Enterprise connectivity

Wi-Fi 6 as digital transformation enabler

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Wi-Fi 6 as digital transformation enabler

The Wi-Fi roadmap between cloud, analytics and smart working



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There will be more than 7 billion new Wi-Fi enabled devices in the next 3 years.

Sys-Con



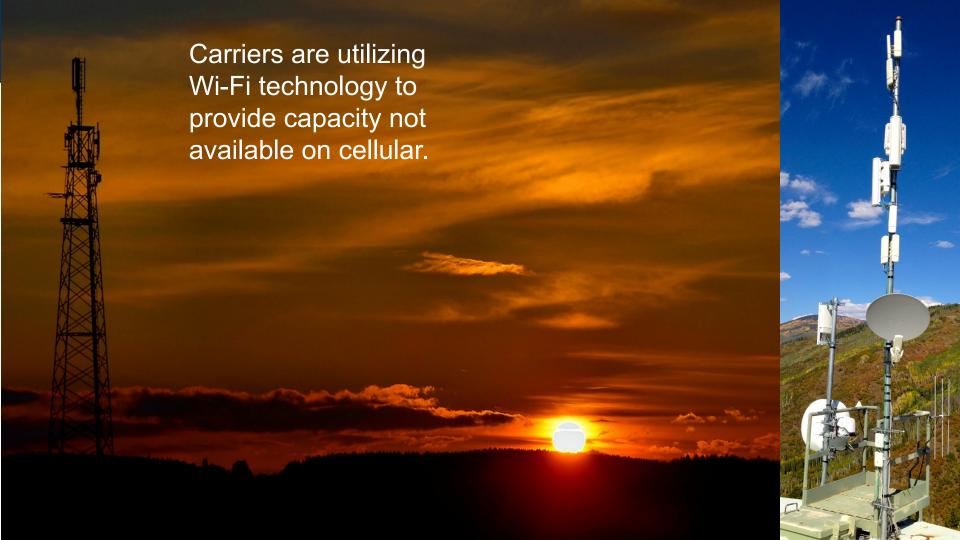


the tablet number is expected to soar past 1.28 billion in 2021

93% of tablet owners will utilize Wi-Fi only.

Desktop vs Mobile

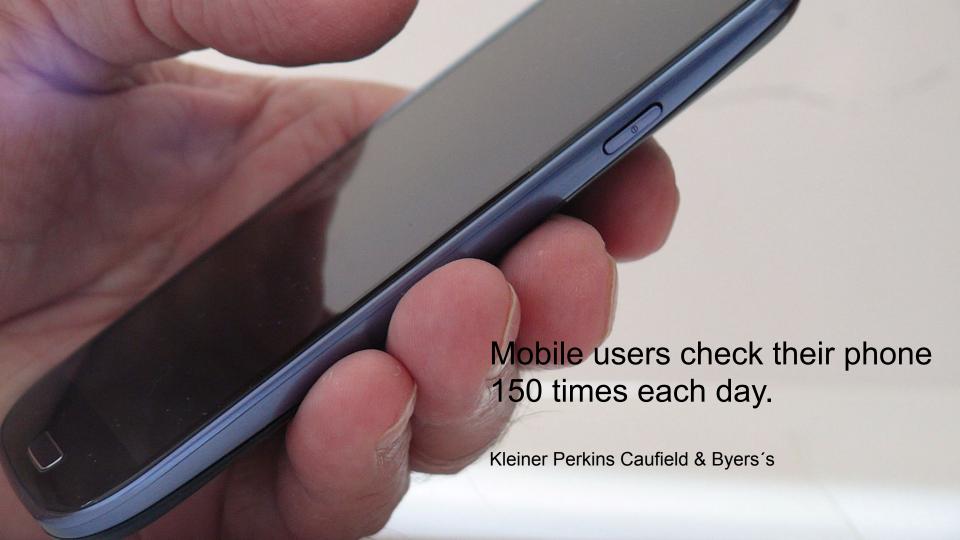




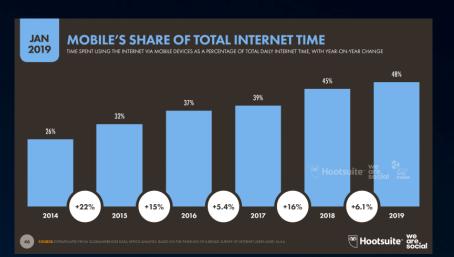


90% of people have a mobile device in reach 100% of the time

Pew Research Center

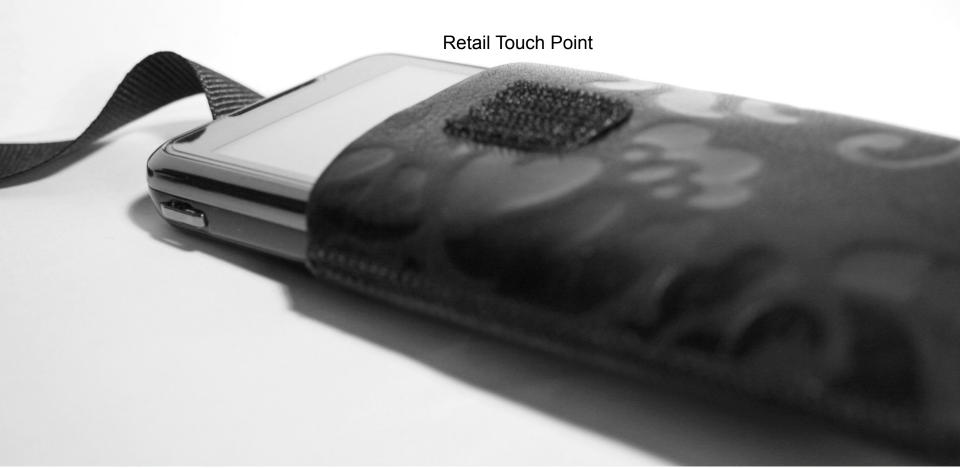








Up to 70% of consumers in-store have a Wi-Fi capable device in their pocket.



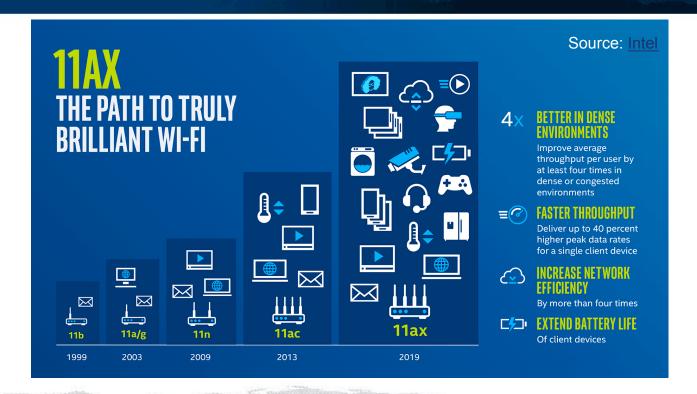


NEW DIGITAL WORKPLACE



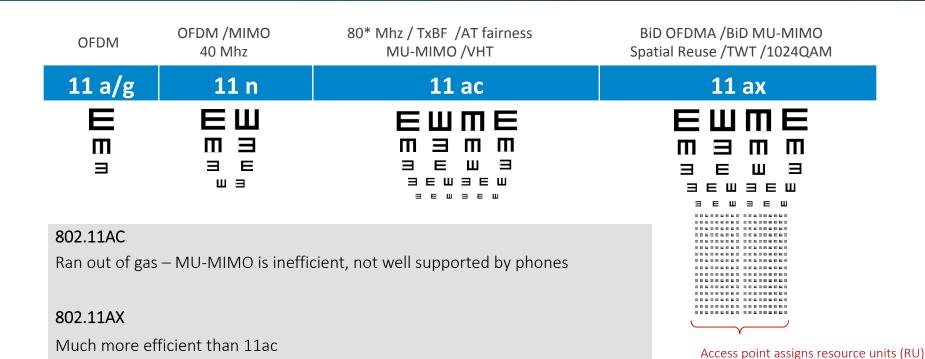


The new era: Wi-Fi 6 (802.11ax)





Wi-Fi 6 is Wider and Deeper for higher density, better quality

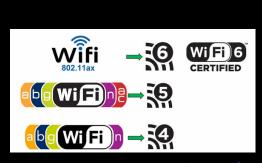


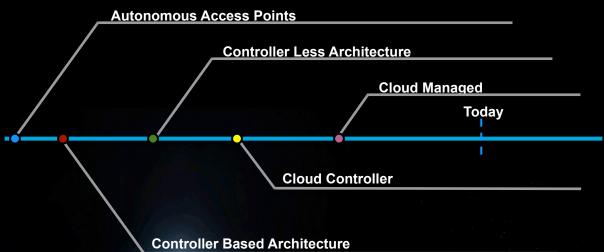
Multi-User OFDMA (cellular type packets), 8x8 Multi-User MIMO, Overlapping frequencies

Deterministic networks. Access Point coordinates all communications



Deterministic networks



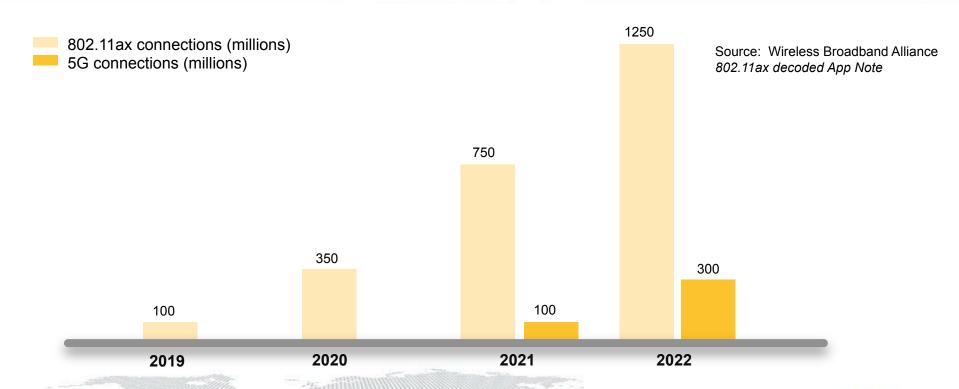


Evolution of Architecture

What are Customers Looking for



Projected Growth in 11ax and 5G usage





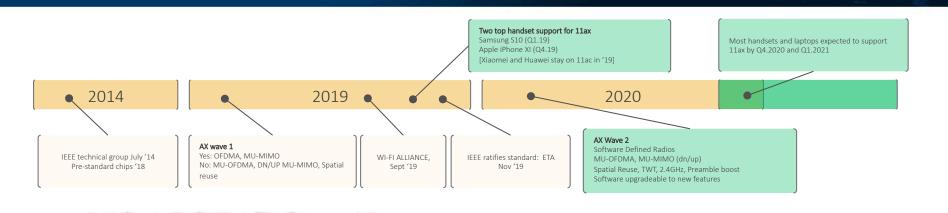
802.11ax has high Return on Investment

- Low Cost Deployment
 - WiFi chipsets used in enterprise and residential access points and smart devices
- Unlicensed Spectrum
 - 2.4Ghz, 5GHz (500MHz of available spectrum) and coming 6GHz
- Marketable 'free WiFi' access networks
 - Retail, public venues, cities, sporting events, hotels
- Service based, not access based economic model
 - Value of the services is greater than cost of access





802.11ax timeline



Gartner, "802.11ax is expected to be ratified in late 2019. Monitor the technology; do not pay any premiums for the new functionality and ensure that any short-term purchase is upgradable to the final standard.'

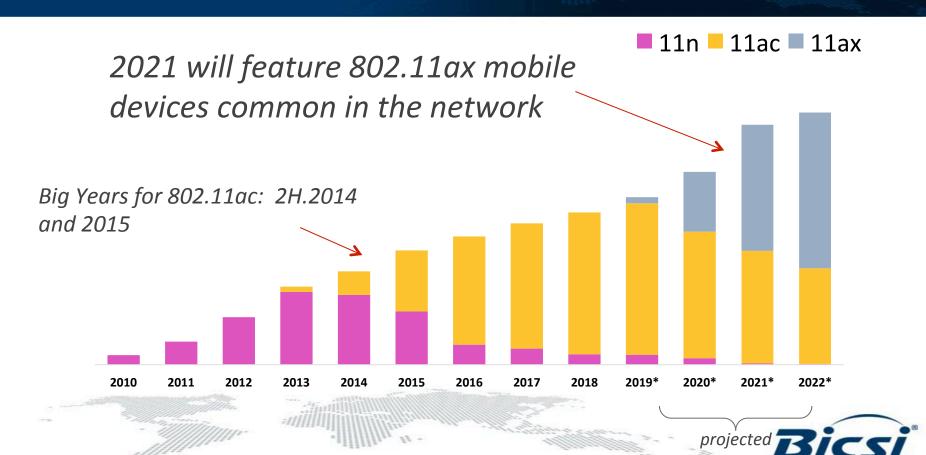
User Advice: Buy 802.11ac Wave 2 access points for network refreshes and "greenfield" projects until 802.11ax matures in early 2020.

Wave 1 (pre-standard) 11ax access points lack key features, <u>not software upgradable to all features</u>, expensive, and there is no way to test

As stated by Gartner, ensure the solution supports critical features and is software upgradable to final standard and new features



Market takes almost 3-years to adjust to new technology



Inflection Point to Consider 802.11ax

Samsung S10 March 2019

Xiaomi MiCC9 July 2019



Apple iPhone 11
October 2019

Two of top four phones support 802.11ax



802.11ax 5G optional



802.11ac 4G



5G optional



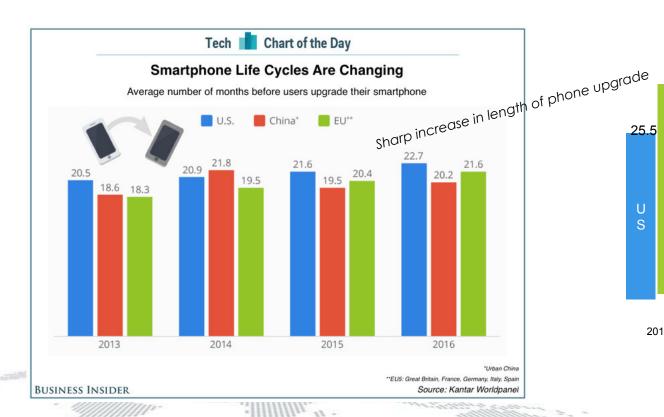
802.11ax 4G

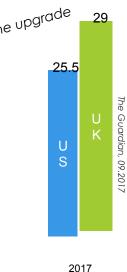
Prediction...

50% 802.11ax penetration end of 2020 or Q1.2021



Ecosystem trigger: smartphones upgrade to 11ax







Cambium Enterprise Business

Improving the connected client experience by making the network more efficient

The Time is Now!





Cambium Cloud Managed Access Networks: Fast & Easy!



Intelligent Edge

- · Site Survivable Operation
- Self-Healing
- · Interference Mitigation
- Edge Captive Portal
- · Policy Based Automation

Cloud Management

- · Public or Private Cloud
- Single Pane of Glass for endto-end full lifecycle Management
- Rapid On-boarding Zero Touch Provisioning
- Easy Troubleshooting

Cloud Services

- Wi-Fi Controller
- Guest Access
- Modern API's
- Analytics & Insights
- 3rd Party Ecosystem

MSP Enablement

- Multi-tenancy
- Branded Services Allow customized UI
- Managed Accounts Independent Admin Domains

Disruptive TCO

- Priced Right AP HW
- No Controller HW
- No AP licenses
- Freemium Cloud
 Management
- Free SW Maintenance
- Reduced OPEX with easy operations



Connecting the Unconnected – The Mission Continues...

People

3.5 billion unconnected



Places

2m = 245 km without wires



Things

Fixed wireless footprint to usher emerging SmartCity/IIOT





WHY CAMBIUM NETWORKS?



Thank You!



arket: spending on Tech





Source: HolonIQ, Smart Estimates™ January 2019

Private investment in Ed Tech companies is preparing now

Digital spend will nearly double by 2025

Growth in Global Education

Technology Expenditures



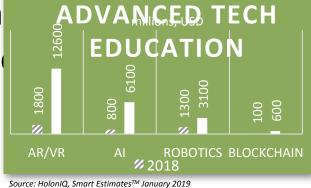
Source: HolonIQ, Smart Estimates TM January 2019





rket: AR / VR for Learning

- VR enables school-to-school collaboration
- VR opens new ideas and ways to learn
- Acclim health



ure workforce tech in ce, manufacturing

Cambium Networks, Ltd 2019



Thank You for Your Attention!

Questions?

END

