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
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
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
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
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
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
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
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
Thank You!

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