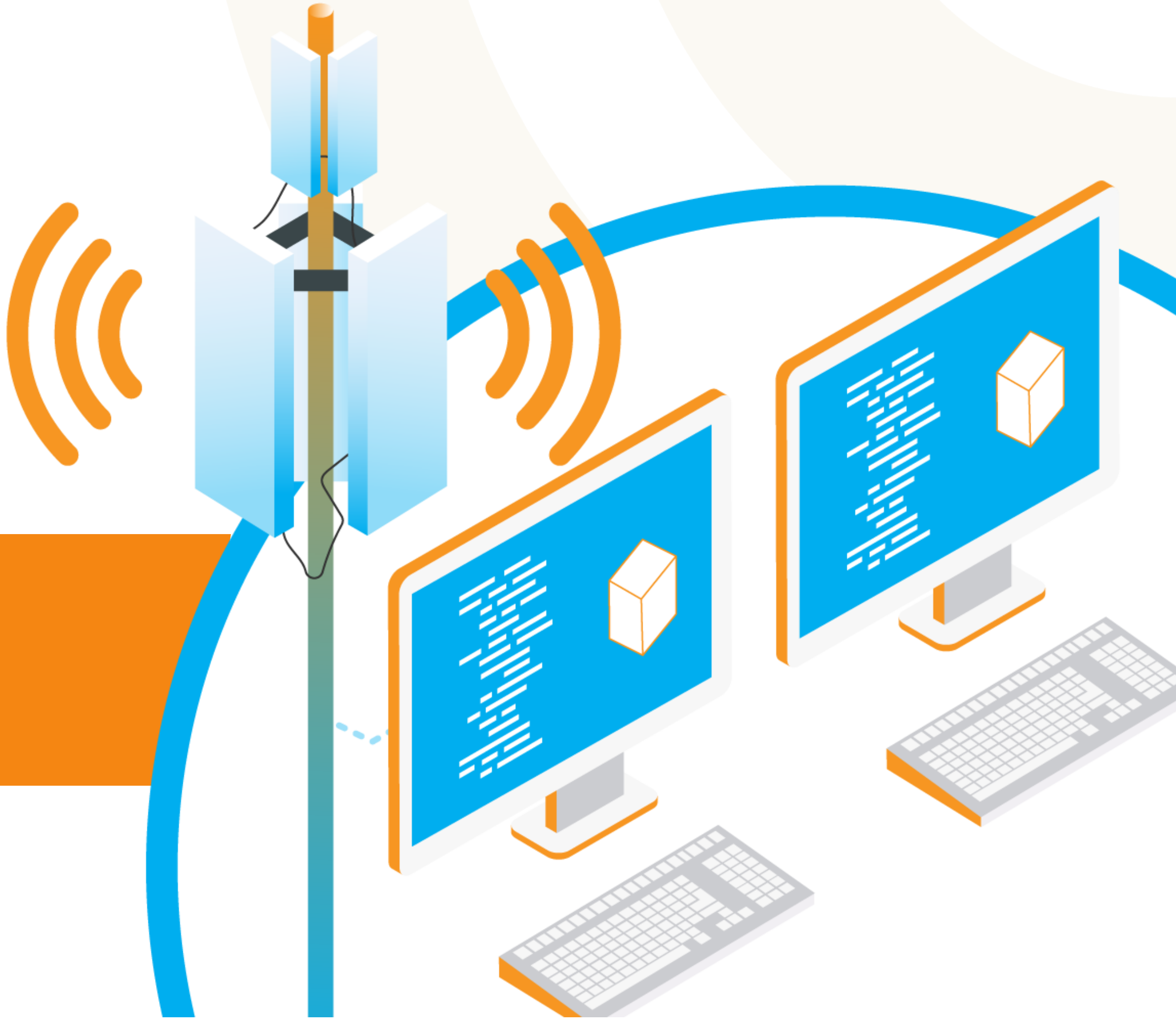
dRAX in Open RAN



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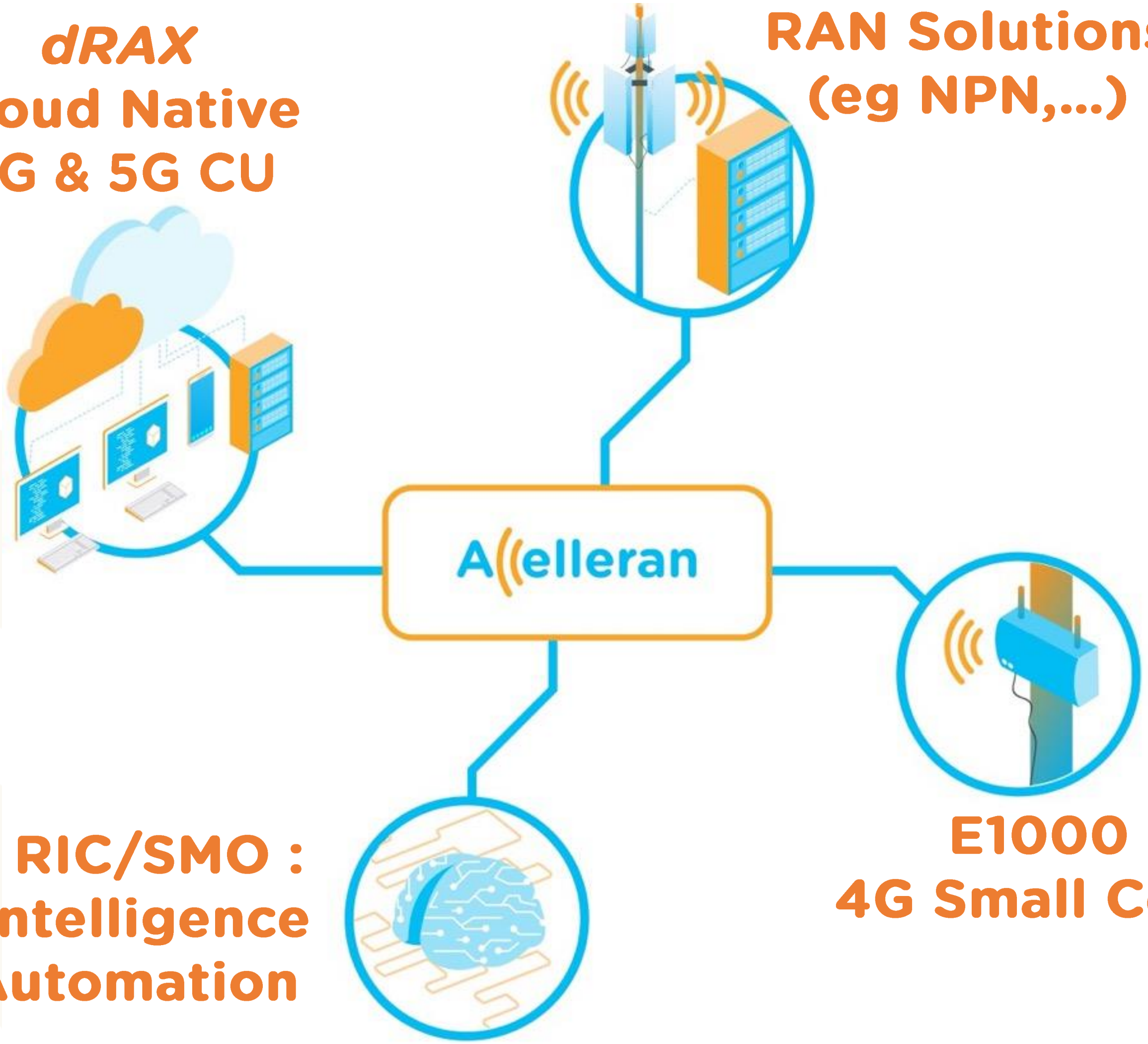
Accelleran Overview

Accelleran

dRAX
Cloud Native
4G & 5G CU

Vertical Open
RAN Solutions
(eg NPN,…)



dRAX RIC/SMO :
RAN Intelligence
and Automation

E1000
4G Small Cells

- **15-year** Track Record in RAN and Small Cell Industry
- Founded in **2013** by team of industry experts
- International Team in **Belgium** (HQ), UK and US.
- Carrier Grade Quality Software for any RAN Architecture
- Cloud Native 4G and 5G Open RAN Platform
- RAN Intelligence and Automation
- Private Cellular Vertical solutions

Towards a dense and programmable 5G Radio Access Network

Consortia Participation/Awards

Accelleran

O-RAN ALLIANCE

TEAC UK
developing next-generation telecoms technology
BT | facebook

ONF
Open Networking Foundation

ALLIANCE cbrs

SMALL CELL FORUM
HOME | ENTERPRISE | URBAN | RURAL

Accelleran
SMALL CELL AWARDS
SCF
2018
Winner
Outstanding Innovation in
Small Cell Technology or Architecture

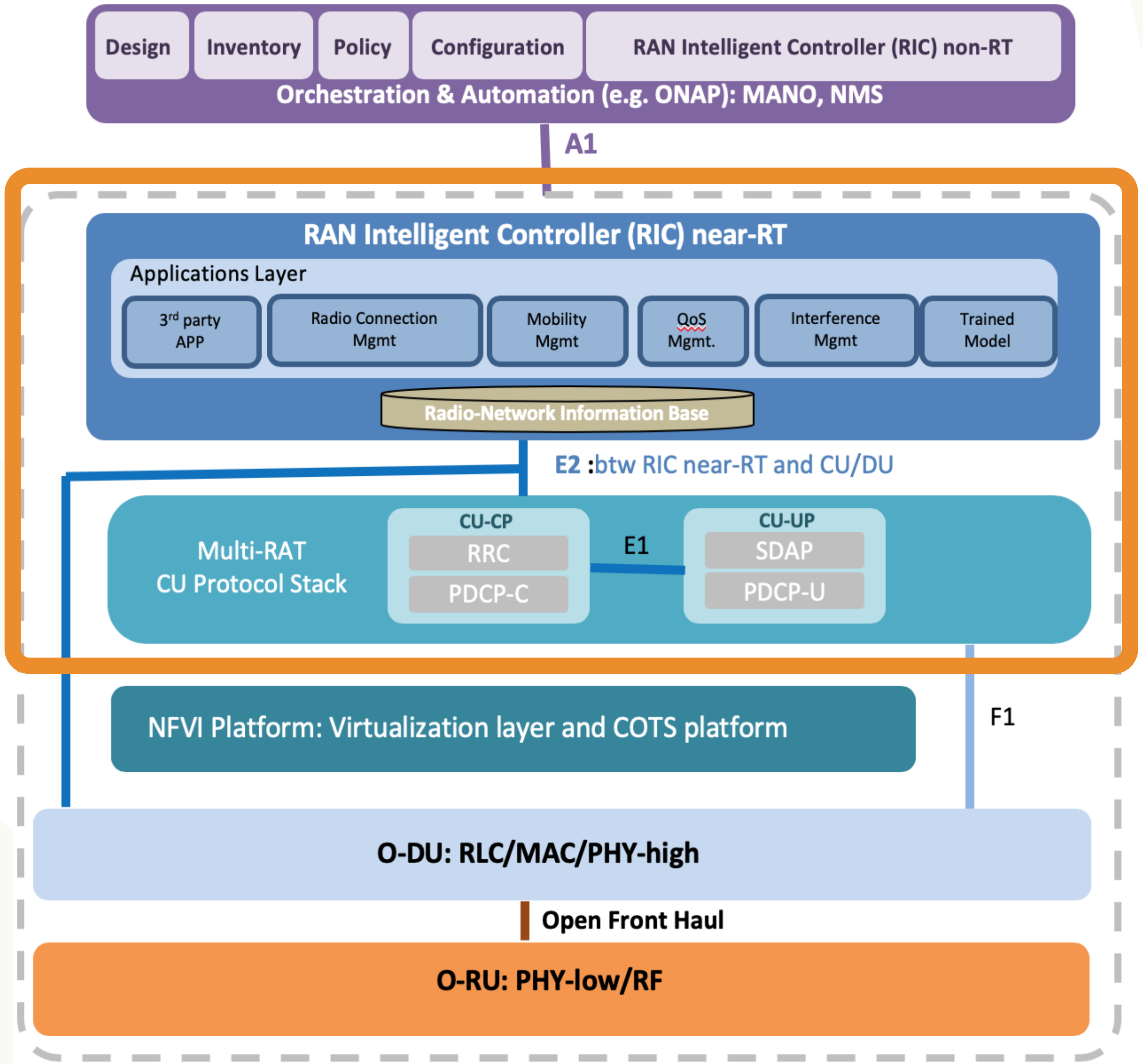
SMALL CELL AWARDS
SCF
2020
Winner
Development of New Architecture Providing
a Clear Path to Future Networks
(5G, hyperdensity, vRAN)

TOP
EVC FINAL
WINNER
2017
TechTour

INNOVATION
SHOWCASE
CLASS OF 2021
POWERED BY TELECOM COUNCIL

50
Technology Fast 50
2021 BELGIUM
Deloitte.
Accelleran
Fast 50 Winner Communications
& Networking

Accelleran dRAX



dRAX

=

Accelleran

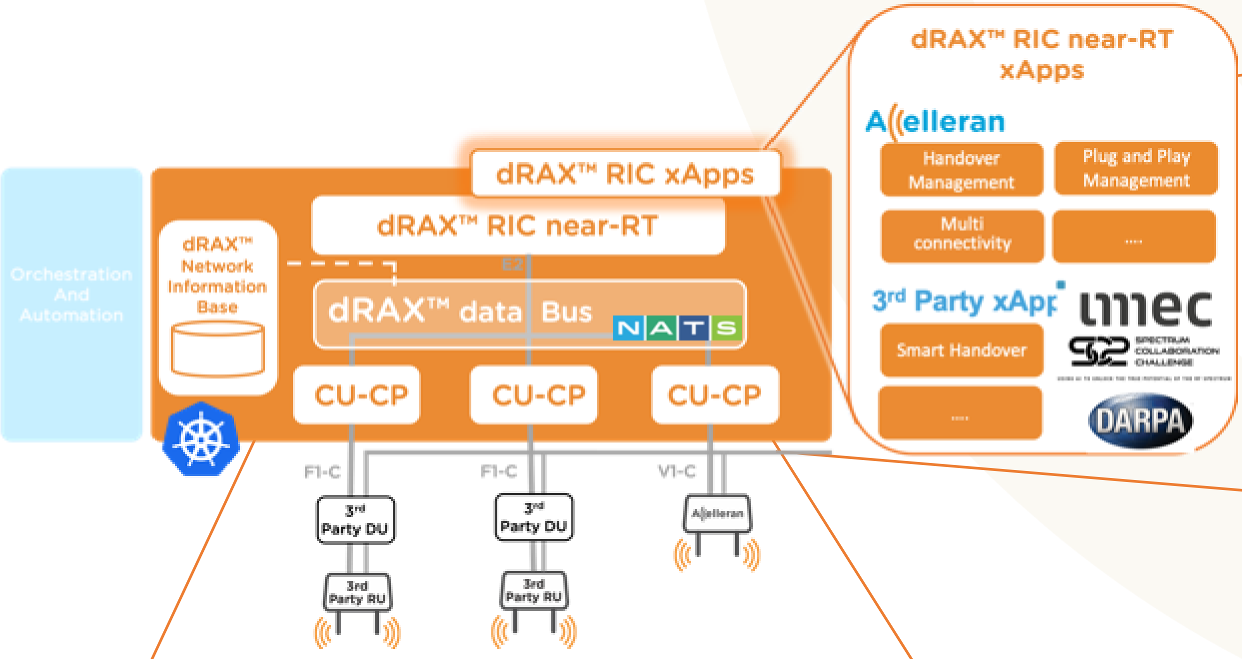
Cloud Native

Open RAN

Platform

dRAX Principles

- dRAX = loosely coupled CU (4G + 5G) + Near-RT RIC
- Cloud Native Microservices architecture
- 4G/5G coexistence
- Scalability
- Openness
  - Data
  - Orchestration
  - RIC platform



AI/ML

Decoupled User traffic

Control Plane essential IP

Distributed Data Bus

Accelleran dRAX 5G E2E

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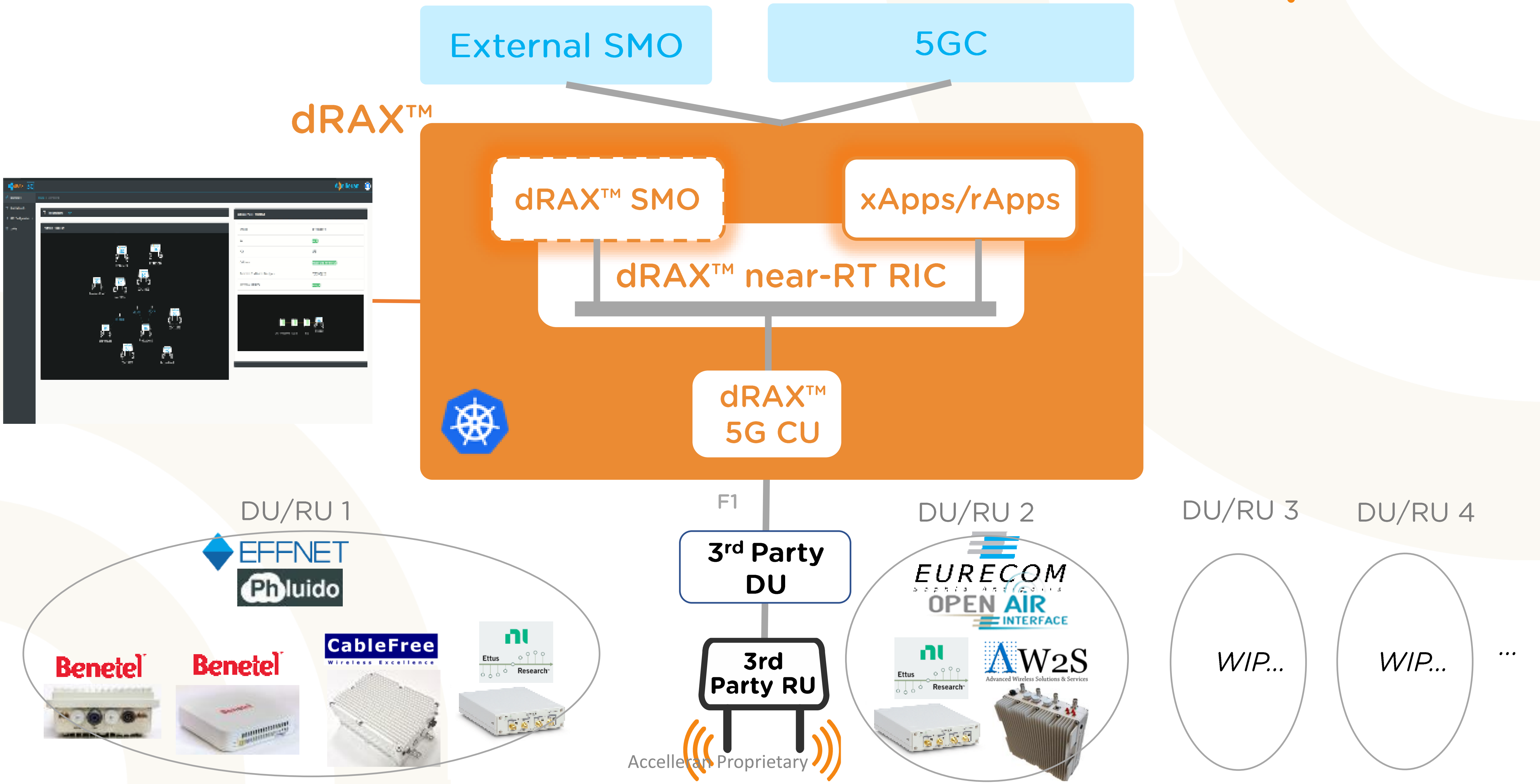


dRAX RIC Platform

Productized Framework

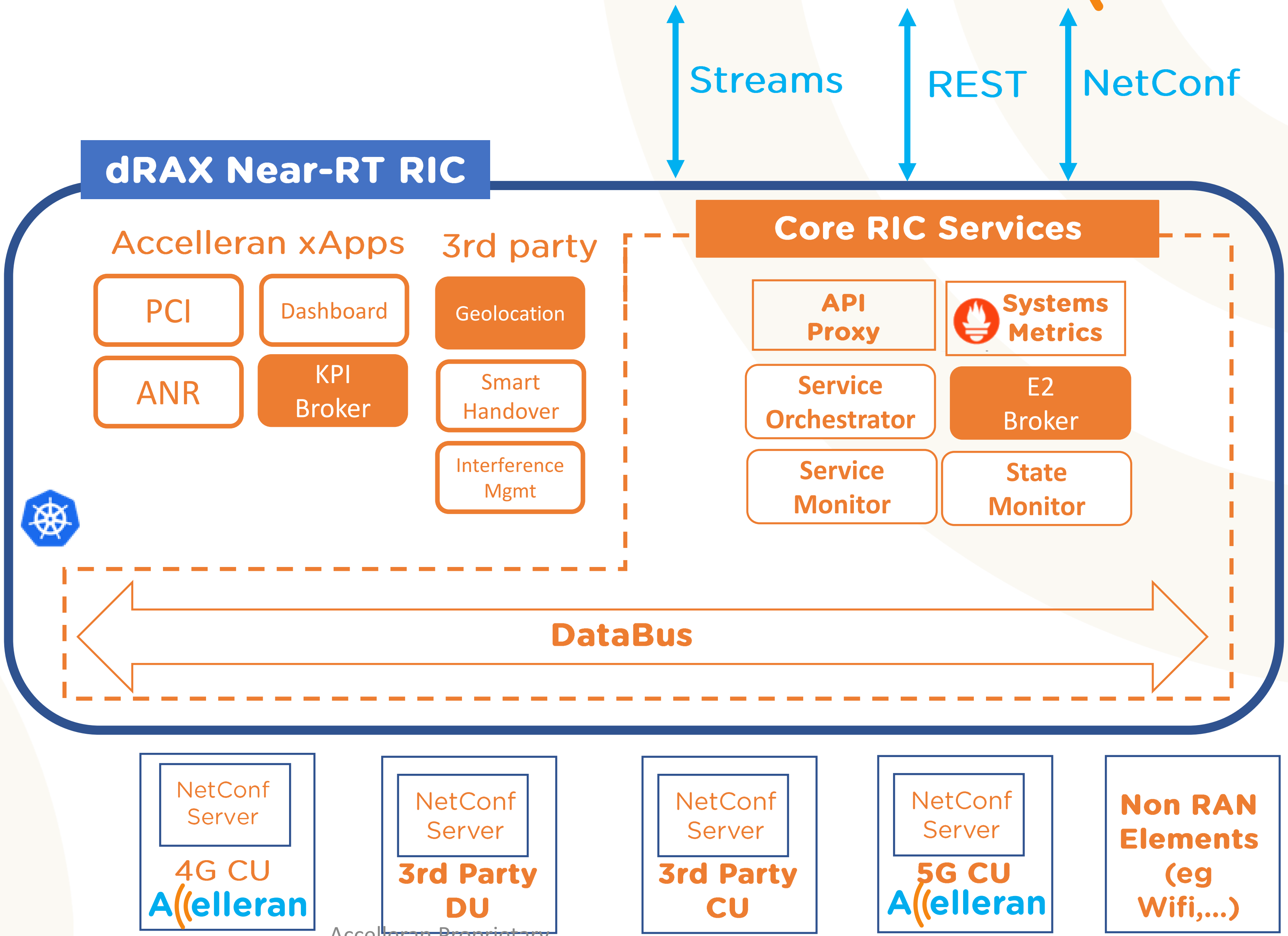
- Existing customer References
- Community & Support
- Easy Installation (Helm)
- Real RAN Components support
- Cloud Native

Databus Pub/sub Messaging

- CU data & control hooks
- inter-xApps communication
- Security
- Open to 3rd Party CU/DU/…

Core RIC Services

- xApps Lifecycle Management
- Policy Management
- Orchestration
- API Proxy
- E2 Broker*



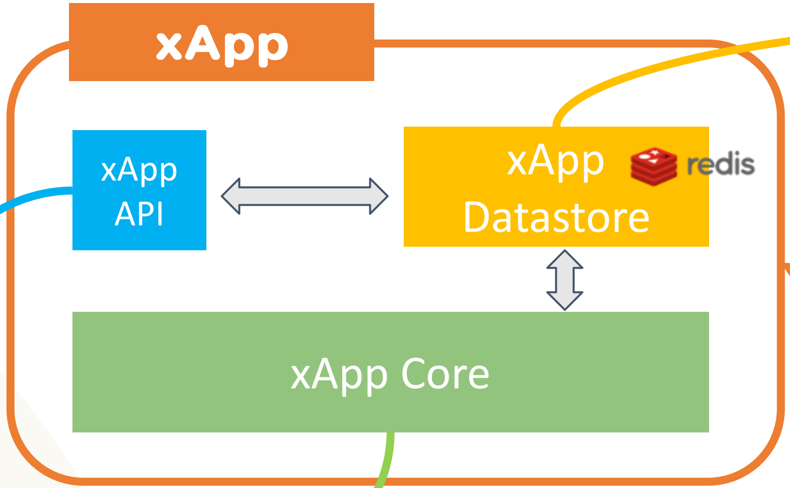
dRAX RIC Platform : xApp Framework

Accelleran

- xApp Container Template cloned from Github
- The developer only focuses on the xApp Algorithm itself in xApp Core
- The xApp framework provides seamless integration with RIC (REST API,…)

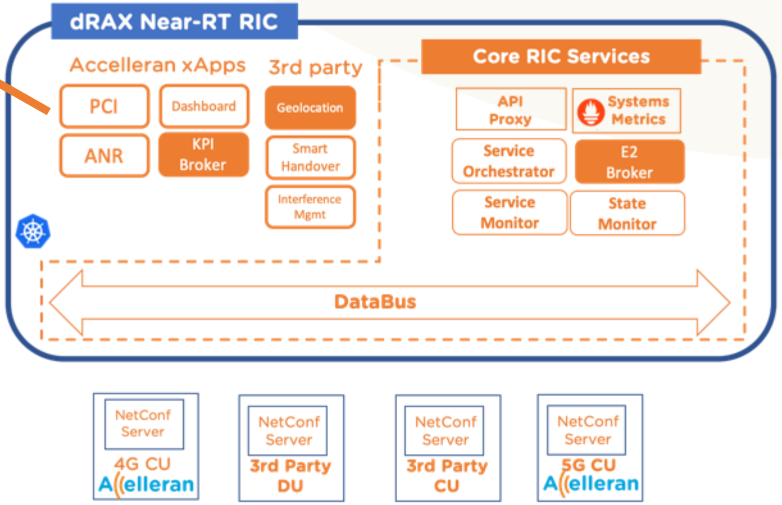
xApp API

- REST API that exposes the run time configuration of the xAPP
- Use it to configure and inject policy in the xApp
- Endpoints exposed: /config (GET,PUT, DELETE, POST), /health/alive, /health/ready and DataBus



xApp Datastore

- xAPP configuration is persisted in REDIS
- REST API talks to REDIS to expose the configuration data for the xApp
- xApp loads the configuration from REDIS and monitors it for changes to update the real-time configuration of the xApp



xApp Core

- **THE ONLY FOCUS OF THE DEVELOPER**
  Developer implements algorithm on **xApp Core**

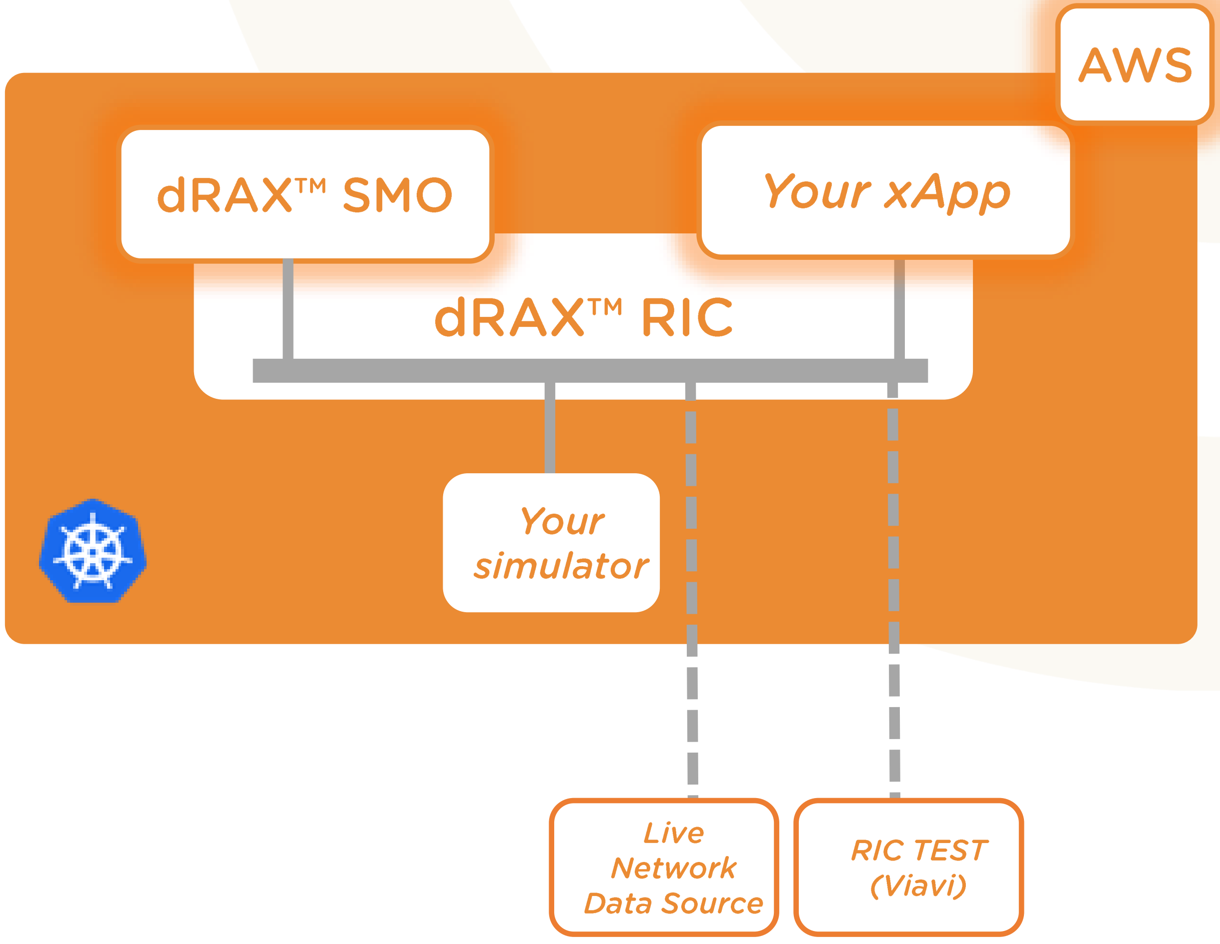
dRAX RIC Developer Kit

Content

- dRAX RIC Development Platform including x/rApp Developer Framework & SDK
- Hosted in AWS or on-premises
- rApp and xApp development
- Developer Guide
- Training

Scenarios

- RIC xAPP/rApp development with dRAX SDK (Python) including x/rApps Lifecycle
- Connect to the dRAX Data Bus and collect data
- Ability to create own data sources for specific use cases



dRAX RIC : App Store for the RAN

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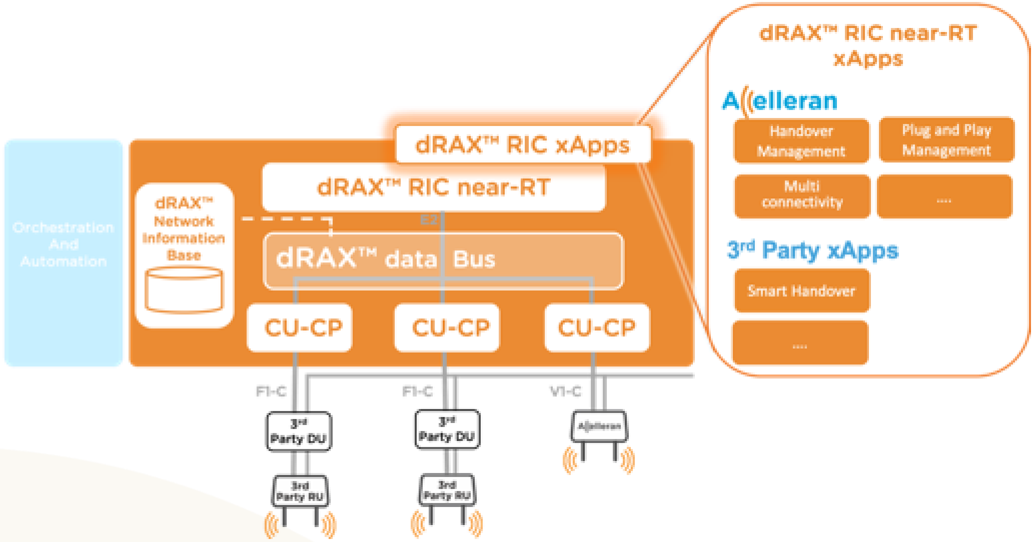
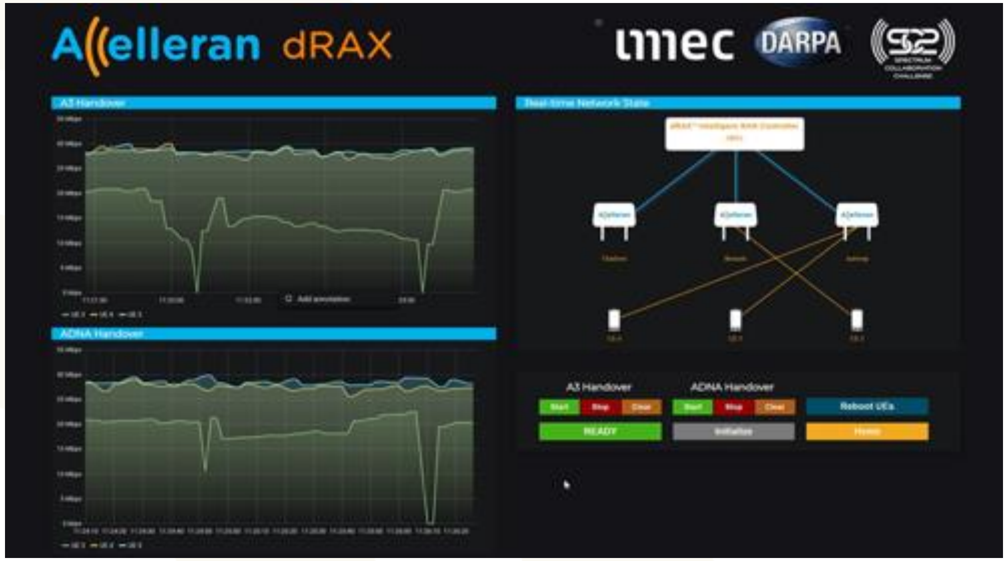




RAN Apps

Accelleran Focus :

Plug'nPlay/Easy Instal, ANR, MultiConnectivity, NH Multiple RIC

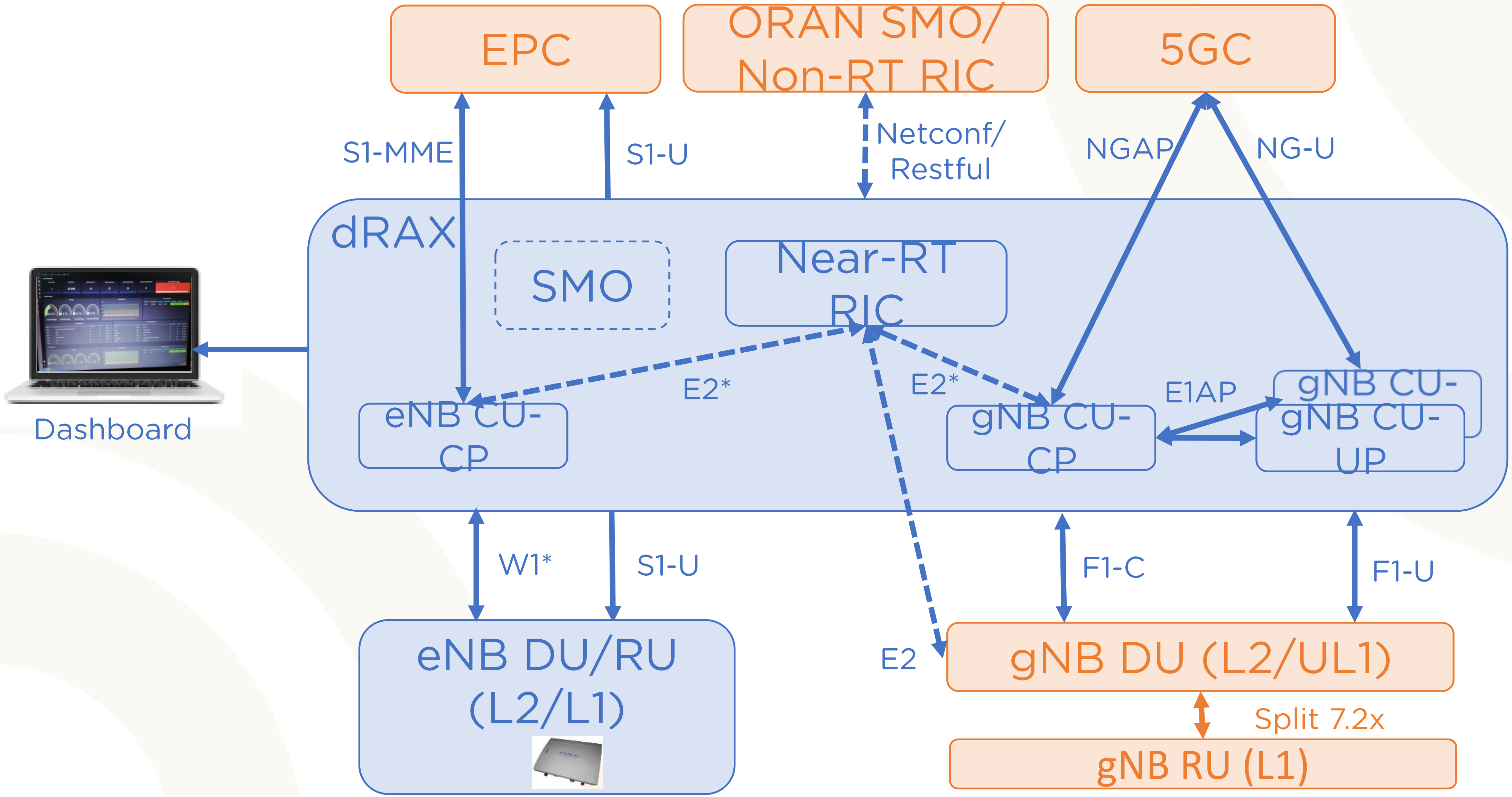
Partnerships xAPPs

BT — Interference Management

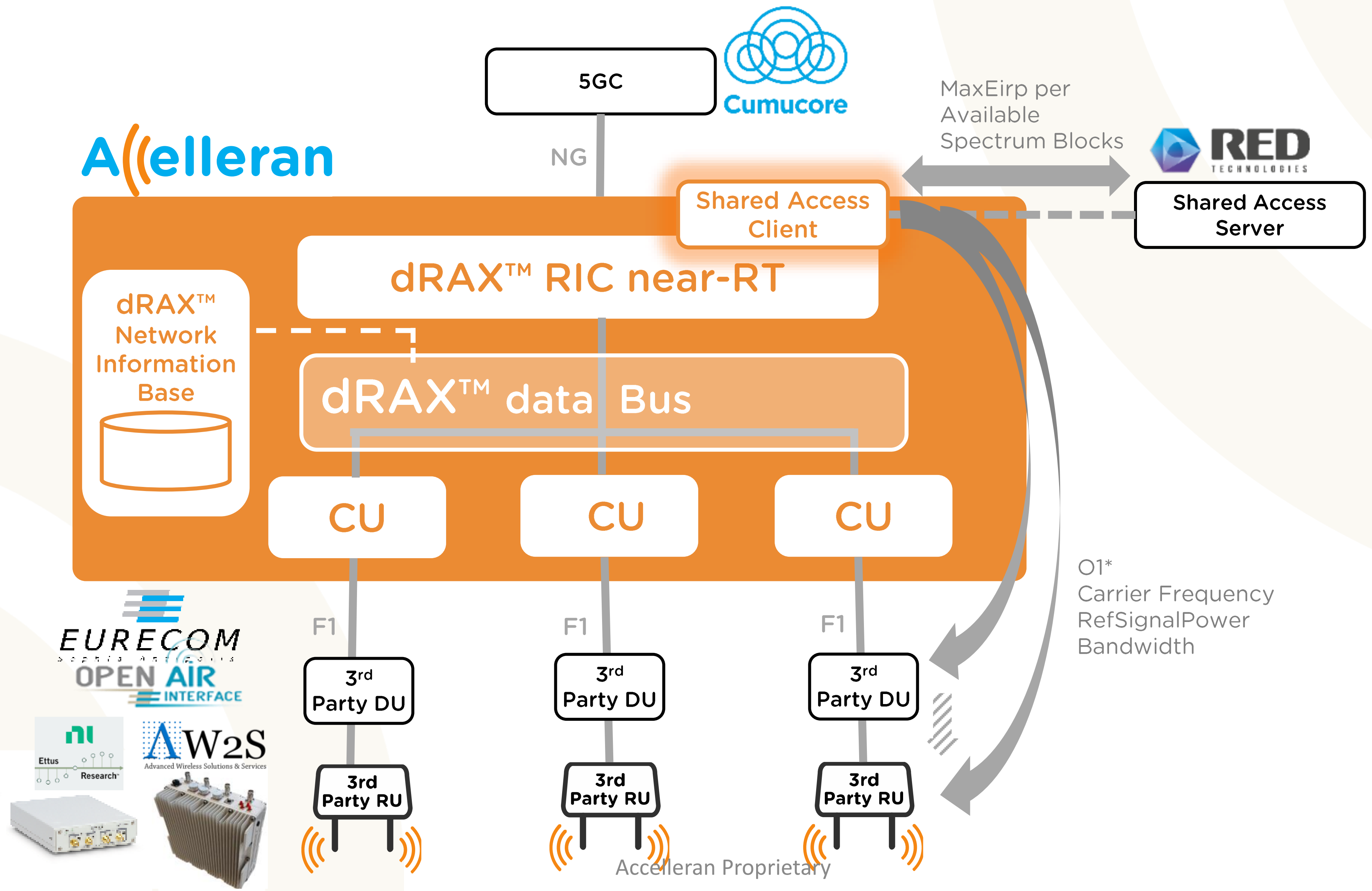
TELECOM INFRA PROJECT — RAN Intelligence and Automation

imec — Smart HandOver (Joint IP)

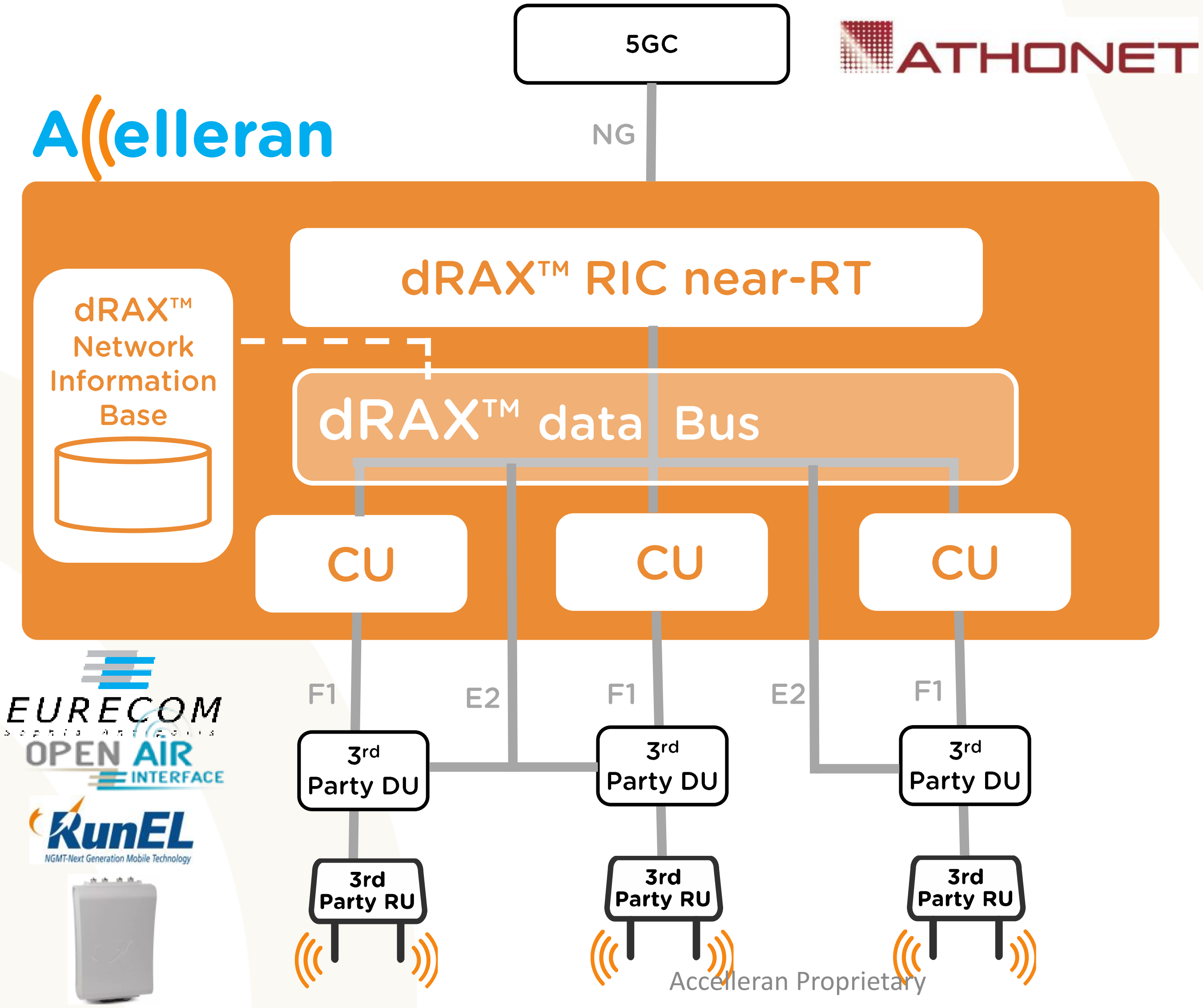
4G+5G SA with dRAX™



dRAX 5G OAI in R&I 5G-RECORDS



dRAX 5G OAI in R&I Affordable5G



Thank You