ISO RHEL:

Passaggio 3. Premere F6 e avviare dall'UEFI: Cisco vKVM-Mapped vDVD1.24

Passaggio 4. Selezionare l'opzione "Install Red Hat Enterprise Linux 7.3" e premere 'e'
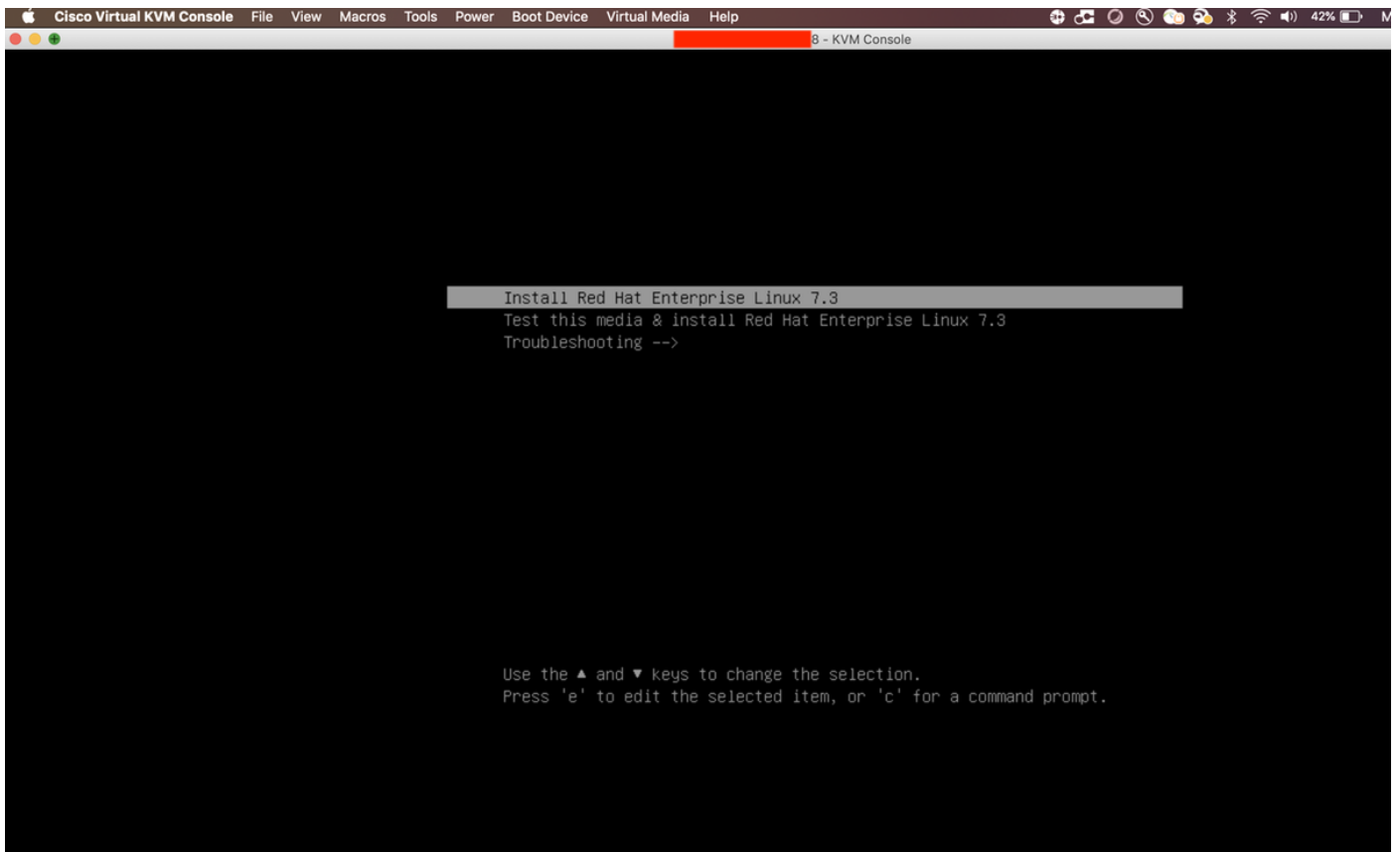
Passaggio 5. Viene visualizzata la schermata seguente:
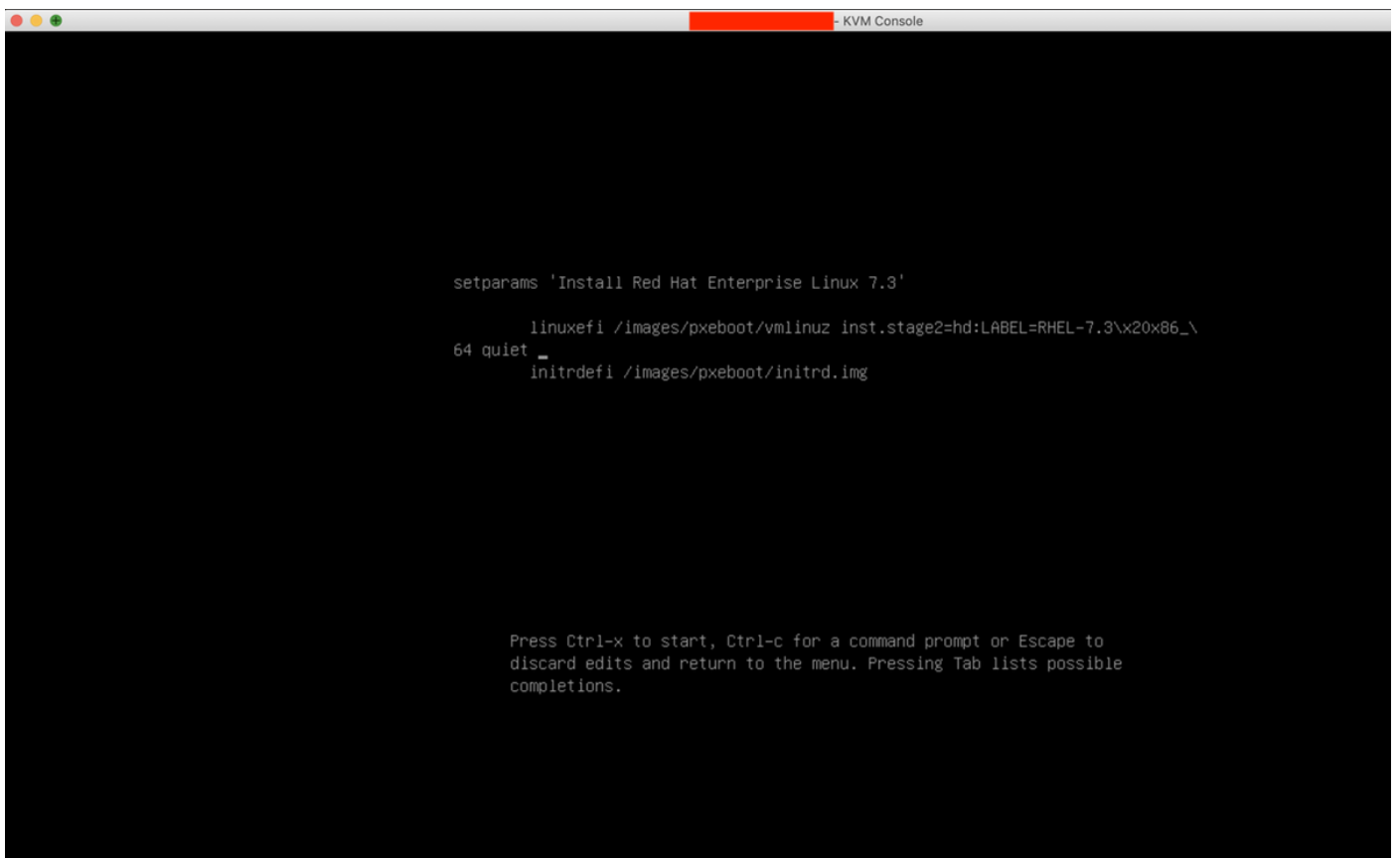
Passaggio 6. Immettere il comando "linux dd" ed eseguire un Ctrl + x

```
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.
```

Passaggio 7. Il comando precedente avvia la modalità interattiva:


```
[   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: _
```

Passaggio 8. Annullare la mappatura dell'ISO RHEL e mappare l'ISO del driver del controller:

Passaggio 9. Digitare 'r' per aggiornare l'elenco dei dischi del driver:

Passaggio 10. Verrà ora visualizzato l'elenco ISO del driver del controller. Digitare "7" ed effettuare la selezione:

```
[   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: _
```

Passaggio 11. Immettere "1" e quindi "c" per continuare:

```
[   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:
```

Passaggio 12. Il driver .rpm si trova all'interno del file .iso. È possibile che venga visualizzato un avviso che indica che il contenuto del repository non è un file, ma è solo un avviso. Il driver sarebbe stato installato.

Passaggio 13. Si dovrebbe essere di nuovo nel menu "Driver disk device selection" (Selezione periferica disco driver). Annullare la mappatura dell'ISO del driver e mappare nuovamente l'ISO RHEL. Premere 'r' per aggiornare, quindi premere 'c' per continuare con l'installazione di RHEL. Il programma di installazione dovrebbe essere in grado di riconoscere il controller RAID e i dischi da esso gestiti.

```
    3) sda3      VMFS_vol
    4) sda5      vfat                    ┌──────────────────────────────────────────────┐
    5) sda6      vfat                    │  Create Image                                  │
    6) sda8      vfat                    │                                                │
    7) sr0       iso9660   RHEL-7.3\x20x86_64  │ ✓ Activate Virtual Devices                │
# to select, 'r'-refresh, or 'c'-continu  │                                              │
                                         │ ✓ rhel-server-7.3-x86_64-boot.iso Mapped to CD/DVD │
    (Page 1 of 1) Driver disk device selection │  Map Removable Disk ...                  │
       /DEVICE  TYPE     LABEL          UUID│  Map Floppy ...                              │
    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: 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─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:
```
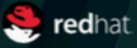
INSTALLATION SUMMARY

RED HAT ENTERPRISE LINUX 7.3 INSTALLATION

🖮 us

Help!

🔴 redhat

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

🖮 us

Help!

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	s⟨

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.