



# Cisco 802.11ac Wave 2 Access Points

## Next-Generation Wireless for the Mobile Enterprise

Customers pay for purchases with their smartphones. Schoolchildren read textbooks on tablets. Wireless video cameras monitor security. Employees no longer bother to plug in Ethernet cables.

Wireless usage like this is only going to accelerate as Internet of Things (IoT) traffic from billions of devices and new mobile apps hits the airwaves. By 2019 the majority of fixed IP traffic will be Wi-Fi (53 percent), exceeding wired traffic by 21 percent.<sup>1</sup>

How can you keep pace with this surge in Wi-Fi traffic?

Cisco can help. Our [802.11ac Wave 2 access points](#) support the very latest Wi-Fi standard technology. Transmitting data at speeds beyond 1 Gbps, they provide the performance and functionality you need to support mobility for your customers and employees into the future.

## Performance Boosts, End to End

One key part of Wave 2 802.11ac technology that helps keep your organization ahead of the capacity crunch is multi-user MIMO (MU-MIMO). MU-MIMO allows an access point to transmit to multiple clients at the same time, instead of sending data to a single client at a time. These parallel transmissions improve RF efficiency when client devices also support 802.11ac Wave 2.

With MU-MIMO in use, each client device gets the amount of airtime it's supposed to have based on the technology supported - 802.11ac Wave 2, Wave 1, 802.11n, or an older version of the standard. So the limitation of one lower-speed client no longer slows overall downlink throughput for others.

With Wave 2's extra wireless capacity and spectrum efficiency, you want to be sure that wireless traffic doesn't face a bottleneck when it hits your wired LAN infrastructure. So Cisco offers the end-to-end infrastructure support and [services](#) you need to avoid network traffic jams. Our [Cisco® Catalyst® Multigigabit switches](#) support 1-Gbps, 2.5-Gbps, 5-Gbps, and 10-Gbps speeds on existing Gigabit Ethernet cabling to accommodate your increasing Wi-Fi traffic over time and future higher-speed access point connections. And our [latest wireless LAN controllers](#) support up to 10 times the throughput of earlier Cisco WLAN controllers.

## Benefits

- **Prepare for an increasingly wireless future** as IoT, video, and mobile apps take to the airwaves
- **Deliver better customer service and employee experiences** with faster wireless connections
- **Be ready to serve Wave 2 client devices** coming to market with superior performance
- **Protect your investment** with access points that can accommodate growth while continuing to work with existing equipment

<sup>1</sup> [Source: Cisco 2015 Visual Networking Index™ Mobile Forecast.](#)

802.11ac, ratified by the IEEE in December 2013, delivers significant increases in peak throughput for consumers, enterprises, and service providers alike. Cisco and a number of other vendors worked with the IEEE in creating the 802.11ac amendment and continued that collaboration with the Wi-Fi Alliance in the definition of the Alliance's 802.11ac interoperability and certification process.

## Next Steps

To learn more about Cisco 802.11ac Wave 2 solutions, visit the following links:

- All Cisco wireless products and services: <http://www.cisco.com/go/wireless>
- Cisco 802.11ac Wave 2 access points:
  - <http://www.cisco.com/go/ap1810w>
  - <http://www.cisco.com/go/ap1810oe>
  - <http://www.cisco.com/go/ap3800>
  - <http://www.cisco.com/go/ap2800>
  - <http://www.cisco.com/go/ap1850>
  - <http://www.cisco.com/go/ap1830>
- Cisco WLAN controllers: <http://www.cisco.com/c/en/us/products/wireless/wireless-lan-controller/index.html>
- 802.11ac technology: <http://www.cisco.com/go/80211ac>