Next Generation WiFi

Leading the Wi-Fi Revolution

May 2025

Agenda

- Overview
- Spectrum vs Standard
- The RUCKUs Advantage

Overview

After 25 years, Wi-Fi is still evolving rapidly

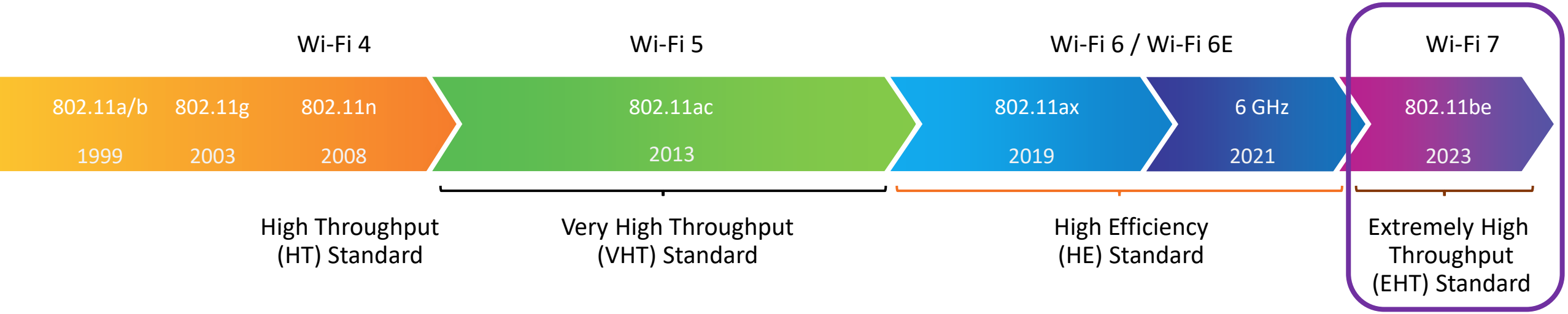
Evolving from speed to capacity and predictability

Wi-Fi® First Gen — The first 10 billion devices

Wi-Fi Next Gen — The next 20 billion devices

Peak data rates, aggregate throughput
Under ideal conditions

Network efficiency and capacity
Under real-world conditions
Improve average & worst-case performance



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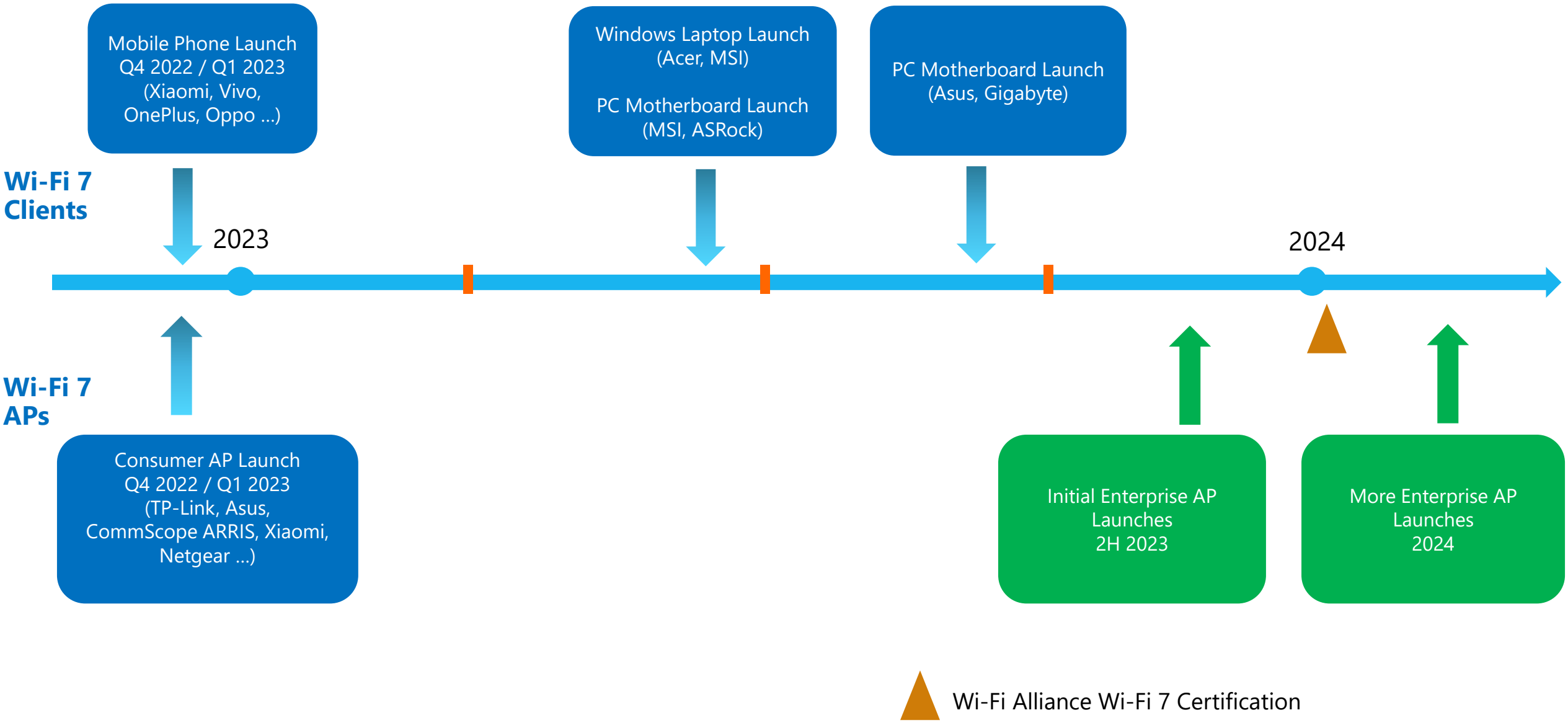
Wi-Fi 7 Ecosystem Projected Timeline



New use cases and requirements

Low latency, affected by:

Distance

Speed

Media Contention

High Reliability

High speed

- Extended reality (AR/VR)
- Post pandemic Video Conferencing explosion
- Social Gaming & e-Sports
- 8K Streaming
- IoT/Operational Technology

Remote Research

Collaborative 3D design

Arena gaming

Operational Technology - IoT

Operational Technology - Manufacturing

Spectrum vs Standard

Wi-Fi 6

Attribute	Wi-Fi 6
Specification Status	September 2020
Freq Bands supported	2.4, 5 GHz
Maximum Spatial Streams	8x8
Highest Modulation	1024 QAM
Maximum Channel Width	160 MHz
Max PHY Rate	9.6 Gbps

Wi-Fi 6 vs. Wi-Fi 6E

Attribute	Wi-Fi 6	Wi-Fi 6E
Specification Status	September 2020	January 2021
Freq Bands supported	2.4, 5 GHz	6 GHz
Maximum Spatial Streams	8x8	
Highest Modulation	1024 QAM	
Maximum Channel Width	160 MHz	
Max PHY Rate	9.6 Gbps	

Wi-Fi 6 vs. Wi-Fi 6E vs. Wi-Fi 7 Comparison

Attribute	Wi-Fi 6	Wi-Fi 6E	Wi-Fi 7
Specification Status	September 2020	January 2021	Draft 2.0 (May 2022)
Freq Bands supported	2.4, 5 GHz	6 GHz	2.4, 5, 6 GHz
Maximum Spatial Streams	8x8		16x16
Highest Modulation	1024 QAM		4096 QAM
Maximum Channel Width	160 MHz		320 MHz
Max PHY Rate	9.6 Gbps		46.1 Gbps

Wi-Fi 6 vs. Wi-Fi 6E vs. Wi-Fi 7 Comparison

Attribute	Wi-Fi 6	Wi-Fi 6E	Wi-Fi 7
Specification Status	September 2020	January 2021	Draft 2.0 (May 2022)
Freq Bands supported	2.4, 5 GHz	6 GHz	2.4, 5, 6 GHz
Maximum Spatial Streams	8x8		16x16
Highest Modulation	1024 QAM		4096 QAM
Maximum Channel Width	160 MHz		320 MHz
Max PHY Rate	9.6 Gbps		46.1 Gbps

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Is the migration to WiFi 7 necessary today?

Quick answer:

It depends

- Consider implementation of hybrid technologies
- Wait until we have more WiFi 7 devices available
- Consider doing an upgrade of your cabling and switching infrastructure first

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RUCKUS is ready to deploy a complete WiFi 7 infrastructure today

RUCKUS Wi-Fi 6/6E AP Portfolio

	Good	Better	Best
Indoor	 **R350** Wi-Fi 6 2x2:2 IoT Ready 1.8 Gbps	Tri-Band 6GHz  **R550** Wi-Fi 6 2x2:2 IoT Onboard 1.8 Gbps Tri-Band 6GHz  **R560** Wi-Fi 6E 2x2:2 5GbE IoT Onboard 4.7 Gbps  **R650** Wi-Fi 6 4x4:4/2x2:2 IoT Onboard 2.5 Gbps	 **R750** Wi-Fi 6 4x4:4 | 2.5GbE IoT Onboard 3.5 Gbps  **R850** Wi-Fi 6 8x8:8 | 5GbE IoT Onboard 5.9 Gbps Tri-Band 6GHz  **R760** Wi-Fi 6E 4x4:4 | 10GbE IoT Onboard 8.35 Gbps
Outdoor	 **T350/350se** Wi-Fi 6 2x2:2 IoT Onboard		 **T750/T750se** Wi-Fi 6 4x4:4 | 2.5GbE IoT Onboard
Specialty	 **H350** Wi-Fi 6 2x2:2, 2 Port Switch IoT Onboard	 **H550** Wi-Fi 6 2x2:2, 4 Port Switch IoT Onboard *Dual Concurrent*	

RUCKUS Wi-Fi 7 AP Portfolio

	Good	Better	Best
Indoor		Tri-Band 6GHz  **R670** Wi-Fi 7 2x2:2 5GbE IoT Onboard 9.34 Gbps NEW Q3'24	Tri-Band 6GHz  **R770** Wi-Fi 7|10GbE 2X2/4x4/2x2 IoT Onboard 12.22 Gbps Introduced On Q4'23
Outdoor		Tri-Band 6GHz  **T670** Wi-Fi 7 2x2:2 | 5GbE 9.34 Gbps NEW Q3'24	
Specialty			

ICX 8200 Switch – Designed for 6 GHz

- **Maximum flexibility and connectivity options:** Gigabit, Multigigabit edge ports and Fiber to the Room, optimized for latest generation Wi-Fi 6/6E/7 AP deployments with multigigabit ports. 1/2.5/5/10 Gbps Copper ports, 1G SFP and 10G SFP+ fiber ports
- **Power next generation APs and PoE devices**: PoE+ 802.3at, 30W per port on all ports. PoE++ 802.3bt, 60/90W on multigigabit ports and up to 1480W PoE budget with two power supplies
- **25 GbE uplinks/stacking offers maximum performance and future-proofing:** Up to 8x 1/10/25GbE SFP28 fiber ports for uplink and/or stacking
- **Advanced L3 routing for flexibility:** IPv4 and IPv6 L3 routing. Static routes; RIP, OSPF, VRRP, VRF, GRE, PIM, PBR
- **Enhanced availability:** Redundant, load-sharing hot-swap power supplies and fans on specific models
- **Services and Support Included:** 3 years of remote TAC support included with every ICX 8200 model and Limited lifetime warranty
- **Enhanced Security and data privacy:** VXLAN* support for advanced network segmentation and data confidentiality

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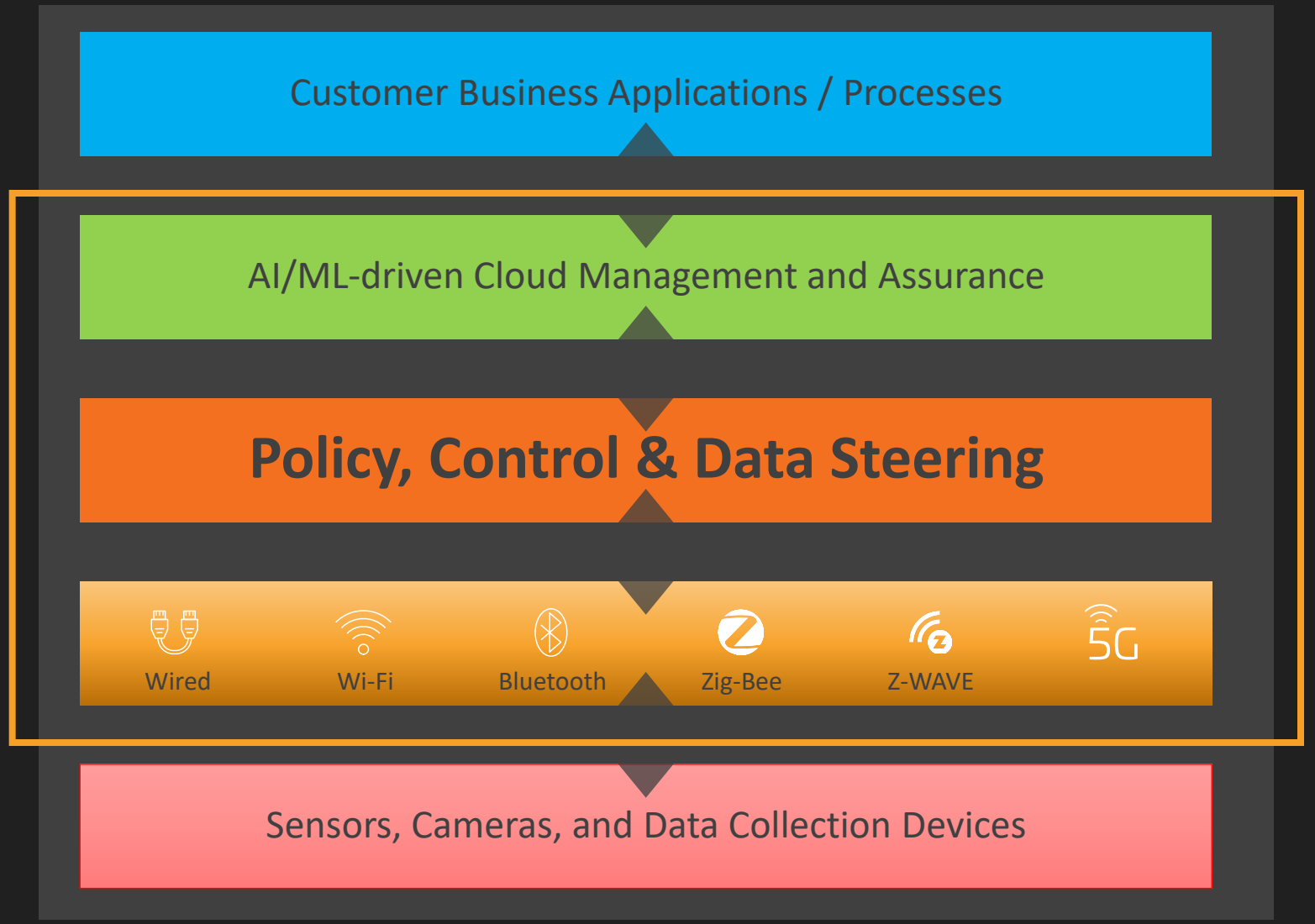
RUCKUS Technology Vision

Be innovative and deliver the right technology for the job while securely connecting business applications



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Innovation with a purpose

THANK YOU!

