



# A CI/CD/CT Platform Proposal for the O-RAN Super Wireless Blueprint

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OPEN SOURCE FOCUS GROUP MEETING

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O-RAN F2F EVENT PRAGUE

## why O-RAN SUPER WIRELESS BLUEPRINT ?

Several **open source projects** today showcase parts of O-RAN technology: **O-RAN OSC, ONF, OAI**, and **deployment frameworks**: LF backed projects like **Nephio, Sylva**

### Problem

There is no all-embracing, continuously maintained end-to-end open source platform that can be relied upon to systematically develop, test and validate O-RAN spec releases

### Solution

O-RAN SWBP is aimed at specifying, mandating and owning that E2E O-RAN platform, built from SW components from these projects with CI, CD, CT pipelines and constantly growing features as per specs

# A CI/CD/CT platform for the O-RAN SUPER WIRELESS BLUEPRINT

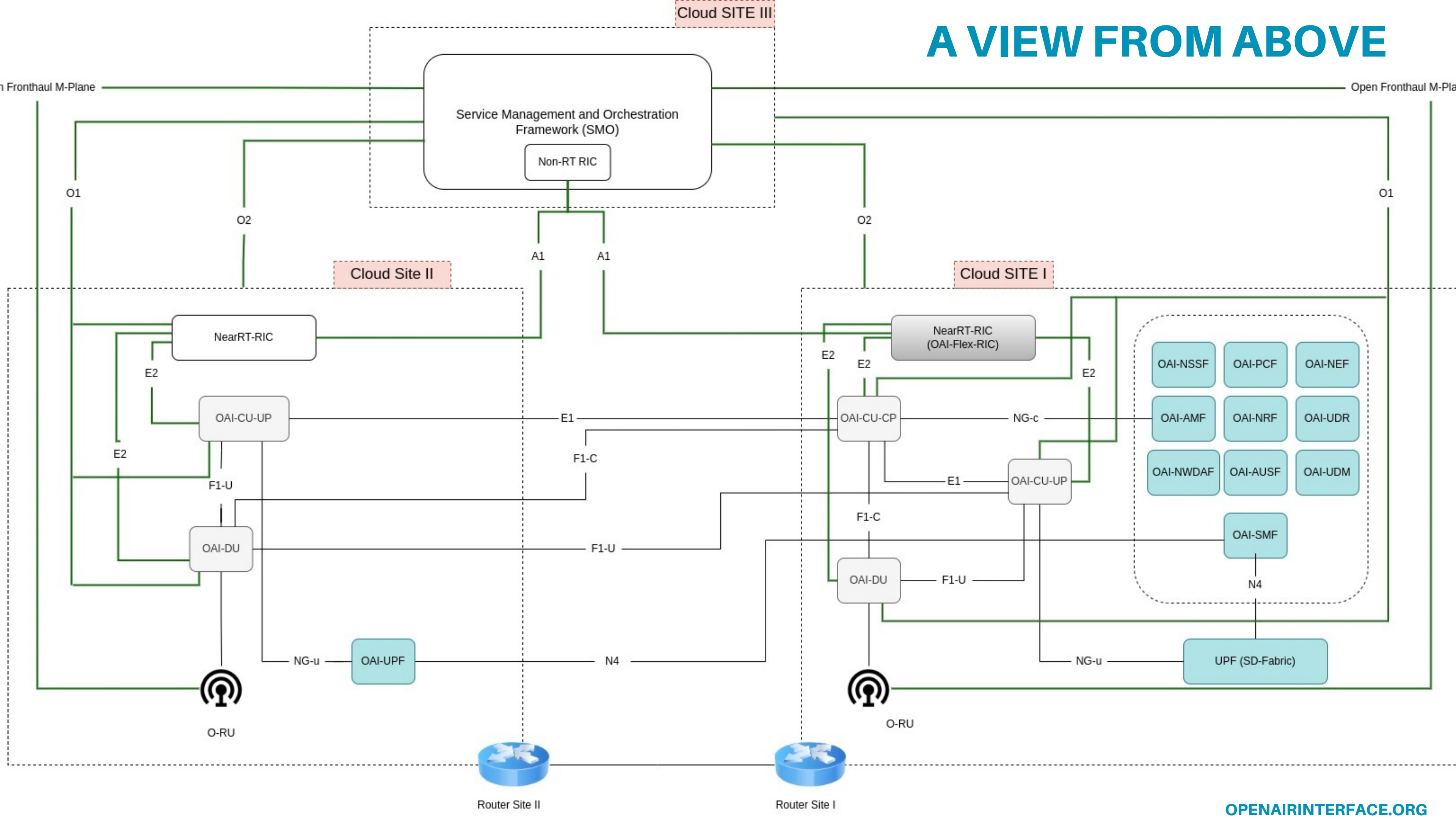
**A continuously integrated, delivered/deployed and tested end-to-end open source based platform demonstrating O-RAN technology, maintained internationally in several labs that contains:**

**Full stack 5G network as open software: Core Network, CU, DUs, RUs (and many UEs)**

**RIC, xApp, and SMO capability**

**And evolves (develops) continuously to support and test requirements and use-cases of each new O-RAN release**

# A VIEW FROM ABOVE



# SW AVAILABLE TODAY

OAI 5G Core Network + SD-Fabric from ONF

OAI CU talking F1 to multi-DUs and E1 to multiple CU-UP

OSC SW (O-DU, non-RT RIC & O1, SMO)

near RT-RIC(O-RAN RIC, ONF RIC, FlexRIC)

OAI soft UE and hardware acceleration technology

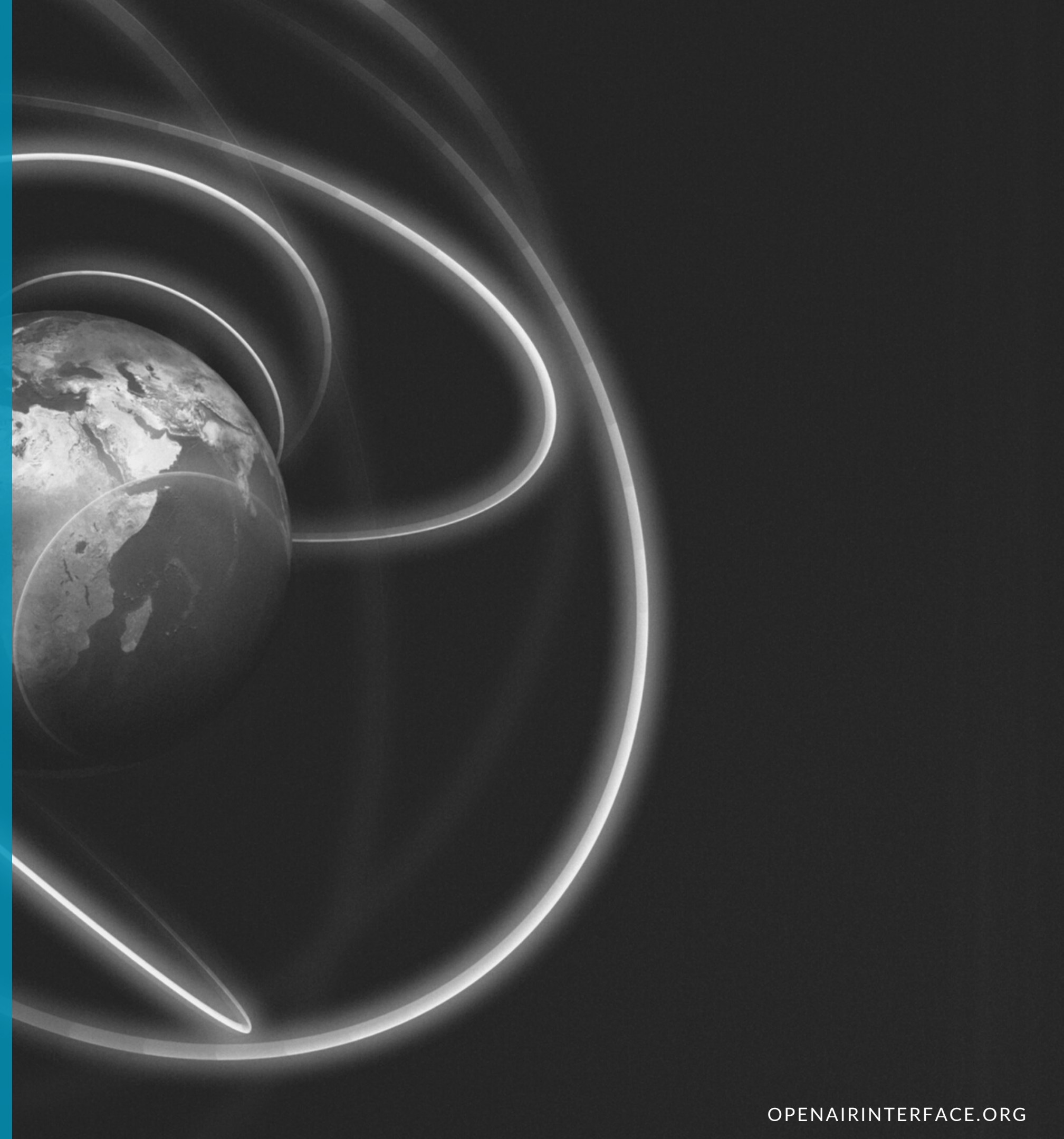
xApps and AI/ML framework from NorthEastern

Automation frameworks, e.g., OAI CNFs on Nephio



# PLATFORM FOR THE SUPER WIRELESS BLUEPRINT

LAUNCH PROPOSAL



# LIMITING MOVING PARTS FOR PUTTING IN ORBIT

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## PARTICIPATING LABS

*to initiate the showcase*

- NA East/West Coast Open Labs
- APEC Open Labs
- OAI Lab

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## OPEN SOURCE PROJECTS

*to consume code from*

- O-RAN OSC
- parts of ONF
- OAI RAN and CN

+ deployment and orchestration platforms like openshift, K8s and Nephio

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## FLAVORS

*CI/CD/CT maintained in the labs*

- **Lab 1:** OSC RIC, OAI CU, OSC DU, OAI CN, O-RAN 7.2 radios, multiple COTS UEs
- **Lab 2:** ONF RIC, OSC CU, OAI DU, OAI CN, Keysight/Viavi RU emulators, multiple OAI UEs
- **Lab 3:** Other combinations

# Resources, Ownership and Respective Roles

## OPEN SOURCE COMMUNITIES

write and own open source software as they have always done

## O-RAN OSFG

owns the SWBP and its roadmap and (a) interacts with OS communities for features and (b) mandates labs for CI/CD/CT

## PARTICIPATING LABS

manage showcasing and maintain CI/CD/CT of the platform as per roadmap

## OTHER POINTS TO PONDER

- RESOURCE ALLOCATION
- OPEN SOURCE COMMUNITY ENGAGEMENTS



# Where do we stand

Much open software is readily available at OSC, OAI, ONF

Many labs have developed components for AI/ML, xApps for RIC

Service providers deploy O-RAN technology today

Private 5G and industrial markets need O-RAN solutions

nG is in the pipe



Let us get on with it!