



Network Services Report

August 1, 2025

Event: IEEE 802 Plenary Session

Venue: Meliá Castilla Hotel, Madrid, Spain

Dates: July 28, 2025 – August 1, 2025

SUMMARY

Linespeed Events, LLC provided comprehensive wired and wireless network services in 17 meeting rooms, ballroom foyers, dining areas and offices in the Meliá Castilla Hotel. Linespeed deployed redundant routers configured to failover in case of equipment failure. Linespeed also provided a local information portal and landing page (ieee802.linespeed.com) with a local document server synchronized in near real time with mentor.ieee.org.

The local area network (LAN) supporting the meeting space was comprised of a main distribution frame (MDF) and four intermediate distribution frames (IDFs). Linespeed's wireless local area network (WLAN), was comprised of 48 IEEE 802.11 a/g/n/ac/ax compliant WiFi 6e access points. Linespeed simultaneously provided Wi-Fi connectivity to a large number of devices represented by 2792 different mac addresses (laptops, tablets, smartphones, smartwatches, etc.) at this session (Figure 1.)

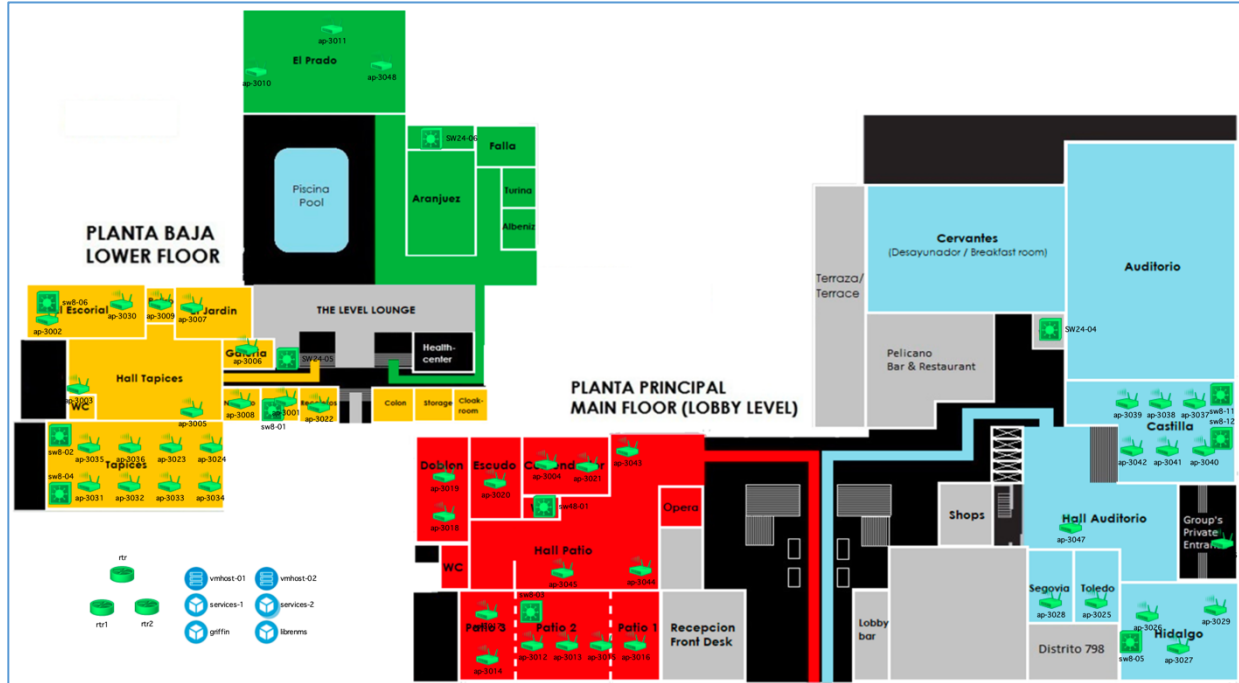
The Meliá Castilla Hotel provided IEEE 802 with a symmetrical 1Gb/s Internet circuit a /29 CIDR block of public routable IPv4 address space for this event.

Bandwidth utilization graphs for a 24 hour period, a 48 hour period and the week are represented in Figures 2-4. The total number of connections (unique MAC addresses) is shown in Figure 5.

Individual requests for support during the week were addressed by Linespeed staff.

WLAN DEPLOYMENT

Figure 1. Forty-eight access points were deployed throughout the meeting space.



FINAL STATISTICS (as of 3PM 8/1/25)

- Total Internet data: 5.98 TB (*last plenary: 4.90 TB*)
- Total Internet data inbound: 4.80 TB
- Total Internet data outbound: 1.18 TB
- Inbound Internet bandwidth utilization
 - Peak: 659.40 Mb/s (*last plenary: 600.56 Mb/s*)
 - 95th Percentile: 257.38 Mb/s (*last plenary: 333.07 Mb/s*)
- Outbound Internet bandwidth utilization
 - Peak: 199.21 Mb/s (*last plenary: 264.85 Mb/s*)
 - 95th Percentile: 68.07 Mb/s (*last plenary: 61.25 Mb/s*)
- Maximum simultaneous wireless network clients: 1135
- Total number of connections (MAC addresses): 2792

BANDWIDTH UTILIZATION

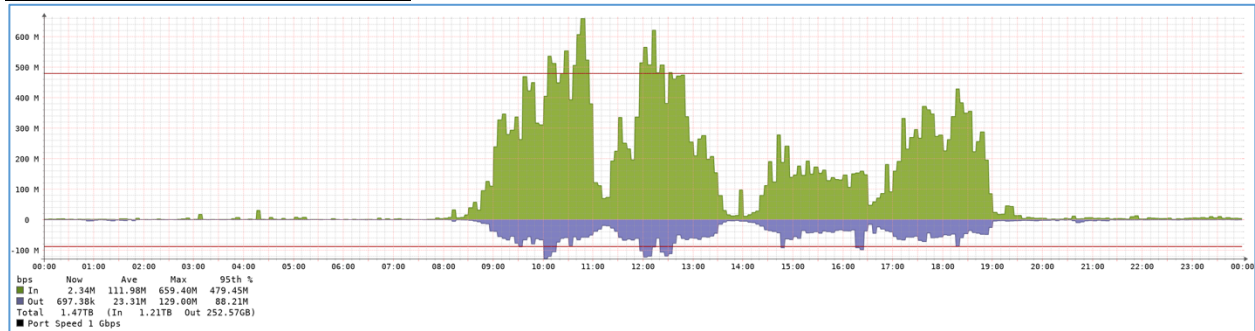


Figure 2. External Bandwidth: 24 hours.

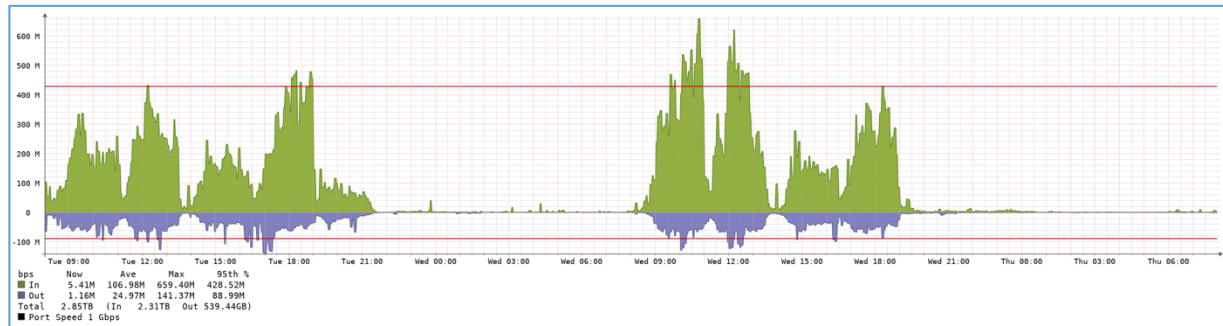


Figure 3. External Bandwidth: 48 hours.

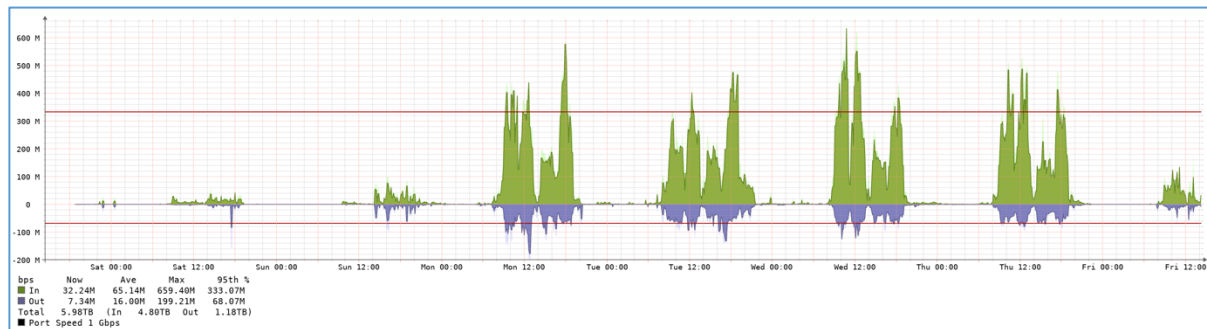


Figure 4. External Bandwidth: 1 week.

TOTAL CONNECTIONS

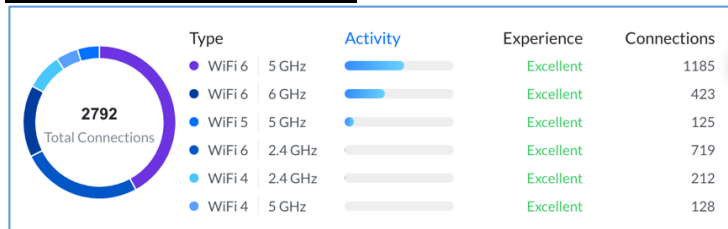


Figure 5. Wi-Fi connection types.