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Installation instructions for Ubuntu Core: Intel IoT Platforms

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Purpose

We will walk you through the steps of flashing Ubuntu Core for Intel IoT platforms. At the end of this process, your board is ready for production or testing snaps.

Prerequisites

- An Ubuntu SSO account with an SSH key
- An ODM board
- 2 USB 3.0 flash drives (6 GB minimum for Desktop image USB, and 2 GB minimum for Core image)
- A USB keyboard and a mouse
- A monitor with HDMI interface
- A HDMI cable
- A network connection with Internet access
- An Ubuntu Core Intel image

Installation instructions

1. Set up an Ubuntu SSO account

An Ubuntu SSO account is required to create the first user on an Ubuntu Core installation.

1. Start by creating an [Ubuntu SSO account](#).
2. Import an SSH Key into your [Ubuntu SSO account \(instructions\)](#).

2. Download Ubuntu Core

You can download Ubuntu Core Image on the [Ubuntu for Intel IoT](#) webpage.

You can then verify the integrity of the download using the associated Image SHA256SUM found in the release notes.

3. Flash the USB drives

1. USB 1: Download and copy the Intel optimised [Ubuntu Desktop image](#) and flash on the first USB flash drive.
2. USB 2: Copy the Ubuntu Core for Intel IoT platforms image (img.xz) on the second

USB flash drive.

4. Install Ubuntu Core

1. Connect your USB hub, keyboard, mouse, monitor to the board.
2. Insert the first USB flash drive containing Ubuntu Desktop LTS.
Users should ensure that the Secure Boot option in BIOS setup has been enabled in order for the full disk encoding to work.

3. Boot from the Live USB flash drive

1. Make sure the device is configured to boot from the USB flash drive, and start the device.
2. Select "Try Ubuntu".

4. Flash Ubuntu Core

1. Once the Ubuntu session has started, insert the second USB flash drive containing the Ubuntu Core image file.
2. Open a terminal and use the following command to find out the target disk device to install the Ubuntu Core image to:
`sudo fdisk -l`
3. It is recommended that the partition table of the target disk before copying the image to it, and can be done through the following command:
`sudo wipefs -a <target disk device>`
4. Run the following command, where <disk label> is the label of the second USB flash drive (where XX is either 20 or 22 depending on image being used):
`xzcat /media/ubuntu/<disk label>/ubuntu-core-XX-amd64+intel-iot.img.xz | sudo dd of=/dev/<target disk device> bs=32M status=progress; sync`
5. Prior to rebooting the device the TPM should be cleared, which can be done with the following command:
`$echo 5 | sudo tee /sys/class/tpm/tpm0/ppi/request`
6. Reboot the system and remove the flash drives when prompted. It will then boot from the internal memory where Ubuntu Core has been flashed.

5. First boot setup

1. The system will boot then become ready to configure.
2. The device will display the prompt "Press enter to configure".
3. Press enter then select "Start" to begin configuring your network and an administrator account. Follow the instructions on the screen, you will be asked to

configure your network and enter your Ubuntu SSO credentials.

4. At the end of the process, you will see your credentials to access your Ubuntu Core machine:

This device is registered to <Ubuntu SSO email address>. Remote access was enabled via authentication with the SSO user <Ubuntu SSO user name> Public SSH keys were added to the device for remote access.

6. Login

Once setup is done, you can login with SSH into Ubuntu Core, from a machine on the same network, using the following command:

```
ssh <Ubuntu SSO user name>@<device IP address>
```

Your user name is your Ubuntu SSO user name, it has been reminded to you at the end of the account configuration step.

First boot tips

- During setup, console-conf will download the SSH key registered with your Store account and configure it so you can log into the device via `ssh <Ubuntu SSO account name>@<device IP address>` without a password.
- There is no default ubuntu user on these images, but you can run `sudo passwd <account name>` to set a password if you need a local console login

If you have questions or issues regarding your specific board configuration, reach out to Canonical at sales-iotg@canonical.com