RHCSA PREP

Break the root password and set new root password

= ‘reboot’

Interrupt the boot process and hit e to edit. Then scroll to the line that says 16 linux. Hit End on the keyboard to get to the end of the line. hit space and add rd.break to the end of the line, then hit control –x to continue.

Type – ‘mount –o remount,rw /sysroot (to mount the /syroot filesystem read/write)

Next ‘chroot /sysroot’ then ‘passwd root’ enter your new password. Then ‘touch /.autorelabel’ then ‘exit’ ‘exit’

Configure your network based on the given parameters i.e. ip address, gateway, netmask, domain name, DNS, etc

Configure SELINUX to make it work in enforcing mode

= ‘vi /etc/selinux/config’ change permissive to enforcing. Save and exit.

Configure a default software repository for your system as per given yum location: <ftp://dplgascloud.domain11.sysinitt.internal/pub/7Server/x86_64/rhel7_update>

= ‘vi /etc/yum.repo.d/rhel7.repo’ ‘insert the following then save and exit = [rhel7] name=rhel7 baseurl=<ftp://dplgascloud.domain11.sysinitt.internal/pub/7Server/x86_64/rhel7_update> enabled=1 gpgcheck=0’ ‘yum clean all’ ‘yum repolist’

Adjust the size of the vo Logical Volume, its file system size should be 290M. Make sure that the content of this system is complete. Note: the partition size is rarely accurate to the same size required, so in the range of 270M to 320M is acceptable.

= ‘df –h’ ‘vgs’ ‘lvs’ ‘lvextend -L 290M /dev/(vg name)/vo -r’

Create user account. Create the following users, group and group membership:

* Adminuser group
* User jones, using adminuser as a sub group
* User harry, also using adminuser as a sub group
* User sarah, can not access the SHELL which is interactive in the system, and is not a member of adminuser.
* Jones, harry, sarah password is redhat

= ‘groupadd adminuser’ ‘useradd –G adminuser harry’ ‘useradd –G adminuser jones’ ‘useradd –s /sbin/nolgin sarah’ ‘passwd harry’ ‘passwd jones’ ‘passwd sarah’

Configure /var/tmp/fstab permission. Copy the file /etc/fstab to /var/tmp/fstab. Configure /var/tmp/fstab permissions as follows;

* Owner of the file /var/tmp/fstab is root, belongs to the group root.
* File /var/tmp/fstab cannot be executed by any user
* User Jones can read and write /var/tmp/fstab
* User Harry cannot read and write /var/tmp/fstab
* All other users (present and future) can read /var/tmp/fstab

= ‘cp /etc/fstab /var/tmp/fstab’ ‘ls –al /var/tmp/fstab’ ‘getfacl /var/tmp/fstab’ ‘setfacl –m u:jones:rx /var/tmp/fstab’ ‘setfacl –m u:harry:--- /var/tmp/fstab’

User Jones must configure a cron job , local time 14:23 runs and executes \*/bin/echo Hiya everyday.

= confirm that user jones exists. Switch to user jones. ‘touch jones.sh’ ‘vi jones.sh’ enter ‘#!/bin/bash’ on the first line. On the second line enter ‘/bin/echo hiya’ save and quit. Make the file executable – ‘chmod +x jones.sh’ run ‘crontab –e’ enter the following; ‘23 14 \* \* \* /home/jones/jones.sh’ save and quit. Or just type it all on the command line i.e. ‘23 14 \* \* \* /bin/echo Hiya’

Create a shared directory. Create a shared directory /home/collab, make with the following characteristics;

* /home/collab belongs to group adminuser
* This directory can be read and written by members of the group ‘adminuser’
* Any files created in /home/collab, have group automatically set to adminuser.

= ‘mkdir –p /home/collab’ ‘chgrp adminuser /home/collab’ ‘chmod g=rwX /home/collab’ ‘chmod g+s /home/collab’

Install the kernel upgrade. Install suitable kernel update from <ftp://dplgascloud.domain11.sysinit.internal/pup/7server/x86_64/update>. The following requirements must be met; updated kernel used as the default kernel of system start-up. The original kernel is still valid and can be booted when system starts up;

= ‘wget <ftp://dplgascloud.domain11.sysinit.internal/pup/7server/x86_64/update>’ ‘rpm –ivh kernel<TAB>’ or

‘yum install <ftp://dplgascloud.domain11.sysinit.internal/pup/7server/x86_64/update>’

Bind to an external validation server

System lab.domainX.sysinitt.internal provides an LDAP validation service, your system should bind to this service as required;

Base DN of validation service is dc=domain, dc=sysinitt, dc=internal. Ldap is used for providing account information and validation information connecting and using the certification of <http://dplgascloud.com.domainX.sysinitt.internal/cert/cacert.p12> to encrypt. After the correct configuration, ldapuser1 can log into your system, it does not have a HOME directory. Until you finish the autofs questions. Ldapuser1’s password is password.

= Best to install the gui, ‘yum install –y authconfig-gtk’ then enter the necessary information. When you get to authentication, choose password. Hit enter and you should be done.

Configure NTP. Configure NTP service , synchronize the server time, NTP server: classroom.example.com

= ‘yum install –y chrony’ ‘vi /etc/chrony.conf’ ‘insert the ntp server name below the pool line’ ‘systemctl enable chronyd’ ‘systemctl start chronyd’

Configure autofs automatically mount to the home directory of LDAP, as required: server lab.domainX.sysinit.internal use NFS to share the home to your system.

This file system contains a preconfigured home directory for user ldapuserX.

Home directory of ldapuserX is: lab.domainX.sysinit.internal /home/guests/ldapuser

Home directory of ldapuserX should automatically mount to the ldapuserX of the local /home/guests

Home directory’s write permission must be available for users. Ldapuser1’s password is password.

= ‘yum install autofs’

‘vi /etc/auto.master.d/rhel.autofs’

‘/- /etc/auto.rhel’ ‘Esc’ ‘:wq’

‘vi /etc/auto.rhel’

‘/home/guest -rw,syn,intr (server):/home/guest’

‘systemctl enable autofs’

‘systemctl start autofs’

Configure a user account. Create a user iar, uid 3400. Password is redhat;

= ‘useradd –u 3400 iar’ ‘passwd iar’

Search files. Find out files owned by jones and copy them to a directory /root/findresults

= ‘mkdir /root/findresults’ ‘find / -user jones –exec cp –rfp {} /root/findresults \;’

Search for a string. Find the columns that contains the string zing within /usr/share/dict/words, then copy all these columns to /root/lines.txt

= grep ‘zing’ /usr/share/dict/words >> /root/lines.txt’

Create a backup file named /root/backup .tat.bz2 containing the contents of /usr/local. Tar must use bzip2 to compress.

= ‘tar cvjf /root/backup.tar.bz2 /usr/local

Add a swap partition

Adding an extra 500M swap partition to your system, this swap partition should mount automatically when the system starts up. Do not remove or modify the existing swap partitions on your system.

Create a logical volume

Create a new logical volume as required; Name the logical volume database, belonging to datastore as the volume group, size is 50 PE.

Expansion size of each volume in the volume group datastore is 16MB. Use ext3 to format this new logical volume, this logical volume should automatically mount to /mnt/database.

= for the swap and create logical volume questions, you will have to create an extended partition because the disk space provided will not be enough to create bothy a swap partition and a partition for physical volume needed towards the logical volume. So, what you do is, use all the remaining space on the disk to make an extended partition, and then from the extended partition, make your 500M swap partition and use the rest for your physical volume. Then create a volume group called datastore with size 16MB. After that you then create your logical volume of 50 PE.

‘fdisk /dev/sda’

‘n’

‘e’ (for extended)

Enter and enter (to use all available space)

‘vgcreate –s 16 datastore /dev/sda5’

‘lvcreate –l 50 –n database datastore’ etc