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# Overview of IoTivity Projects

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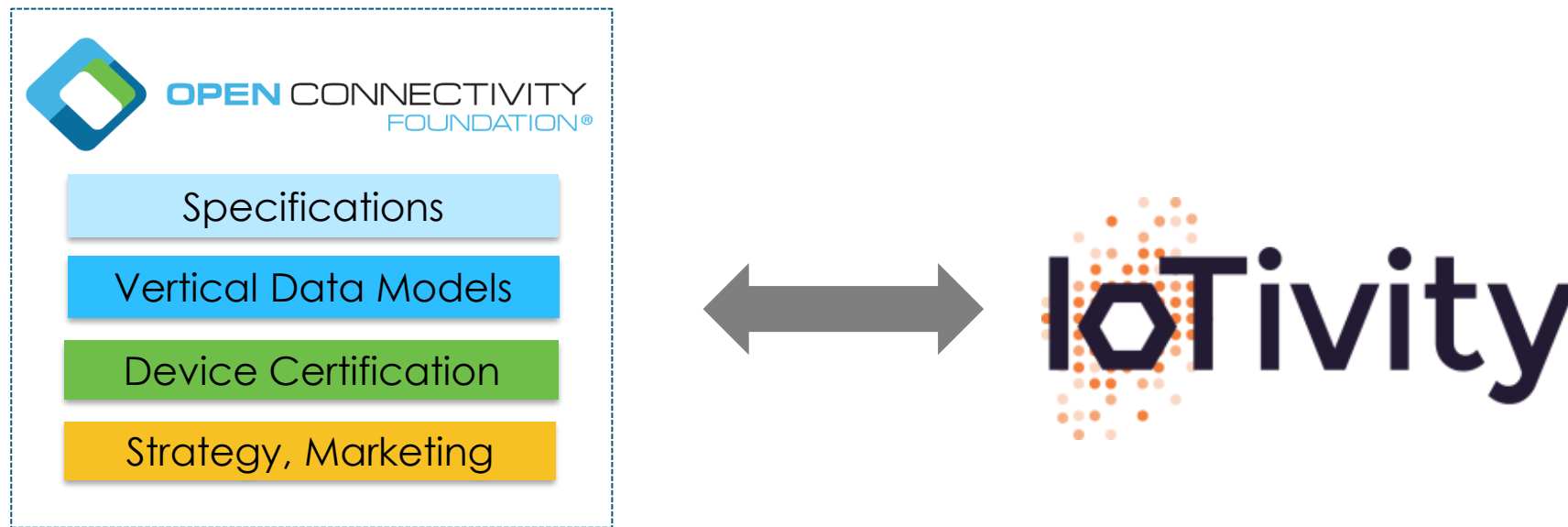
# Agenda

- What is IoTivity?
- Structure of an OCF implementation
- IoTivity and IoTivity-Lite
- Resources for getting started



# What is IoTivity?

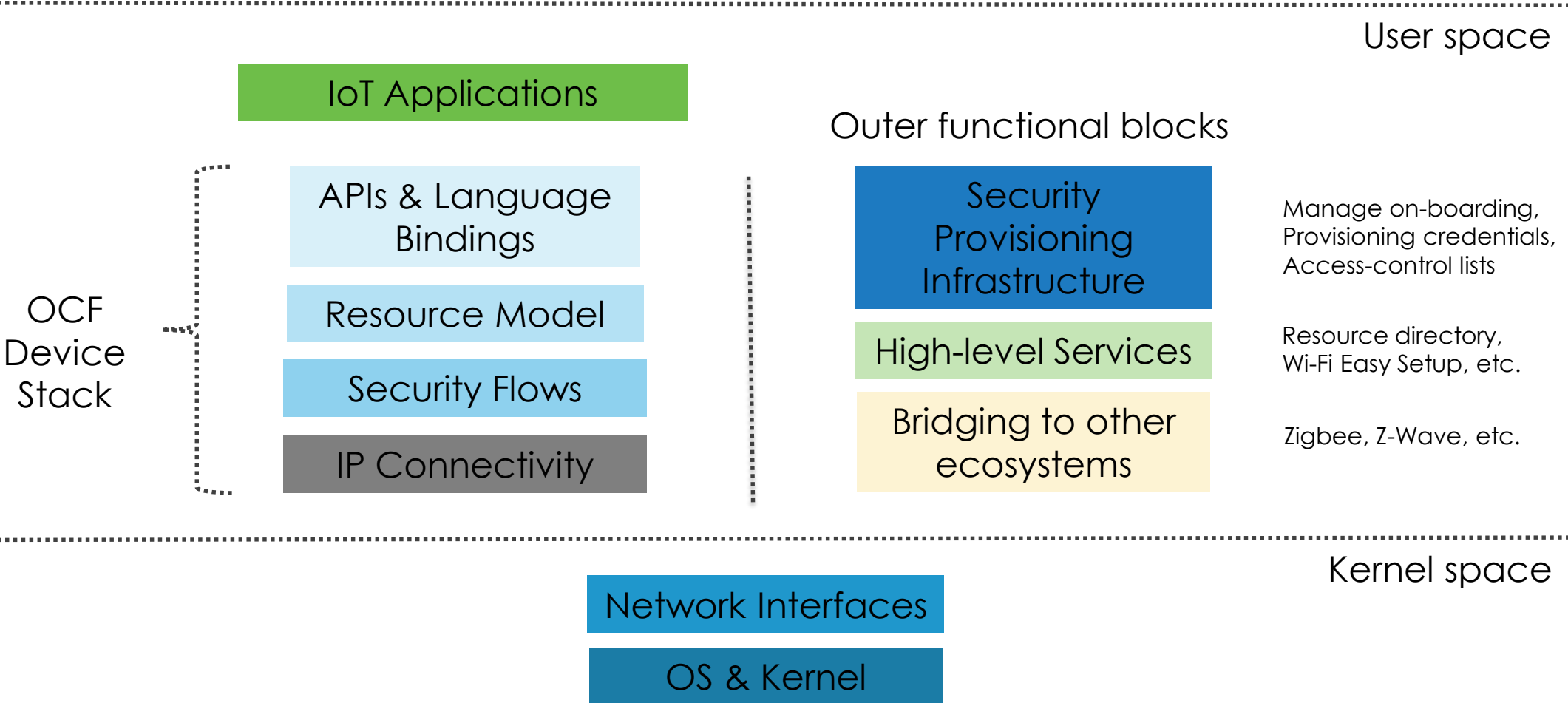
- Umbrella of projects for building IoT devices
- Open-source, reference implementations of OCF specifications
- Serve as starting point for developing and certifying OCF products



Independent governance with coordinated efforts



# Structure of an OCF implementation





# IoTivity and IoTivity-Lite

- IoTivity
  - Suitable only for more capable device classes
  - Runs on Linux, Windows, Android, macOS
  - Multiple language bindings: C, C++, Java, Node.js
- IoTivity-Lite (formerly called IoTivity-Constrained)
  - Lightweight implementation of OCF specifications
  - Suitable for all device classes (including few constrained devices)
  - Runs on Linux, Windows, macOS, and multiple RTOSes
  - C APIs only



# IoTivity Directory Structure

auto\_build.py

auto\_build.sh

bridging

build\_common

cloud

CONTRIBUTING.md

examples

extlibs

extra\_options.scons

gbsbuild.sh

iotivity.pc.in

java

LICENSE.md

NOTICE.md

plugins

prep.sh

README-building-and-running-remote-access-sample.txt

README.md

**Readme.scons.txt**

**resource**

run.bat

scons\_script\_how\_to.txt

SConstruct

service

tools



# Building IoTivity and Samples

- Sample app sources in `<iotivity>/resource/examples/`
- Install dependencies and run scons
- Build output stored in `<iotivity>/out/linux/x86_64/release/`
- IoTivity shared libs stored in `<iotivity>/out/linux/x86_64/release/`
- IoTivity sample apps stored in  
`<iotivity>/out/linux/x86_64/release/resource/examples/`
- Need to set `LD_LIBRARY_PATH` so apps can find shared libs  
`export LD_LIBRARY_PATH=<iotivity>/out/linux/x86_64/release`
- Run samples



# Resources for getting started

- IoTivity repository
  - <https://github.com/iotivity/iotivity>
- IoTivity build instructions
  - <https://github.com/iotivity/iotivity/blob/master/Readme.scons.txt>
  - Build infrastructure uses scons
- IoTivity-Lite repository and build instructions
  - <https://github.com/iotivity/iotivity-constrained>
  - Each OS adaptation (port) employs a build system native to its environment (E.g. Linux uses make, Windows uses VS projects, etc.)
- IoTivity Wiki
  - <https://wiki.iotivity.org/>





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