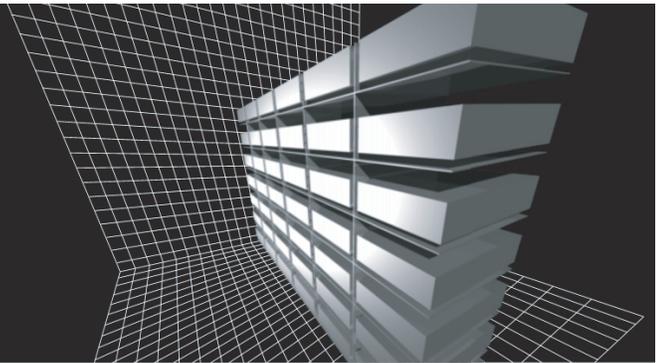


Cable Network Management Suite

CABLE MODEM TEST PLATFORM



CMTP SERVER INSTALLATION GUIDE

CABLE MODEM TEST PLATFORM CMTTP SERVER INSTALLATION GUIDE



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Cable Modem Test Platform CMTTP Server Installation Guide

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Chapter 1

CMTP SERVER INSTALLATION

Perform the following steps to install the CMTP server:

- 1 Download ISO image from: <https://cmtpnosoft.promptlink.com/CMTP-5.9-nosoft.iso>
- 2 Write the image to a DVD disk. It should be written as a disk which allows to boot from it. Download and install FreeISOBurner software from the following URL: <http://www.freeisoburner.com>
- 3 Insert a blank DVR-R into the test station computer

WARNING: *It is not recommended to use DVD+R/RW, because computers with older CD/DVD drives might not read this disk, so the server will not boot. We recommend to use: CD-R/RW, DVD-R/RW*

- 4 Run FreeISOBurner, click the **Open** button and navigate to the path of the LiveCD ISO file that was downloaded in step 1 ([Figure 1-1 "Free ISO Burner Dialog Box"](#))
- 5 Click the **Finalize Disc** check box to enable the option, and type in a **Volume Label** if desired
- 6 To start burning the ISO, click the **Burn** button ([Figure 1-1 "Free ISO Burner Dialog Box"](#))



Figure 1-1 Free ISO Burner Dialog Box

- 7** Insert the DVD disk into the server. Make sure that the server will boot from the DVD (you may need to go to the server BIOS)
- 8** The following screen will be displayed ([Figure 1-2 "CMTF Server Installation: Welcome Screen"](#)). Push **F3** to install with GRUB boot loader

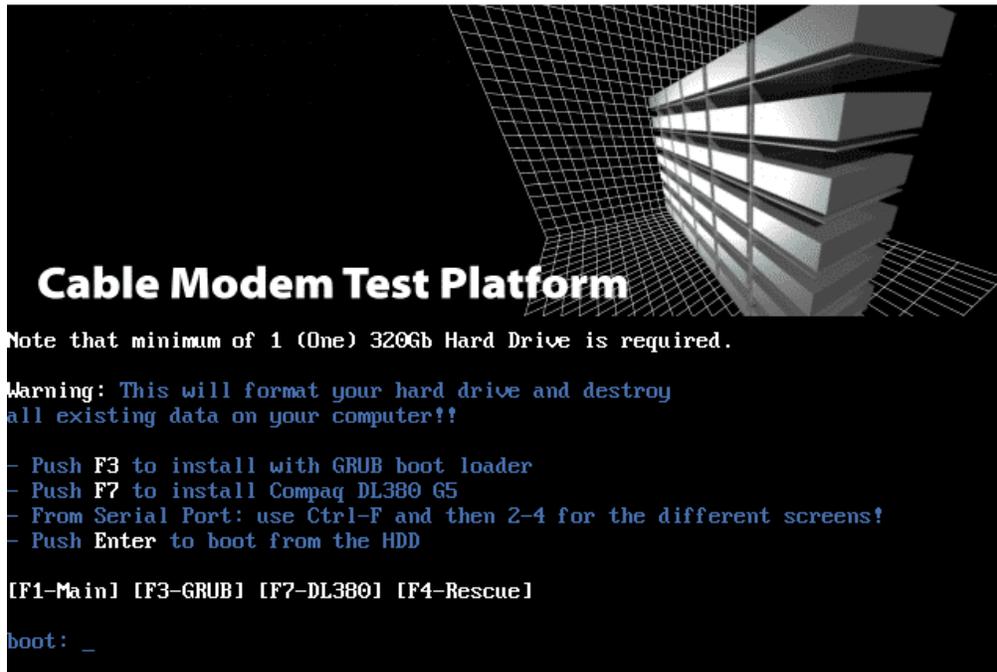


Figure 1-2 CMTM Server Installation: Welcome Screen

- Information on the screen will change to the hard drive options. Type required option and press **Enter** (Figure 1-3 "CMTM Server Installation: Hard Drive Options"). Option depends on your server configuration, select required option from the "[Server Types and Options](#)" table. If your server is not listed in the table, please contact the Promptlink Support Team (support@promptlink.com)

Note: For Dell PowerEdge R310 and Dell PowerEdge R420 servers special configuration is required. For the configuration steps please view the "[CMTM Server Raid Configuration on Dell R310/420](#)" chapter

```

                                IDE Hard Drive Options (GRUB Boot Loader)
-----
20 - Single Drive                23 - Serial Install / Single Drive
21 - Dual Drive (LUM)           24 - Serial Install / Dual Drive (LUM)
26 - Dual Drive (hda LUM, hdc for backup as /hdd2)

                                SATA / SCSI Hard Drive Options (GRUB Boot Loader)
-----
30 - Single Drive                33 - Serial Install / Single Drive
31 - Dual Drive (LUM)           34 - Serial Install / Dual Drive (LUM)
36 - Dual Drive (sda LUM, sdb for backup as /hdd2)
37 - DELL PowerEdge 310 with 4x500Mb HDD in RAID5

Notes:
* Options 21,22
  1st hard drive must be master on primary ide channel
  2nd hard drive must be master on secondary ide channel
* Serial Install:
  38400 8:N:1 No Flow Control

Type the number you want and push enter. Example: 20 <ENTER>

[F1-Main] [F3-GRUB] [F7-DL380] [F4-Rescue]

boot: 37_

```

Figure 1-3 CMTTP Server Installation: Hard Drive Options

Table 1-1 Server Types and Options

#	Server	HDDs	Option
1	Dell 860	1	30
2	Dell 860	2	36
3	Dell SC1425	1	30
4	Dell SC1425	2	36
5	Dell R200	1	30
6	Dell R200	2	36
7	Dell R210	1	30
8	Dell R210	2	36
9	Dell R310	4 (RAID 5)	37
10	Dell R420	4 (RAID 5)	37

- 10 The server installation will start ([Figure 1-4 "CMTP Server Installation: Installation in Progress"](#)).

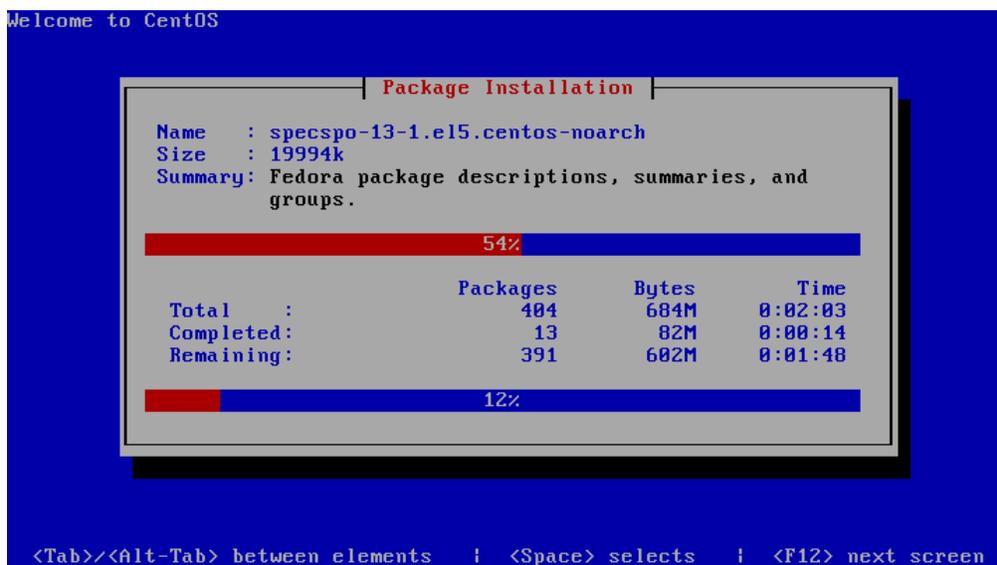


Figure 1-4 CMTP Server Installation: Installation in Progress

- 11 Wait until the installation confirmation page appears, eject the DVD and press **Enter** to reboot the server ([Figure 1-5 "CMTP Server Installation: Installation Complete"](#))

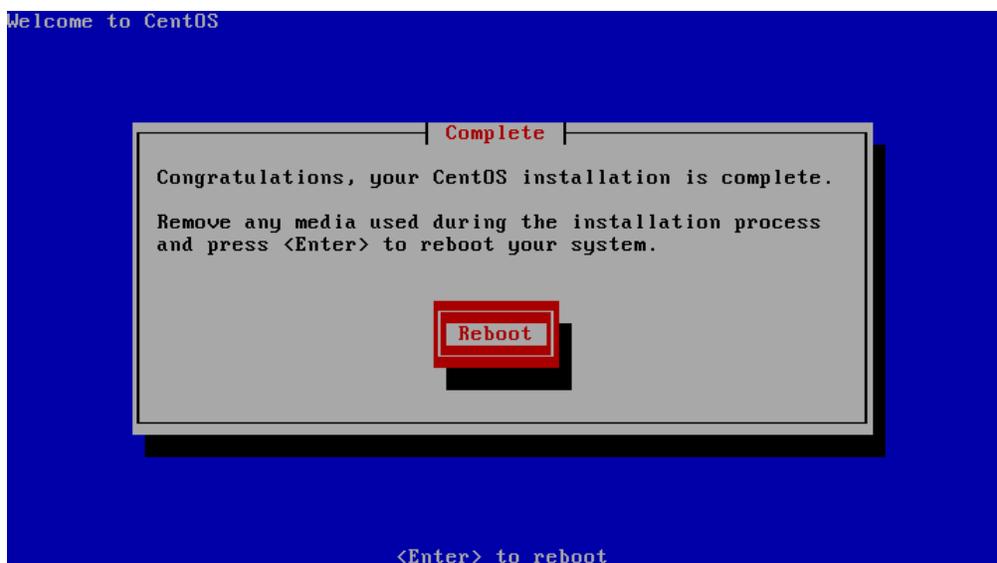


Figure 1-5 CMTP Server Installation: Installation Complete

- 12 After the reboot you will see the server's login prompt ([Figure 1-6 "CMTP Server Installation: Login Prompt"](#))

```
CentOS release 5.6 (Final)
Kernel 2.6.18-238.19.1.el5 on an i686

Please login with user "root" and password "admin" to proceed with the installation

localhost login: _
```

Figure 1-6 CMTTP Server Installation: Login Prompt

- 13 Login to the server as **root** user and **admin** as password. After logging into the server, the following screen will open ([Figure 1-7 "CMTTP Server Installation: Save&Quit"](#)). Press **Tab** to select **Save&Quit**, when selected press **Enter** to continue

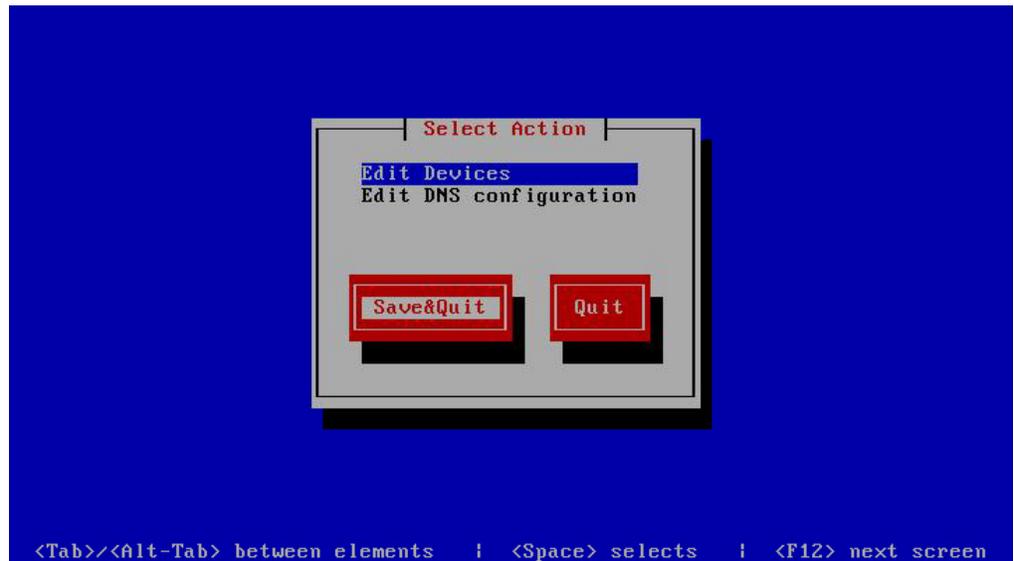


Figure 1-7 CMTTP Server Installation: Save&Quit

- 14 The server will install all required packages and reboot. After the successful installation you will see the login prompt again ([Figure 1-8 "CMTTP Server Installation: Login Prompt"](#))
- 15 Login again as user **root** and password **admin**

```
CentOS release 5.6 (Final)
Kernel 2.6.18-238.19.1.el5 on an i686

localhost login: _
```

Figure 1-8 CMTP Server Installation: Login Prompt

16 Run **ping 172.16.0.1** from the command prompt and make sure 172.16.0.1 is pingable from the server ([Figure 1-9 "CMTP Server Installation: Ping Operation"](#))

```
CentOS release 5.6 (Final)
Kernel 2.6.18-238.19.1.el5 on an i686

localhost login:root
password:
[root@localhost ~]# ping 172.16.0.1
PING 172.16.0.1 (172.16.0.1) 56(84) bytes of data.
64 bytes from 172.16.0.1: icmp_seq=1 ttl=255 time=0.657 ms
64 bytes from 172.16.0.1: icmp_seq=2 ttl=255 time=0.836 ms
64 bytes from 172.16.0.1: icmp_seq=3 ttl=255 time=9.92 ms
64 bytes from 172.16.0.1: icmp_seq=4 ttl=255 time=0.640 ms
64 bytes from 172.16.0.1: icmp_seq=5 ttl=255 time=0.500 ms

--- 172.16.0.1 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4001ms
rtt min/avg/max/mdev = 0.500/2.511/9.925/3.708 ms
[root@localhost ~]#
```

Figure 1-9 CMTP Server Installation: Ping Operation

The CMTP Server installation process is finished now. Please contact the Promptlink Support Team (support@promptlink.com) for further configuration.

Chapter 2

CMTP SERVER RAID CONFIGURATION ON DELL R310/420

The following steps describe RAID configuration on Dell PowerEdge R310 and Dell PowerEdge R420 rack servers required for proper CMTP Server installation.

- 1 Boot the server
- 2 To enter the RAID controller BIOS press **Ctrl+R** when this message is displayed on the screen ([Figure 2-1 "Entering RAID Controller BIOS"](#), [Figure 2-2 "BIOS Configuration Utility: Virtual Disk Management"](#))

```
F2 = System Setup
F10 = System Services
F11 = BIOS Boot Manager
F12 = PXE Boot

Two 2.40 GHz Six-core Processors, Bus Speed:5.86 GT/s, L2/L3 Cache:1.5 MB/12 MB
System running at 2.40 GHz
System Memory Size: 16.0 GB, System Memory Speed: 1333 MHz, Voltage: 1.35V

PowerEdge Expandable RAID Controller BIOS
Copyright(c) 2010 LSI Corporation
Press <Ctrl><R> to Run Configuration Utility
F/W Initializing Devices 0%
```

Figure 2-1 Entering RAID Controller BIOS



Figure 2-2 BIOS Configuration Utility: Virtual Disk Management

- 3 To create a new virtual disk press **F2** and select the **Create New VD** item (Figure 2-3 "Virtual Disk Management: Create New VD"), press **Enter**

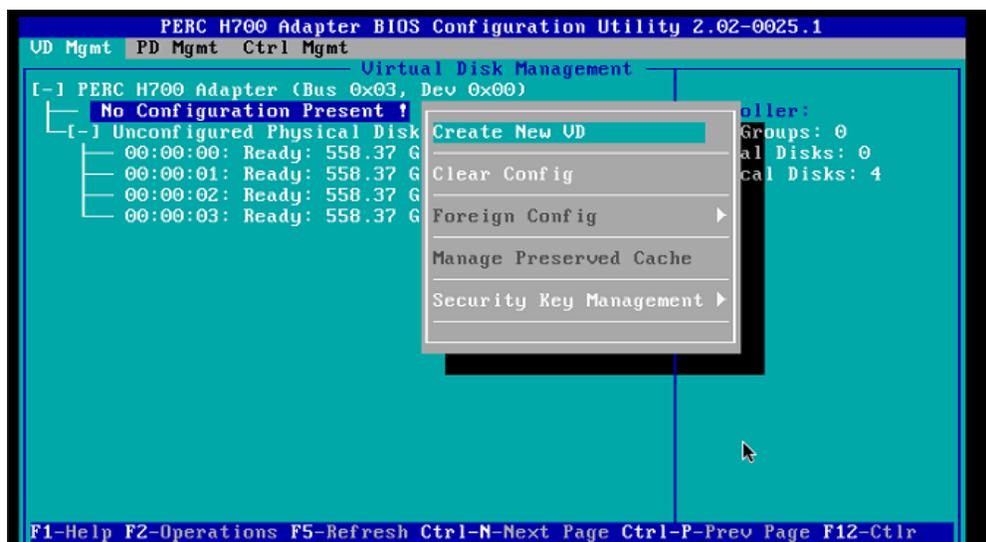


Figure 2-3 Virtual Disk Management: Create New VD item

- 4 In the opened **Create New VD** window (Figure 2-4 "Create New VD Window"):
 - In the **RAID Level** select RAID-5
 - Press **Tab** and select all physical disks using the **Space** key (all disk should be marked with [X]) in the **Physical Disks** section
 - In the **Basic Settings** section, into the **VD Name** field enter **sys**

- Press **OK** button

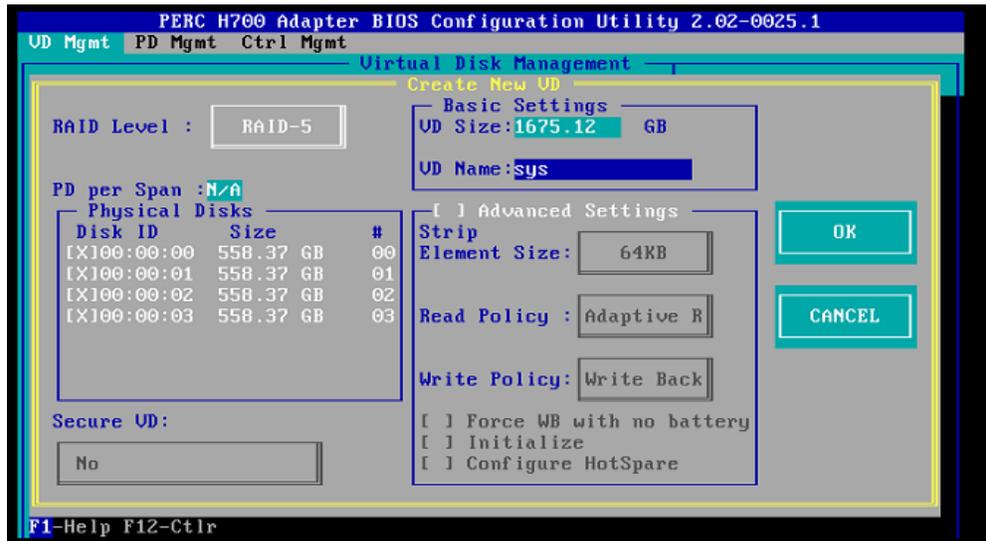


Figure 2-4 Virtual Disk Management: Create New VD Window

- 5 Press **OK** in the window with the confirmation message (Figure 2-5 "Confirmation Message")

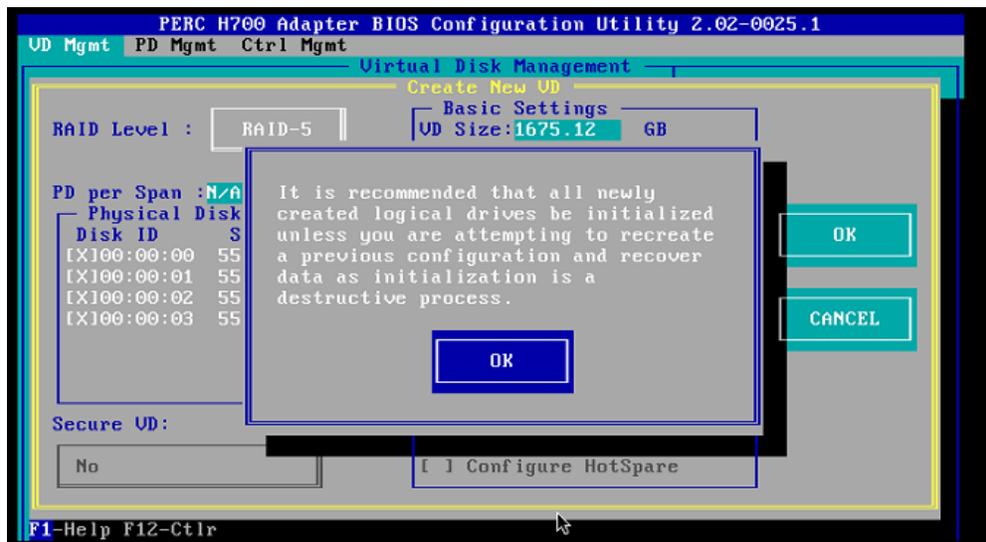


Figure 2-5 Confirmation Message

- 6 Check RAID configuration in Utility. You should have one virtual disk **sys** and four physical disks (Figure 2-6 "BIOS Configuration Utility: Virtual Disk Management")

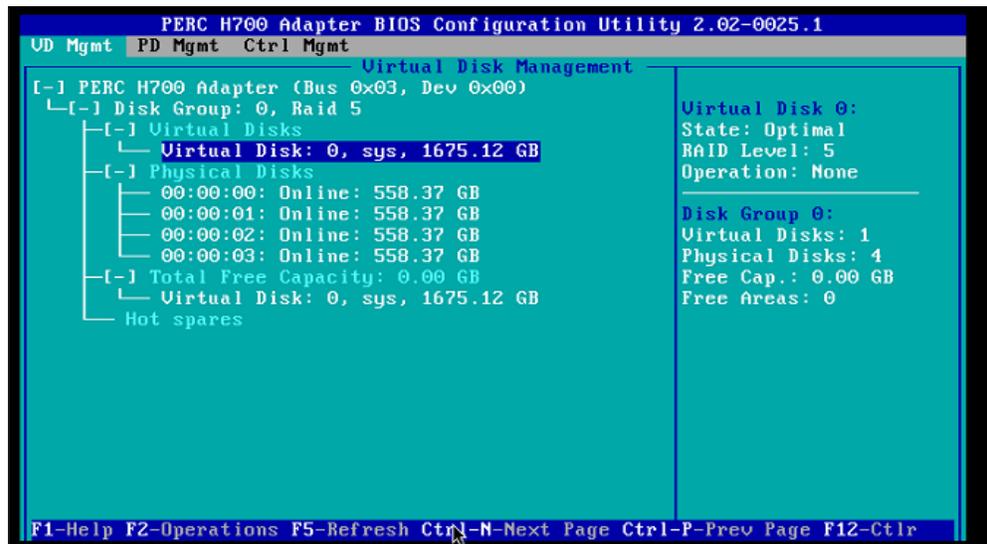


Figure 2-6 BIOS Configuration Utility: Virtual Disk Management

- 7 To exit and reboot the server press **Esc** in the RAID BIOS Utility.