Linux Rescue

RedHat/CentOS

- How to recover a root password in Red Hat-based Linux systems

Single-User Mode

Situation: Reset the root's password

For GRUB Bootloader)

????? -> ??????

1. Select the *kernel*
2. Press the `e` key to edit the entry
3. Select second line (the line starting with the word *kernel*)
4. Press the `e` key to edit kernel entry so that you can append single user mode
5. Append the letter `S` (or word `Single`) to the end of the (kernel) line
6. Press ENTER key (?? Ctrl + x ??????????????)
7. Now press the `b` key to boot the Linux kernel into single user mode
8. At prompt type `passwd` command to reset password:

```
mount -t proc proc /proc
mount -o remount,rw /
passwd
sync
reboot
```

For LILO Bootloader)

Boot: `linux single`

```
passwd
sync
reboot
```

> TIP: ? RedHat 8 ????single-user mode ?? rescue mode???????
> `systemd.unit=rescue.target` ?
>
> ?? single-user mode?????? `rd.break` ??????

??????????

???????????????? Rescue ?????????????:

1. ????
2. ??????
3. ?????????

???? shell ?????????????? /mnt/sysimage?

???????

```
chroot /mnt/sysimage
```

Emergency Mode (??????)

> ❝ NOTE: Emergency ??????????????????????????????

?? single-user mode?????????? emergency mode???????????????????? emergency mode ????? root ?????????????????

? RedHat 6 ???????? single-user mode ??????????? `emergency`?

? RedHat 8 ??????? `systemd.unit=emergency.target` ?

Ubuntu/Debian

- Boot Into Rescue Mode Or Emergency Mode In Ubuntu - OSTechNix

Reset Root's Password

- How to Reset Forgotten Root Password in RHEL 8
- How to Reset Forgotten Root Password in Ubuntu (tecmint.com)

RHEL Root Password Recovery (8 Clear Steps)

Prerequisite: Console / physical access to the system.

1 Reboot the system.

- Restart the server and wait for the GRUB menu.

2 Edit the GRUB entry.

- Select the default kernel.
- Press e to edit.

3 Modify the kernel boot line.

- Find the line starting with linux / linux16.
- Append: rd.break

4 Boot into emergency mode.

- Press Ctrl + X.
- System drops into an initramfs shell.

5 Remount root filesystem as read-write.

- mount -o remount,rw /sysroot

6 Change root to the system environment.

- chroot /sysroot

7 Reset root password.

- passwd

8 Relabel SELinux and reboot.

- touch /.autorelabel.
- exit.
- reboot (System will relabel files on next boot.)

Chroot

- How to Use Chroot in Linux and Fix Your Broken System - Make Tech Easier

Fix a Broken Bootloader Using Chroot

```
# Make a bootable USB by downloading a Linux ISO and booting from the USB.
# Mount your system partition to work with chroot.
sudo mount -t ext4 /dev/sda /mnt

sudo mount --bind /dev /mnt/dev &&
sudo mount --bind /dev/pts /mnt/dev/pts &&
sudo mount --bind /proc /mnt/proc &&
sudo mount --bind /sys /mnt/sys

# Let’s chroot into the “/mnt” directory and enter the broken system.
sudo chroot /mnt

# Install, check, and update the GRUB bootloader in your system.
grub-install /dev/sda
grub-install --recheck /dev/sda
update-grub

# Exit the shell using the exit command mentioned earlier.
# Unbind the previously bound directories and unmount the filesystem.
sudo umount /mnt/sys &&
sudo umount /mnt/proc &&
sudo umount /mnt/dev/pts &&
sudo umount /mnt/dev &&
sudo umount /mnt

# Reboot your PC and unplug the live USB.
```

Q & A

????????? remount ???

??? single-user?emergency??????????????????????????????? `mount -o remount,rw /` ?????????? filesystem ????????????????????????

?? filesystem

```
fsck -y /dev/your-root-disk
```

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