



## **Final Network Services Report**

March 15, 2019

**Event:** IEEE 802 Plenary Session

**Venues:** Hyatt Regency Vancouver and Fairmont Vancouver

**Dates:** March 10-15 2019

### **Summary**

Linespeed Events, LLC is providing comprehensive wired and wireless network services in 33 meeting rooms, foyers and offices on three floors of the Hyatt Regency Vancouver (HRV) and two floors of the Fairmont Vancouver Hotel (FVH). Linespeed is also providing a local 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 seven intermediate distribution frames (IDFs) cross connected with 1Gb fiber to the main distribution frame (MDF). Linespeed's wireless local area network (WLAN), comprised of 59 IEEE 802.11 a/g/n/ac compliant access points, is currently providing Wi-Fi connectivity to more than 1608 unique wireless devices (laptops, tablets, smartphones, smartwatches, etc.) at this session. The WLAN deployment is shown in Figure 1.

The HRV provided IEEE 802 with 400Mb/s of symmetrical bandwidth for this plenary. Linespeed provided a 1G 5GHz radio point-to-point bridge link between the HRV and FVH to share the bandwidth between the meeting venues (see Figure 2.)

Linespeed provisioned the network with redundant routers in addition to a 1Gb LAN backbone comprised of distribution and edge switches.

Linespeed tested all Cat5 copper connections interconnecting IDFs and meeting room ports prior to deploying network hardware in the meeting space.

Bandwidth utilization and number of simultaneous clients for the session are shown in Figure 3. The peak number of simultaneous active wireless connections during the week was 1257. The peak bandwidth consumption was 218Mbps. We recommend requiring a minimum 300Mb/s symmetrical Internet circuit for future plenary sessions.

## WLAN Deployment

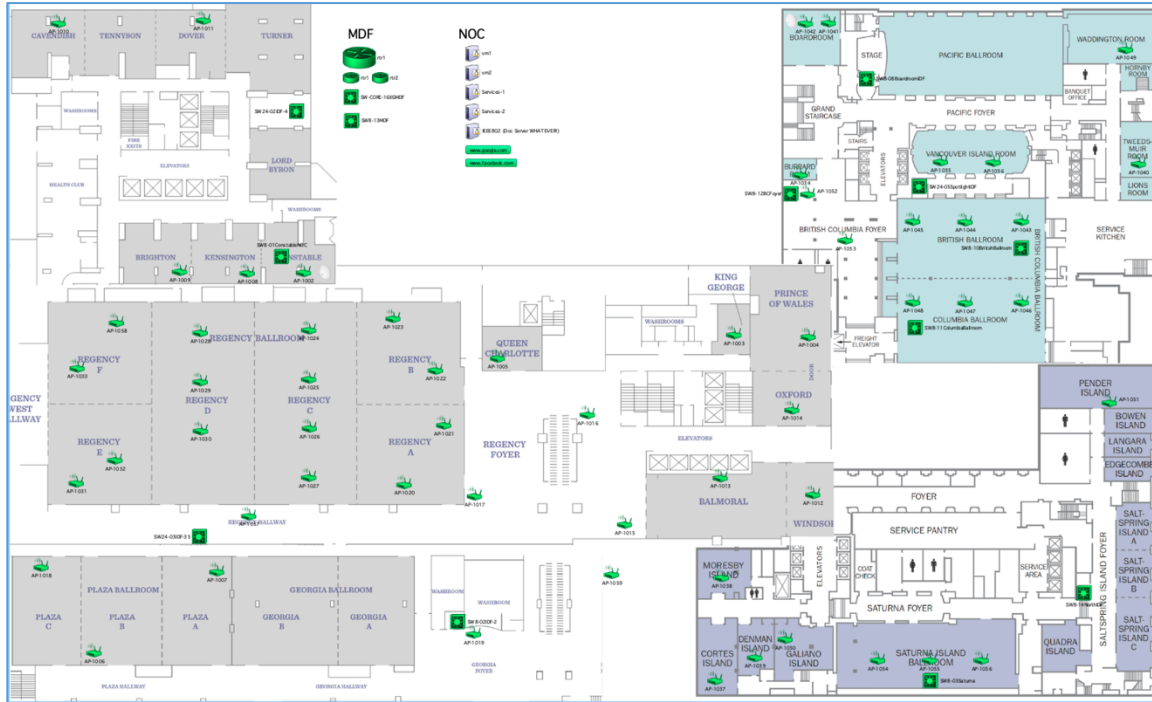


Figure 1. Fifty-nine access points were deployed throughout the meeting space.

## 5GHz Point-to-Point Bridge Link

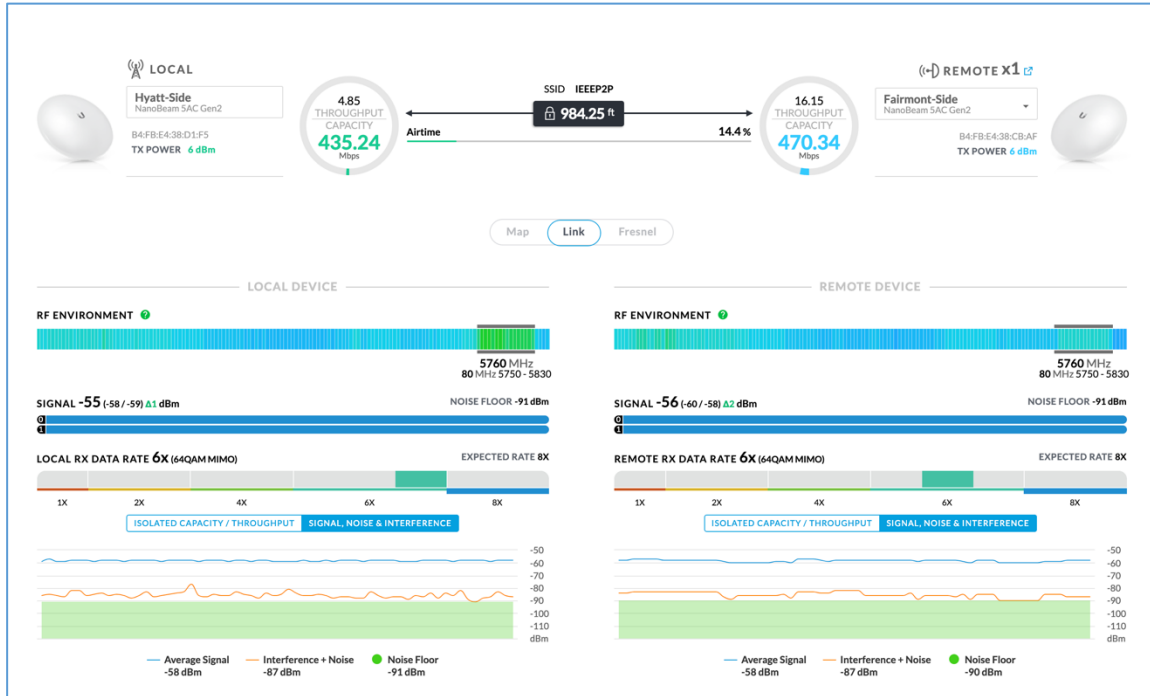


Figure 2. Radio bridge link between HRV and FHV

## BANDWIDTH UTILIZATION

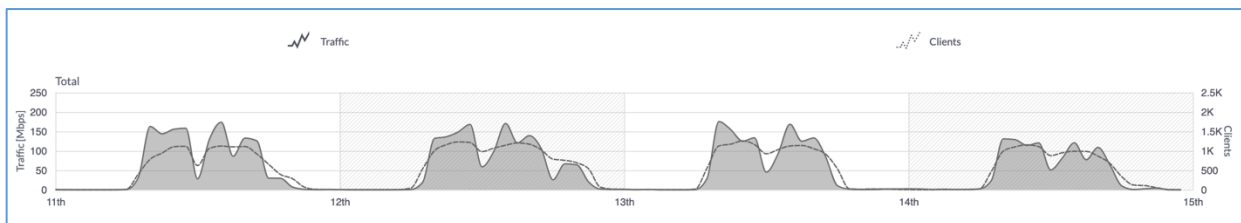


Figure 3. Bandwidth utilization and simultaneous wireless clients.