

Resetting the Password in Debian OpenStack Image via GRUB Menu

Download and Import Debian Image

To reset the password in a Debian OpenStack image, first, download the image from:

[Debian OpenStack Image](#)

The image used in this guide: **debian-10-openstack-amd64.qcow2**

Steps to Import the Image into OpenStack:

1. Open the **Horizon Dashboard**.
2. Navigate to **Project** → **Compute** → **Images**.
3. Click **Create Image**.
4. Provide the following details:
 - **Name:** Debian-10-OpenStack
 - **Image Source:** Upload the **.qcow2** file
 - **Format:** QCOW2
5. Click **Create Image** to upload it.

Launching the Instance

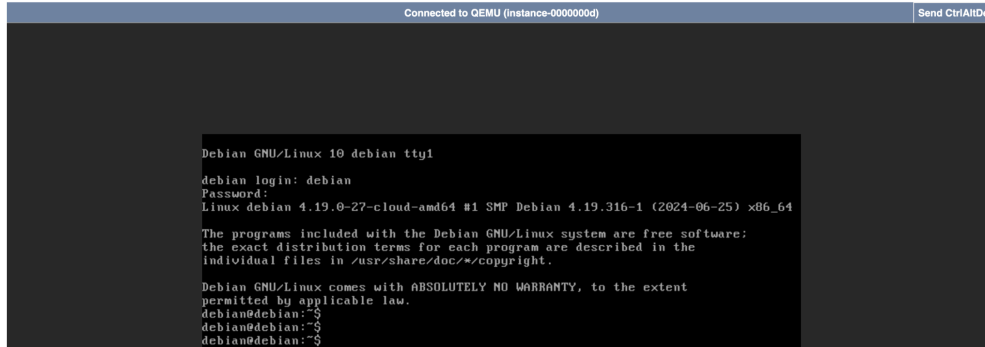
Once the image is imported, launch an instance using this image:

1. Go to **Project** → **Compute** → **Instances**.
2. Click **Launch Instance**.
3. Choose the imported Debian image.
4. Assign a network.
5. Click **Launch**.

Accessing GRUB Menu for Password Reset

If SSH key authentication fails, you can reset the password via the GRUB menu:

1. Open the instance console in OpenStack Horizon.
2. Click on **Send Ctrl+Alt+Del** in the top-right corner.



The screenshot shows a terminal window titled "Connected to QEMU (instance-0000000d)" with a "Send CtrlAltDel" button in the top right. The terminal output is as follows:

```
Debian GNU/Linux 10 debian tty1
debian login: debian
Password:
Linux debian 4.19.0-27-cloud-amd64 #1 SMP Debian 4.19.316-1 (2024-06-25) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/*copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
debian@debian:~$
debian@debian:~$
debian@debian:~$
```

3. The **GRUB boot menu** should appear.



4. With your selection on **Debian GNU/Linux**, press **e** to edit the boot parameters

```
GNU GRUB version 2.06-3~deb10u4

setparams 'Debian GNU/Linux'

load_video
insmod gzio
if [ x$grub_platform = xxen ]; then insmod xzio; insmod lzopio; \
fi
insmod part_msdos
insmod ext2
search --no-floppy --fs-uuid --set=root c55a6c8-c18f-47e9-ab43-\
b9a04da25f9c
echo 'Loading Linux 4.19.0-27-cloud-amd64 ...'
linux /boot/vmlinuz-4.19.0-27-cloud-amd64 root=UUID=c55a6\
8c8-c18f-47e9-ab43-b9a04da25f9c ro nosplash text biosdevname=0 net.ifna\
mes=0 console=tty0 console=ttyS0,115200 earlyprintk=ttyS0,115200 console\
blank=0 systemd.show_status=true

Minimum Emacs-like screen editing is supported. TAB lists
completions. Press Ctrl-x or F10 to boot, Ctrl-c or F2 for a
command-line or ESC to discard edits and return to the GRUB
menu.
```

5. Locate the line starting with **linux**.

6. At the end of this line, add:

init=/bin/bash

Your line should look like this:

```
linux /boot/vmlinuz-4.19.0-27-cloud-amd64 root=UUID=c55a6\
8c8-c18f-47e9-ab43-b9a04da25f9c ro nosplash text biosdevname=0 net.ifna\
mes=0 console=tty0 console=ttyS0,115200 earlyprintk=ttyS0,115200 console\
blank=0 systemd.show_status=true init=/bin/bash_
```

7. Press **Ctrl+X** to boot into the emergency maintenance shell.

Accessing the Instance Console from the Hypervisor

Since OpenStack's console may not display the emergency shell, access it from your OpenStack server:

Login to your server and list all running instances:

```
sudo virsh list --all
```

Example output:

```
Id Name State
-----
9 instance-0000000d running
```

Connect to the instance console:

```
sudo virsh console <instance-name>
```

Example:

```
sudo virsh console instance-0000000d
```

Press **Enter** to get a prompt.

```
[stack@nvo-sneha:/home/sneha$ sudo virsh console instance-0000000d
Connected to domain 'instance-0000000d'
Escape character is ^] (Ctrl + ])
```



```
[root@(none):/#
root@(none):/#
```

Resetting the Password

Change the password for the **debian** user:

```
passwd debian
```

If you encounter an error like "**Authentication token manipulation error**", follow these steps:

Check the filesystem mode:

```
mount | grep ' / '
```

If **(ro)** appears, it means the filesystem is **read-only** and hence you cannot update the password.

```
[root@(none):/# mount | grep ' / '
/dev/vda1 on / type ext4 (ro,relatime)
```

Remount it as read-write:

```
mount -o remount,rw /
```

Verify the remount:

```
mount | grep ' / '
```

This is how it should look like

```
root@(none):/# mount | grep ' / '
/dev/vda1 on / type ext4 (rw,relatime,errors=remount-ro)
```

Now, retry the password change

```
passwd debian
```

Something like this:

```
root@(none):/#
[root@(none):/# passwd debian
[New password:
[Retype new password:
[ 398.014102] random: passwd: uninitialized urandom read (16 bytes read)
passwd: password updated successfully
root@(none):/#
```

Rebooting the System

If the password change is successful, reboot the system:

```
reboot
```

If you see an error like:

System has not been booted with systemd as init system (PID 1). Can't operate.
Failed to connect to bus: Host is down
Failed to talk to init daemon.

Run the following command to force a reboot:

```
reboot -f
```

Logging in with the New Password

1. Open the OpenStack console.
2. Login using:
 - **Username:** `debian`
 - **Password:** The new password you just set.

Your Debian instance should now be accessible with the new credentials!