

Additional configuration information.

The virtual machine's network configuration should look like this:

- Hostname: station01.example.com
- IP address: 192.168.4.1xx
- Subnet mask: 255.255.255.0
- Gateway 192.168.4.x
- Name Service: 192.168.4.2xx
- The default target need to be set to multi-user
- Root password need to be change to password123

1. Configuration SELinux

Description: Linux must be running in Enforcing mode

2. Configure this as your system's default repository.

Description: YUM's repository source is
ftp://SERVER_NAME.example.com/pub/repos/rhel7

3. Adjust the size of the logical volume

Description:

- Increase the logical volume root and its file system size by 500 MB. Make sure that the contents of the file system remain intact.

4. Create a user account

Description: Create the following user, group, and group membership:

- A group named adminuser
- A user named *woody*, which belongs to the adminuser, this group is the user's subordinate group
- A user named *buzz*, belonging to the adminuser, is a subordinate group for the user
- A user named *sid*, which has no interactive shell in the system and is not a member of the adminuser group
- Users *woody*, *buzz*, and *sid* the password should be set to password321

5. Configure a file /var/tmp/fstab permissions

Description: Copy the file /etc/fstab to /var/tmp/fstab. Permissions for the configuration file /var/tmp/fstab

- User *woody* can read and write access to /var/tmp/fstab
- User *buzz* can not read, write, or execute access to /var/tmp/fstab

6. Configure a cron task

Description: The user *woody* must be configured with a scheduled task to execute the command every day at 14:23 local time.

/bin/echo hiya

7. Create a shared directory

Description: Creates a shared directory `/home/admins` with the following characteristics:

- The group ownership of the `/home/admins` directory is `adminuser`
- Members of the `adminuser` group have read, write, and execute permissions on the directory.
- All other users do not have any privileges (root users can access all the files and directories on the system)
- The files that are created in the `/home/admins` directory have their group ownership automatically set to belong to the `adminuser` group

8. Upgrade the kernel

Description: Upgrading the correct kernel from the repository `ftp://SERVER_NAME.example.com/pub/repos/updates`

Requires the following:

- When the system restarts after the kernel to upgrade as the default kernel
- The original kernel to be retained, and can still start normally

9. Bound to the external authentication service

Description: The system `SERVER_NAME.example.com` provides an LDAP authentication service. Your system needs to be:

- Bind to this service in accordance with the following requirements:
 - The base DN of the authentication server is: `dc=example, dc=com`.
 - Account information and authentication information are provided by LDAP.
 - When the configuration is done correctly, user `ldapuser{1..5}` should be able to log in to your system, without home directory
 - Use TLS encrypt connections
 - LDAP CA certificate: `ftp://SERVER_NAME.example.com/pub/ca.crt`
 - The password for user `ldapuser{1..5}` is `password`

10. Configure NTP to configure your system

Description: Let's serve as an NTP client for `SERVER_NAME.example.com`

11. Configure a user account

Description: Creates a user with a UID of 2000 and the user name is `jack`.

12. Extend the swap partition

Description: Increase SWAP partition by 300MB, boot automatically

13. Find the file

Description: Find files belonging to the user `woody` and copies them into the `/user-files` directory.

14. Find a string

Description: View all the lines in the `/usr/share/dict/words` file that contain the seismic keyword and write the found lines to the `/root/file-list` file.

15. Create an archive

Description: The `/etc` directory is packaged into a compressed package placed in `/root/backup.tar.bz2`.

16. Create a logical volume

Description: Create a logical volume named `database`, with the volume group named `datastore`.

- The logical volume size is 160MB and the PE size of the group is 16M.
- Requires automatic mount after reboot on `/mnt/database`
- Mount the new logical volume using the UUID
- File system of this partition need to be set as `xfs`

17. Create a new partition

Description: Create a new partition, and mounted using the label “`my-ext`”, the size of this new partition need to be 200MB. And mounted automatically on `/data`. The file system of this partition need to set as `ext3`.

18. Mount user’s home directory

Description: The server `SERVER_NAME.example.com` is exporting the user’s home directories for the `ldap` users. Mount the resources using `nfs` version 3 on `/home/ldap` on your station. The path of the resources on the server is `SERVER_NAME.example.com:/home/ldap/ldapuser{1..5}`

19. Create another logical volume

Description: Create a new partition, and mounted using the UUID, the size of this new partition is 20 LE (logical extend); named the logical volume “`lv_services`”. And mounted automatically on `/share`. Named the volume group “`services`”, and the size of the PE (physical extend) is 16MB. The file system of this partition need to set as `ext4`.

20. Set ACL

Description: Create a directory named `/restricted` and set the following characteristics:

- Do not change regular permissions on the directory
- Member of the group `adminuser` can read and write on the directory.
- User `woody` who is member of the `adminuser` group can not read nor write in the directory.

21. Mount cifs file system

Description: The server is sharing a directory via Samba. The share name is "data"

Mount the share on /mnt/smb using the following:

- Server name SERVER_NAME.example.com
- Credentials: user=sambauser1 ; password=password
- The share file system need to be mounted automatically after each reboot without user intervention

22. Mount nfs file system

Description: The server is exporting a directory via NFS.

- Path to the share SERVER_NAME.example.com:/srv/nfs
- Mount the share on /mnt/public
- The share file system need to be mounted automatically after each reboot without user intervention

23. Apache Web Server

Description: The Apache Web Server is installed on the server.

- The web page should be load on <http://localhost>
- If this does not work, Fix It!
- Do NOT make any change inside the index.html file
- Do NOT change the document root where Apache is loading the Web.