

Moving Beyond 5G: Technologies and Trends

IEEE NextG Summit

June 14, 2022

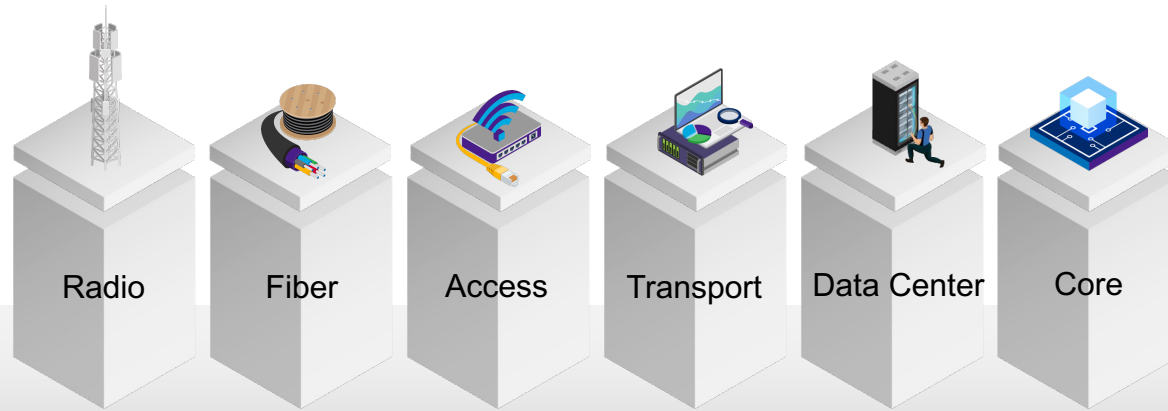
Dr. Ian Wong, Ph.D.

Director of RF and Wireless Architecture, CTO Office

Co-chair, Test and Integration Focus Group, O-RAN ALLIANCE

Co-chair, nG Research Platforms, nextG Research Group, O-RAN ALLIANCE

Only VIAVI Delivers Comprehensive Coverage for All Networks



Driving Thought Leadership in:

- 3GPP
- O-RAN
- TIP
- IETF
- IEEE

Innovations Deployed

2.3K+
patents

30 distinct
market segments

100K Data Centers
rely on VIAVI

1.6M+ instruments
deployed

10K+ Assurance
Systems Deployed

Global Operations

\$1.2B FY'21 revenue

137 countries

50 global offices

3600+ employees

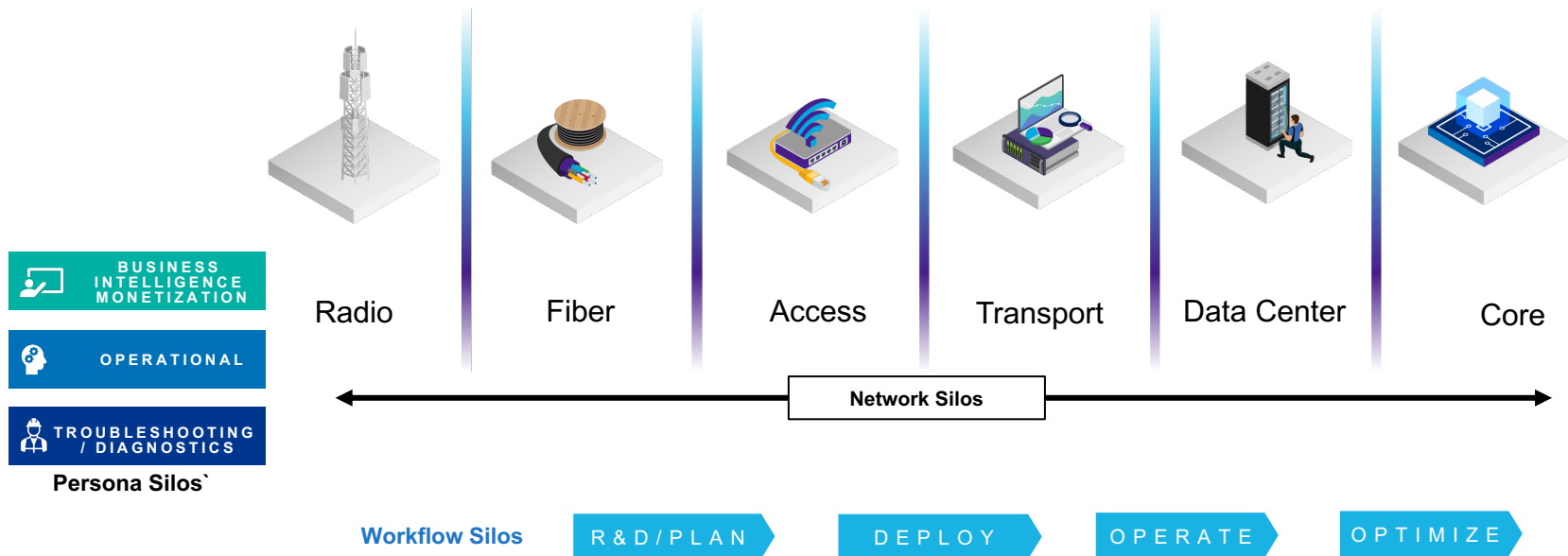
Trusted Partner

200+ world's largest SP's, NEM's, HCP's, SI's,

300+ partners

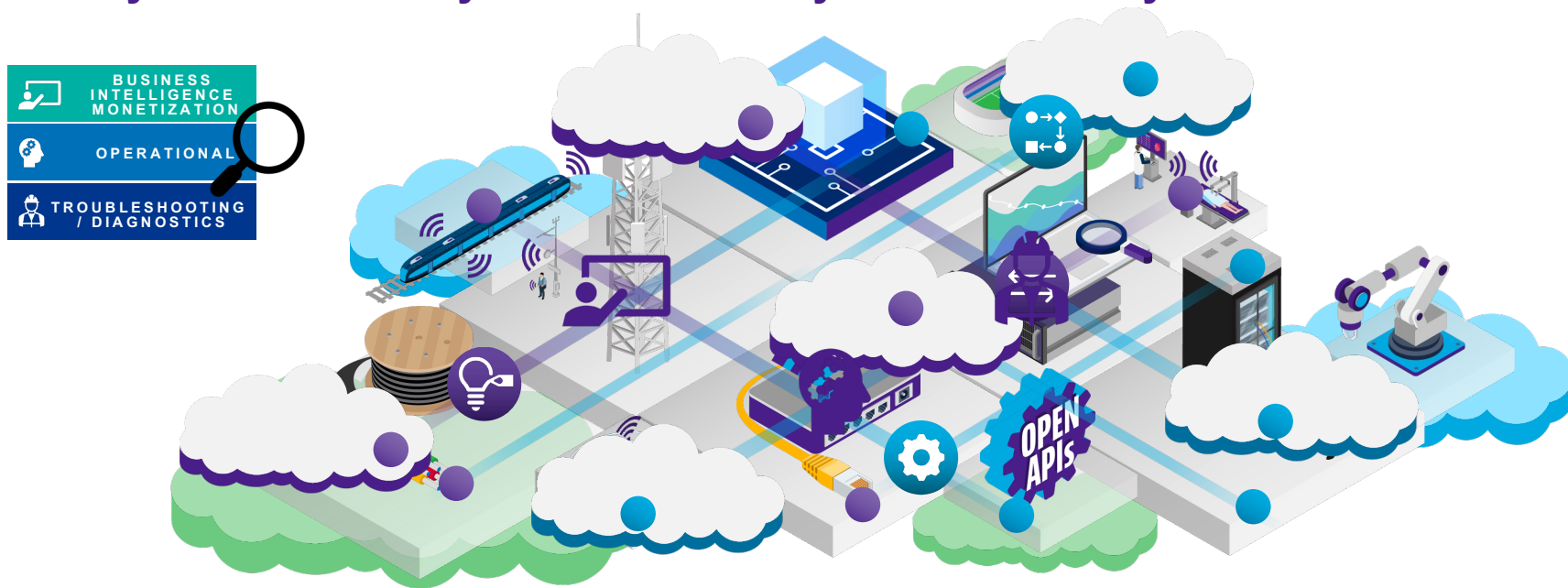
Siloed Point Solutions by Network, Workflow, or Persona No Longer Enough

There needs to be a single pane of glass view to ensure seamless end-user experience, across multiple personas, maximizing network investments and enabling automation.



Only VIAVI Provides Comprehensive Coverage for all Networks

Any Network. Any Workflow. Any Persona. Any Cloud. One Platform.



Set up a sandbox environment in real-time, leveraging a test as a service model for both cost efficiencies and scalability.

VIAVI and 5G

Test & Measurement 5G Firsts

- First 5G UE emulator, used by virtually all Base Station manufacturers
- First 5G Core Emulation Solution
- First Complete Test Suite for O-RAN Specifications
- First Complete Testbed for 5G-Aviation Interference Mitigation

Deep Experience

- Major industry and research initiatives
- Actively contributing to the development of well-defined and harmonized standards
- Proof of concept trials
- Supporting worldwide deployments of commercial networks
- Cloud-native, AI-powered, automated service assurance and optimization

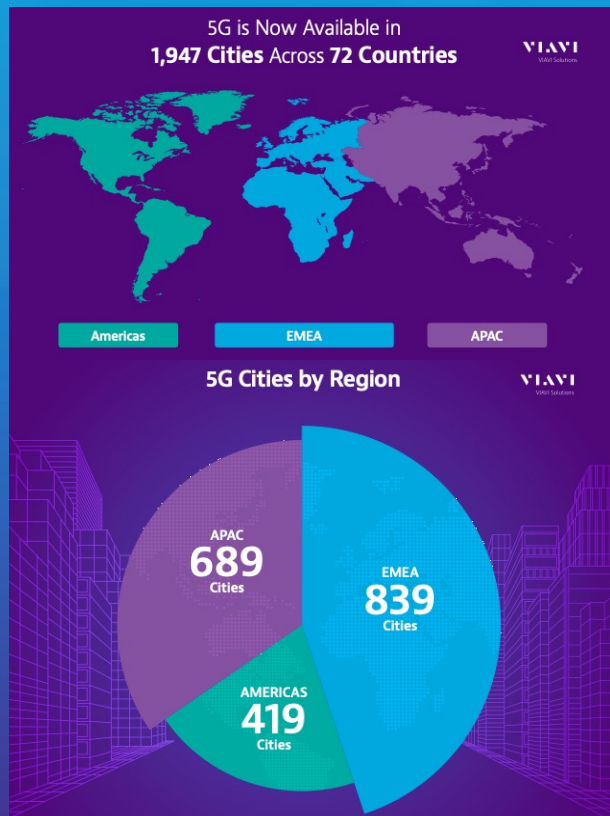
Industry Engagement



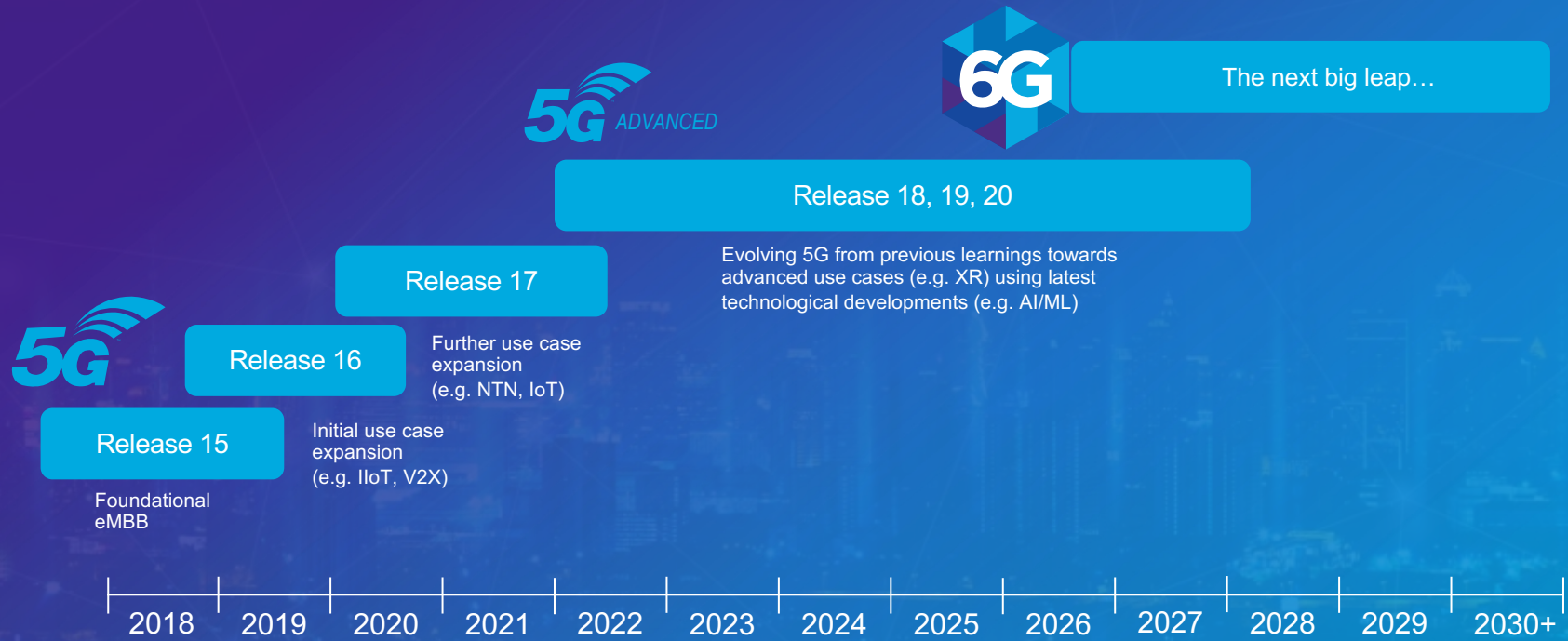
On Premise, In The Cloud, or As A Service



The State of 5G



3GPP Evolution from 5G and Beyond



Note: Approximately 1.5-2 years per release

Release 18 Highlights

Service and System Aspects (SA)

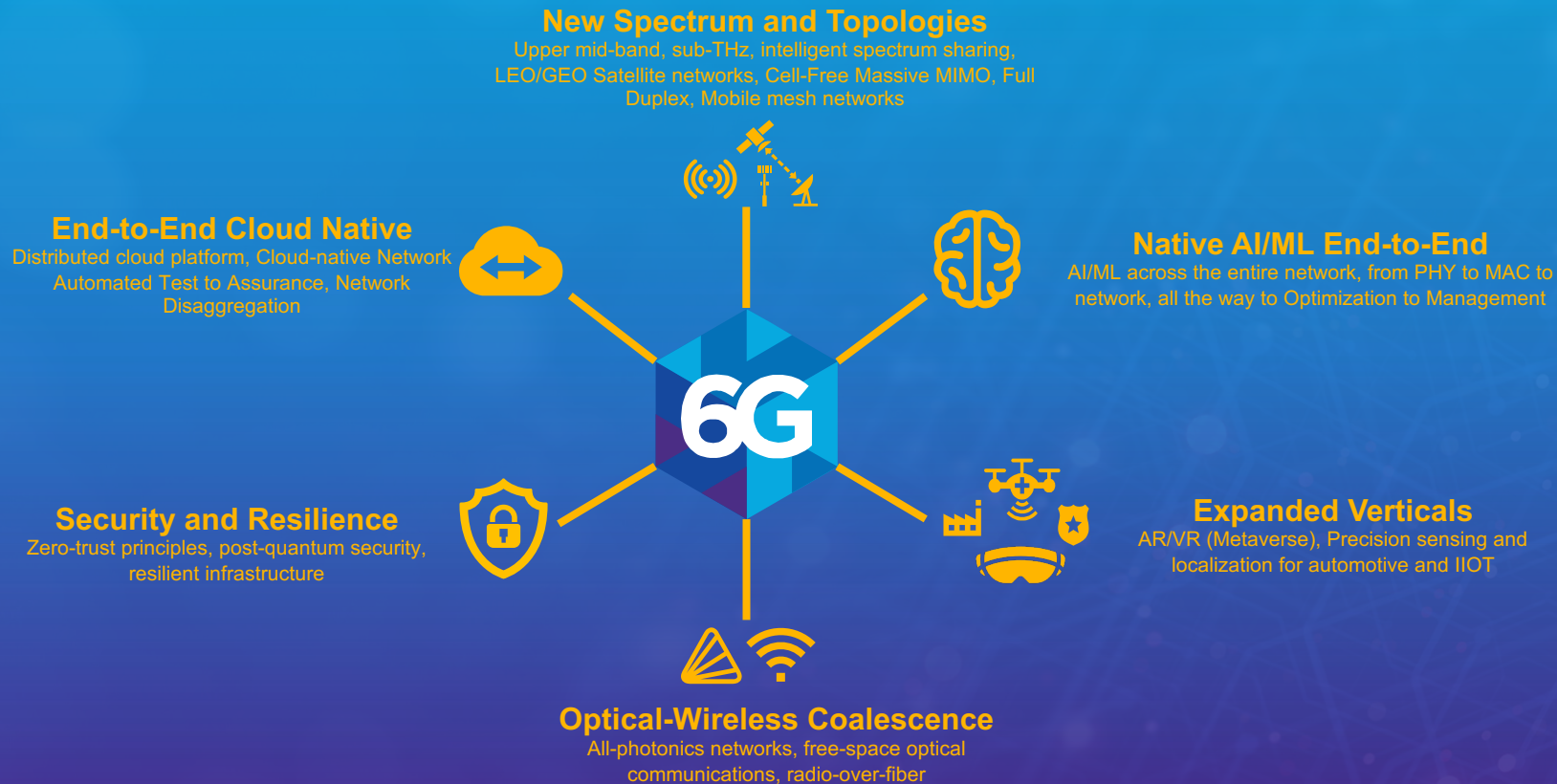
- Extended Reality (XR) and media services
- System Support for AI/ML-based Services
- Intelligence and automation
- 5G System with Satellite Backhaul
- Vehicle Mounted Relays

Radio Access Network (RAN)

- Study on expanded and improved NR positioning
- Study on AI/ML for NR Air Interface
- AI/ML for RAN
- Study on Evolution of NR Duplex Operation
- Mobile Integrated Access and Backhaul (IAB)

Source: 3gpp.org

VIAVI 6G Research Vectors



VIAVI Participation in B5G/6G Research Efforts



Full-member group, steering group, active participant in several working groups



*NextGeneration Research Group
nG Research Platforms co-chair*



one6G strategic member



*Beyond 5G Promotion Consortium
(Japan)*



Industry affiliate



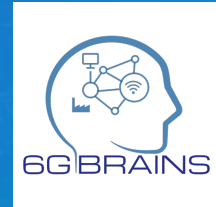
Industry affiliate



Industry affiliate



*Industry member
(5GPPP project)*



*Industry member
(5GPPP project)*



VIAVI Solutions