

SD-RAN

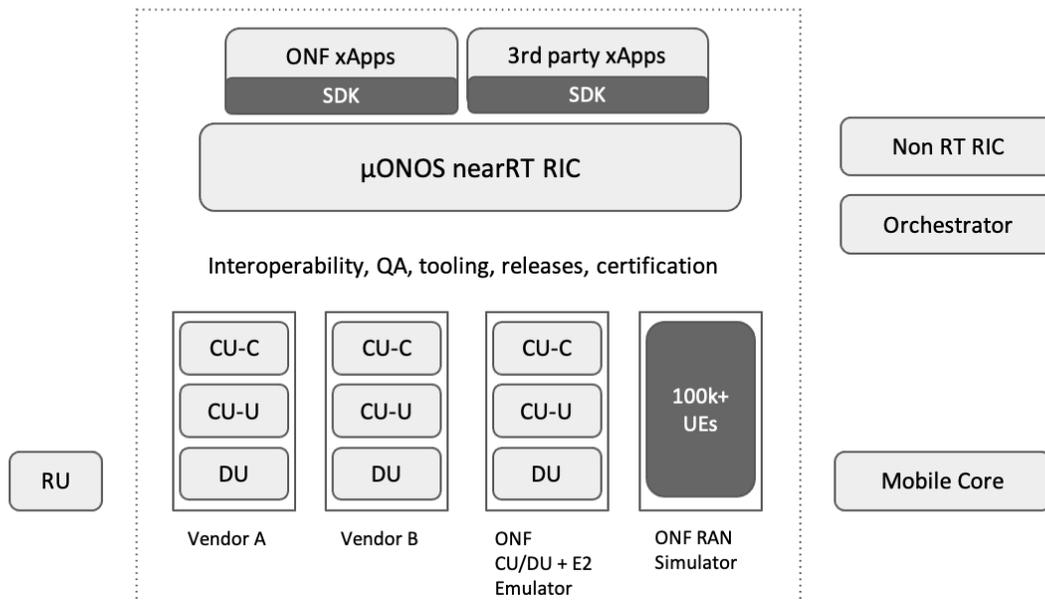
Introduction

SD-RAN is ONF's new exemplar platform for 3GPP compliant software-defined RAN that is consistent with the O-RAN architecture. It is cloud-native and is built on ONF's well-established, operator-approved, and deployed platforms, such as ONOS and Aether. Starting with an ONOS-based RAN Intelligent Controller (RIC), the exemplar platform aims to develop open source components for the control and user planes of the Central Unit and the Distributed Unit of the disaggregated RAN in close coordination with the O-RAN Alliance and O-RAN Software Community.

ONF's SD-RAN will leverage the O-RAN architecture and vision for the nRT-RIC. SD-RAN will implement an open source nRT-RIC (called μ ONOS-RIC) and exemplar xApps including implementations for handover and load balancing (and more), and will then prototype and work with operators to trial combinations of these open components with vendor proprietary (or other open versions) of RU/DU/CU, RIC and xApps.

Internally, the ONF SD-RAN team works closely with partners to define and develop not just the RIC, but the entire SD-RAN solution.

SD-RAN Solution



This involves work in the following areas

- O-RAN compliant interfaces E2, O1, A1 and protocols ASN.1, SCTP, NETCONF etc
- Maintain clustered micro-ONOS architecture for HA and Performance
- Work beyond the RIC and develop e2e SD-RAN solution
 - Requires integration with 3rd party xApp vendors
 - Develop SDK that makes xApps portable across RIC implementations
 - Requires integration with 3rd party CU/DU vendors
 - Develop ONF's own O-RAN compliant RU/CU/DU to serve as exemplar
 - Develop ONF's own O-RAN compliant Ran-Simulator for scale testing
 - Develop SDRAN-in-a-Box, a complete e2e solution for dev/test & reference
- Contribute learnings of new SMs and app-sdk back to O-RAN and OSC
- SD-RAN solution releases every quarter / Regression test suites on physical test-pods
- QA/Interop lab with DT O-RAN Open Test and Integration Center (OTIC) in Berlin
- Hardening & operationalization towards Lab & Field-trials with partner operators

[Press Release - ONF Announces New 5G SD-RAN Project](#)

[Blog - ONF Commits to Supporting O-RAN Alliance](#)

[SD-RAN v1.0 Techninar](#)

- Zoom: The community calls are temporarily suspended but will resume shortly, at which point a new link will be sent to all subscribers to the sdran-dev mailing list
- Agenda and Minutes: <https://docs.google.com/document/d/1kgysR09Omh8djxE-LTQT7pY3gxprYYtNVaV6P84xxCA/edit?usp=sharing>
- Past community meetings
 - Videos: https://www.youtube.com/channel/UC24ekx_LE4XDCnxf9x4yug/videos
 - Slides: google drive link below

Google Drive (Public folder)

- <https://drive.google.com/drive/folders/1QlqrGJ3T89vljfp1KEIOAx1f6W0OgcNa?usp=sharing>

Participate & Contribute

CLA

To contribute to SD-RAN, both individuals and companies are required to submit a [Contributor License Agreement \(CLA\)](#).

Jira Board

- <https://jira.opennetworking.org/secure/RapidBoard.jspa?rapidView=5&view=planning.nodetail&versions=visible&epics=visible&issueLimit=100&selectedVersion=11105>

Repositories

The set of repos that constitute a release can be found in the Release Notes for each release on our Documentation site (see below). A few key repos are listed here

- RAN-Simulator: <https://github.com/onosproject/ran-simulator>
- SD-RAN Helm charts: <https://github.com/onosproject/sdran-helm-charts>
- All repos for SD-RAN: <https://github.com/orgs/onosproject/teams/sdranaccess/repositories>

Docs

- [Documentation site](#)

We expect all ONF employees, member companies, and participants to abide by our [Code of Conduct](#). If you have any questions or concerns, please notify a member of the ONF team or email conduct@opennetworking.org.