

Powering IOT

Raspberry Pi



OS Options



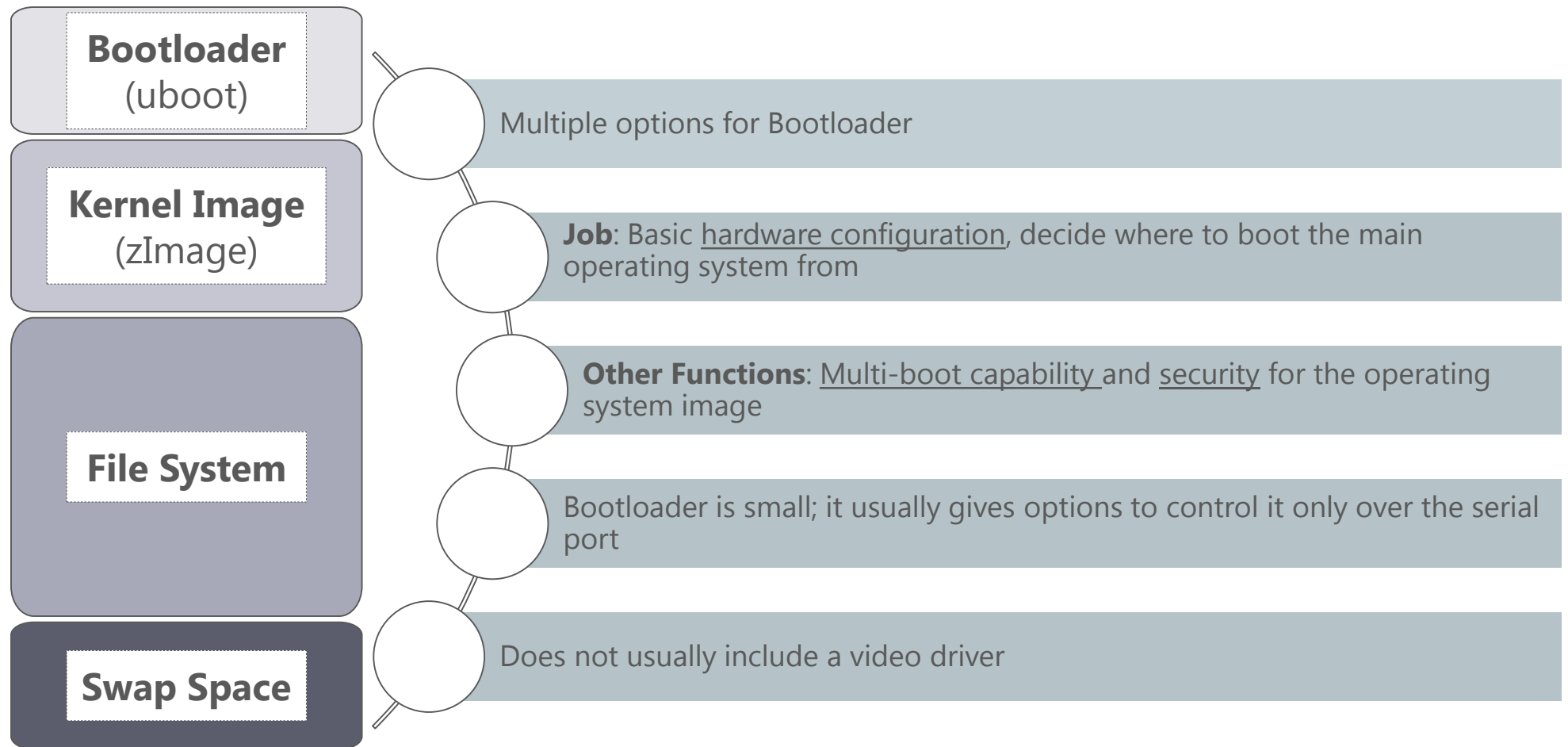
Operating System Options



Video

In this video

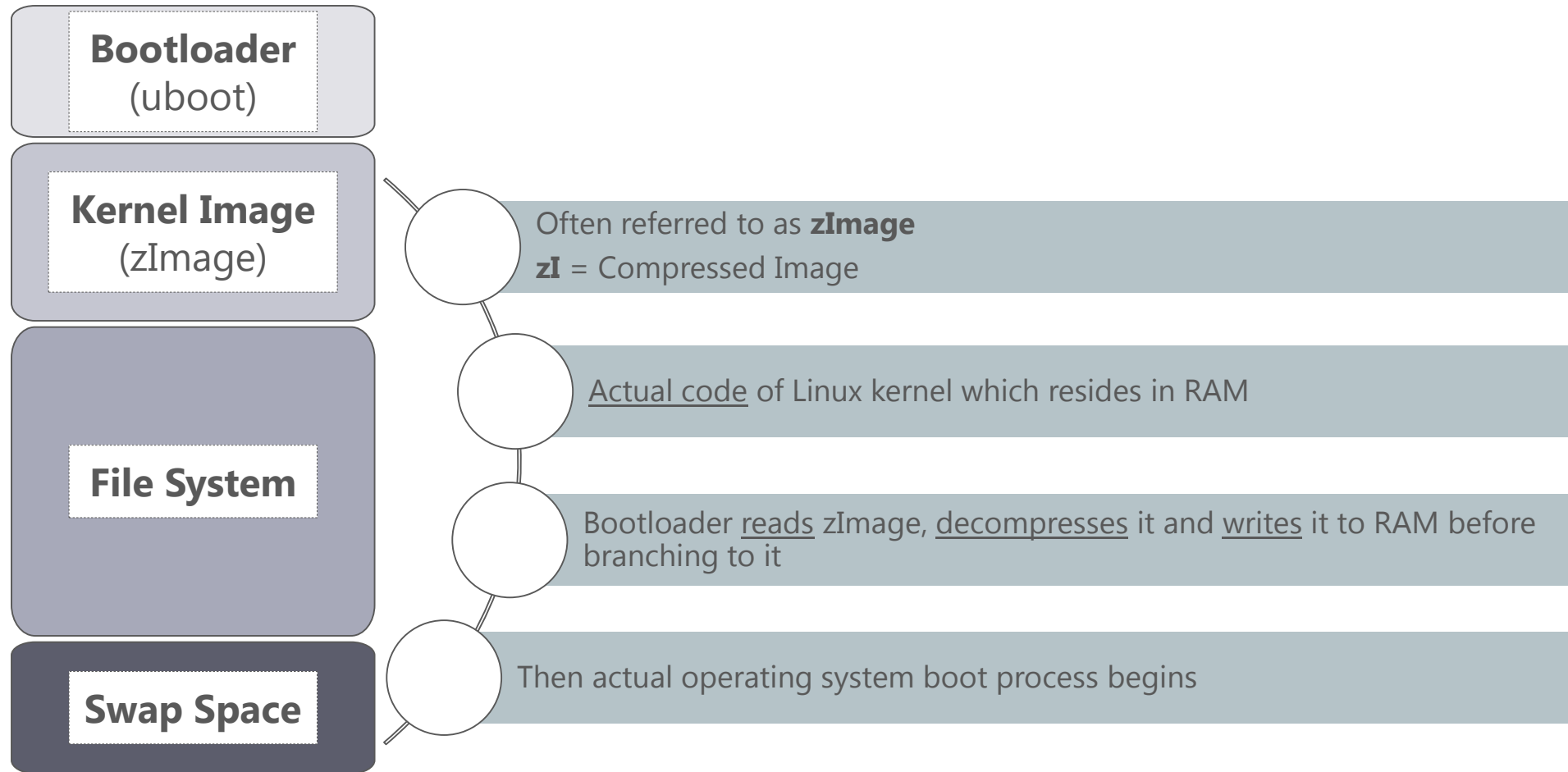
Inside an Operating System Image



Schematic View of Linux Operating System Image



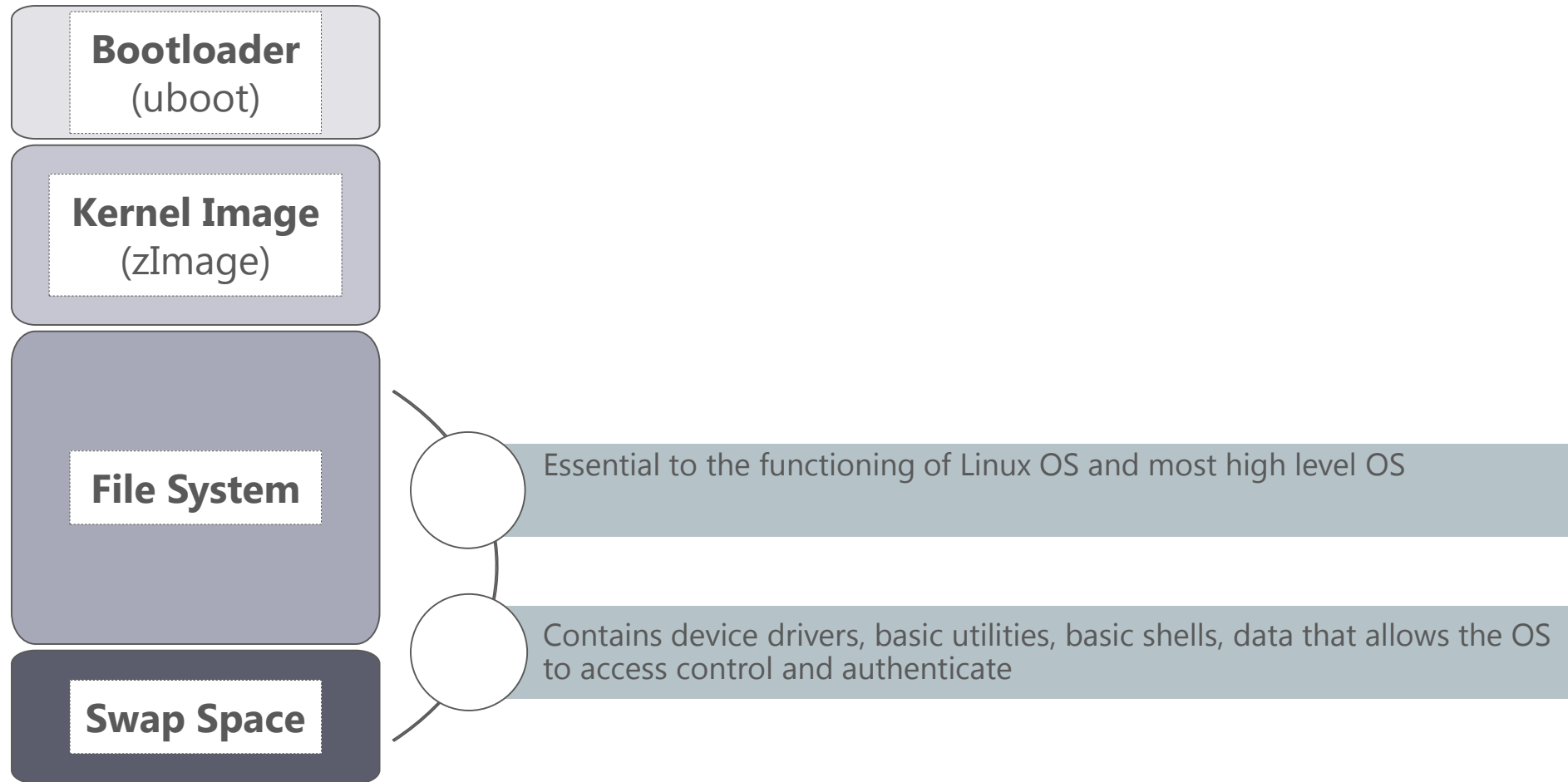
Inside an Operating System Image



Schematic View of Linux Operating System Image



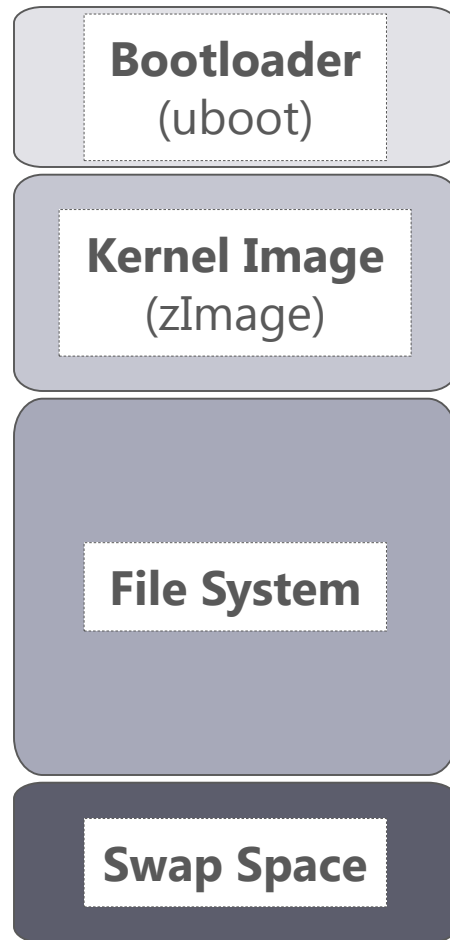
Inside an Operating System Image



Schematic View of Linux Operating System Image



Inside an Operating System Image

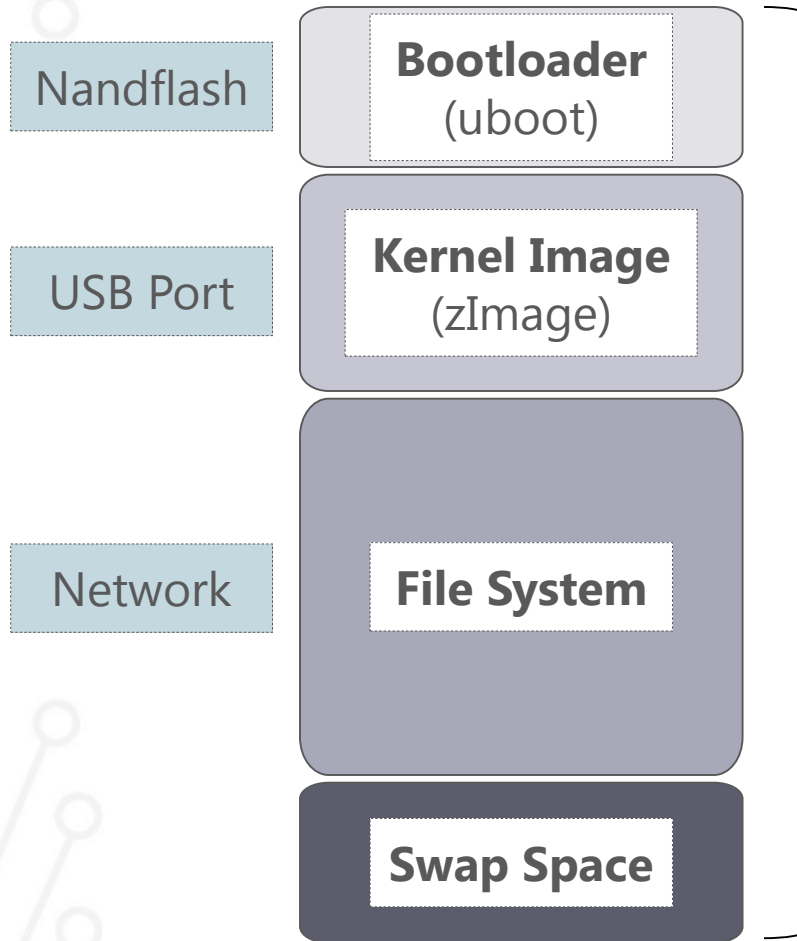


MNC or micro SD card can be used as Swap space

Schematic View of Linux Operating System Image

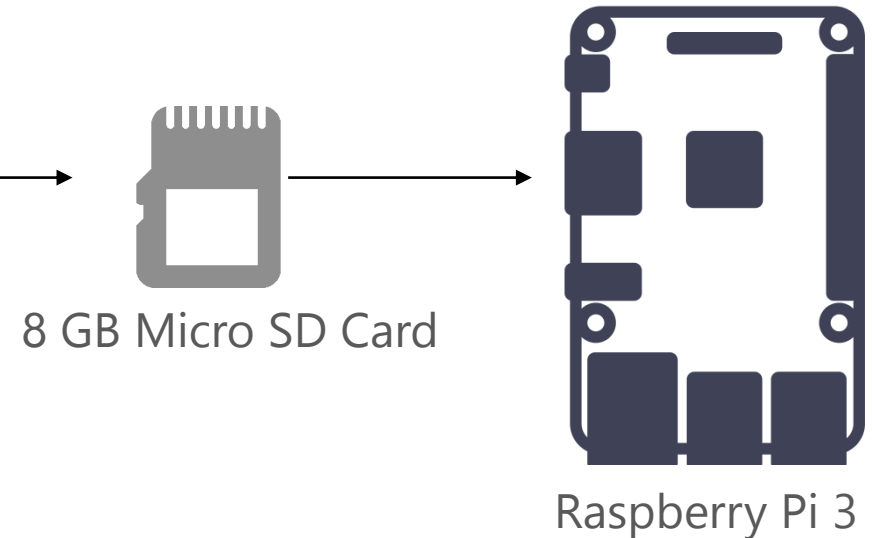


Inside an Operating System Image



Booting the Raspberry Pi 3

- ☐ All the OS components are put in the **micro SD card**
- ☐ Multiple combinations are possible
- ☐ Convenience of swapping out micro SD card and switching between different OS images



Boot Configuration

Advantages of Custom Boot Images

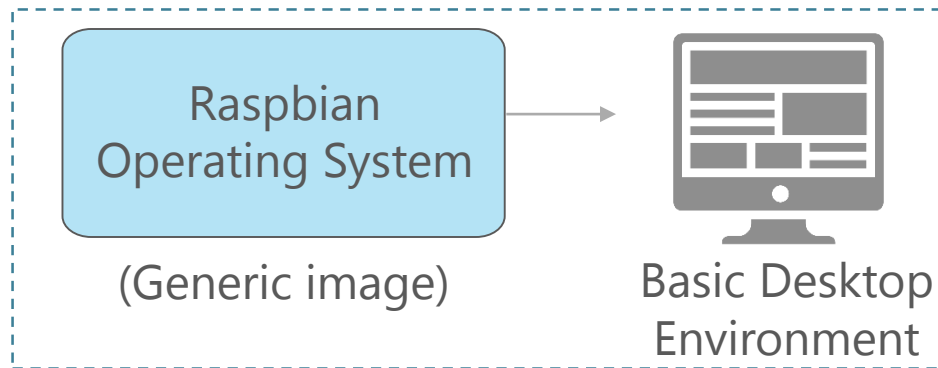


There maybe an application which can be booted into a specific app

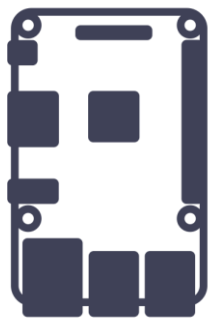
Example: Out of home media, media server, one-function program

Boot Configuration

Advantages of Custom Boot Images



Out of the box experience



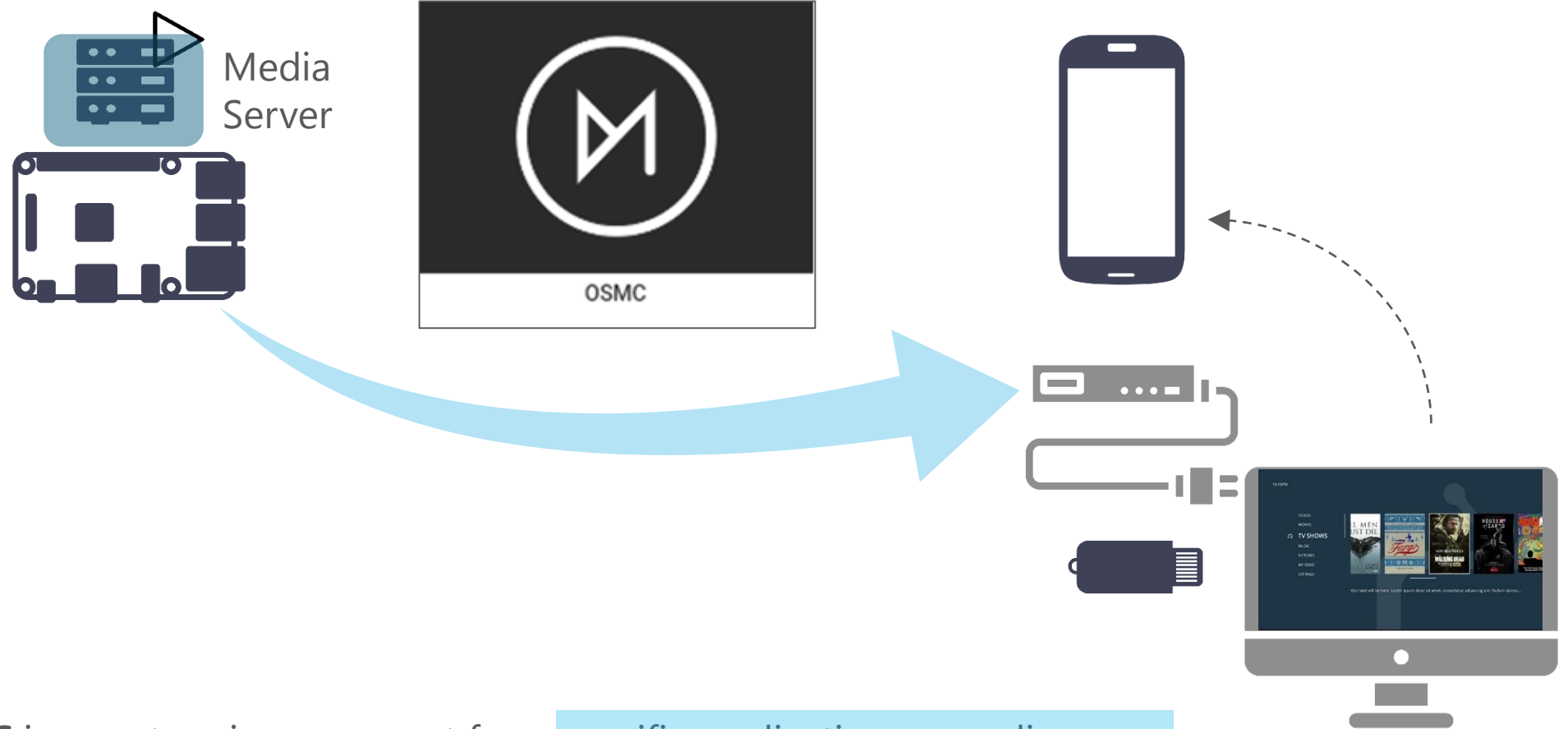
As soon as the Raspberry Pi boots up

Default applications is already loaded up and running

No human interaction during the boot up process

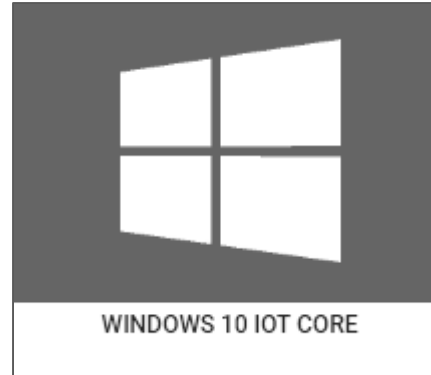


3P Images for Raspberry Pi - OSMC



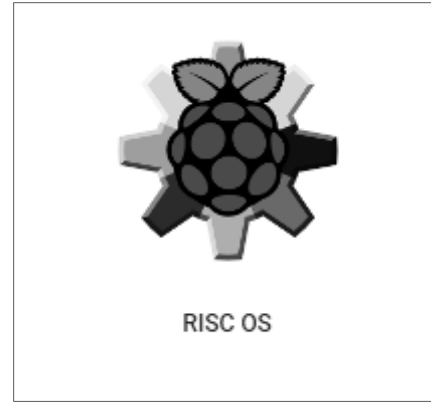
OSMC is a custom image meant for a specific application or media server

3P Images for Raspberry Pi - Windows 10



- ❑ **Windows 10** is a viable alternative to Linux on Raspberry Pi 3/Raspberry Pi 2
- ❑ Best option if the user is familiar with developing applications on windows 10

3P Images for Raspberry Pi – RISC OS



- ❑ RISC OS - **Non-Linux OS** variants that you can run on the raspberry pi.
- ❑ Custom Images are occasionally used as a way to change the usability and the basic behaviour of the Raspberry Pi

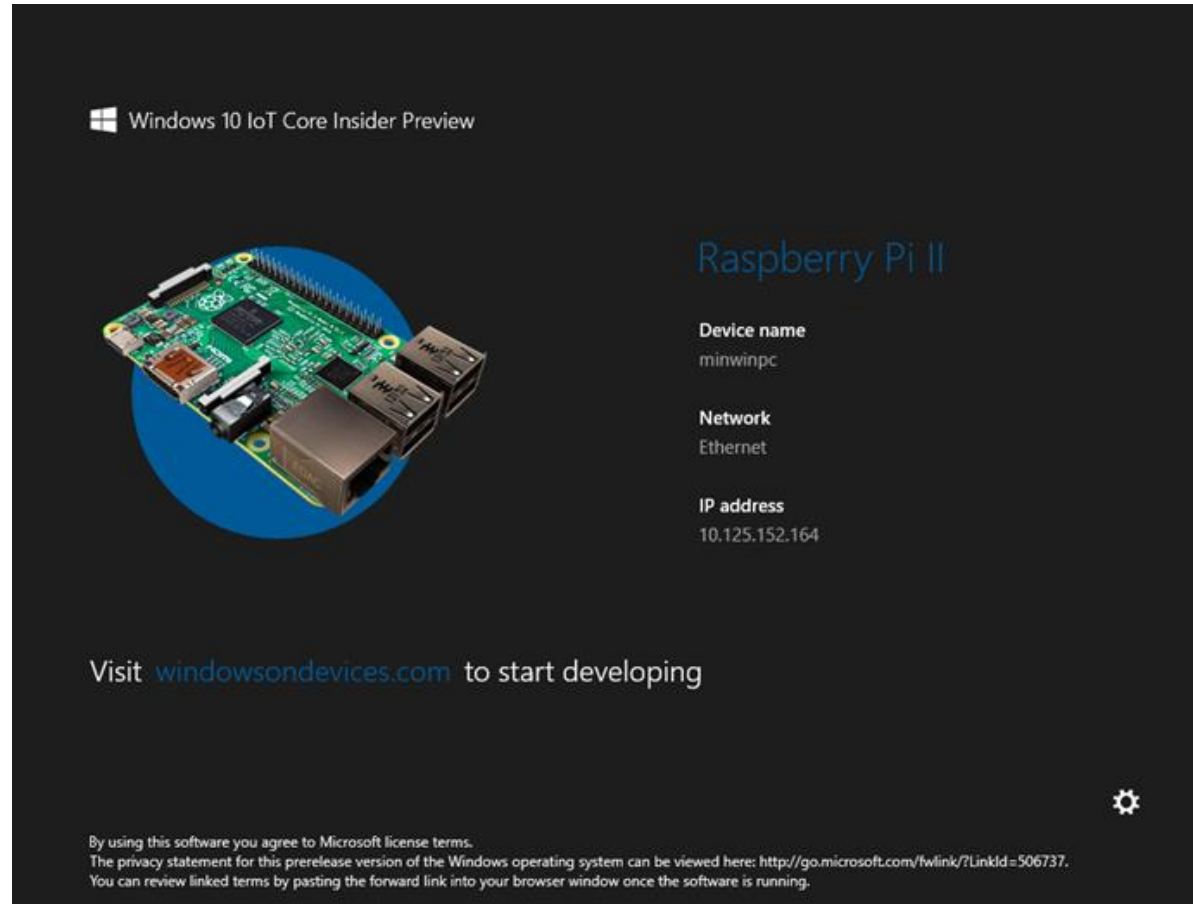
3P Images for Raspberry Pi – Kano OS



- ☐ **Kano OS** is a custom image is usually based on Linux
- ☐ Targeted towards teaching children how to program
- ☐ A more basic desktop version than that in Raspbian
- ☐ Creates a teaching environment where kids interact with Raspberry Pi



Windows 10



Windows 10 IoT Core

Preview image can be used boot Raspberry Pi and use it in conjunction with Microsoft cloud services



Recap



Video

OS Options

