LINESPEED

Final Network Services Report

May 12, 2017

Event: IEEE 802 Wireless Groups Interim Session
Venue: Daejeon Convention Center
Dates: January 7-12, 2017

SUMMARY

Linespeed Events, LLC is providing comprehensive wired and wireless network services in 16 meeting rooms, foyers and offices on two floors of the Daejeon Convention Center (DCC). Linespeed is also providing 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 three intermediate distribution frames (IDFs). Linespeed's wireless local area network (WLAN), comprised of 29 IEEE 802.11 a/g/n/ac compliant access points is currently providing Wi-Fi connectivity to 499 unique devices (laptops, tablets, smartphones, smartwatches, etc.) at this session (Figure 1.)

IEEE 802W has contracted with DCC to provide a symmetrical 500Mb/s Internet circuit and a /29 CIDR block of public routable IPv4 address space for this event.

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

Linespeed tested all Cat5 & Cat6 copper lines interconnecting IDFs and meeting room ports prior to deploying network hardware.

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

ISSUE #1

We lost connectivity to the IEEE attendance server imat.ieee.org (140.98.193.94) and the IEEE document server mentor.ieee.org (140.98.193.95) during Tuesday and Wednesday evening meetings.

RESOLUTION

On both occasions connectivity was restored in less than 30 minutes without local intervention. IEEE IT personnel were notified of the outages and a request was made to identify the source and cause of the outages.
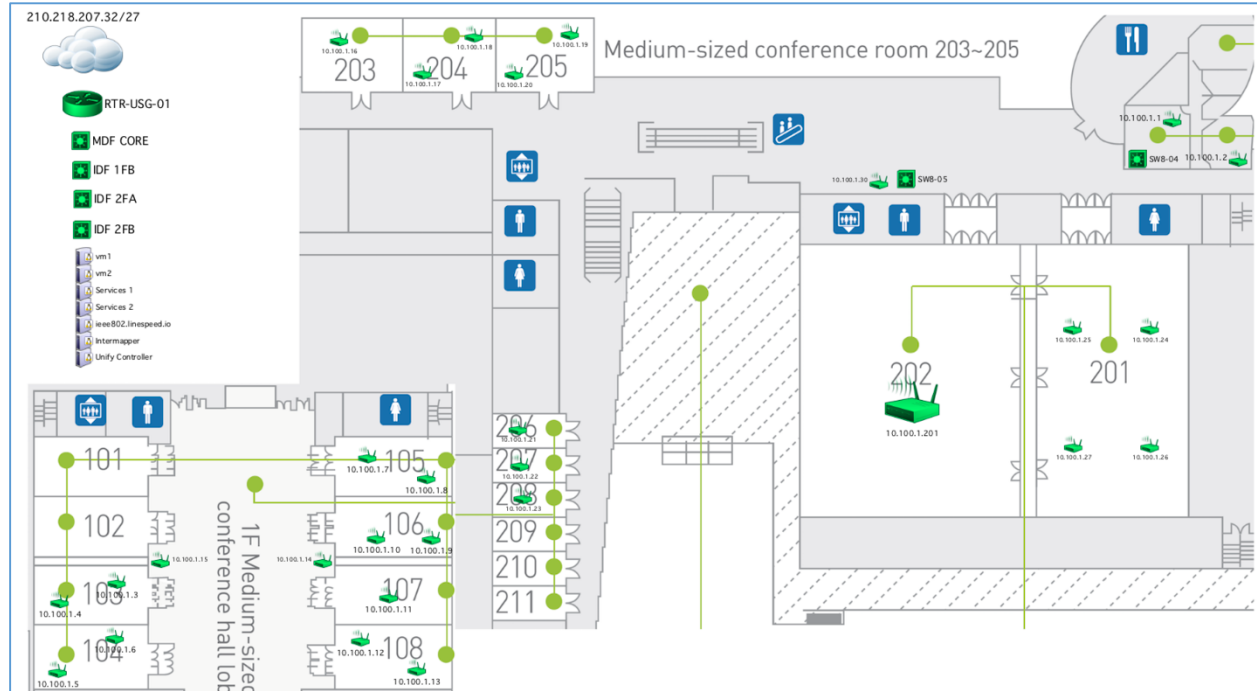
WLAN DEPLOYMENT

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

FINAL STATISTICS

- Total Internet data inbound: 417.30 GB
- Total Internet data outbound: 122.63 GB
- Inbound Internet bandwidth utilization
  - Peak: 103.69 Mb/s
  - 95th Percentile: 29.28 Mb/s
- Outbound Internet bandwidth utilization
  - Peak: 58.57 Mb/s
  - 95th Percentile: 8.09 Mb/s
- Maximum wireless network associations: 499 unique devices

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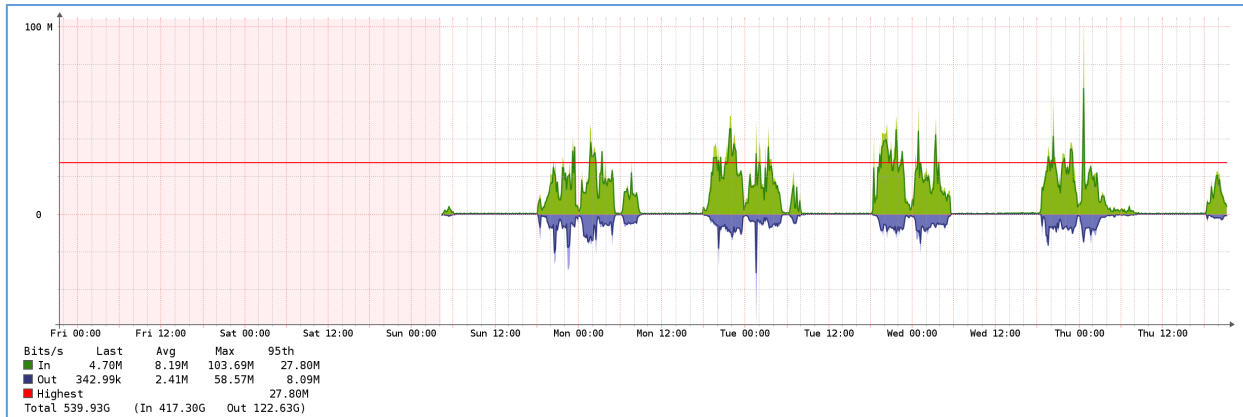## BANDWIDTH UTILIZATION

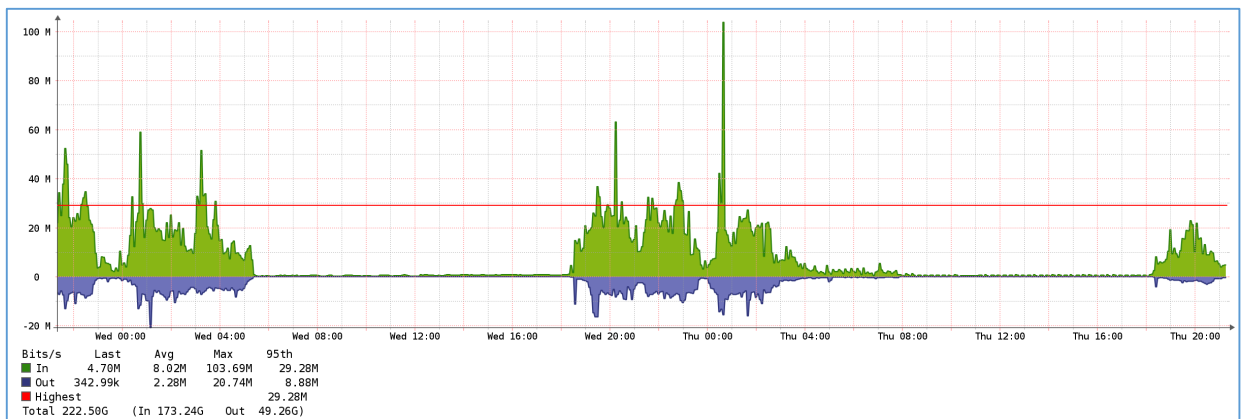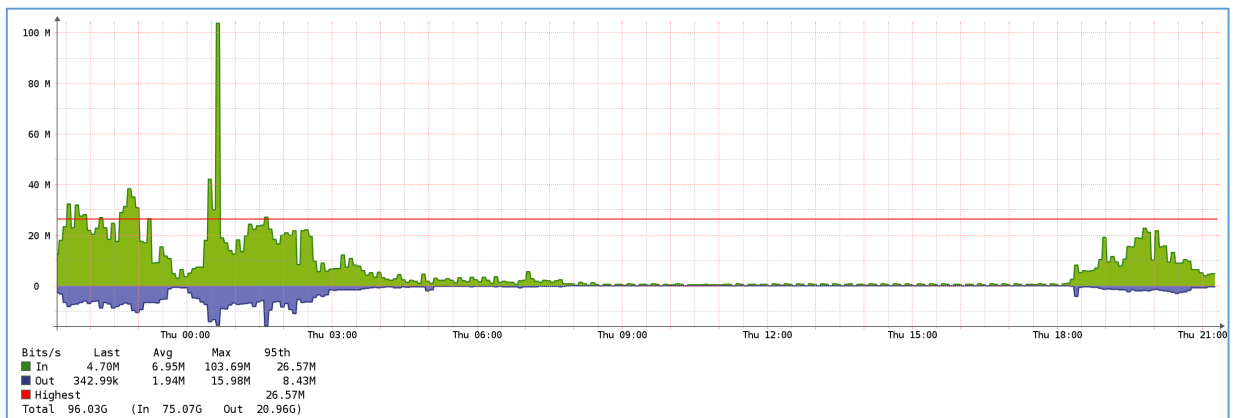Figure 4. External Bandwidth: past week

Figure 5. External Bandwidth: past 48 hours

Figure 6. External Bandwidth: past 24 hours