



**OPEN SOURCE NETWORK DAYS
BAY AREA – FALL 2018**

PERFECT STORM FOR SOFTWARE RELIABILITY

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SOFTWARE DEFINED EVERYTHING & REVOLUTION

A World Is Colliding & Converging

**Chips, Sensors,
Quantum
Computing,
Fiber,
Spectrum,
Towers,
Small cells,
4G/5G
Technology
Advancements**

**Explosive
Network Traffic,
Video (4K/8K),
VR/AR Apps**

**Software Super
Powered by
Cloud,
Open Source,
SDN/VNF,
AI/ML & Deep
Learning**

**Business &
Operation
Automation**

**New Use Cases
and Ideas about
Consumer and
Enterprise**



DATA GROWTH

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No signs of slowing

360,000%

Data traffic growth on AT&T's mobile network since 2007



HEALTHCARE



MANUFACTURING



**FINANCIAL
SERVICES**



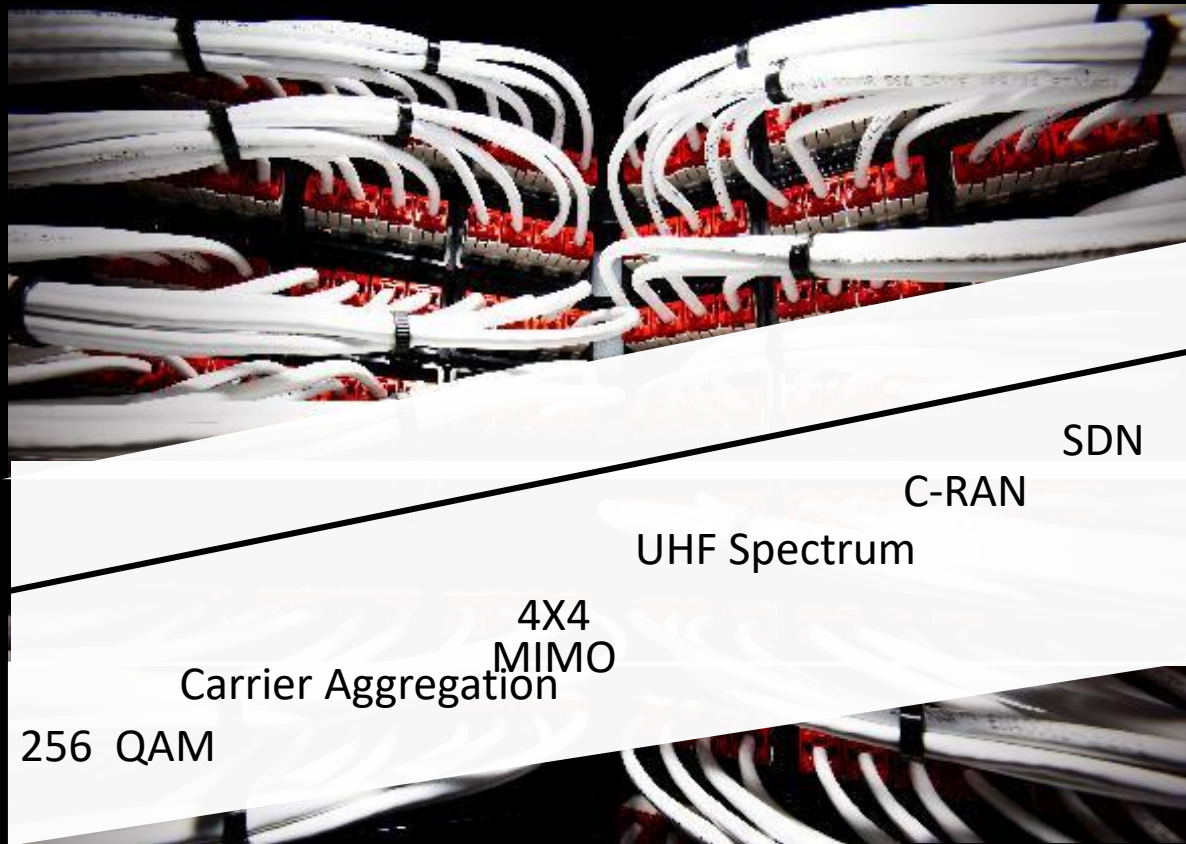
**PUBLIC
SAFETY**



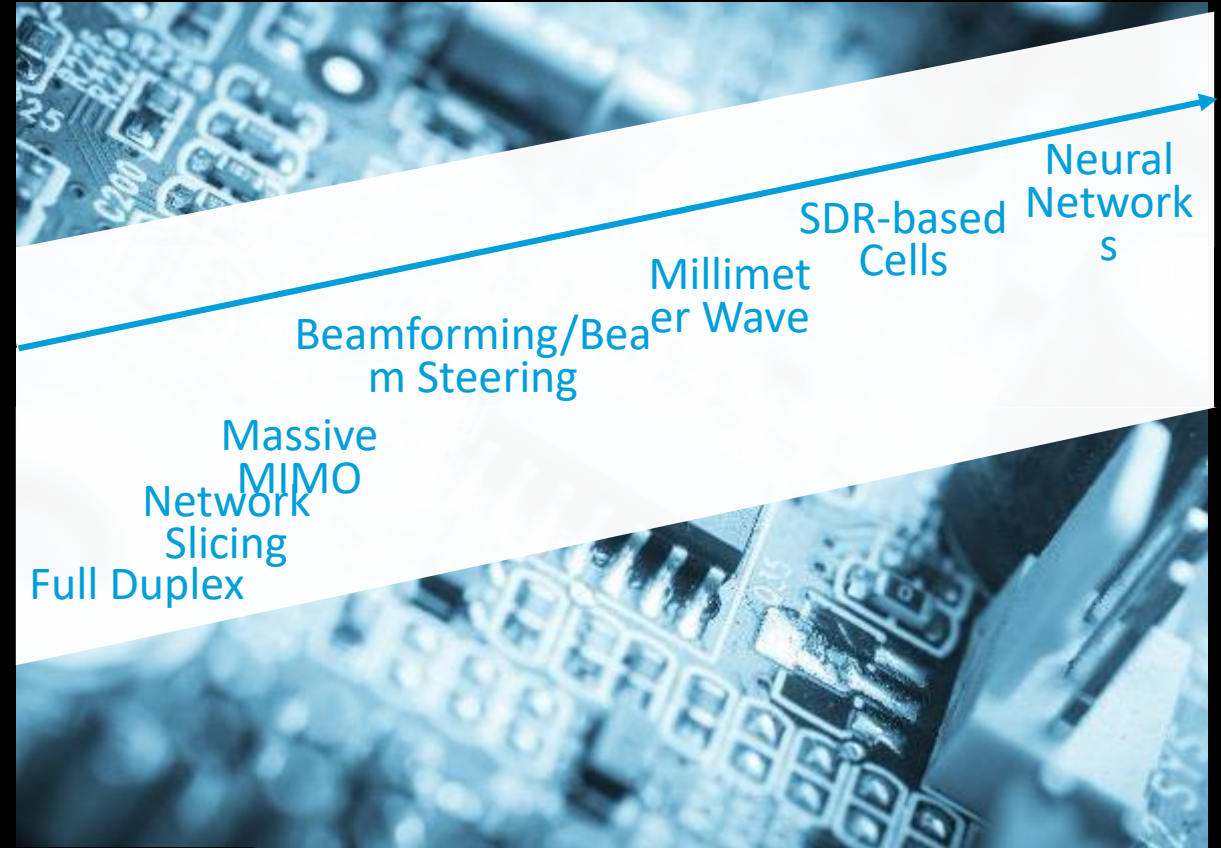
TRANSPORTATION

SOFTWARE-DRIVEN WIRELESS TECHNOLOGY EVOLUTION

TODAY



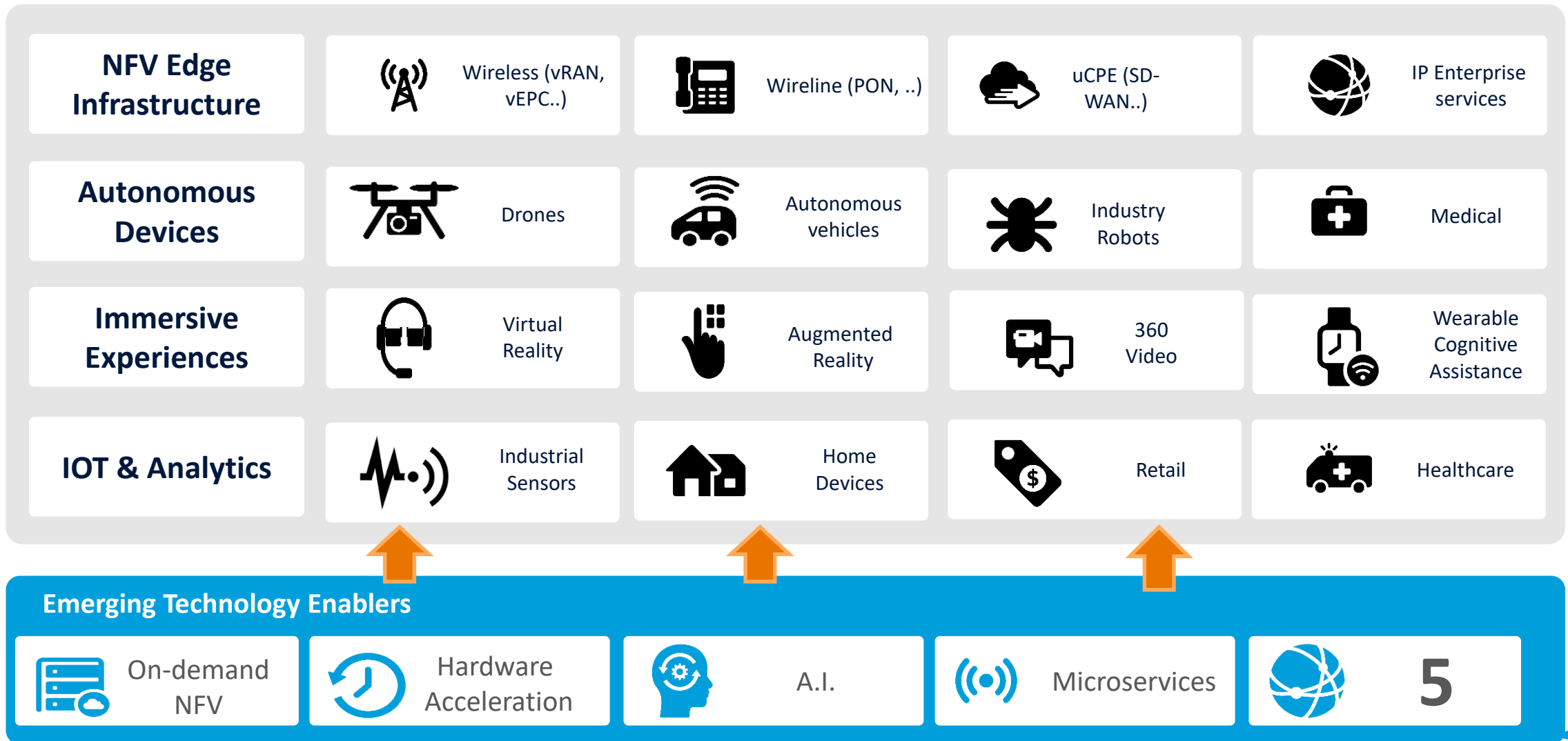
FUTURE



THE FUTURE IS
SOFTWARE-DRIVEN
RADIO



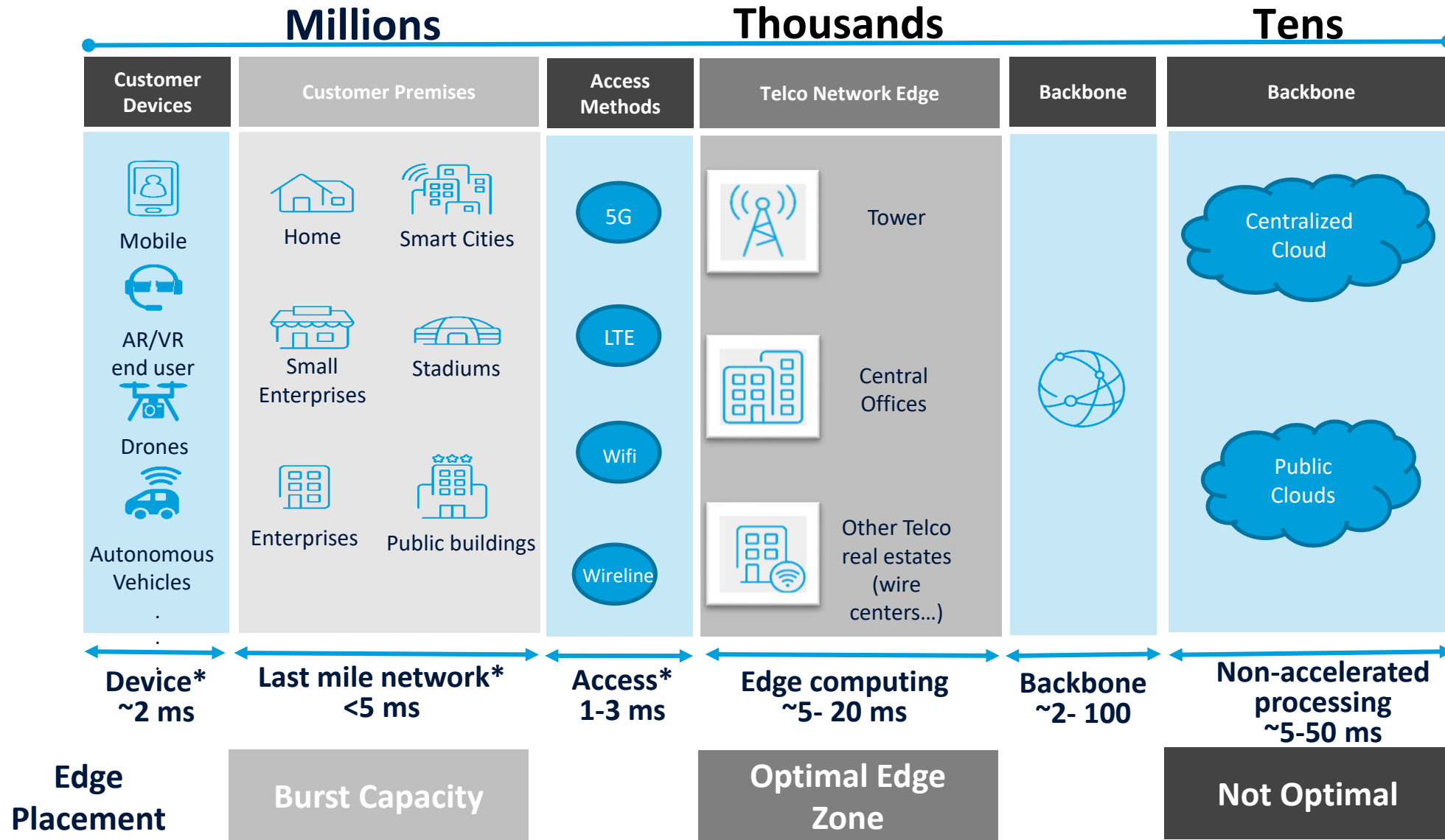
Emerging Technologies are demanding lower latency and accelerated processing at the edge



G



Operator's owned Network Edge are optimal zone for edge placement



Telco Operated

* Estimates



PERFECT STORM FOR SOFTWARE RELIABILITY CHALLENGES & OPPORTUNITIES

Open Source Quality Control and Assurance Security by Design	Micro-services and Kubernetes → New Abstraction Level	Configuration, Version Control, and Licenses Management	Change Management	ETE Service Topology	SDN & Edgeless Network
Application of Agile Methodology	Self resiliency and self traceability/ diagnosis	Model Driven Design & Eco- system Data Quality	VNF/PNF Integration & ETE Automation	Stream Analytics (Latency)	5G Revolution

