Sometimes you forget stuff. I do. I forget important passwords for important websites sometimes. Retrieving your forgotten passwords for most websites is easy, all one has to do remember few details that were used when signing up for the service to get a password reset for an account.

The difference is forgetting a password to a system or device with no easy way to reset it while locked out. CentOS 7 is one such system. If you forget the root password to your CentOS 7 machine, it’s almost virtually impossible to reset it while you’re locked out.

This brief tutorial is going to show you a simple trick that you can use to reset your forgotten root password for CentOS 7 servers. This will definitely come in handy for webmasters who are locked out of your CentOS machine and can’t sign on.

This tutorial will only work if you have direct access to the machine or serial terminal access with boot menu options. You can’t reset the root password if you’re remotely connected since you need boot menu access.

To get started, turn on the machine that you’ve forgotten the root password on. For CentOS 7 devices, you’ll be given 5 seconds at the boot menu to select the operating system kernel to boot into.

That 5 seconds is important, because allows for admins to select different kernels or edit existing kernel parameters before booting.

At the boot menu, press `e` to edit the existing kernel (Core) as shown below.

Use the ↑ and ↓ keys to change the selection.
Press `c` to edit the selected item, or `c` for a command prompt.
Next, scroll down to the list until you see the line underlined below (ro). What we need to do is change that ro to rw and start into a bash shell. It should look like this `rw init=/sysroot/bin/sh`.

```bash
insmod xfs
set root='hd0,msdos1'
if ( [ x$feature_platform_search_hint = xy ] ) then
  search --no-floppy --fs-uuid --set=root --hint-bios=hd0,msdos1 --hint-efi=hd0,msdos1 --hint-baremetal=ahci0,msdos1 --hint='hd0,msdos1' ef532a78-1\ 
  0da-45f0-a69d-55ba37ec7e1f
else
  search --no-floppy --fs-uuid --set=root ef532a78-18da-45f0-a69d-55ba37ec7e1f
fi
linux16 /vmlinuz-3.10.0-123.4.2.e17.x86_64 root=/dev mapper/centos-root\ 
& ro rd.lvm.lv=centos swap vconsole.font=latarcyrheb-sun16 rd.lvm.lv=centos/ro\ 
& init=/sysroot/bin/sh initrd=initramfs-3.10.0-123.4.2.e17.x86_64.img
```

Press Ctrl-x to start, Ctrl-c for a command prompt or Escape to discard edits and return to the menu. Pressing Tab lists possible completions.

Change the `ro` line to `rw` and add `init=/sysroot/bin/sh`.

```
rw init=/sysroot/bin/sh
```

```bash
insmod xfs
set root='hd0,msdos1'
if ( [ x$feature_platform_search_hint = xy ] ) then
  search --no-floppy --fs-uuid --set=root --hint-bios=hd0,msdos1 --hint-efi=hd0,msdos1 --hint-baremetal=ahci0,msdos1 --hint='hd0,msdos1' ef532a78-1\ 
  0da-45f0-a69d-55ba37ec7e1f
else
  search --no-floppy --fs-uuid --set=root ef532a78-18da-45f0-a69d-55ba37ec7e1f
fi
linux16 /vmlinuz-3.10.0-123.4.2.e17.x86_64 root=/dev mapper/centos-root\ 
& rw init=/sysroot/bin/sh rd.lvm.lv=centos swap vconsole.font=latarcyrheb-sun16\ 
& rd.lvm.lv=centos/root crashkernel=auto vconsole.keyboard=us rhgb quiet LANG=en_US.UTF-8\ 
& initrd=initramfs-3.10.0-123.4.2.e17.x86_64.img
```

Press Ctrl-x to start, Ctrl-c for a command prompt or Escape to discard edits and return to the menu. Pressing Tab lists possible completions.
After changing that, press **Control + X** or **Ctrl + X** on your keyboard to start into single user mode using the bash shell specified above. In this mode, we're going to change the root password.

In the single user mode, run the command as shown below

```
chroot /sysroot
```

Finally, run the commands below to change the root password.

```
# passwd root
```

You'll be prompted to create and confirm a new password. After creating the password, run the commands below to update SELinux parameters

```
touch /.autorelabel
```

Exit and reboot your system. You should be able to sign on and use the system with the new password you created. That's how you change the root password on CentOS 7.

Enjoy!
5 Comments

Nice :) swapnil
March 10, 2015 at 3:47 AM

Good !! Salem
March 26, 2015 at 6:07 AM

Thanks AndyX! It takes a LONG time for the system to finish rebooting after typing ‘reboot’ — at least in VMWare WS 11 running 2+2 cores with 8GB assigned to the VM. In fact, I think it rebooted twice before I could log in. So, you should expect quite a wait, maybe dependent on your virtualizer, memory, etc. Thanks again!

I forgot Naeem Khan and root passwd for my server installed CentOS
April 1, 2015 at 9:50 AM

i do the same but it didn’t worked for me :(.

any help..?

Thanks Francisco
April 25, 2015 at 2:31 PM

© 2014 Liberian Geek