



Network Services Report

January 19, 2024

Event: IEEE 802 Wireless Interim Session

Venue: Hilton Panama, Panama City, Panama

Dates: January 15-19, 2024

SUMMARY

Linespeed Events, LLC is providing comprehensive wired and wireless network services in 10 meeting rooms, ballroom foyer and offices at the Hilton Panama. Linespeed deployed redundant routers configured to failover in case of equipment failure. Linespeed is also providing a landing page information portal (ieee802.linespeed.com) and local document server synchronized in near real time with mentor.ieee.org.

The local area network (LAN) supporting the meeting space is comprised of a main distribution frame (MDF) and two intermediate distribution frames (IDFs). Linespeed's wireless local area network (WLAN), comprised of 24 IEEE 802.11 a/g/n/ac/ax compliant WiFi 6 access points is currently providing Wi-Fi connectivity to 615 unique mac addresses (including laptops, tablets, smartphones, smartwatches, etc.) at this session (Figure 1.)

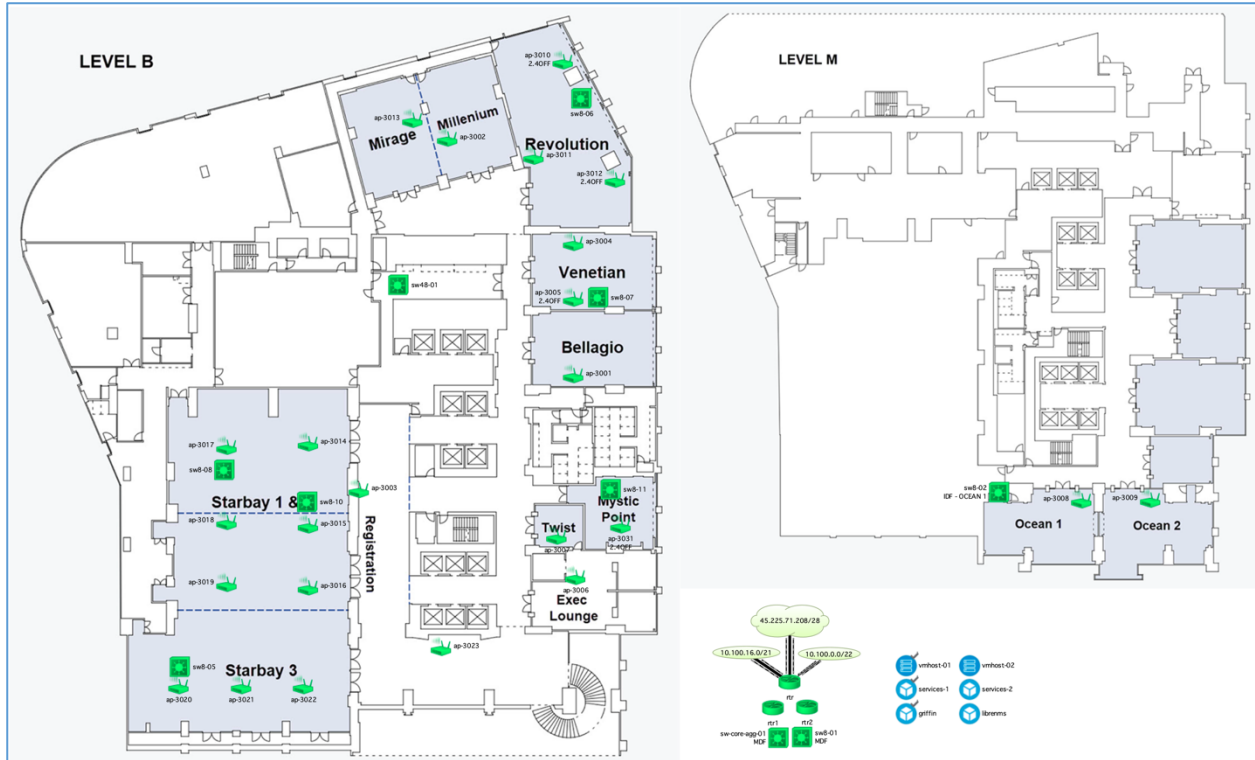
Hilton Panama provided IEEE 802 with a shared symmetrical 1Gb/s Internet circuit and a /30 CIDR block of public routable IPv4 address space for this event.

During the course of the network site visit in 2023 there were a number infrastructure deficiencies identified that required curing prior to arriving on site for the session. The hotel was very cooperative in adopting our recommendations and installing an additional IDF and repairing the out of spec cabling. As a result we enjoyed a very successful event.

Bandwidth utilization graphs for the week, a 48 hour period and a 24 hour period are represented in Figures 2-4.

WLAN DEPLOYMENT

Figure 1. Twenty-four access points were deployed throughout the meeting space.

**FINAL STATISTICS (as of 1PM 7/14/23)**

- Total Internet data: 2.05 TB
- Total Internet data inbound: 1.50 TB
- Total Internet data outbound: 545.65 MB
- Inbound Internet bandwidth utilization
 - Peak: 265.83 Mb/s
 - 95th Percentile: 98.47 Mb/s
- Outbound Internet bandwidth utilization
 - Peak: 137.28 Mb/s
 - 95th Percentile: 24.43 Mb/s
- Wireless network associations: 615 unique mac addresses

BANDWIDTH UTILIZATION

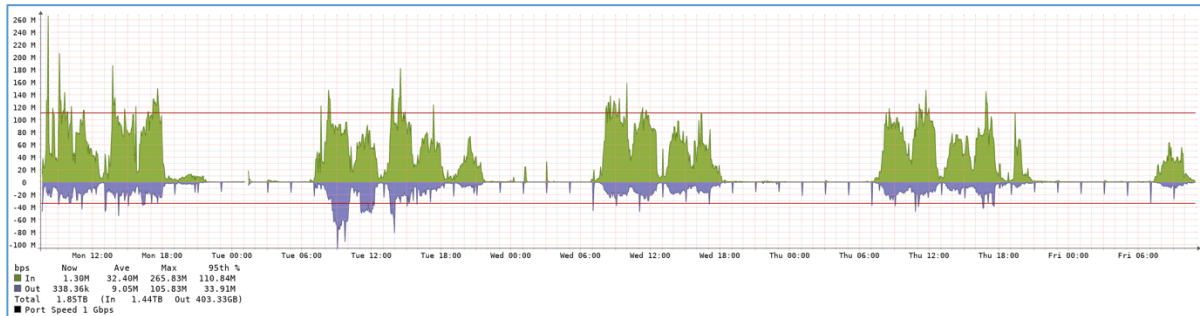


Figure 2. External Bandwidth: meeting week.

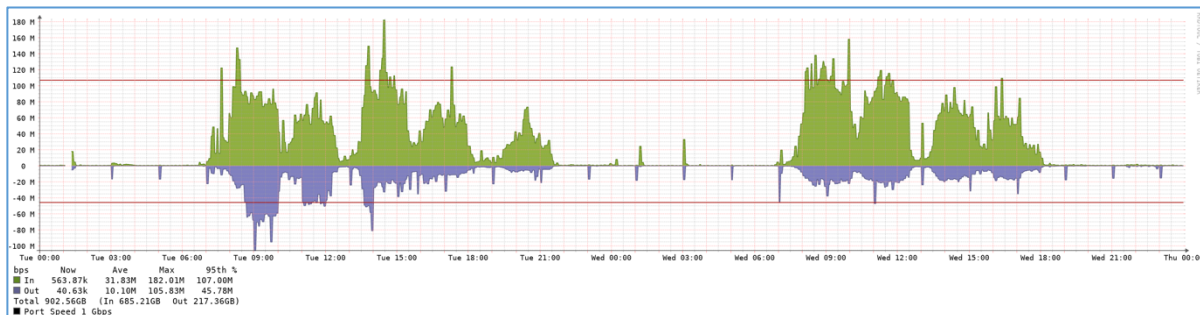


Figure 3. External Bandwidth: 48 hours.

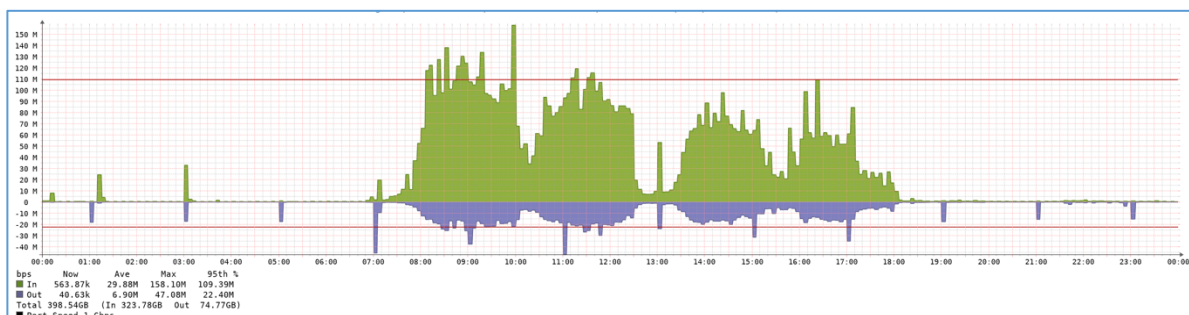


Figure 4. External Bandwidth: 24 hours.