



PREV

[Chapter 14 Filesystems and Devices \(Topic 203\)](#)

NEXT

[Chapter 16 Networking Configuration \(Topic 205\)](#)

Chapter 15 Advanced Storage Device Administration (Topic 204)

THE FOLLOWING LPIC-2 EXAM TOPICS ARE COVERED IN THIS CHAPTER:

- ✓ **204.1 Configuring RAID**
 - Software RAID configuration files and utilities
 - The following is a partial list of the used files, terms and utilities:
 - mdadm.conf
 - mdadm
 - /proc/mdstat
 - partition type 0xFD
- ✓ **204.2 Adjusting Storage Device Access**
 - Tools and utilities to configure DMA for IDE devices including ATAPI and SATA
 - Tools and utilities to configure Solid State Drives including AHCI and NVMe
 - Tools and utilities to manipulate or analyse system resources (e.g. interrupts)
 - Awareness of sdparm command and its uses
 - Tools and utilities for iSCSI
 - Awareness of SAN, including relevant protocols (AoE, FCoE)
 - The following is a partial list of the used files, terms and utilities:
 - hdparm, sdparm
 - nvme
 - tune2fs
 - fstrim
 - sysctl
 - /dev/hd*, /dev/sd*, /dev/nvme*
 - iscsiadm, scsi_id, iscsid and iscsid.conf
 - WWID, WWN, LUN numbers
- ✓ **204.3 Logical Volume Manager**
 - Tools in the LVM suite
 - Resizing, renaming, creating, and removing logical volumes, volume groups, and physical volumes
 - Creating and maintaining snapshots
 - Activating volume groups
 - The following is a partial list of the used files, terms and utilities:
 - /sbin/pv*

You have 2 days left in your trial, Gtucker716. Subscribe today. [See pricing options.](#)

- mount
 - /dev/mapper/
 - lvm.conf
1. 1. Which file is used as a configuration file for RAID devices that use the md driver?
1. /etc/md.conf
 2. /etc/mdadm.conf
 3. /etc/md.cfg
 4. /etc/md/md.conf
2. 2. Which partition type is used to indicate a software RAID array, such as that built with mdadm?
1. oxmd
 2. -x-
 3. oxRD
 4. oxFD
3. 3. When working with World Wide Identifiers (WWIDs), within which directory on a Red Hat server will you find symlinks to the current /dev/sd device names?
1. /dev/disk/wwid
 2. /dev/wwid
 3. /dev/disk/by-id
 4. /dev/sd.wwid
4. 4. Which of the following commands is used to perform administration related to iSCSI on a Linux server?
1. iscsiadm
 2. iscsiadmin
 3. iscsi
 4. scsiadm
5. 5. Which of the following commands displays information about a given physical volume in an LVM setup?
1. pvdisp
 2. pvlist
 3. pvdisplay
 4. pvl
6. 6. Which of the following configuration lines informs the md program that the first partition on both sda and sdb are eligible for use in a RAID array?
1. DEV sda1 sdb1
 2. DEV /dev/sda1 /dev/sdb1
 3. DEVICE sda0 sdb0
 4. DEVICE /dev/sda1 /dev/sdb1
7. 7. When viewing information in /dev/disk/by-path using the command ls -l, which of the following filenames represents a LUN from Fibre Channel?
1. /dev/fc0
 2. pci-0000:1a:00.0-fc-0x500601653ee0025f:0x0000000000000000
 3. pci-0000:1a:00.0-scsi-0x500601653ee0025f:0x0000000000000000
 4. /dev/fibre0

8. 8. Which of the following commands displays path information for LUNs?
1. `luninfo -a`
 2. `ls -lun`
 3. `multipath -l`
 4. `dm-multi`
9. 9. Which command is used to remove unused filesystem blocks from thinly provisioned storage?
1. `thintrim`
 2. `thtrim`
 3. `fstrim`
 4. `fsclean`
10. 10. You have purchased new SSD hardware that uses the NVMe protocol, but you cannot find the disks in the normal `/dev/sd*` location in which you have traditionally found such storage. In which location should you look for these drives?
1. `/dev/nd*`
 2. `/dev/nvme*`
 3. `/dev/nv*`
 4. `/dev/nvme/*`
11. 11. Which of the following commands can be used to generate a unique SCSI identifier?
1. `scsi_id`
 2. `scsi_identifier`
 3. `id_scsi`
 4. `lsid`
12. 12. Which storage protocol features the ability to send ATA commands over Ethernet?
1. iSCSI
 2. PXE
 3. POE
 4. AOE
13. 13. Which command can be used to set parameters for IDE and SATA devices on Linux?
1. `hdparam`
 2. `hdparm`
 3. `hdc`
 4. `hdcontrol`
14. 14. After creating the physical volumes for an md RAID setup, what is the typical next step?
1. Create one or more volume groups with `vgcreate`.
 2. Reboot the server.
 3. Start the array.
 4. Link the physical volumes to virtual groups with `vgcreate`.
15. 15. When using `tune2fs` to set an extended option such as `stripe_width`, which command-line option is needed to signify that an extended option follows?
1. `-extend`
 2. `-E`
 3. `-e`

4. -f

16. 16. Which file contains information about the current md RAID configuration such as the personalities?

1. /proc/raidinfo
2. /proc/rhyinfo
3. /proc/mdraid
4. /proc/mdstat

17. 17. Which of the following daemons is in charge of maintaining connections to iSCSI targets?

1. iscsid
2. iscsiadm
3. iscsimgr
4. iscsim

18. 18. Which module can be examined with modinfo for information related to the NVMe driver?

1. nvmeid
2. sata
3. nvme
4. nvmemod

19. 19. Which of the following directory hierarchies contains information such as the WWN for Fibre Channel?

1. /sys/class/wwn
2. /sys/class/fc_host
3. /sys/class/fclist
4. /sys/class/fc/wwn

20. 20. Which option to mdadm is used to create a new array?

1. --create
2. --start
3. --begin
4. --construct

21. 21. Which of the following files is used as a configuration file for iscsid?

1. iscsid.cfg
2. iscsid.conf
3. iscsidaemon.conf
4. iscsi.cfg

22. 22. Information about logical volumes can be found in which of the following directories?

1. /dev/lvinfo
2. /dev/map
3. /dev/mapper
4. /dev/lvmap

23. 23. Which option to mdadm watches a RAID array for anomalies?

1. --mon
2. --watch
3. --monitor
4. --examine

24. 24. When troubleshooting a failed md RAID array, you need to mount one of the drives in read-only mode. Which option will mount the drive in read-only?

1. -o ro
2. read-only
3. -o rw
4. -op ro

25. 25. Which of the following commands creates a logical volume with LVM?

1. lvc
2. lvcreate
3. lvlist
4. lvmake

26. 26. When running mdadm in monitor mode, which option within /etc/mdadm.conf sets the destination for email if an issue is discovered?

1. MAILTO
2. MAILADDR
3. MAILFROM
4. MAILDEST

27. 27. Which of the following commands looks for LVM physical volumes and volume groups involved in an LVM configuration?

1. vgscan
2. lvmscan
3. lvlist
4. pvlist

28. 28. Which partition type is used to indicate a software RAID array, such as that built with mdadm?

1. oxmd
2. -x-
3. oxRD
4. oxFD

29. 29. Which of the following commands is used to display a list of physical volumes involved in LVM?

1. pvdisp
2. pvlist
3. pvscan
4. pvmm

30. 30. Which of the following options to the multipathd command will enter the interactive console?

1. -c
2. -k
3. -f
4. -n

31. 31. Which option to lvchange sets whether the logical volume is available?

1. -a
2. -b
3. -c
4. -d

32. 32. Within which file can you configure a filter for devices when using `vgscan`?

1. `lvm.conf`
2. `vg.conf`
3. `vgscan.conf`
4. `lv.cfg`

33. 33. Which option to `lvcreate` will create a snapshot of a logical volume?

1. `snap`
2. `snapshot`
3. `ss`
4. Snapshots are not created with `lvcreate`.

34. 34. Which option is given to `sysctl` to change one of the kernel parameters?

1. `-a`
2. `-k`
3. `-w`
4. `-A`

35. 35. Which of the following commands is used to access and change values for SCSI devices?

1. `scsiparm`
2. `scsiparam`
3. `sdlist`
4. `sdparm`

36. 36. Which of the following directories contains configuration information for Fibre Channel over Ethernet (FCoE) on Linux?

1. `/etc/fcoe`
2. `/etc/fibrecoe`
3. `/etc/fibredev`
4. `/etc/fc`

37. 37. Which of the following commands will examine the PCI subsystem for NVMe-based devices?

1. `psnvme`
2. `lsnvme`
3. `lspci | grep scsi`
4. `lspci | grep -i nvme`

