

Driving Innovation with Open RAN

A Cisco Knowledge Network Event

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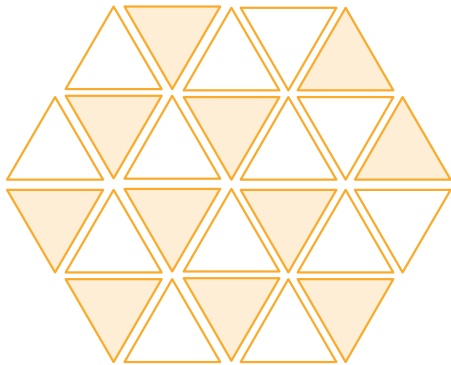


Agenda

- State of Open RAN
- Operator Networks
- Private Networks
- Wrap-up, Q&A

Systems Evolution → Modularity

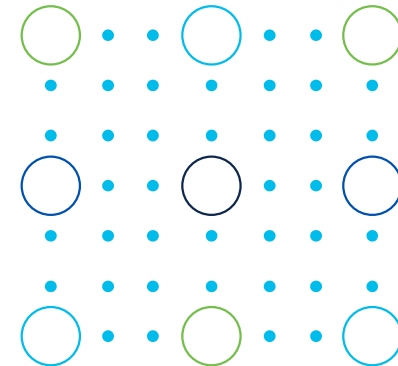
Interdependent



- Proprietary interfaces
- Optimized for function and reliability
- Slow adaptation
- Fixed value chain
- Creates industries



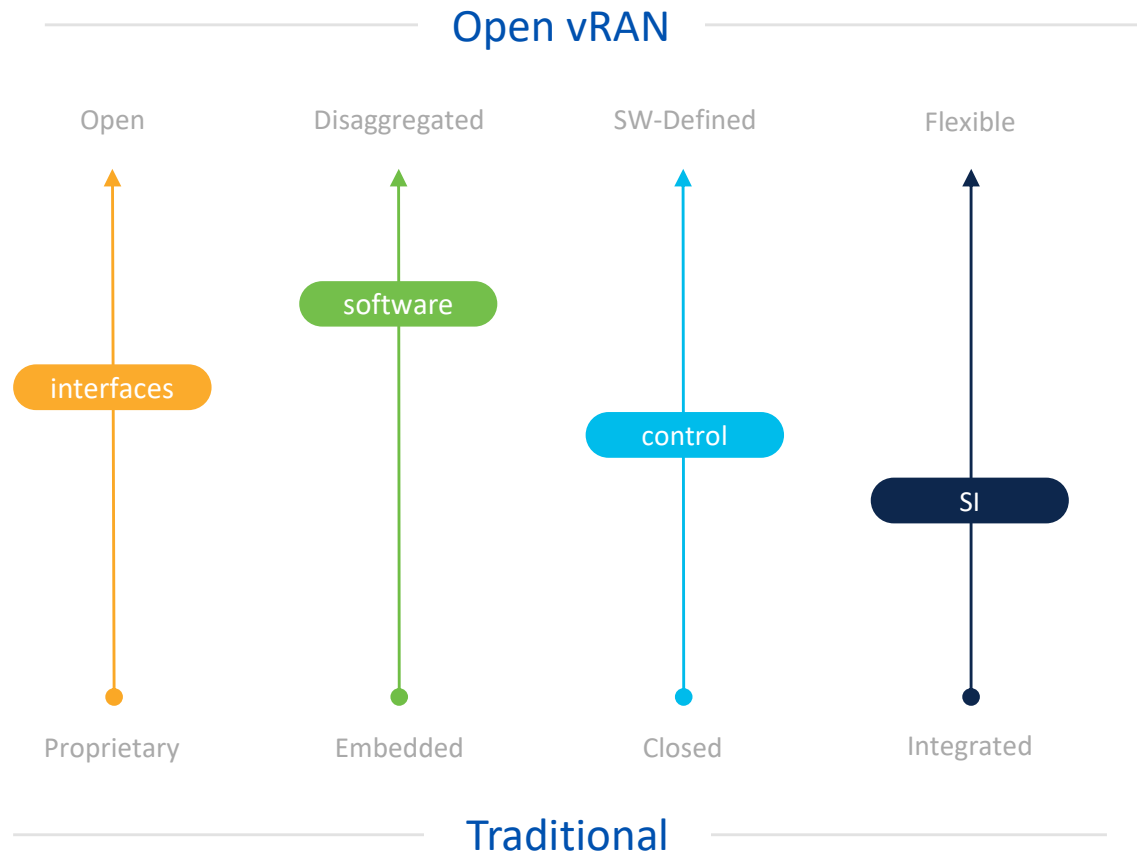
Modular



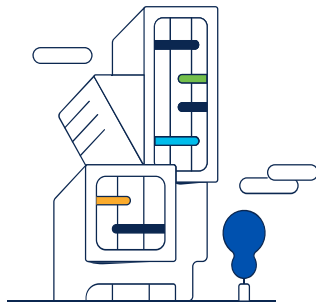
- Standardized interfaces
- Flexible; optimize for cost, functionality, reliability, etc.
- Rapid adaptation
- Variable value chain
- Expands industries

After 5 years, where are we?

Definition, Availability, Implementation



Different Markets, Different Needs



Mobile Operators use and value

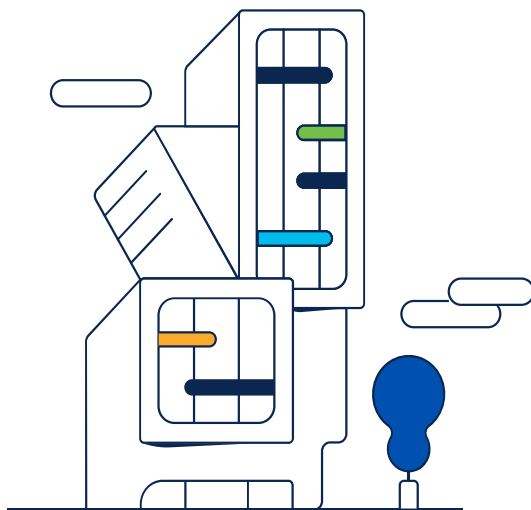
- Network is the business
- Homogeneous
- More measured service iteration
- Broad monetization



Enterprise and Industry use and value

- Network powers their business
- Heterogeneous
- Move fast, evolve quickly
- Specialized applications drive business value

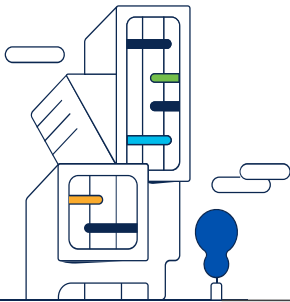
Different Markets, Different Needs: Mobile Operators



Mobile Operators



Enterprise and Industry

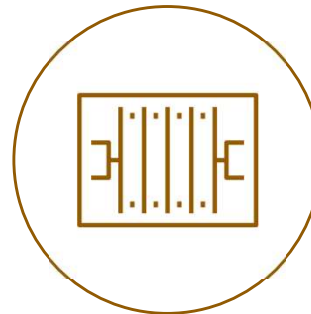


Greenfield Networks

Have chosen open RAN

Mobile Operators

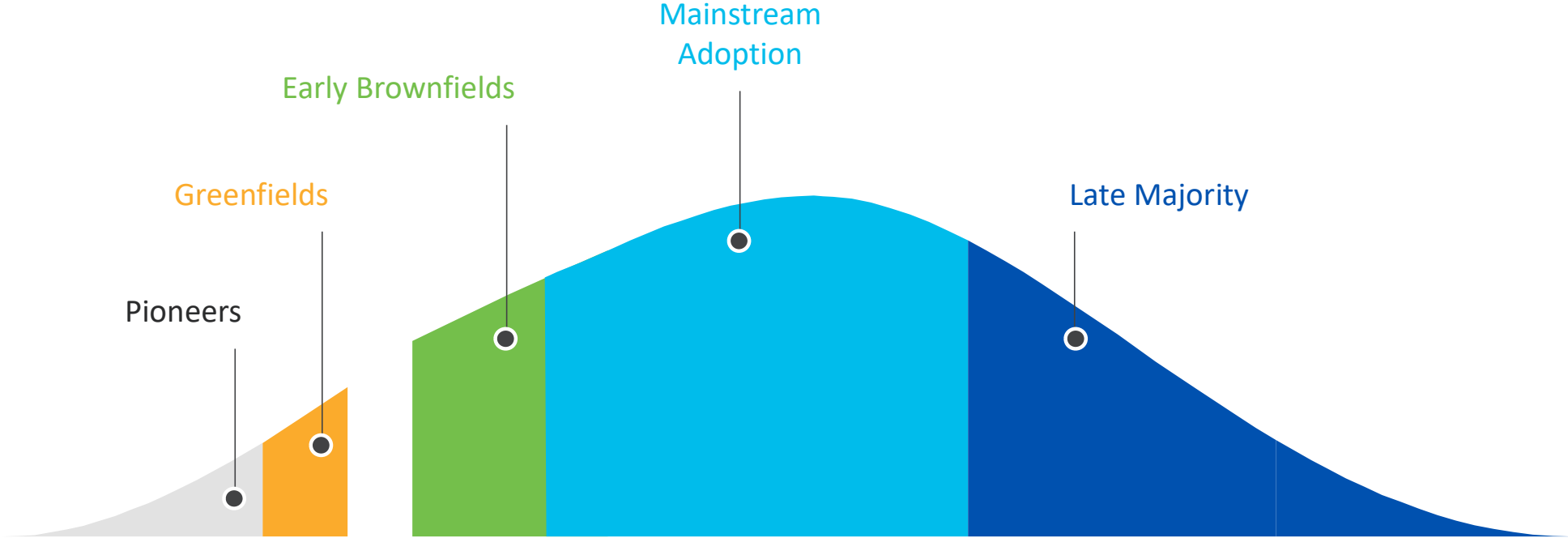
State of open RAN
macro networks



Brownfield Networks

More complex requirements and
integration drive slower adoption

Open vRAN Market Evolution

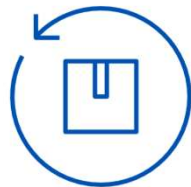


Open RAN Macro Options



Build with new Open RAN vendors

- Mix and match vision more challenging for brownfield
- Stack layer dependencies – e.g. mMIMO
- Beyond technical - Integration and interoperability



EXISTING

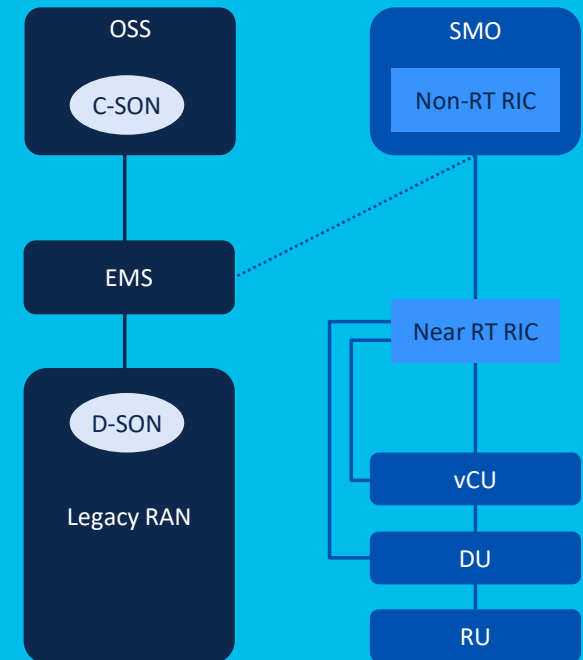
Evolve with existing vendors

- Virtualizing software – vBBU – vCU + vDU
- Splitting RU - ORAN splits
- Network modernization

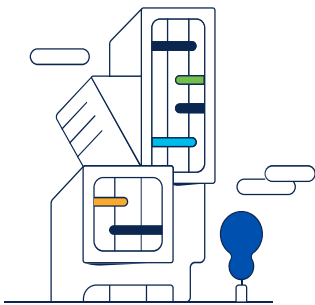


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RAN Intelligent Controller Control, Optimization, Automation



- RIC with ORAN interfaces is enhancing and replacing legacy model
- Software-defined RAN



Mobile Operators

No longer a question of if, but when

- Some operators are deploying, forecasts are increasing
- Virtualization, programmability, optionality
- Software-defined RAN

What operators are doing now

- Network modernization - Transport, data center, automation
- Working with, and supporting open RAN ecosystem
- Pushing incumbents for openness
- Deploying/planning deployments

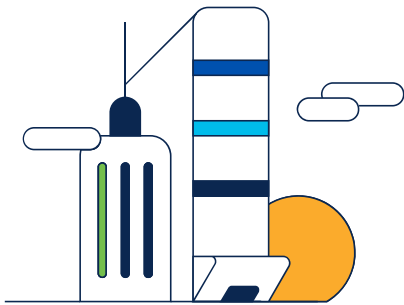
Different Markets, Different Needs: Enterprise and Industry



Mobile Operators



Enterprise and Industry



Enterprise and Industry Challenges

- Hybrid Work
- Industry 4.0
- ML/AI
- Spatial Web / Metaverse



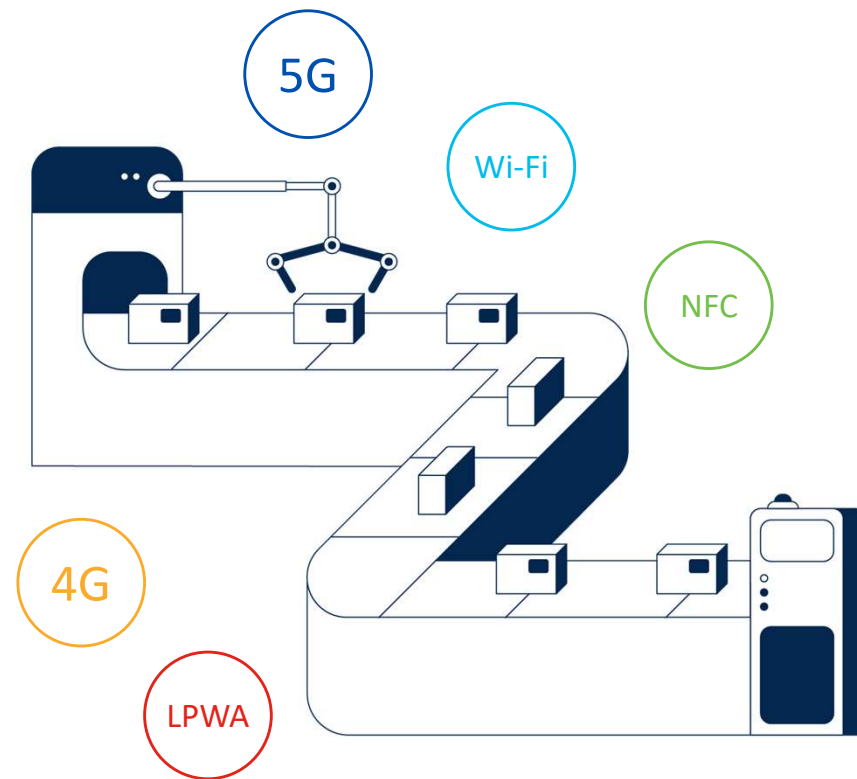
variety of devices | diverse environment | must plug into existing operations

Leading edge requirements: positioning accuracy | latency | reliability

Must keep pace with state of art – R16, R17, R18 → 6G

Enterprise and Industry Need for simplicity!

By 2025, 60% of enterprises will be using five or more wireless technologies simultaneously*



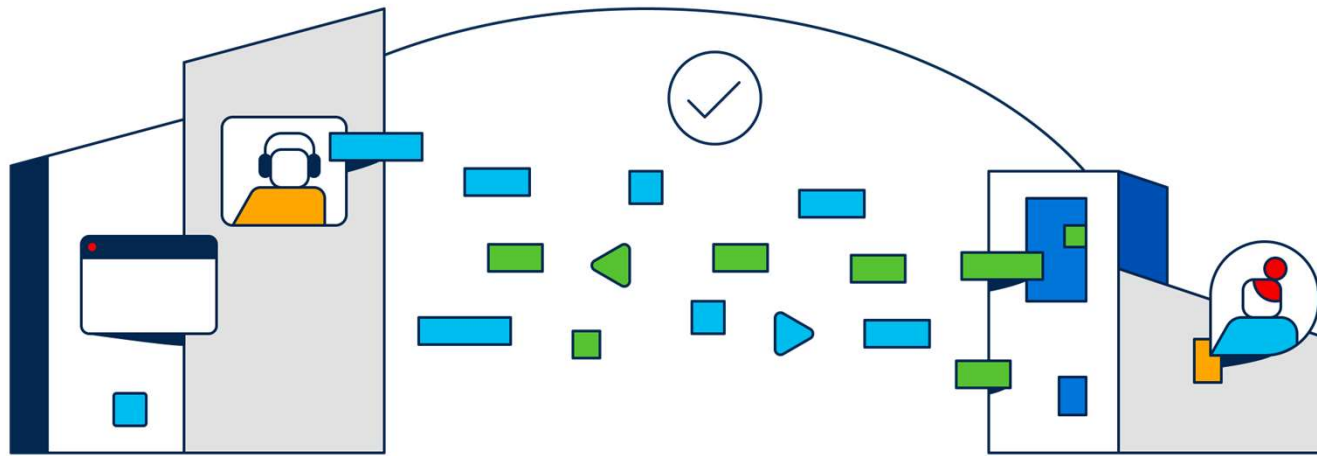
*Gartner Identifies the Top 10 Strategic Technology Trends for 2023



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A Collaborative Ecosystem

developing the ecosystem and fostering collaboration

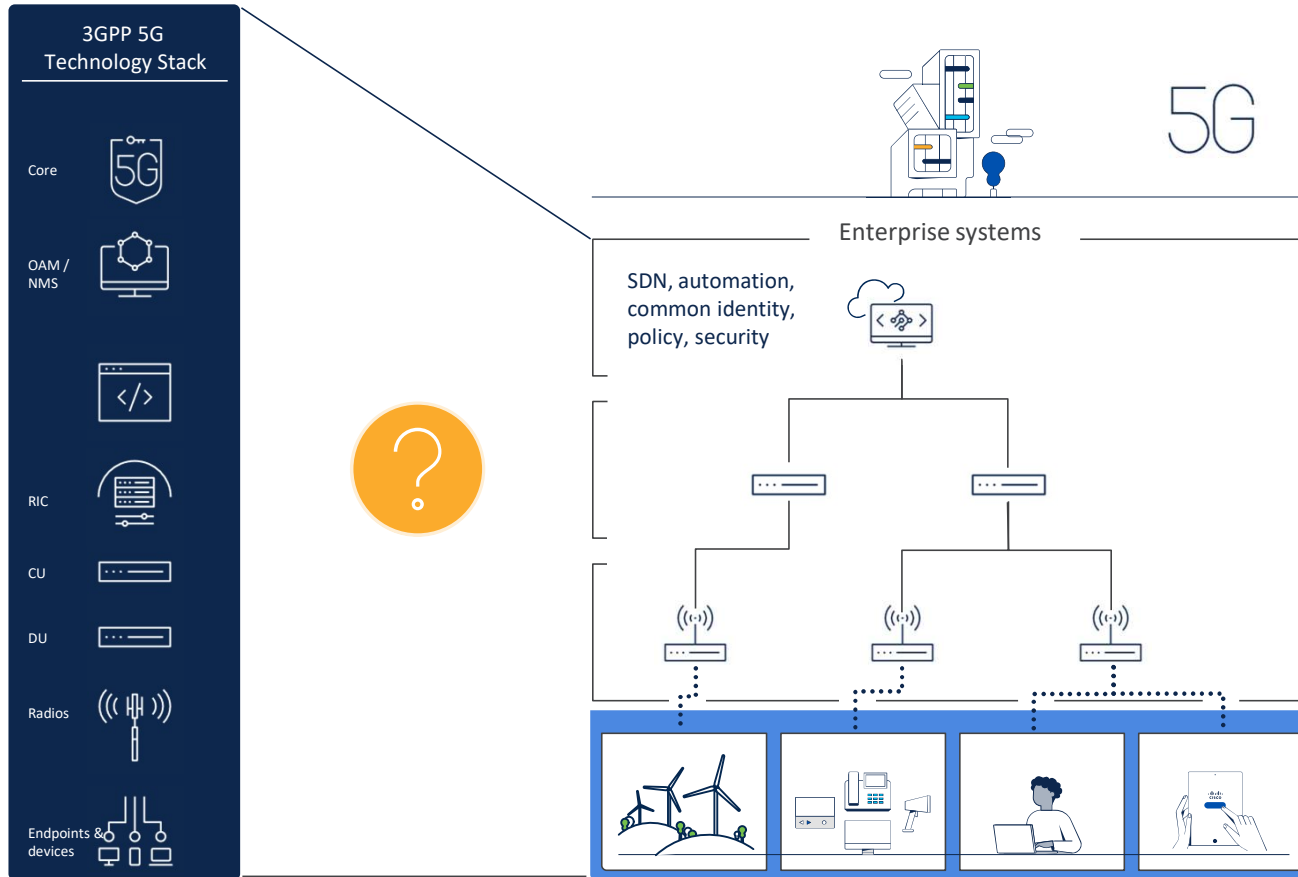


Enterprise and Industry

interoperability and compatibility are crucial

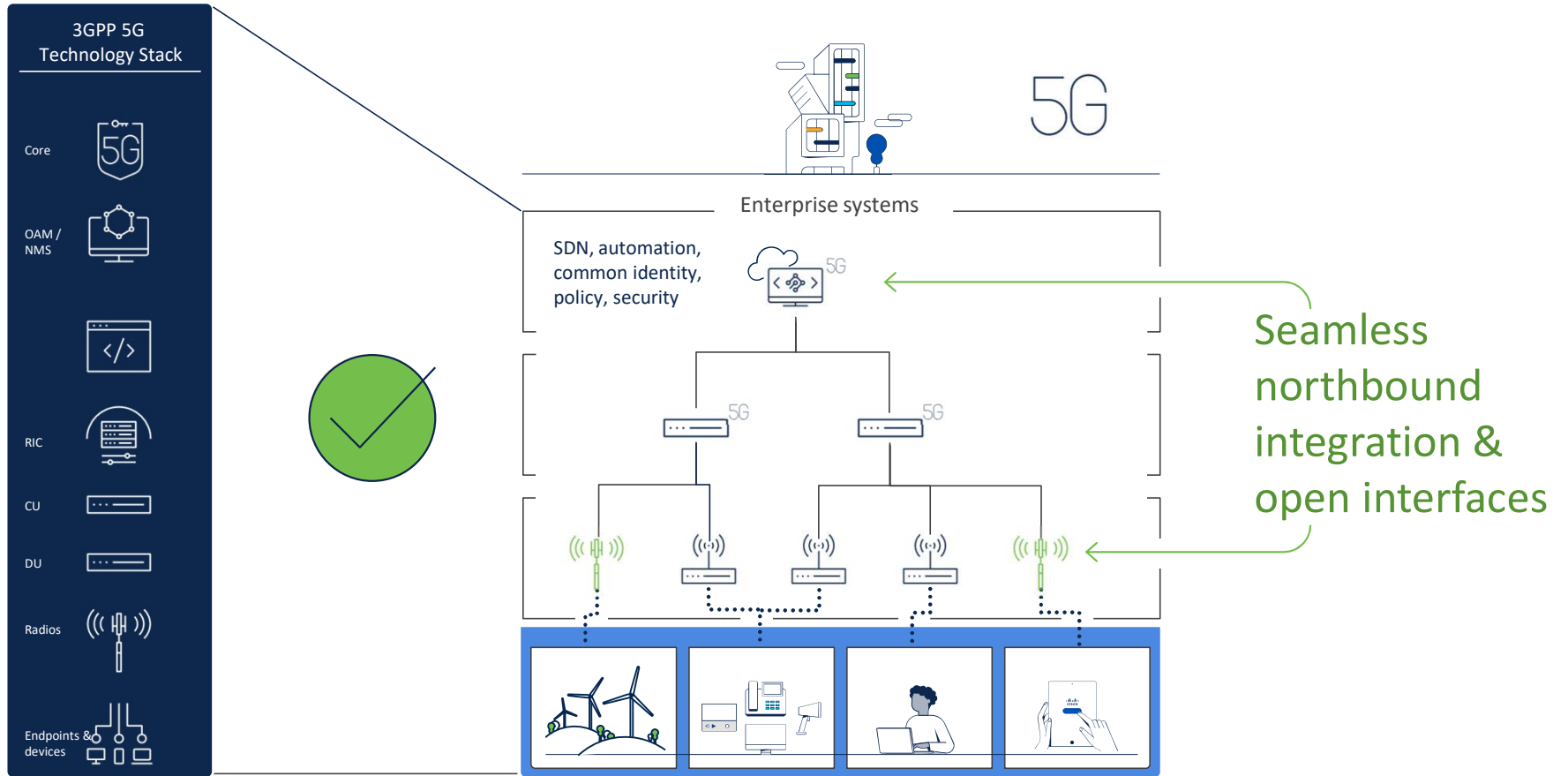
incompatibilities slow us down, cause confusion, and lead to inaction

Bringing 5G to the Enterprise



How can 5G transparently integrate into an enterprise world?

Bringing 5G to the Enterprise





Enterprise and Industry

Open RAN will enable greater enterprise adoption

Keys to success

- Diverse environment requires flexible options
- Software defined - open and programmable
- API-centric, not hardware-centric
- Nimble to keep pace with state of the art
- Delivered by MSP, as-a-service

the velocity of success is dependent on merging into existing operations models

Open RAN is taking off



- Unlocking innovation and flexibility
- Stay focused – commitment to standards, options, investment, deployments
- Build the foundation for the future – don't replicate the past



The difficulty lies not so much in developing new ideas as in escaping from old ones.

John Maynard Keynes

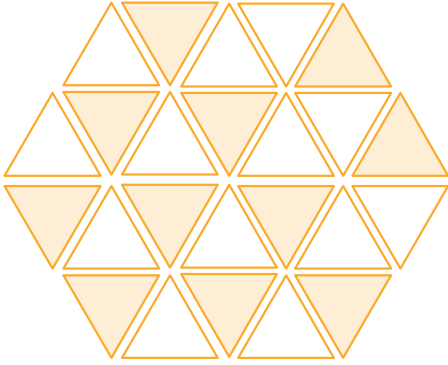
Questions





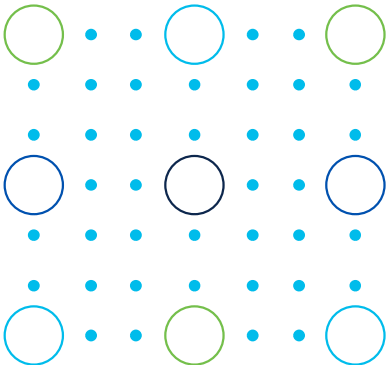
The bridge to possible

Moving to Modularity



Interdependent

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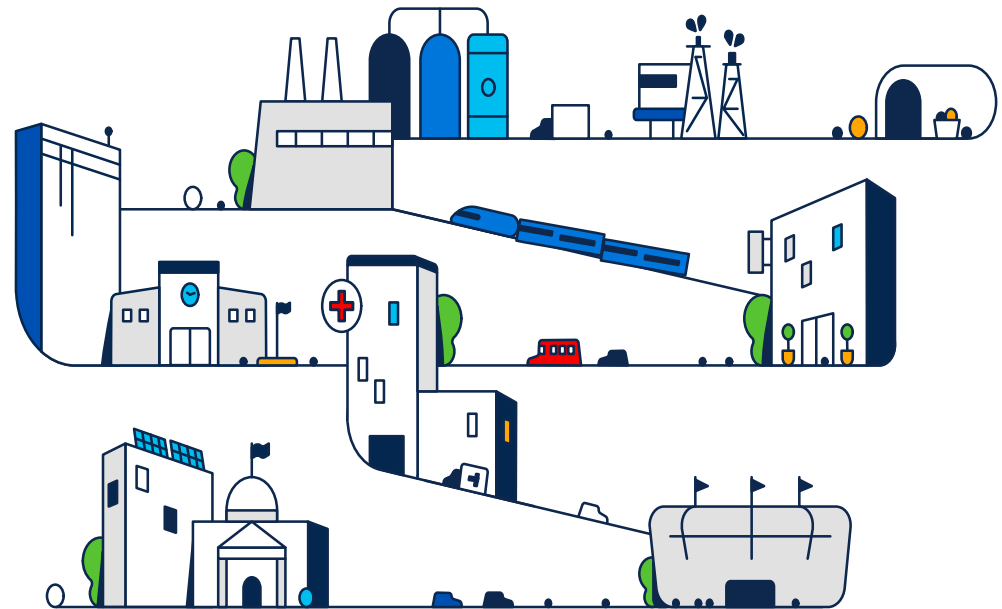


Modular

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Addressing Enterprise Challenges

- Hybrid Work
- Industry 4.0
- ML/AI
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