O-RAN Open Source Community
Bringing 3GPP and Linux Foundation Together
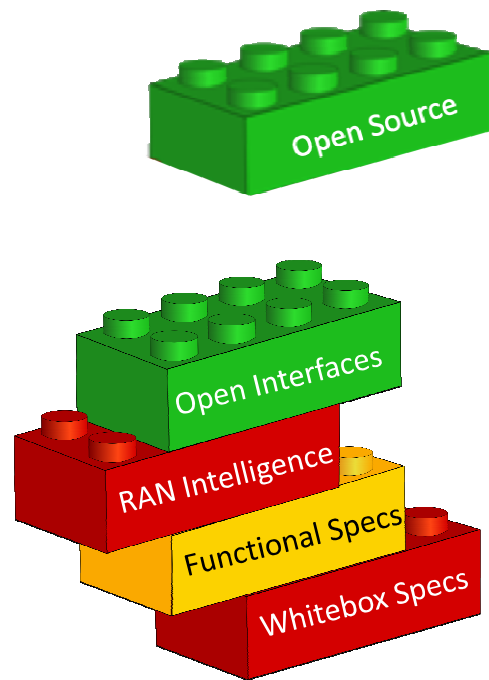
Hank Kafka

Vice President, Access Architecture and Standards, AT&T
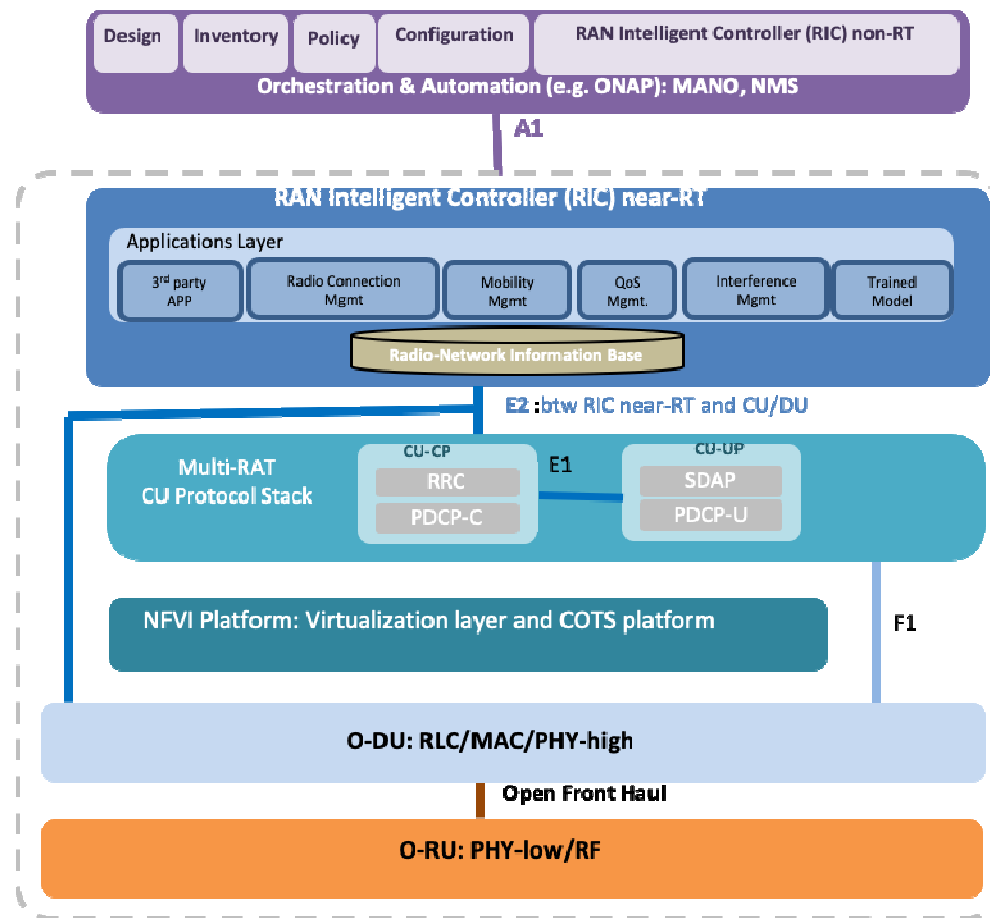
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The O-RAN Architecture
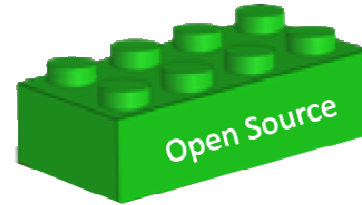

Open Source

Open Interfaces

RAN Intelligence

Functional Specs

Whitebox Specs

O-RAN Alliance is aiming at building an "Open" and "Smart" Radio Access Network (RAN) for future wireless systems

| Design | Inventory | Policy | Configuration | RAN Intelligent Controller (RIC) non-RT |

Orchestration & Automation (e.g. ONAP): MANO, NMS

A1

RAN Intelligent Controller (RIC) near-RT

Applications Layer

| 3rd party APP | Radio Connection Mgmt | Mobility Mgmt | QoS Mgmt. | Interference Mgmt | Trained Model |

Radio-Network Information Base

E2 :btw RIC near-RT and CU/DU

Multi-RAT CU Protocol Stack

CU-CP
RRC
PDCP-C

E1

CU-UP
SDAP
PDCP-U

NFVI Platform: Virtualization layer and COTS platform

F1

O-DU: RLC/MAC/PHY-high

Open Front Haul

O-RU: PHY-low/RF

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O-RAN Open Source Community

Mission:

Manage all software development, code storage, tooling and developer integration testing aligned with the architecture specified by O-RAN Alliance
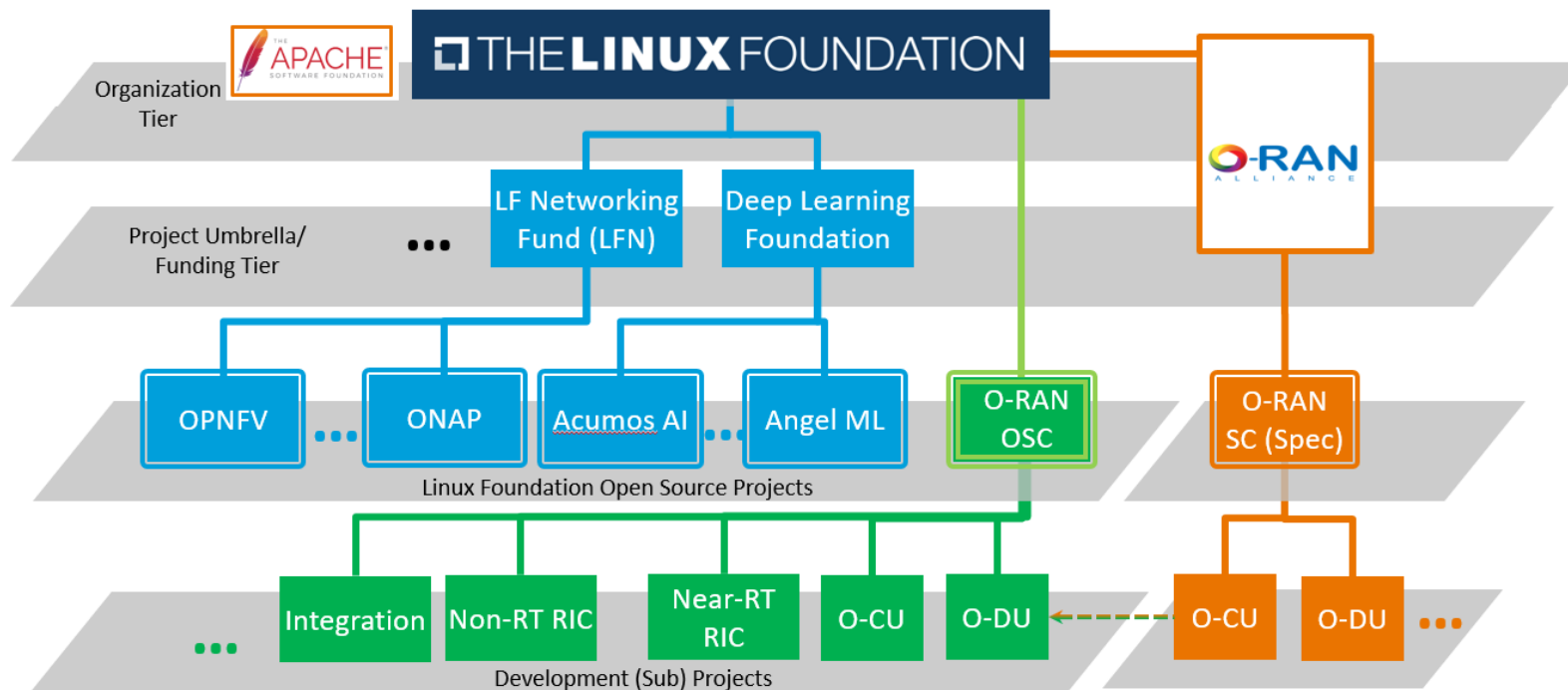
Project Scope:

- Software development including documentation, testing and integration of the open source software project
- Coordinate efforts with related open source software projects and standards communities
- Aligned with O-RAN architecture

Licensing:

1. *Standard Apache 2 license* for Open Source
2. *O-RAN specification license* that adds protection for 3GPP and *O-RAN essential patents* for software contribution

O-RAN Open Source Community (O-RAN OSC) structure

- …under Linux Foundation (LF)
- …exclusively sponsored by O-RAN Alliance to develop open source software to realize O-RAN components and systems
- The O-RAN OSC Technical Oversight Committee (TOC) will be responsible for all technical oversight of the open source project

O-RAN Alliance + LF Community = New Opportunities

- The foundation of O-RAN Alliance has been one of the most influential events in telecom industry in 2018

- The formation of O-RAN Open Source Community could become one of the most impactful events in LF

Linux Foundation

3GPP

O-RAN Alliance

Join the ORAN-OSC Community and <u>Accelerate Access</u> into the <u>future</u>!

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Thank You