



## **Network Services Report**

March 17, 2023

**Event:** IEEE 802 Plenary Session

**Venue:** Atlanta Hilton

**Dates:** March 13-17, 2023

### **SUMMARY**

Linespeed Events, LLC is providing comprehensive wired and wireless network services in 22 meeting rooms, ballroom foyer and offices in the Hilton Atlanta. Linespeed deployed redundant routers configured to failover in case of equipment failure. Linespeed is also providing a local landing page information portal and document server synchronized in near real time with [mentor.ieee.org](http://mentor.ieee.org).

The local area network (LAN) supporting the meeting space is comprised of a main distribution frame (MDF) and six intermediate distribution frames (IDFs). Linespeed's wireless local area network (WLAN), comprised of 41 IEEE 802.11 a/g/n/ac/ax compliant WiFi 6 access points is currently providing Wi-Fi connectivity to 1100 unique devices (laptops, tablets, smartphones, smartwatches, etc.) at this session (Figure 1.)

Hilton Atlanta provided IEEE 802 with a symmetrical 1Gb/s Internet circuit provisioned for 500Mb/s and a /29 CIDR block of public routable IPv4 address space for this event.

Linespeed tested all Cat5 copper lines interconnecting the IDF and meeting room ports during the initial network site. The wired infrastructure in the hotel meeting space was in generally poor condition. Many meeting rooms were devoid of usable data ports due to failed pins, crossed pairs, shorts, broken connections, missing jacks, unlabeled jacks and cable lengths exceeding ANSI/TIA/EIA 568-B Telecommunications Cabling Standards. As a result, Linespeed provided Hilton Atlanta with a list of issues associated with the wired network infrastructure to be remedied prior to the March 2023 plenary session. Linespeed performed a secondary follow-up site visit prior to the session to test the repairs to the infrastructure and verify that they were completed properly.

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

## WLAN DEPLOYMENT

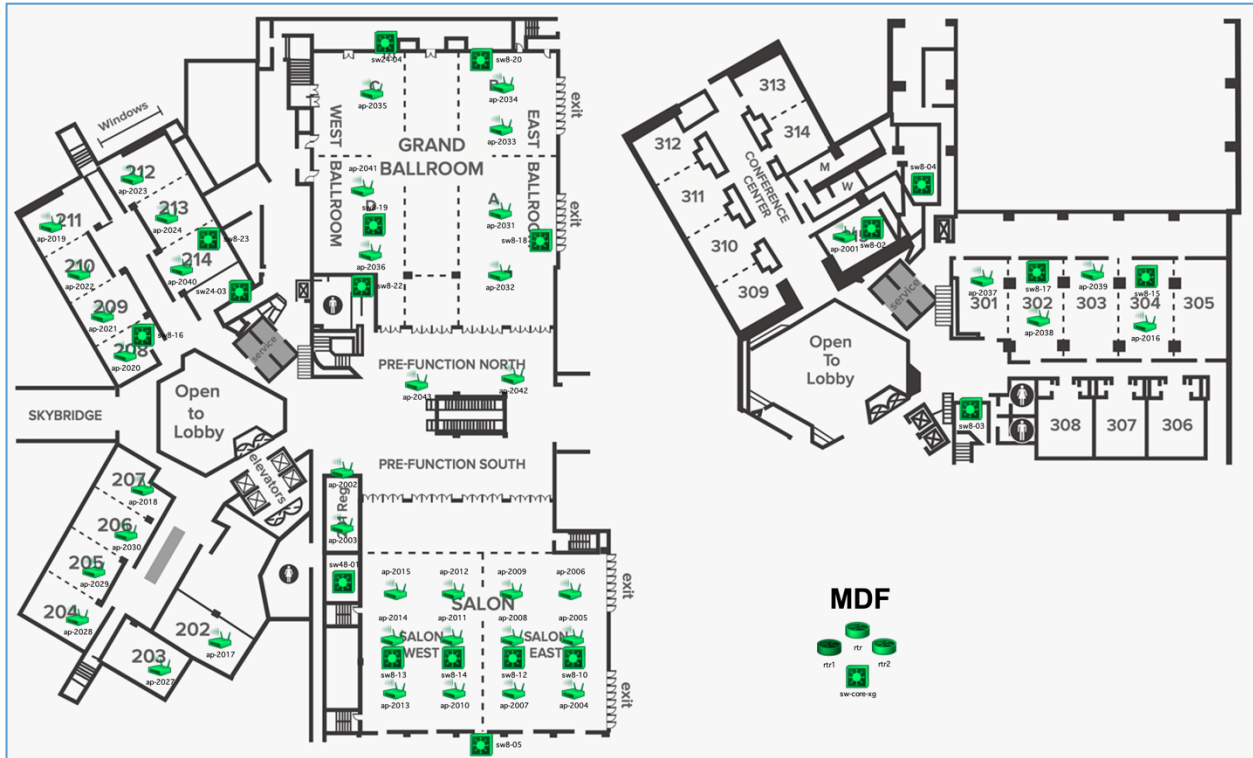


Figure 1. Forty-one access points were deployed throughout the meeting space.

## FINAL STATISTICS (as of 9AM 3/17/23)

- Total Internet data: 3.56 TB
- Total Internet data inbound: 2.94 TB
- Total Internet data outbound: 0.628 TB
- Inbound Internet bandwidth utilization
  - Peak: 382.55 Mb/s
  - 95th Percentile: 177.81 Mb/s
- Outbound Internet bandwidth utilization
  - Peak: 138.96 Mb/s
  - 95th Percentile: 32.89 Mb/s
- Wireless network associations: 1100 unique devices
- Wired network clients: 58 unique devices

## BANDWIDTH UTILIZATION

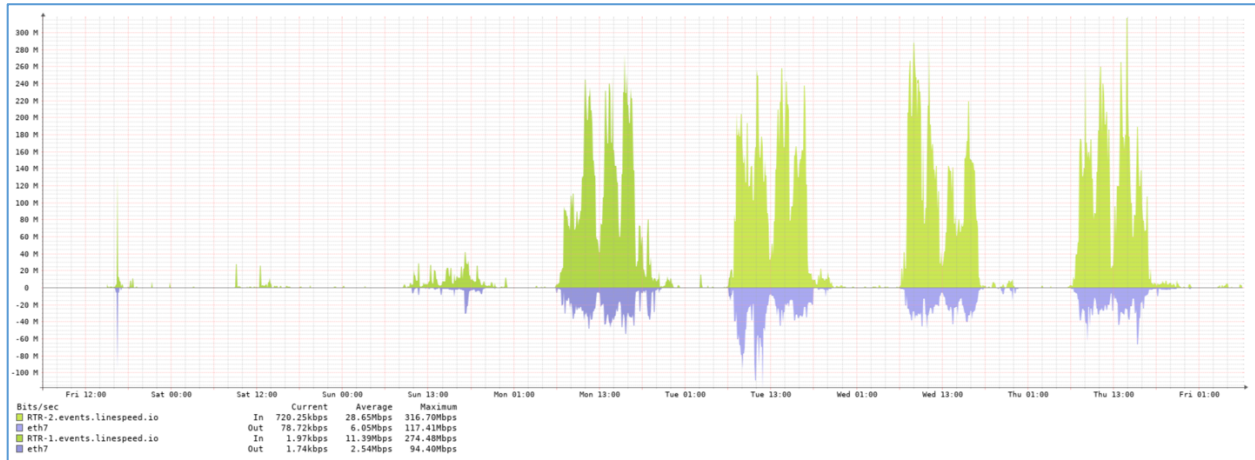


Figure 2. External Bandwidth: one week.

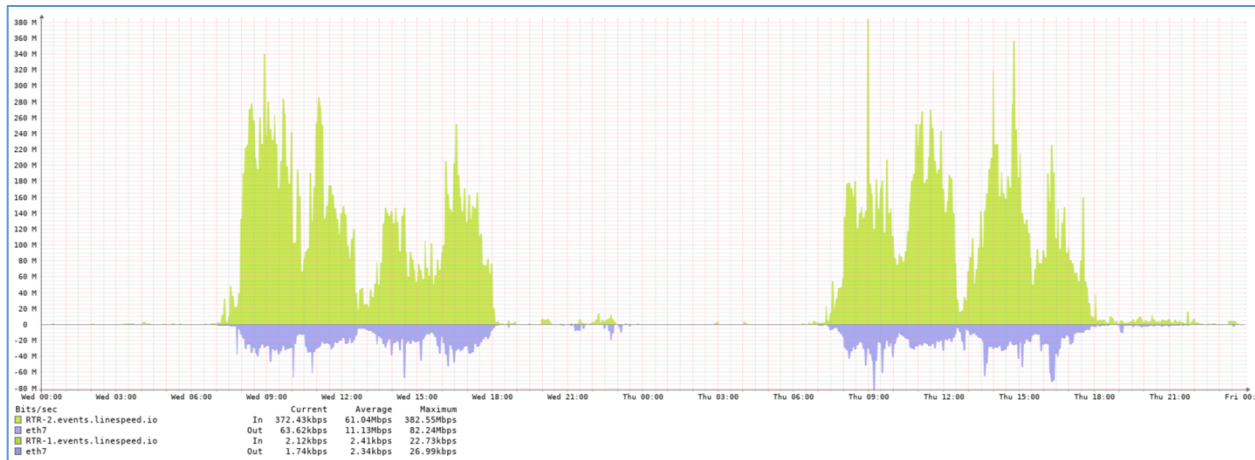


Figure 3. External Bandwidth: 48 hours.

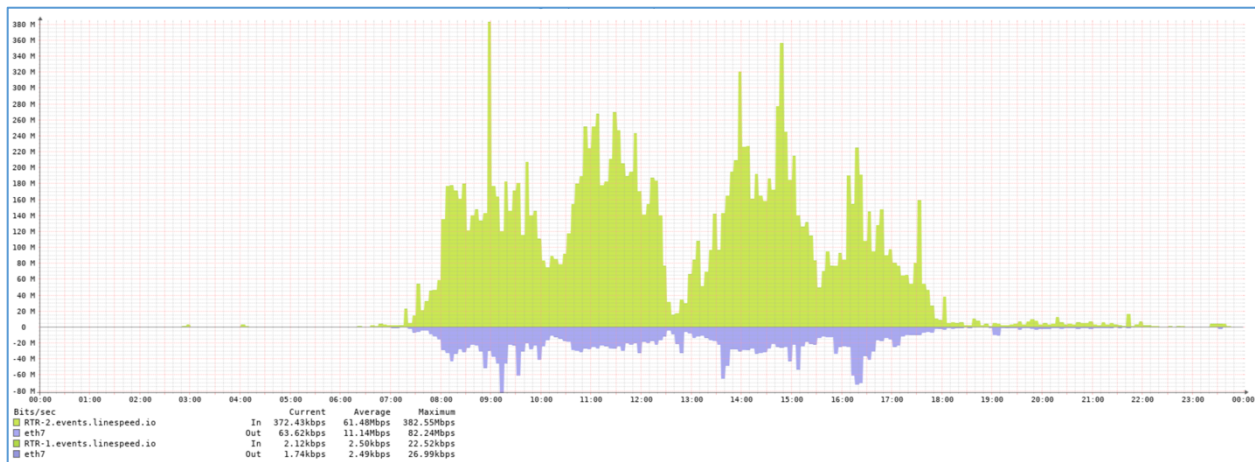


Figure 4. External Bandwidth: 24 hours.