

Wi-Fi® at 20

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President & CEO
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Themes

- Introducing Wi-Fi Alliance®
- Wi-Fi® then and now
- Next generation Wi-Fi

The network of companies that brings you Wi-Fi



Effective global collaboration



Drive industry growth



Constant innovation

An aerial photograph of a coastal region. The foreground shows a vast expanse of blue water. In the middle ground, there are several islands and a large peninsula with green hills. The background features a range of mountains under a sky filled with soft, white clouds. The overall tone is serene and expansive.

Wi-Fi Alliance vision:
Connecting everyone and
everything, everywhere

When we started

Wi-Fi Alliance members: 6*

Wi-Fi protocol: 802.11b

Max data rate: 11 Mbps

File Downloads

5 MB file: 3 seconds

1GB file: 13 minutes

HD 1080p movie: Unimaginable

*3Com, Aironet, Intersil, Lucent Technologies, Nokia, and Symbol Technologies

First achievement: Wi-Fi interoperability





Wi-Fi emerged as a valuable key for the next two decades

Key to untethered connectivity

Key to affordable connectivity

Key to wide-ranging innovation

Wi-Fi success continues, underpinned by its inherent strengths



- ✓ Affordable performance
- ✓ Unlicensed spectrum operation
- ✓ Self-deployment
- ✓ Long-term compatibility

See our whitepaper: [Next Generation Wi-Fi: The Future of Connectivity](#)

Today

Wi-Fi Alliance members: 800+

Generation: Wi-Fi 6

Max data rate: 9 Gbps

File Downloads

5 MB file: 0 seconds

1GB file: 6 seconds

HD 1080p movie: ~1 minute

Wi-Fi today: A story told in billions



30 billion

Cumulative products

13+ billion

Products in use

4 billion

New products per year

Wi-Fi Impact



DATA TRAFFIC

Transports more than half
all internet data



ECONOMIC VALUE

Contributes \$2+ TRILLION USD per
year into global economy



CONNECTING ALL

Connects rural and low
income communities



OPERATOR SERVICES

Carries majority of mobile
subscriber traffic



ENTERPRISE

The default network for
most businesses



SMART CITY

Foundation for public networks
such as WiFi4EU

Wi-Fi also helps address social needs



Bridging the digital divide

Many governments have recognized that bridging the digital divide can improve employment, education, healthcare, and address social issues.

Wi-Fi is frequently the primary way to provide broadband to low income and rural communities.



Public safety

Wi-Fi helps coordination of safety efforts in public places, including beaches, parks, and more.

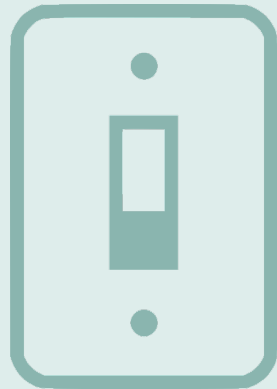


Disaster recovery

Wi-Fi is increasingly becoming a key part of rescue communications and disaster recovery when other communications systems are down.

Wi-Fi is now *more* than a key to affordable, high-performance connectivity and innovation

Wi-Fi is an essential, everyday commodity



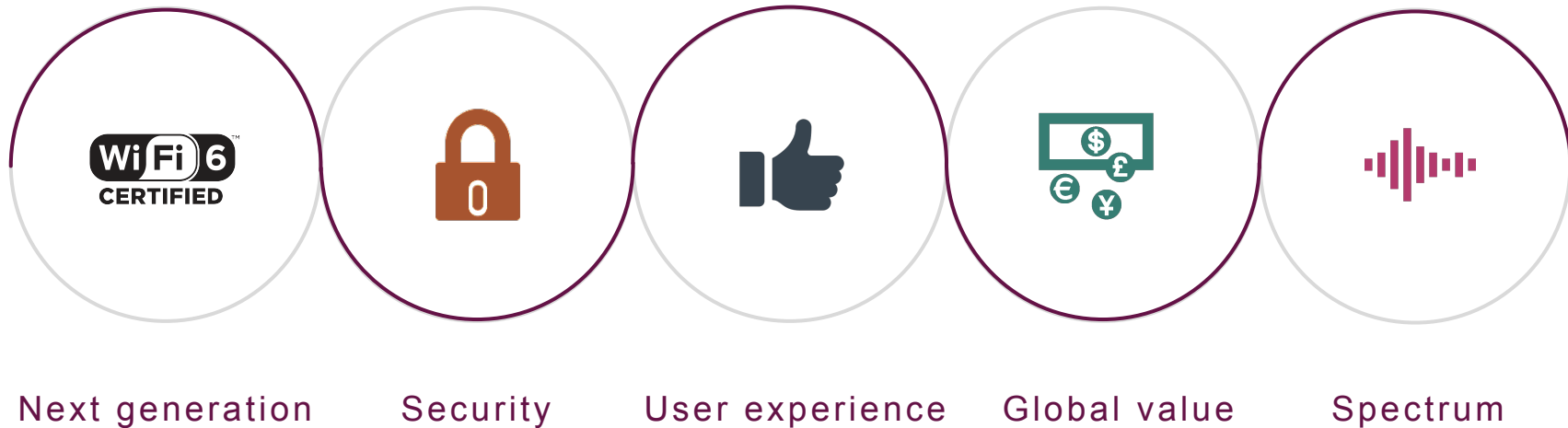
So much success in barely two decades



Congratulations!

Your contributions made Wi-Fi
the best innovation of the last
quarter century!

Wi-Fi Alliance trending areas



A woman with blonde hair, wearing a grey sweater, stands in a modern office or cafe, looking at her smartphone. She is positioned in the lower-left foreground. The background features a large glass window that reflects the interior and offers a view of a dense urban cityscape with many-story buildings. The entire image has a purple color overlay. The text is centered in the upper half of the image.

Next generation Wi-Fi: A new connectivity platform worthy of our legacy

Wi-Fi CERTIFIED 6™

Better user experiences in the most demanding environments

- Engineered for a new era of dense and congested environments
- Better capacity, coverage, and performance
- Benefits scale with number of network devices
- Power consumption suitable for IoT devices



Certification available in 2019;
shipments to surpass 1B by 2022*

*ABI Research 2018

Wi-Fi CERTIFIED 6

Performance in a variety of environments

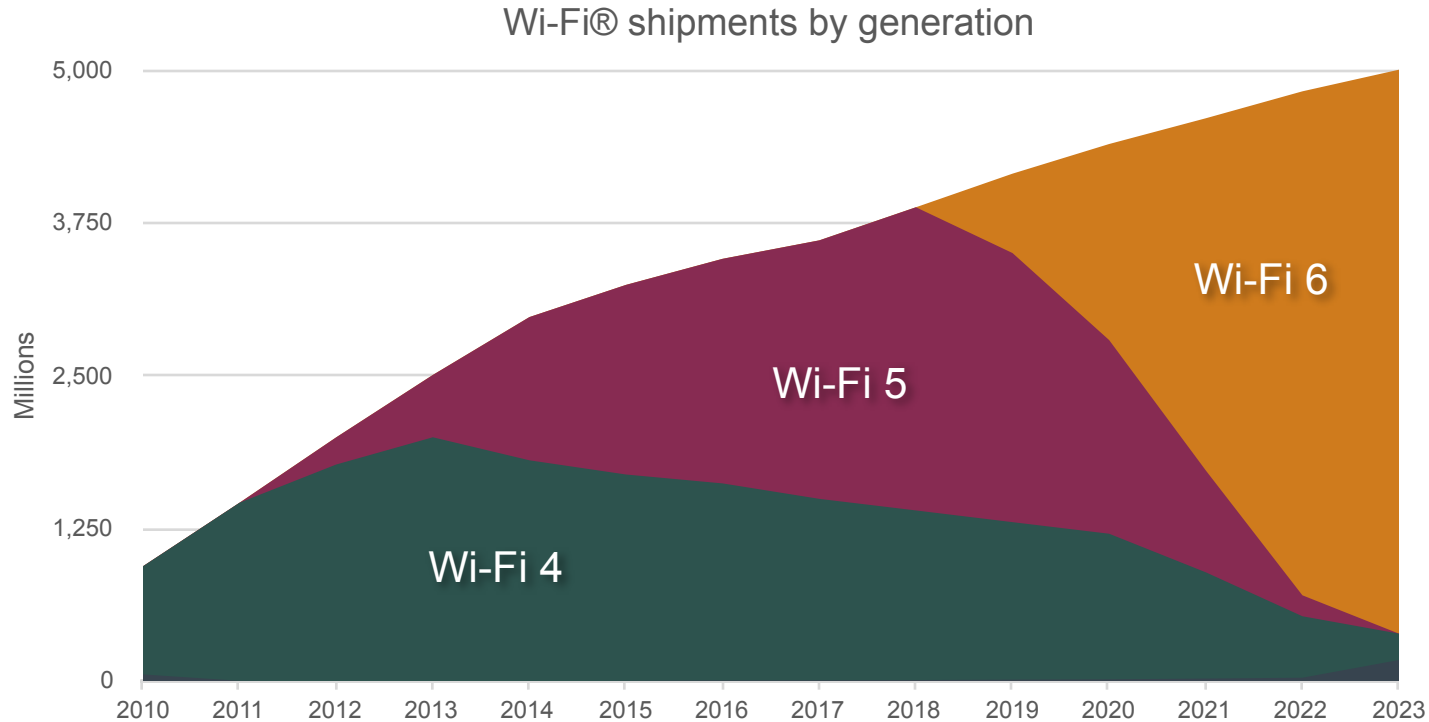
- **Home networks:** Multiple Ultra HD video streams at full coverage area
- **Enterprise networks:** Consistent, high performance services even at the edge
- **Large event venues:** High load ready even among overlapping networks
- **Industrial and IoT:** Large scale device proliferation, low power requirements



More information:

[Wi-Fi 6: High performance, next generation Wi-Fi](#)

Annual new product shipments reach 5B in 2023



Data source: IDC, January 2019

Wi-Fi to play a key role in 5G

Mobile Data Traffic and Offload Traffic, 2022

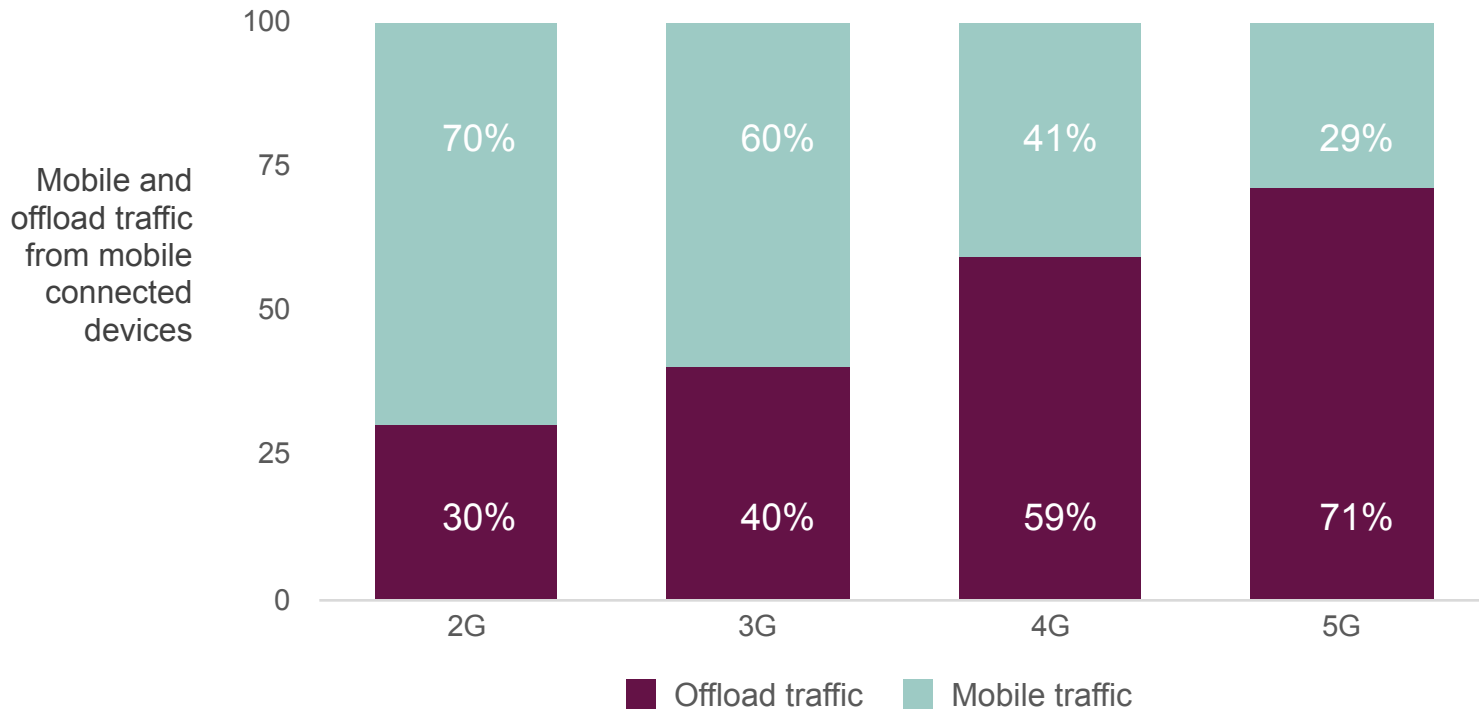
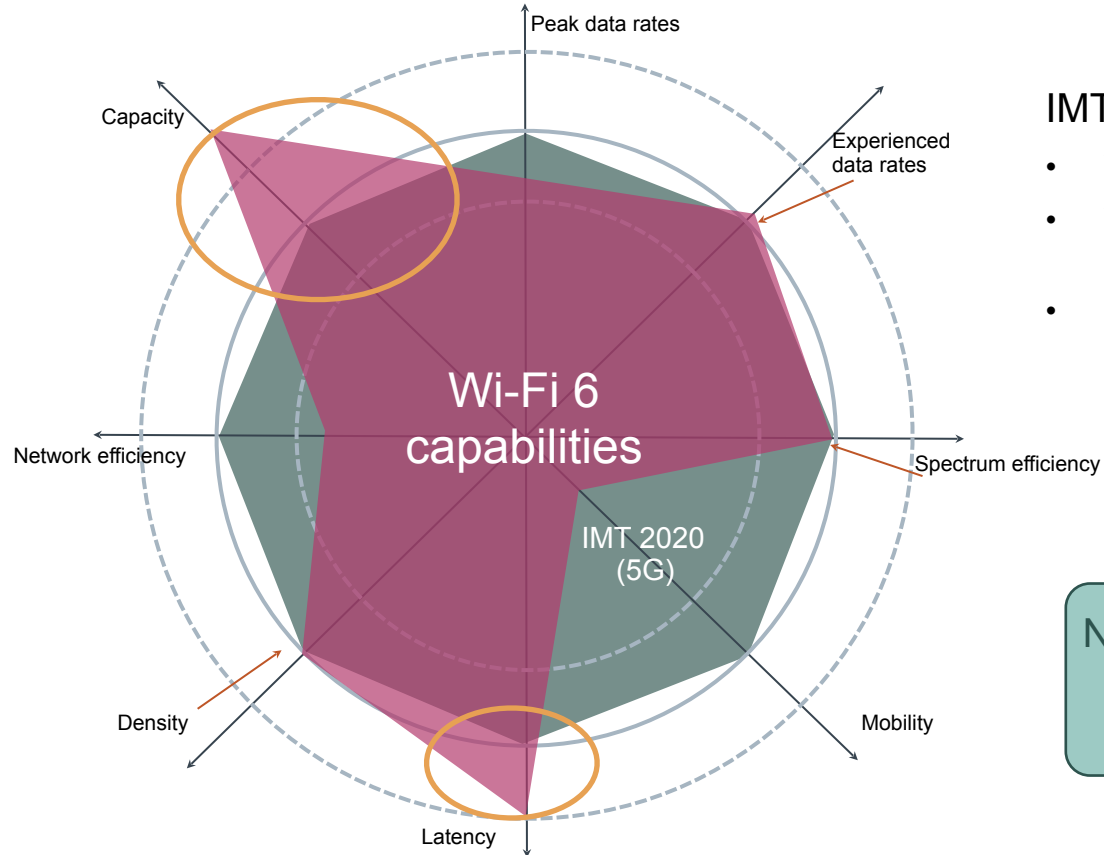


Chart source: Cisco VNI Mobile, 2019

Wi-Fi 6 makes mass scale 5G possible



IMT 2020 5G requirements

- Wi-Fi 6 shines in capacity and latency
- Wi-Fi 6 delivers in experienced data rates, spectrum efficiency, connection density
- Other Wi-Fi Alliance programs address mobility and network efficiency:
 - [Wi-Fi CERTIFIED Vantage™](#)
 - [Wi-Fi CERTIFIED Passpoint®](#)
 - [Wi-Fi CERTIFIED Agile Multiband™](#)
 - [Wi-Fi CERTIFIED Optimized Connectivity™](#)

Not shown:

- **Affordability**
- **Performance with 6GHz spectrum**

Simplified image recreated from Wireless Broadband Alliance paper, 2017

New Wi-Fi CERTIFIED Passpoint features recently launched

Frictionless, secure Wi-Fi access

- **Simplified online sign-up** drives common provisioning across vendors using a single SSID
- **Venue-specific information** facilitates relevant venue information alerts user of available services
- **Expanded enterprise security** supported through WPA2™-Enterprise and next generation WPA3™-Enterprise
- **Operator-specific policies** enable streamlined Terms and Conditions acceptance / experience

More than 2,800 unique Passpoint® certified devices, representing billions of smartphones and Wi-Fi devices



*Research published by Hotel Internet Services, 2019
www.wi-fi.org/passpoint

Passpoint highlights



Wi-Fi CERTIFIED Agile Multiband

Ensures quality connections by responding to changing conditions

- **Dynamic monitoring** evaluates the best connection possible
- **Intelligent steering** uses the best band, channel, or AP to balance traffic or meet network needs
- **Fast transitions** improve the user experience with latency-sensitive applications such as voice or video



[Wi-Fi Agile Multiband™ highlights](#)

Wi-Fi CERTIFIED Optimized Connectivity

Enhanced network connectivity when roaming

- **Improved scanning** streamlines network discovery
- **Reduced overhead** enables faster initial authentication
- **Efficient transmissions** help devices spend less time responding to management traffic and more time moving data



[Wi-Fi Optimized Connectivity™ highlights](#)

Summary

- Innovation that improves day-to-day life
- By 2023 \$3.5T and 5B new devices per year globally
- Wi-Fi CERTIFIED 6: better coverage, capacity and performance
- Operator services focus:
 - Passpoint
 - Wi-Fi Agile Multiband
 - Wi-Fi Optimized Connectivity
- Wi-Fi will continue to connect the world in the decades ahead



THANK YOU

Join us to drive the Wi-Fi future

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