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Wireless Access Network

ORAN, the future of wireless architectures

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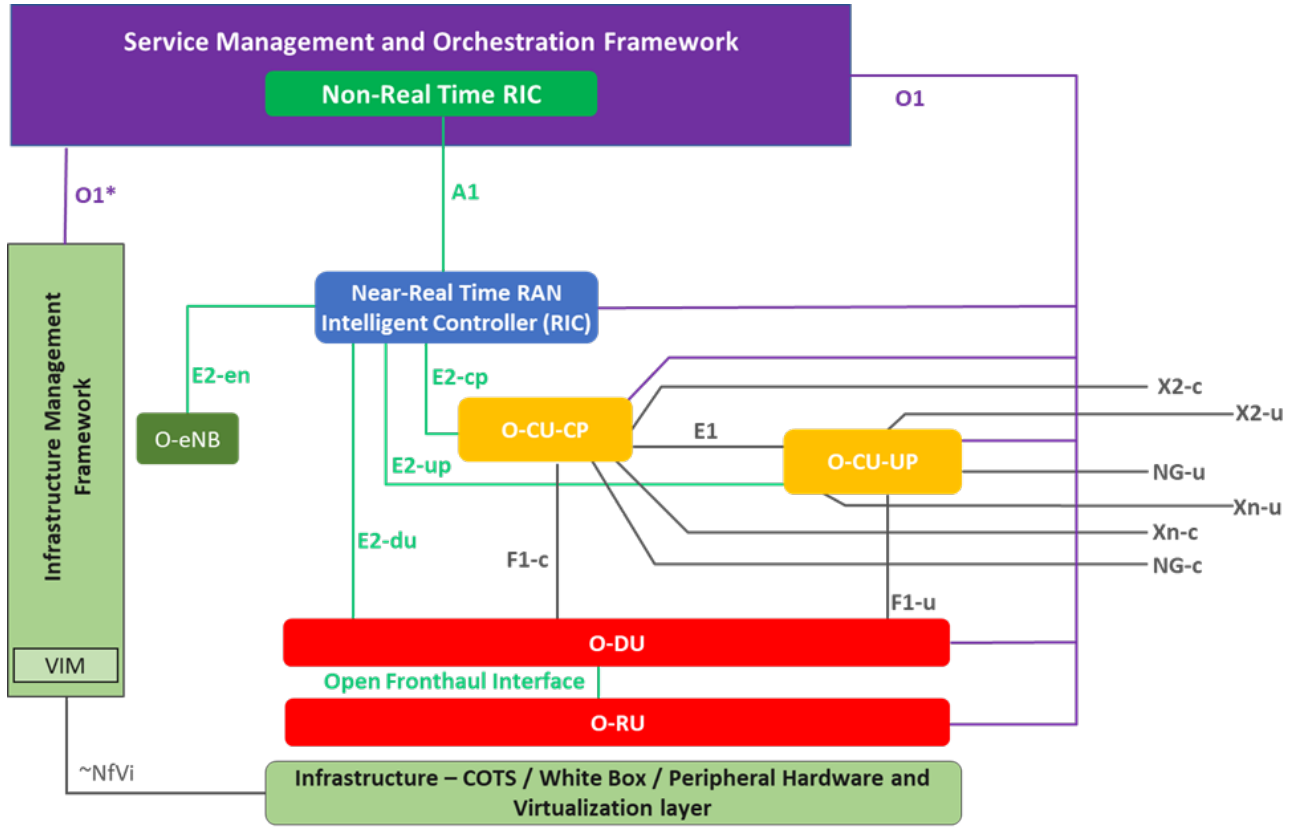
What is ORAN

- Conflation of O-RAN and OpenRAN
  - O-RAN – O-RAN Alliance
    - Industry consortium founded Feb 2018
    - AT&T, China Mobile, Deutsche Telekom, NTT DOCOMO and Orange
  - OpenRAN – Telecom Infrastructure Project working group
- Standardized interface definitions allow for mixed vendor deployments
  - Can still be single vendor implementations



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Arguments against ORAN

- Supply chain simplicity
  - One throat to choke
  - Simplifies training and warehousing
- Operator becomes system integrator
  - Interop must be resolved at design and anytime a component is updated

Many US Operators are in "wait and see" mode

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Supply Chain Advantages

- Mitigate supply chain disruptions
  - Natural Disasters
  - Pandemics
  - Industrial accidents
- Limited to suppliers roadmap and vision
  - Constrains ability to introduce new functionality
- No vendor can be the best at everything
  - ORAN allows for selection of best of breed

Diversity lowers risk and increases flexibility

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Systems Integration

- Balance effort vs Risk
  - Decide on which integration task to take on
- TIP OpenRAN exchange
- Ecosystem of experience ORAN integrators exists and is growing

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ORAN and Security

- Obscurity is not security
- Open systems have security advantages
  - Issues identified and resolved more quickly
  - Large community of developers can outpace a small in-house team

Open systems allow operators to deploy fixes themselves if they wish

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Network Agility

- Modern telecom networks are evolving at a quicker pace
  - Increased demand for bandwidth and lower latency
  - New technology requirements
    - IoT
    - Industry 4.0
    - Gaming
    - AI/ML
    - Autonomous vehicles
- 5G use cases will require orders of magnitude more radios deployed

Networks must become more adaptable and agile

Open best supports this

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Opportunities for new revenue

- Past open systems have increased innovation
  - IBM PC
  - DOCSIS

- Flexible networks can adapt more quickly to customer demand
- SCTE GAP will also help speed innovation and lower costs
  - Support for multi-service edge
    - Enterprise 5G
    - IoT
    - Smart cities
    - Edge gaming

Open networks can deliver the next generation network vision

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Conclusion

- Operator isn't forced to be system integrator
- Growing ecosystem of suppliers increases choice
  - Operator can still elect to deploy single vendor ORAN architecture
- Open allows operator to define network vision not vendor

ORAN supports agile and programmable network of the future

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Thank You!

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