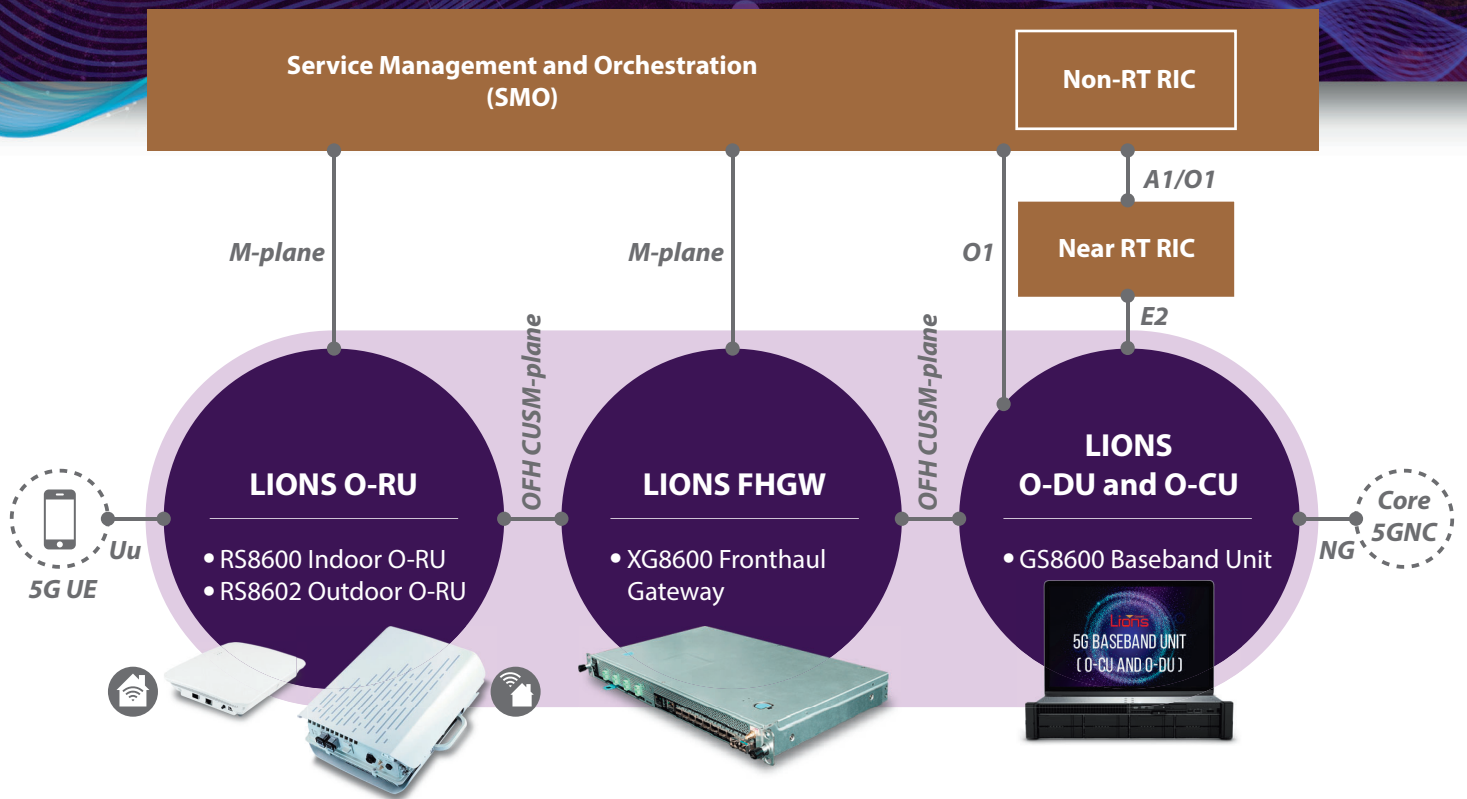# LIONS
Concord

RANathon

5G O-RAN gNodeB

- **Indoor and outdoor radio coverage**
- **Flexible network deployment by Fronthaul Gateway**
- **Pre-integrated for performance and reliability**

Service Management and Orchestration (SMO)

Non-RT RIC

A1/O1

Near RT RIC

O1

E2

M-plane

M-plane

OFH CUSM-plane

OFH CUSM-plane

Uu

5G UE

LIONS O-RU
- RS8600 Indoor O-RU
- RS8602 Outdoor O-RU

LIONS FHGW
- XG8600 Fronthaul Gateway

LIONS O-DU and O-CU
- GS8600 Baseband Unit

5G BASEBAND UNIT (O-CU AND O-DU)

NG

Core 5GNC

O-RAN ALLIANCE

TELECOM INFRA PROJECT

Deployment

1 cell per BBU

Master FHGW

BBU

Cascade

Slave FHGW

Connecting up-to 8 O-RU per FHGW

Connecting up-to 8 O-RU per FHGW

Features

- Flexible deployment for various phases of 5G network development
- 3GPP R15 5G NR Sub-6 SA for 5G wireless applications
- n78, n79, or n48 for private 5G in Germany, Japan, Taiwan, United States, and other countries.
- O-RAN 7-2x split architecture and Fronthaul interface support CUSM planes
- O-RAN PlugFest verified fronthaul/end-to-end IOT and security/stress/stability tests
- 3GPP TS 33.511 Security Assurance Specifications (SCAS) for gNodeB compliant

Key specifications

Network Element	Description
5G Baseband Unit	3GPP R15, 3GPP TS 38.104, O-CU and O-DU CUSM plane/ FPGA PCIe acceleration card/ Backhaul: NG for 5G Core Network/ Fronthaul: O-RAN 7-2x Category A split; eCRPI/ Registered UEs : 400/ Activated UEs : 128 : UEs per TTI : 8/ O1 and EMS management
5G Fronthaul Gateway	Open Fronthaul Uplink aggregation and downlink relay/ Interface: O-RU: 10G SFP+ eCPRI x 8; BBU: 10G SFP+ eCPRI x 1; FHGW cascading: 10G SFP+ x 1/Synchronization: 1588v2; SyncE; GPS/ Remote powering for indoor O-RU
5G Indoor O-RU	Frequency: n78, n79, or n48/ Bandwidth: 100MHz/ MIMO: 4T4R/ 250mW (24dBm) per channel/ Built-in omnidirectional antenna/ 10G SFP+ eCPRI x1 for Fronthaul/ 1588v2 and SyncE synchronization
5G Outdoor O-RU	Frequency: n78, n79, or n48/ Bandwidth: 100MHz/ MIMO: 4T4R/ 5W (37dBm) per channel/ External antenna with N-type connector/ 10G SFP+ eCPRI x1 for Fronthaul/ 1588v2 and SyncE synchronization