



Cloud-Native Multi-Vendor 5G Open RAN Blueprint In Action

BubbleRAN

Osaka Meeting on 20/06/2023



Why BubbleRAN?

3 Facts

- (1) A vendor-neutral, open, and trustworthy telecom network accessible to All
- (2) Fully software-based 4G/5G networks and its cloud-native delivery as a service
- (3) Emergent open ecosystem, where everyone can join, innovate and make benefits

We believe in Open RAN/O-RAN

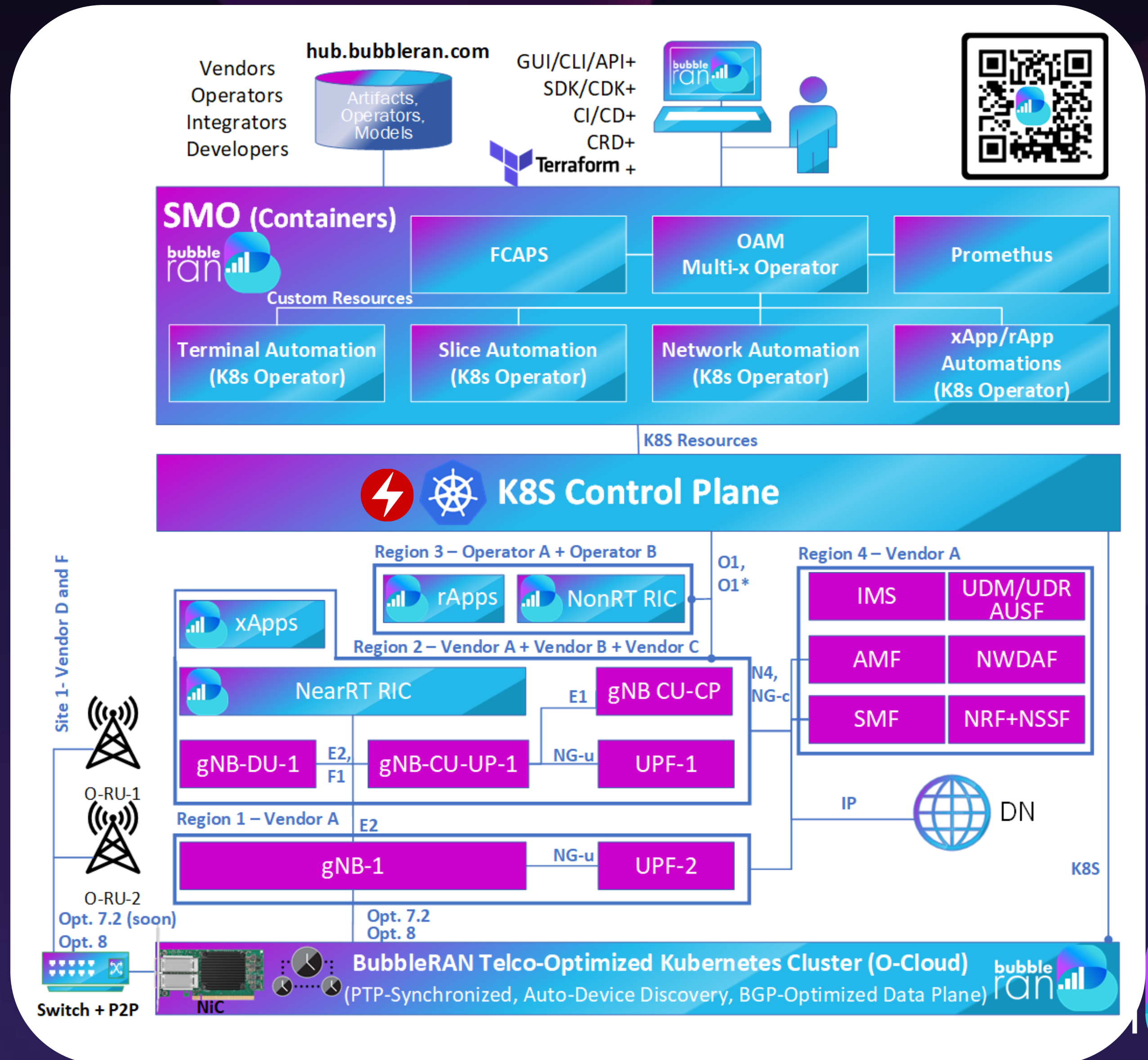
(A **collective action** in building an open telecom network that complies to 3GPP)



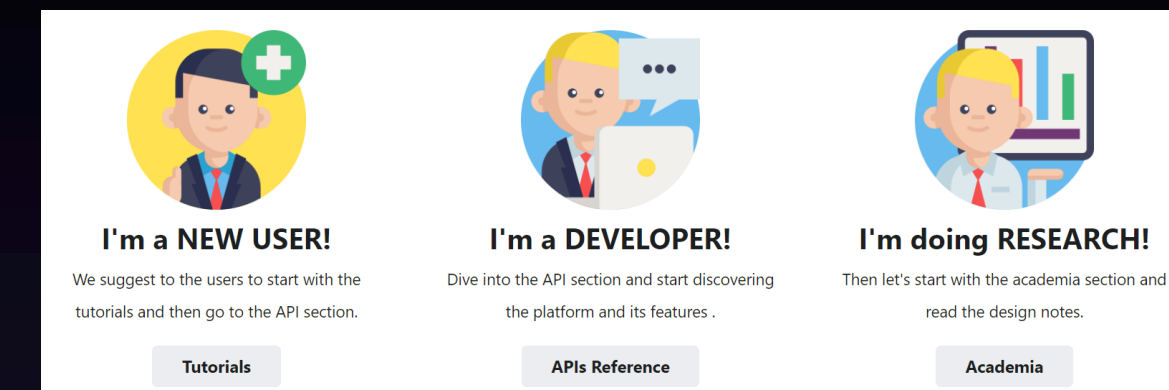
Cloud-Native Multi-Vendor 5G Open RAN Blueprint

Feature set

- Cloud-Native Automation: Infra & WL
- Multi-x Support: Vendor, version, RAT, RF
- Consistently Reproducible and Repeatable
- No performance loss and Low Overhead
- Agile, Scalable, and Extendable
- Intelligent and Observable
- Declarative Design and Idempotent Operations
- Resilient and Fault Tolerant
- Green and Sustainable
- Secure and Isolated Workloads



MX-Operator/OAM Ops



Step	Operation	Description	Day
0	infra	Extract provisioned resources in the cluster including RUs	0
1	blueprint	Design/describe an E2E network: slice, access, edge, core	0
2	install	Deploy the network blueprint	1
3	observe	Check the status and readiness of the deployed network	1
4	test	Measure/monitor the E2E performance	2
5	extract	Get information about network: log, config, relation	2
6	Remove	Delete the deployed network	2
7	cic	Embedded workload commands	2
8	upgrade	Roll out any operation: (re-)config, upgrade	2
9	Scale	Replication a service or a workload	2
10	slice	Create a 3GPP slice	2

Video Demo

<https://youtu.be/3pRuP6nldbW>



Observations

- **Auto-resource discovery:** Resources of the infrastructure is automatically discovered and exposed to the user by a simple command.
- **Readiness:** Even with the agile deployment process, Network readiness indicates 99% service assurance, verifiable via observability.
- **Simplicity:** No expertise of cloud is required to Operate the network!
- **Automation:** Automated and agile lifecycle operations and controls
- **Scalability:** Scalable deployments in a distributed and heterogeneous environments
- **Zero down-time:** Reconfiguration on-the-fly across the whole deployment while retaining service continuity
- **UX:** Adherence to the current user experience by exposing native workload commands



Thank You

Linkedin:

<https://www.linkedin.com/company/bubbleran>

Open RAN Studio Mini-Series:

<https://bubbleran.com/media/news.8/>