IEEE 802 Plenary Session

Hyatt San Francisco at Embarcadero Center

Mid-Session Network Services Report

July 20th, 2011

Summary

Verilan, Inc. is providing comprehensive network services for the IEEE 802 July 2011 Plenary session at the Hyatt San Francisco at Embarcadero Center (HREC) in San Francisco, CA, USA. We are pleased to report that after a full infrastructure deployment, the following issues have been identified and resolved. The network is stable and supporting in excess of 1000 unique wireless clients (laptops, smartphones, etc.)

Issue: The color inkjet printers located in the Registration area and WG Chair's workroom became inoperative.

Resolution: Verilan's NOC team purchased and installed replacement printers with in 2 hours.

Issue: Remote IMAT attendance server hosted by IEEE became unavailable.

Resolution: The Verilan NOC team verified that there were no transit related outages or interruptions between HREC and the IEEE NJ facility where IMAT is hosted. The Verilan NOC team notified senior IEEE staff at the HREC, who in turn have been working directly with IEEE IT staff in NJ to resolve the issue. Resolution is pending.

The Verilan Network Help Desk is providing support for all attendees during scheduled meeting hours. All Help Desk support requests have been addressed and fully resolved by the Verilan staff.

Earlier this year Verilan recommended and facilitated the provisioning of a 1Gb optical fiber circuit from IP Networks to enhance Internet connectivity in the meeting spaces at

the HREC. We contracted for 100Mbps of symmetrical uncapped burstable bandwidth dedicated to our meeting space. Internet bandwidth was measured via speedtest.net using a hard wire connection to one of the Gb IDF switches as shown in Figure 1. Peak Internet bandwidth usage during this session is currently recorded as 56Mbps. Comprehensive LAN and WLAN infrastructure including managed layer 3 switches were configured and deployed in the MDF, IDFs and 34 meeting rooms located on four floors of the HREC. A total of three IDFs's were interconnected to the MDF via optical links. Network traffic statistics are shown in Figure 2. Internet usage for the last 24 hour period is shown in Figure 3. Internet usage for the last seven days is shown in Figure 4. Internet usage for the last twelve months is shown in Figure 5.
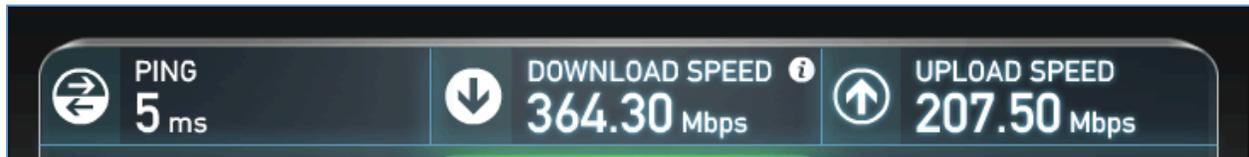

PING
5 ms

DOWNLOAD SPEED
364.30 Mbps

UPLOAD SPEED
207.50 Mbps

Figure 1. Internet bandwidth measured at IDF optical switch.

□ Traffic statistics - Wed Jul 20 07:23:00 2011

| Interface	Period	Direction	Current rate	Hour	Day	Week	Month
EXTERNAL	Current	In	0.0 bit/s	158.1 MB	719.6 MB	288.7 GB	310.6 GB
		Out	0.0 bit/s	22.7 MB	50.8 MB	92.1 GB	113.8 GB
	Previous	In		50.1 MB	146.7 GB	17.1 GB	0.0 KB
		Out		5.5 MB	45.5 GB	21.6 GB	0.0 KB
MANAGEMENT	Current	In	0.0 bit/s	5.9 MB	15.4 MB	3.1 GB	4.0 GB
		Out	0.0 bit/s	56.2 MB	295.8 MB	14.0 GB	20.1 GB
	Previous	In		1.4 MB	886.6 MB	880.4 MB	0.0 KB
		Out		34.5 MB	2.1 GB	6.1 GB	0.0 KB
open	Current	In	0.0 bit/s	15.9 MB	33.0 MB	56.8 GB	57.2 GB
		Out	0.0 bit/s	99.9 MB	414.9 MB	245.0 GB	248.9 GB
	Previous	In		3.3 MB	32.6 GB	443.9 MB	0.0 KB
		Out		9.0 MB	128.3 GB	3.9 GB	0.0 KB
secure	Current	In	0.0 bit/s	1.3 MB	2.3 MB	32.9 GB	53.4 GB
		Out	0.0 bit/s	2.0 MB	9.0 MB	30.3 GB	42.2 GB
	Previous	In		785.0 KB	12.3 GB	20.3 GB	0.0 KB
		Out		6.7 MB	16.3 GB	7.1 GB	0.0 KB

Figure 2. Internet Traffic Statistics
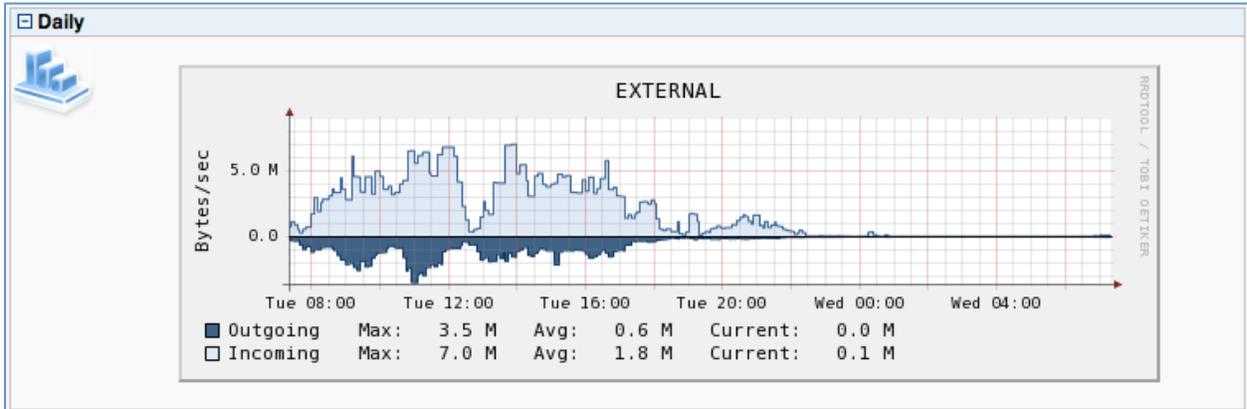
Figure 3. Internet Usage: past 24 hours (PDT)
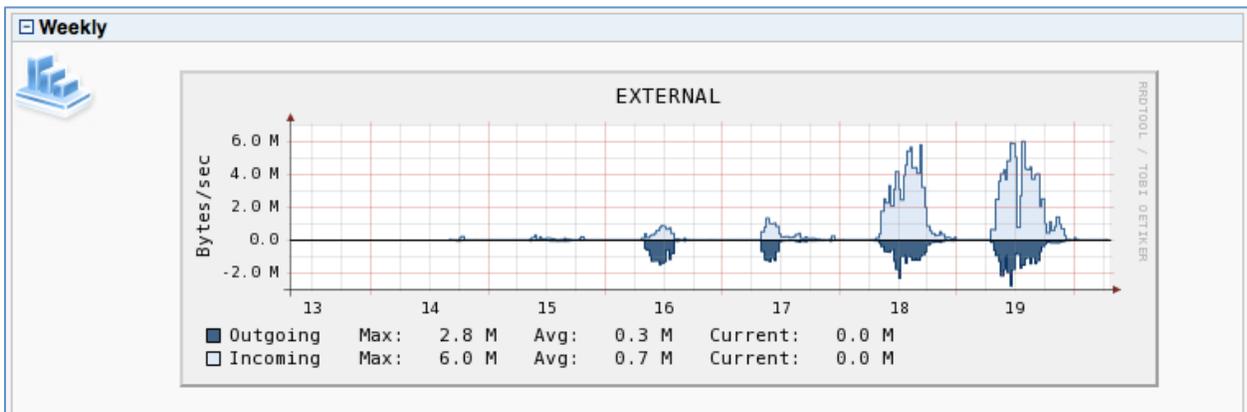
Figure 4. Internet Usage: past 7 days
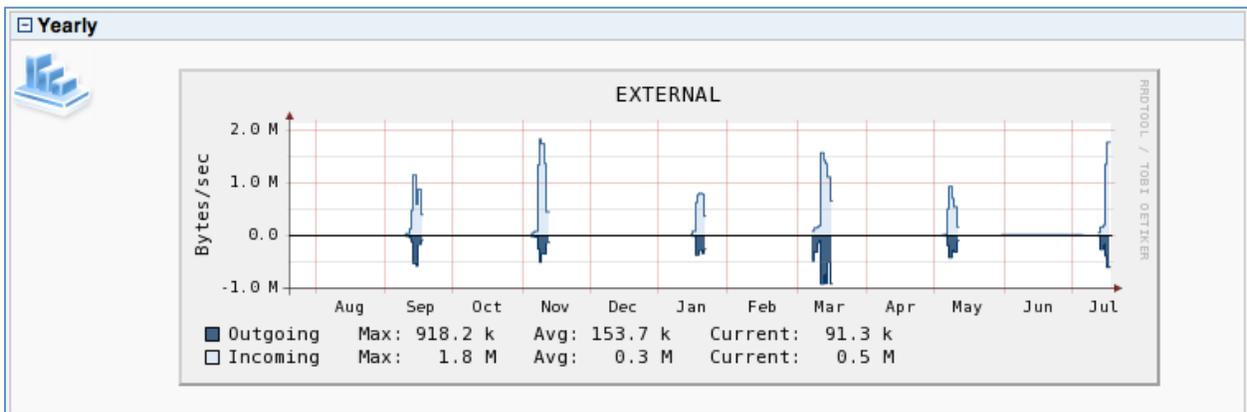
Figure 5. Internet Usage: past 12 months

Network Deployment & Coverage

Verilan deployed 48 enterprise grade tri-modal IEEE 802.11a/b/g wireless access points throughout the HREC to provide coverage for all meeting spaces. Verilan is providing both Open and Secure (802.1x) networks to registered attendees. Figure 5. illustrates the location of the WAP deployments.

Figure 6. Wireless Access Point Deployment Plan