



Consistent QoS Treatment with Wi-Fi CERTIFIED QoS Management™

M. Consuelo Ortiz
cortiz@Wi-Fi.org
March 2021

The worldwide network of companies that brings you Wi-Fi®



Wi-Fi® ubiquity drives global connectivity



37 billion

Cumulative products

16 billion

Products in use

4 billion

New products per year

Wi-Fi Alliance today



High Performance

Wi-Fi 6 / Wi-Fi 6E
Wi-Fi HaLow™
Feature releases



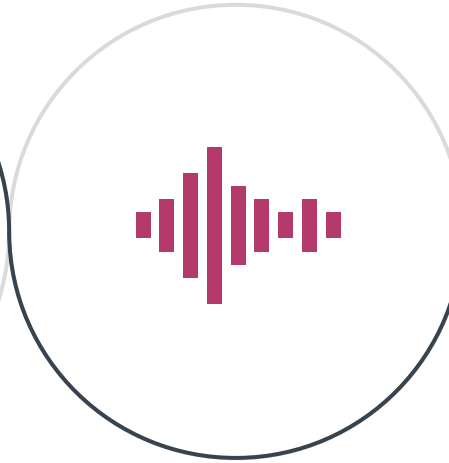
Security

Robust password
element generation
Privacy
Staying ahead of
evolving threats



Quality of Experience

Enhanced mobility: Fast
network discovery and
roaming
Network intelligence and
management tools
QoS features



“New” spectrum

6 GHz harmonization



Next frontiers

5G integration
Sensing
Future generations

Wi-Fi CERTIFIED QoS Management™

Consistent QoS treatment for quality experiences in real-time applications

- Builds on QoS enhancements for Wi-Fi adopted in [Wi-Fi CERTIFIED WMM™](#)
- Enables network managers, devices, and applications to prioritize traffic flows for robust service delivery
 - **DSCP Mapping:** Aligns Wi-Fi and wireless QoS treatments/ Additionally, QoS Map. enables network managers to configuring DSCP tags to QoS priorities
 - **Mirrored Stream Classification Service (MSCS):** client devices can request specific QoS treatment
- Delivers higher quality experiences with applications requiring low latency and low jitter
- Benefits residential, enterprise, and public networks and works with all Wi-Fi generations



[Wi-Fi QoS Management™ highlights](#)

Wi-Fi Vantage™: Enhanced mobility and experience

Fast AP and Network discovery

- FILS discovery
- Reduced neighbor report



When and where to roam

- Intelligent steering
- Dynamic monitoring

Fast authentication and roaming

- Passpoint
- Fast transition
- FILS authentication



Performance

- Higher data rate, increased capacity

Manageability

- Understanding of the network environment for efficient Wi-Fi spectrum use, AP load balancing, resource allocation

Security

- WPA3™, Passpoint® and Enhanced Open™



Client variety

- Onboarding and influencing client roaming behaviors

Mobility experience

- Enhance mobility within and between coverage of Wi-Fi networks or transitioning from cellular

Wi-Fi CERTIFIED Optimized Connectivity™

Enhanced network connectivity when roaming

- **Network discovery:** helps client devices prioritize which channels to scan for rapid AP discovery
- **Improved AP selection:** APs advertise metrics that allow client devices to accurately estimate link quality for network selection and roaming decisions
- **Rapid authentication:** reduced overhead enables faster initial authentication to and from Wi-Fi and cellular networks
- **Efficient transmissions:** devices spend less time responding to network management traffic and more time moving data
- Based on 802.11 ai and 802.11ax, **consistent with 6 GHz discovery mechanisms**



Wi-Fi Optimized Connectivity™ highlights

THANK YOU

cortiz@Wi-Fi.org

<https://www.wi-fi.org/product-finder>

www.wi-fi.org

membership@wi-fi.org

+1 512 498 9434



Wi-Fi QoS Management resources

- Web: <https://www.wi-fi.org/discover-wi-fi/wi-fi-qos-management>
- Program highlights: [Wi-Fi QoS Management highlights](#)
- Specification: [Wi-Fi QoS Management Specification](#)
- Other assets:
 - [Technology overview](#)
 - [Graphics for member use](#)

Wi-Fi Optimized Connectivity resources

- Web: <https://www.wi-fi.org/discover-wi-fi/wi-fi-optimized-connectivity>
- Specification: [Wi-Fi Optimized Connectivity™ Specification](#)
- Highlights: [Wi-Fi CERTIFIED Optimized Connectivity™ Highlights](#)
- Other Assets:
 - [Wi-Fi CERTIFIED Optimized Connectivity Technology Overview \(2020\)](#)
 - [Wi-Fi CERTIFIED Optimized Connectivity improves mobility with fast discovery](#)
 - [COVID-19 and the Economic Value of Wi-Fi® \(2020\)](#)
 - [Wi-Fi CERTIFIED Vantage™ Technology Overview \(2020\)](#)