LINESPEED

Mid-week Network Services Report
January 19, 2017

Event: IEEE 802 Wireless Groups Interim Session
Venue: Grand Hyatt Atlanta at Buckhead
Dates: January 15-20, 2017

SUMMARY

Linespeed Events, LLC is providing comprehensive wired and wireless network services in 20 meeting rooms, foyers and offices on three floors of the Grand Hyatt Atlanta at Buckhead hotel (GHB). Linespeed is also providing digital projectors and a 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 one intermediate distribution frame (IDF). Linespeed's wireless local area network (WLAN), comprised of 36 IEEE 802.11 a/g/n/ac compliant access points is currently providing Wi-Fi connectivity to 639 unique devices (laptops, tablets, smartphones, etc.) at this session (Figure 1.)

IEEE 802W has contracted with GHB to provide a symmetrical 100Mb/s Internet circuit and a /29 CIDR block of public routable IPv4 address space for this event. GHB upgraded their Internet circuit to 500Mb/s just prior to our arrival. However, the hotel meeting space is provisioned with Fast Ethernet switched infrastructure limited to 100Mb/s throughput, which precludes our ability to benefit from the new 500Mb/s circuit. It should be noted that the General Manager of the hotel assured us that all of the LAN switching infrastructure would be upgraded to 1Gb/s or faster switches by the time we return for a future meeting.

Linespeed provisioned the network with redundant routers configured to failover in case of an outage.

Bandwidth utilization graphs for the past week, 48 hours and 24 hours are shown in Figures 4-6.
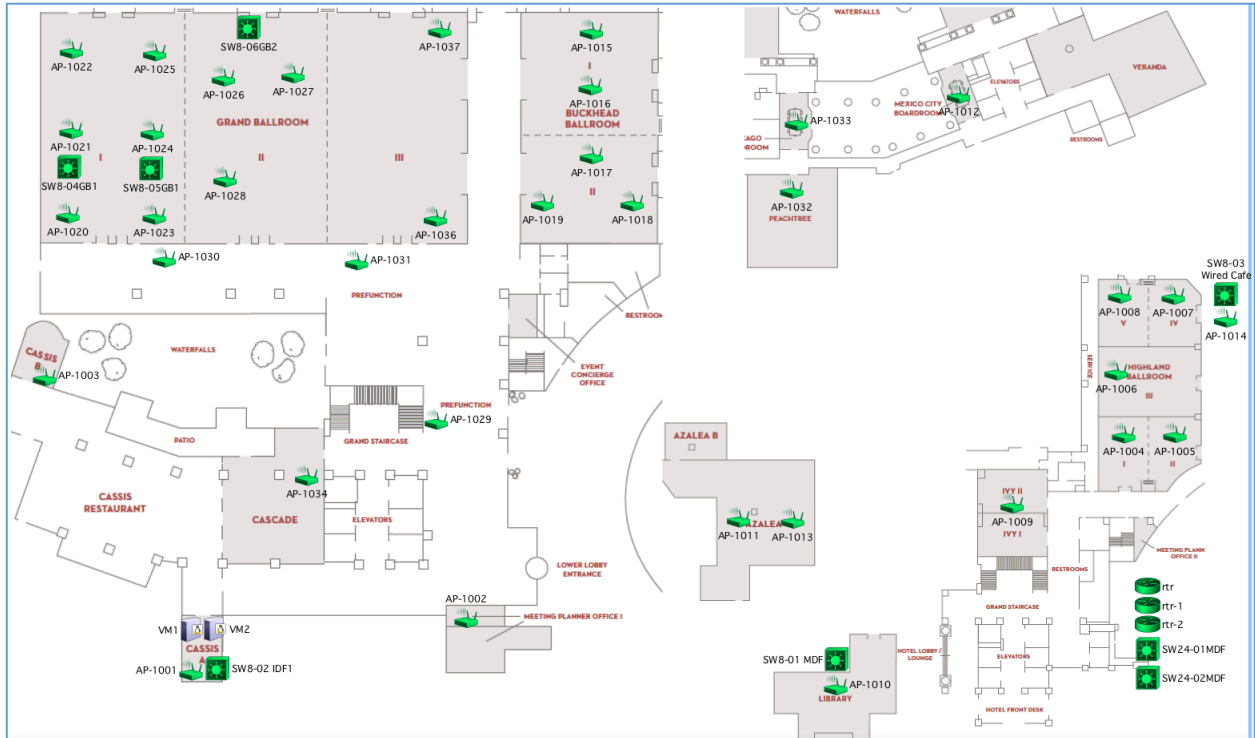
WLAN DEPLOYMENT

Figure 1. Thirty-six access points were deployed throughout the meeting space.

ISSUE #1

We tested and determined that many of the Cat5 cable runs between the MDF/IDF and the data ports in the Grand Ballrooms were outside of the 802.3ab 1000BASE-T 100 meter specification for cable length or were improperly punched down resulting in split pairs.

RESOLUTION

We restricted our connections to ports that were properly wired and followed the 802.3ab 1000BASE-T specification for cable length. We reported our findings to the hotel and the General Manager assured us that they would test and repair all data port cable runs prior to our return to this property in the future.

ISSUE #2

No usable data ports available in the Cassis B and Peachtree meeting rooms.

RESOLUTION

We ran Cat5 cables to the meeting rooms from functioning data ports in adjacent meeting rooms.

ISSUE #3

Wireless coverage in Grand Ballroom I & II was impacted by an elevated RF noise floor.

RESOLUTION

A wireless scan determined that there were a large number of PSAV and Hyatt access points broadcasting in the meeting room. It should also be noted that the PSAV and Hyatt 2.4GHz radios were broadcasting on overlapping channels, as opposed to limiting them to standard non-overlapping channels 1, 6 & 11. A request to PSAV to turn off their access points resulted in them leaving the radios on and hiding their SSID (Figure 2.). Additional requests were made and the Hyatt and PSAV radios were either turned off or properly channelized (Figure 3.). This resolved the issue.
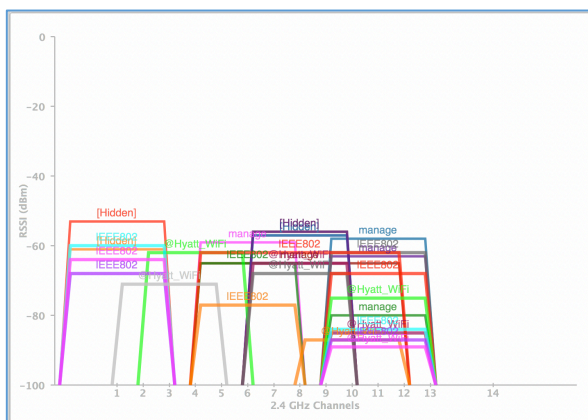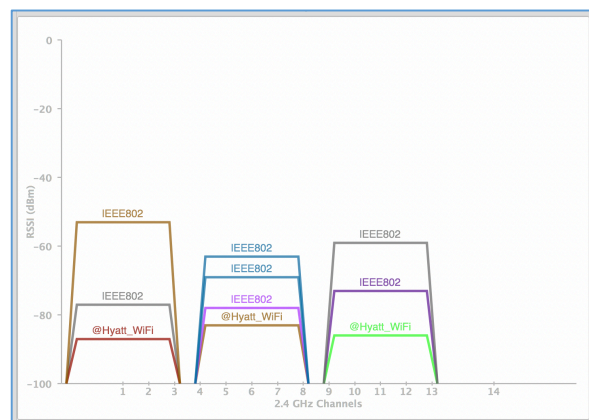

Figure 2. Before

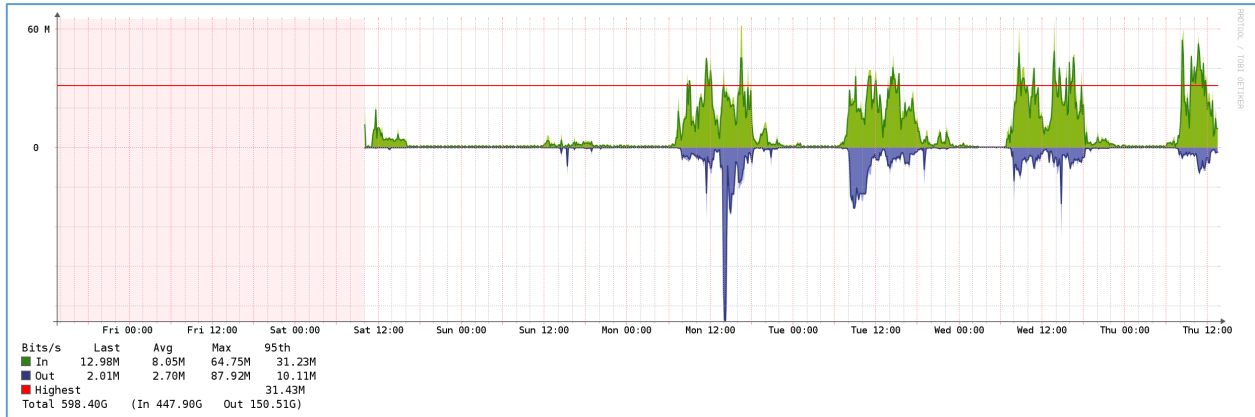Figure 3. After

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BANDWIDTH UTILIZATION

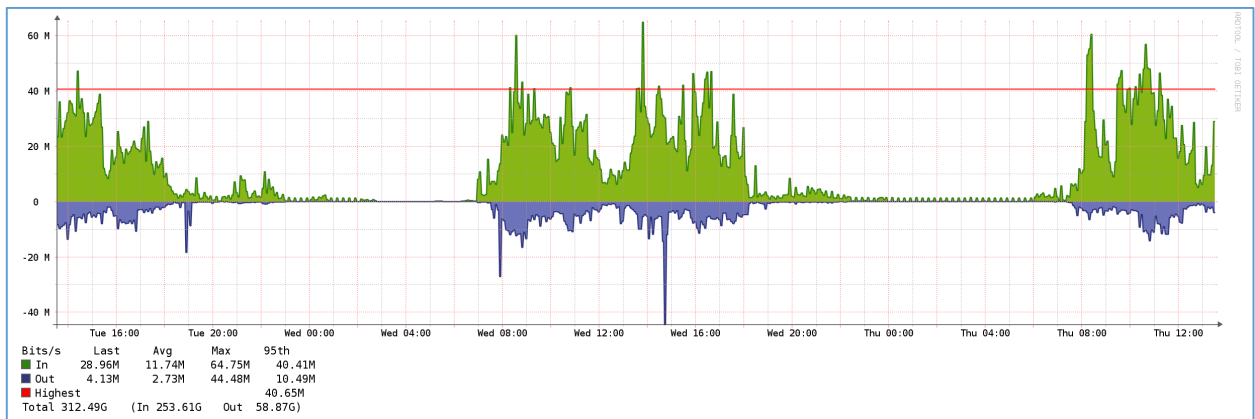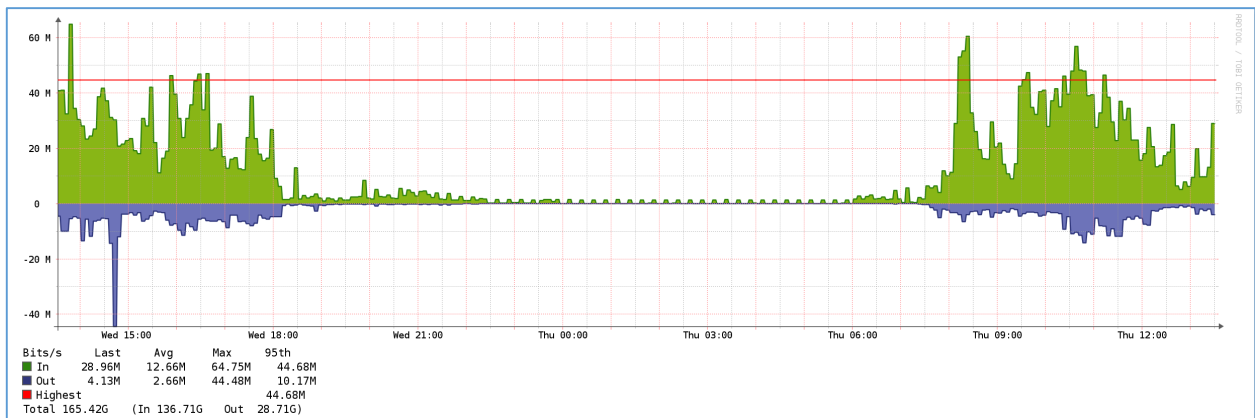Figure 4. External Bandwidth: past week

Figure 5. External Bandwidth: past 48 hours

Figure 6. External Bandwidth: past 24 hours