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BHARAT EXHIBITIONS



Red Hat

PRESENTS

OPEN RAN INDIA 2021
VIRTUAL CONFERENCE

The Future of Radio Access Networks

17th JUNE, 2021 • 1000-1600 Hrs.

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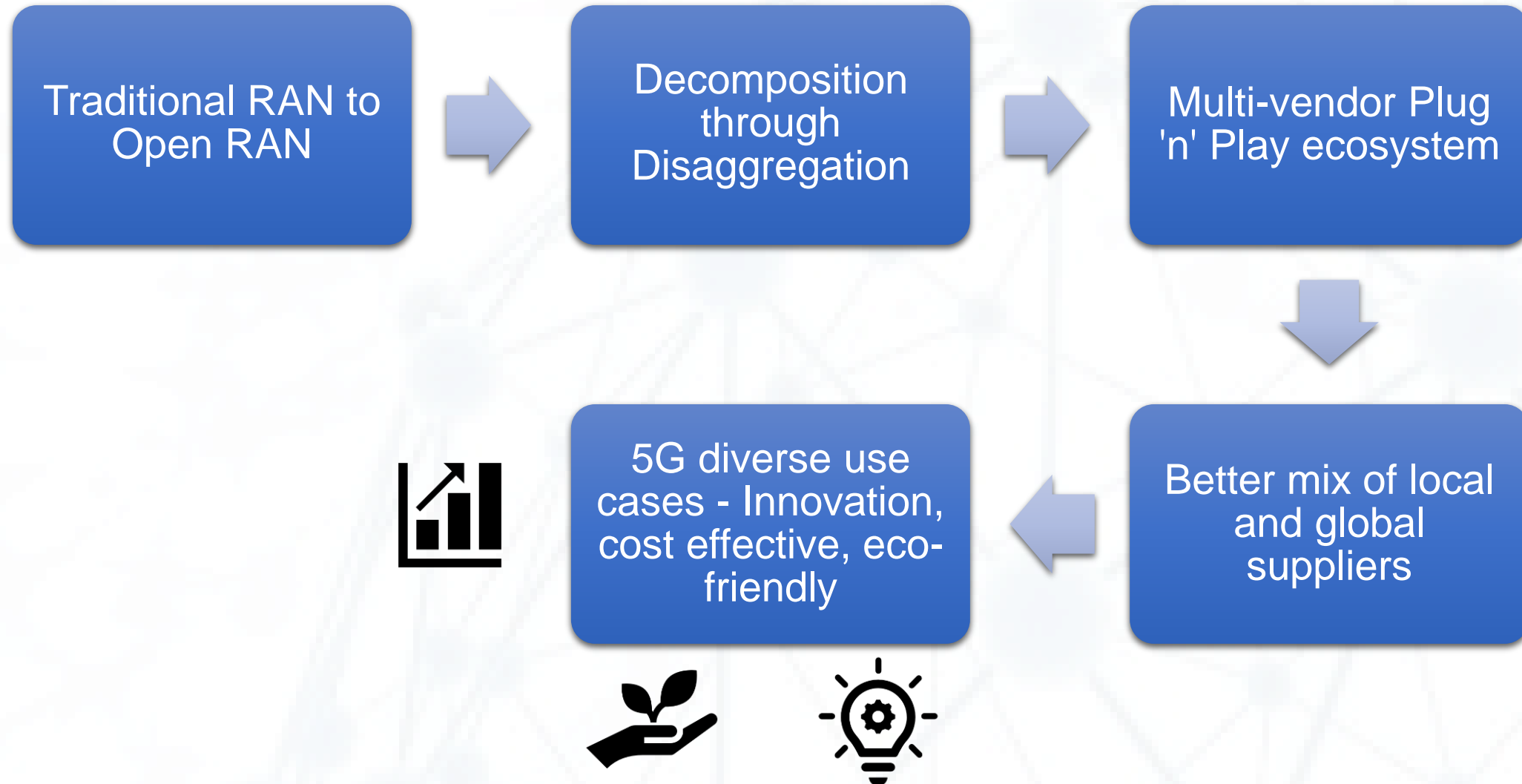
Session: Role of open source in 5G deployments
17 June 2021 14:15-16:15 IST

Open Disaggregated RAN

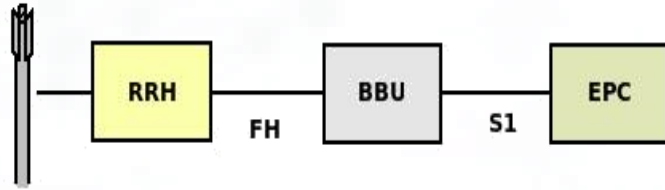
Srinivasan Radhakrishnan

Chief Architect - Sooktha

Open Disaggregated RAN - Introduction

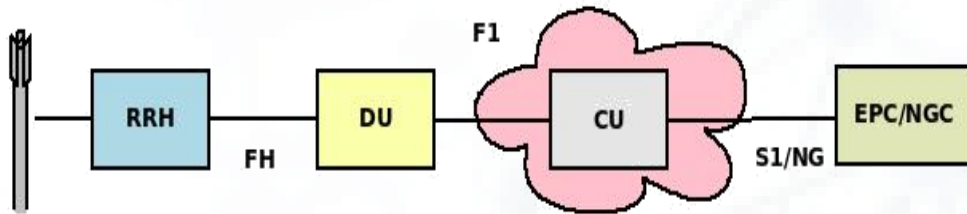


Traditional RAN network to O-RAN



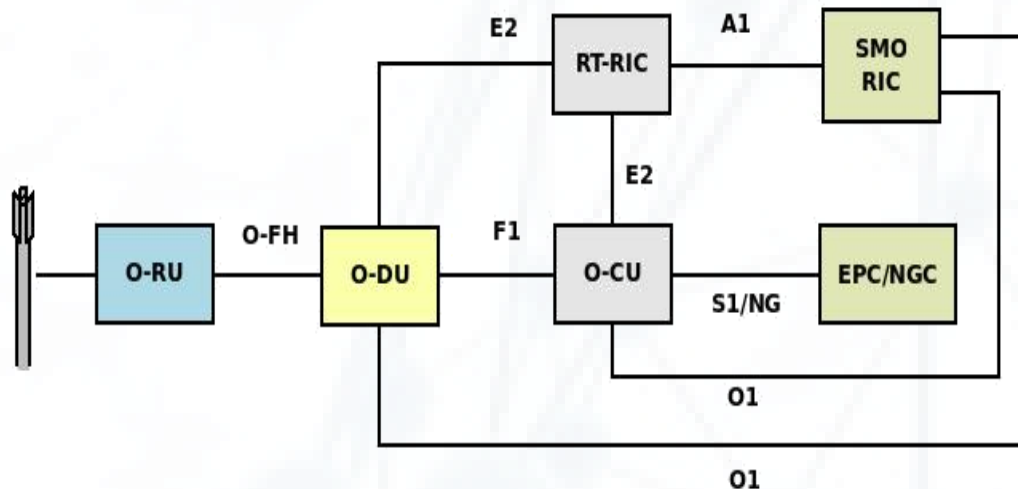
Traditional BBU Architecture

- No disaggregation
- BBU to RRU interface not specified by 3GPP
- CPRI protocol implementation contains proprietary elements
- Management Architecture not sufficiently specified by 3GPP
- No cloud presence



3GPP specified in Release 15

- Disaggregation through F1 interface
- BBU to RRU interface not specified by 3GPP
- CPRI protocol implementation contains proprietary elements
- Management Architecture not sufficiently specified by 3GPP
- Minimal cloud presence with vendor specific elements



O-RAN specification

- Open-ness and Disaggregation through F1 interface
- BBU to RRU interface standardized as Open Fronthaul
- Management Architecture being specified as SMO framework
- Cloud Orchestration interface and procedures being specified
- Network intelligence aspects via RIC framework

Open Disaggregated RAN – India Context



Open Disaggregated RAN - Initiatives at TSDSI

Open Disaggregated RAN – Initiatives at TSDSI

Study on Open Disaggregated RAN to Prioritize India Specific Requirements

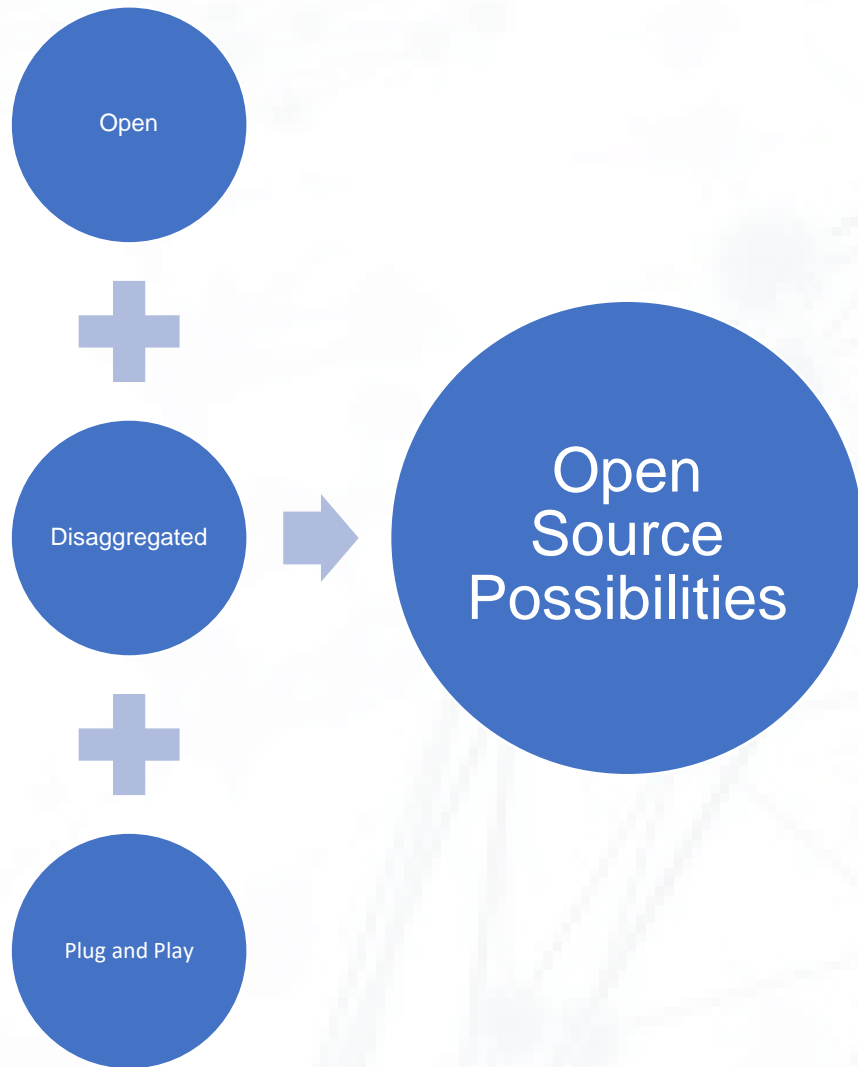
Analyze the existing standards(3GPP and O-RAN) for Open-ness, Disaggregation and Plug-and play aspects

Study the interfaces related to Management, Peer network node, Disaggregated network node and Core Network

Current focus is on Management interfaces and then the other interfaces will be taken up

Network intelligence and cloud orchestration to be taken up in the future

Open Source Possibilities and Advantages



Open Source Advantages

Global collaboration

Agility

Improve specific focus areas

Scale up testing and community support

Larger focus on network intelligence

Open Source Software for RAN

Category	Open source software
Network Orchestration and automation	ONAP OSM OpenBaton
Radio Access	OAI O-RAN software community srsRAN
Network intelligence	SD-RAN
Virtualization	RedHat virtualization platforms OpenStack Kubernetes

Thank You

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