IETF 91: Honolulu, HI

NOC Report

Network Basics

- 2 x 1 Gb/s link to Time Warner Cable
- Native Public IPv4 and IPv6 from our own AS
- Fully redundant routing and switching core
- ~75 NEW 802.11ac Access Points deployed in meeting space
- IETF network extended to hotel guest rooms (ietf-hotel SSID and wired connections) and common areas (ietf-public SSID) via existing hotel infrastructure

A big thank you to Cisco…

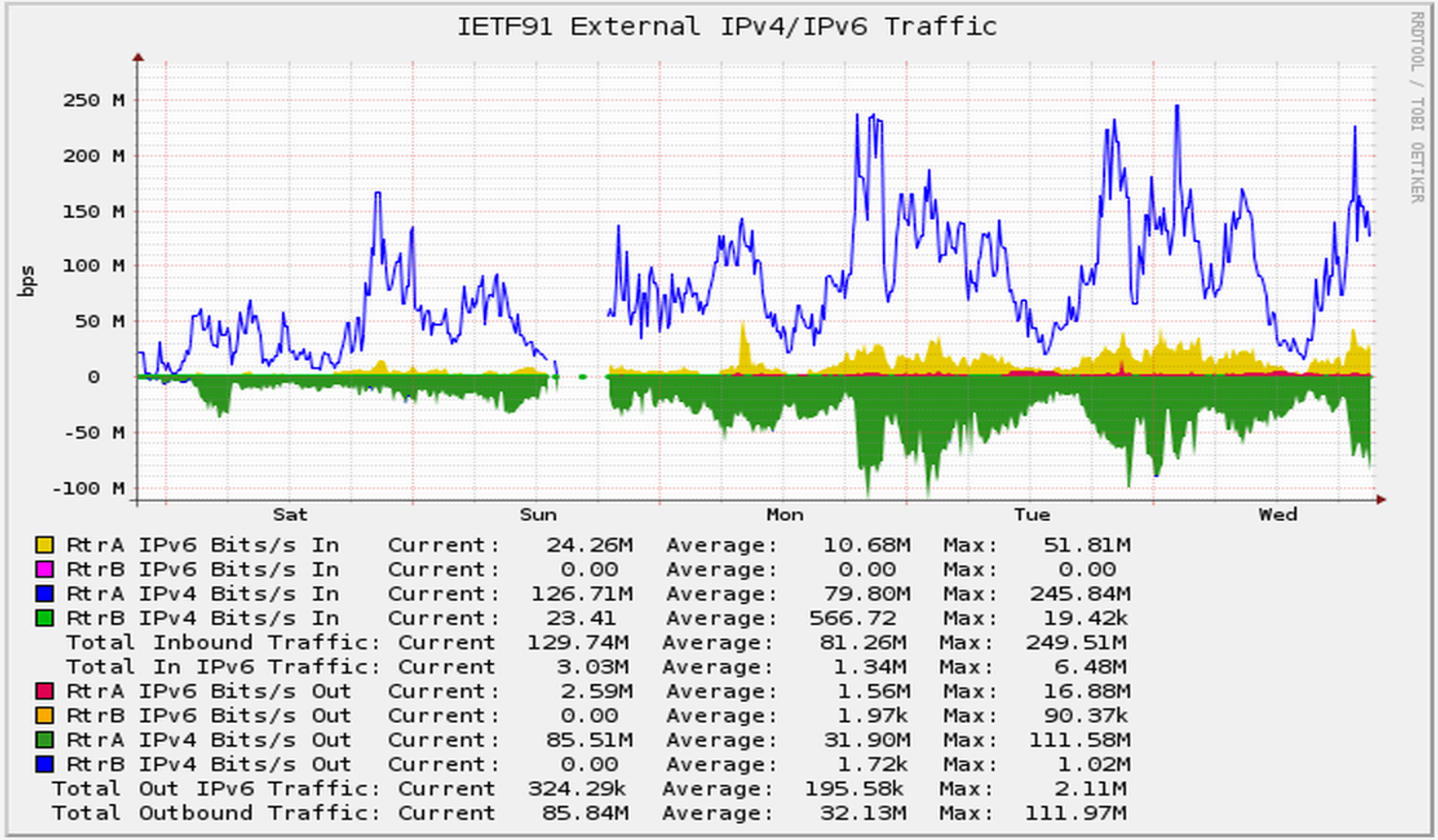
…for their generous gear donation.

- Catalyst 4500-X Switches
- Catalyst 3560-X Switches (shipped overnight from Netherlands!)
- Catalyst 3560CG Switches
- Aironet 2702i Access Points
- Assorted optics

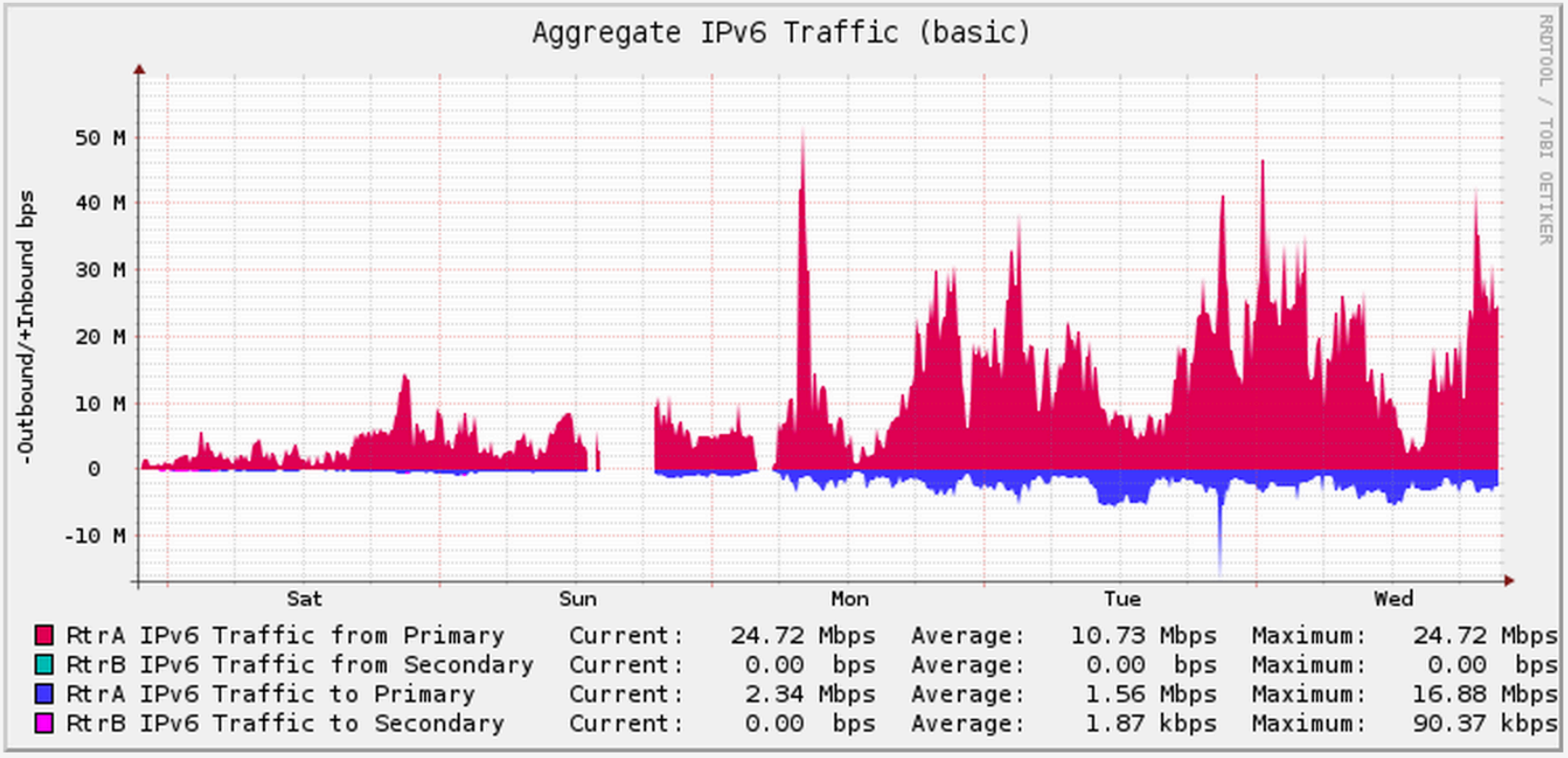
PLUS we have new Server hardware coming shortly.

MANY thanks to Dave Ward, Hoang Pham, Joe Clarke & Shaun Jones of Cisco and Chris Elliott of the NOC for all their effort in making this happen!

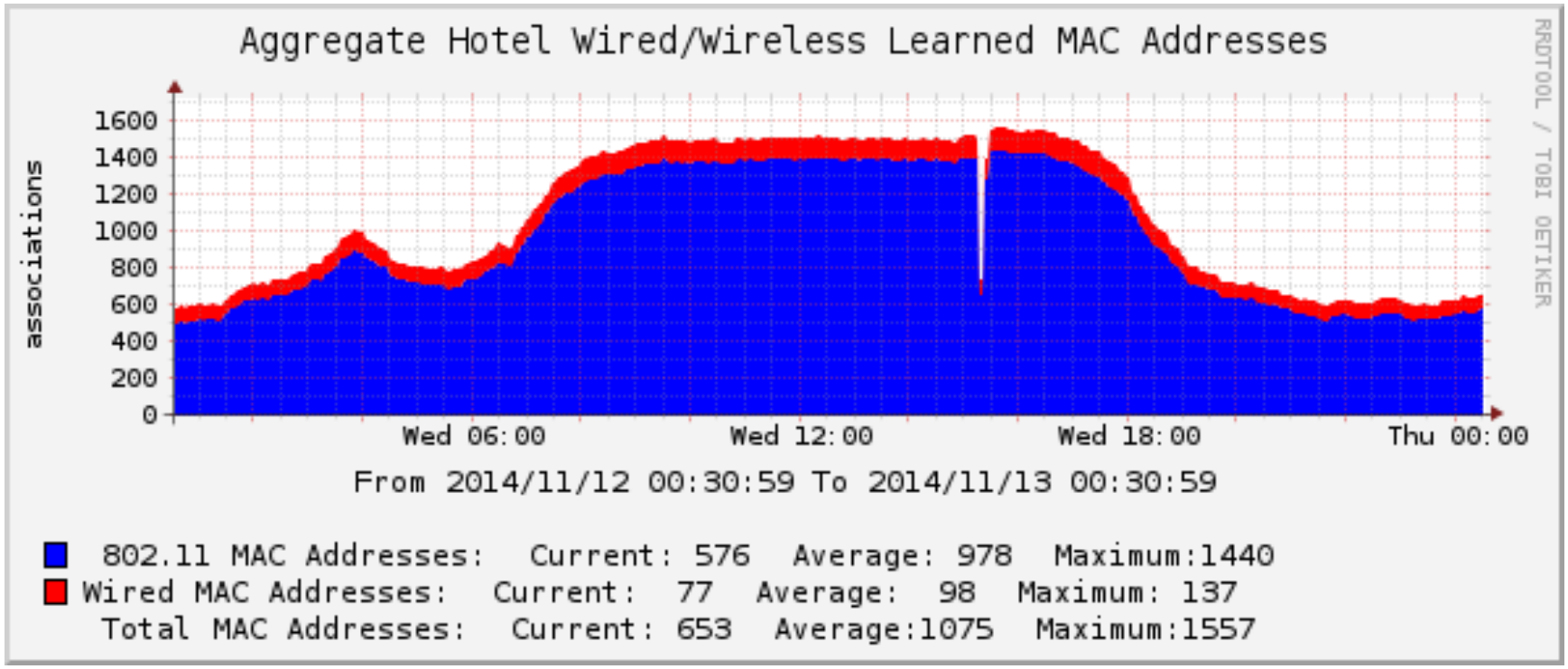
External Traffic



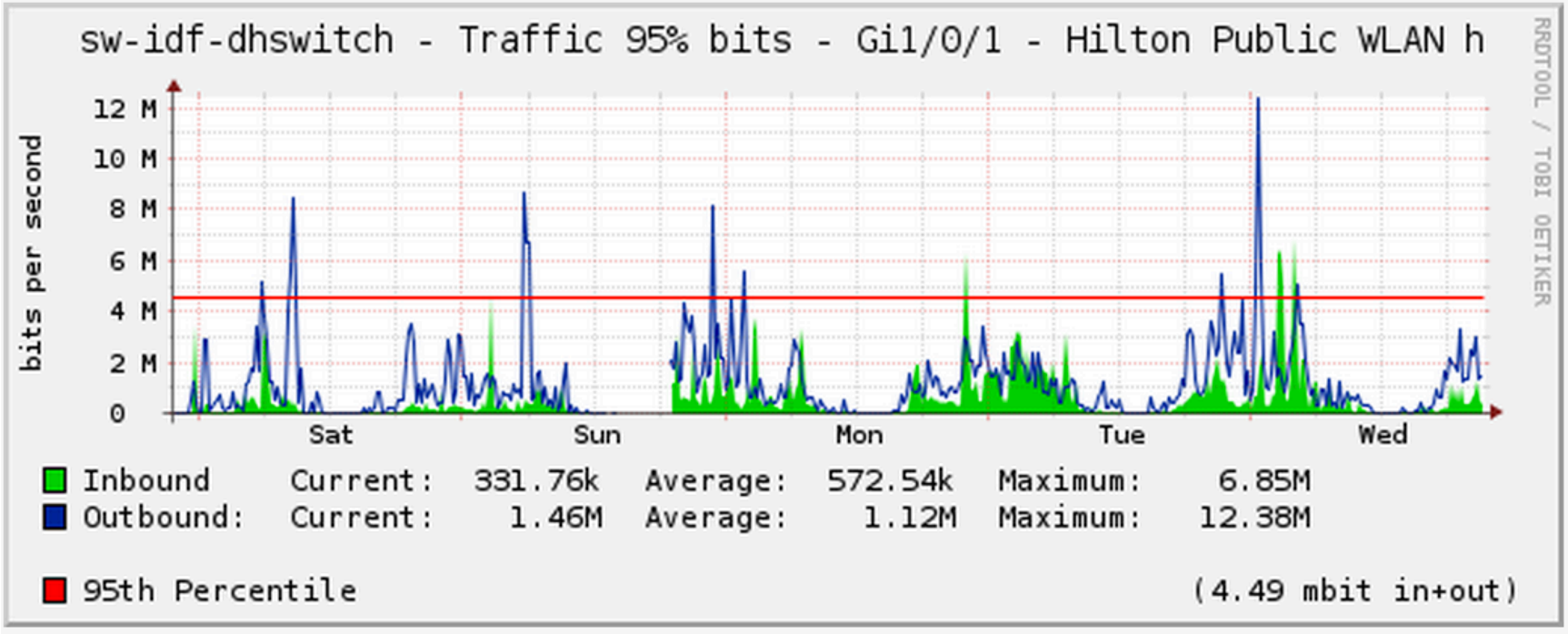
External IPv6 Traffic



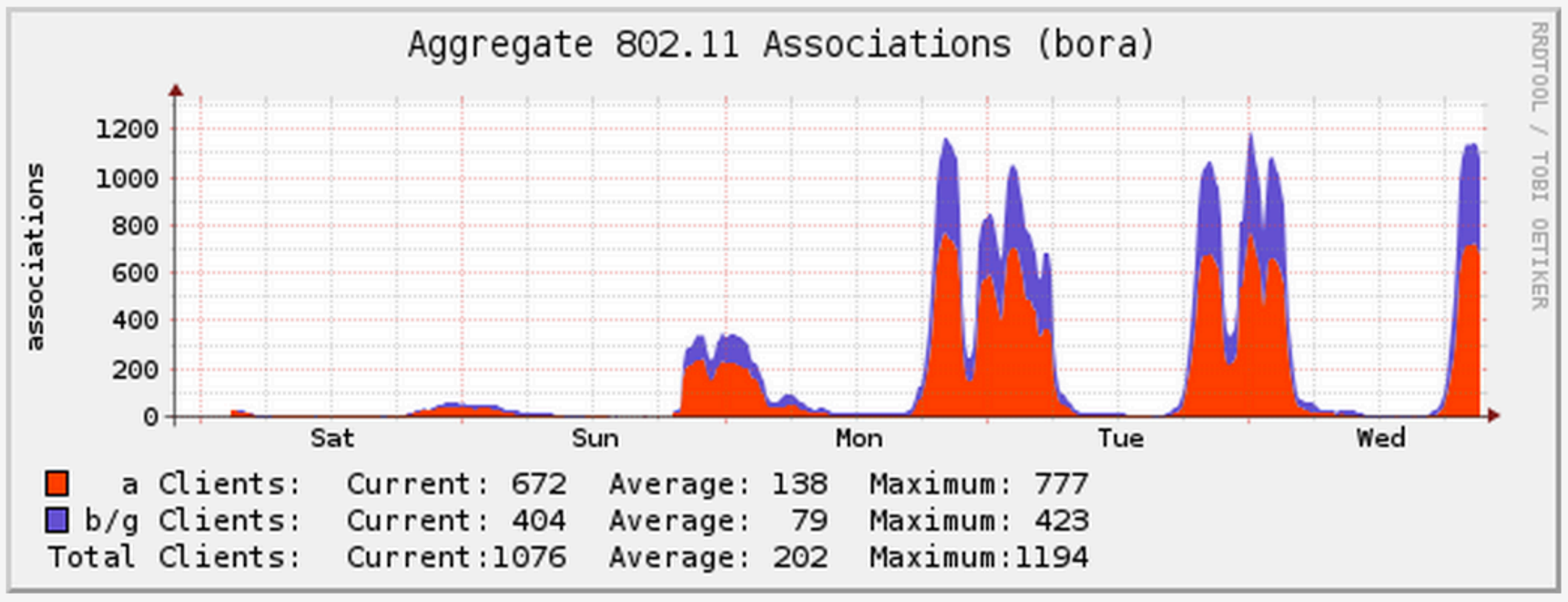
Guestroom MAC addresses



Public Area WiFi Bandwidth



Wireless Associations



Bumps in the Road with New Gear

Despite trying to change as few things as possible in the well-tested configurations, adding new gear always has surprises.

- We found some surprising default MTU issues in the new switches that lead to mismatches.
- The new Access Points had interoperability issues with certain Intel wireless chipsets and drivers
- Automated configuration of the new Access Points wouldn't install default gateways and hostnames in some circumstances

We've found workarounds for all of these and are working closely with Cisco to fix them before Dallas.

Other Fun!

- Identified an interesting bug in Time Warner Cable's network that caused IPv6 loss. They did an exceptional job of identifying and resolving the issue. Many thanks to Ron da Silva and Wes George for jumping in to get it done!
- Delivered guestroom and wireless public space connectivity to nearly 3500 guestrooms and 22 acres!
- Doing this lead to lots of outside scans hitting the hotel infrastructure. The resultant broadcast traffic impacted the existing wifi hardware. To address this, we deployed a "ARP sponge" to gobble up the extra traffic, which dramatically improved the situation.

Network Team

IETF NOC Team Volunteers:

- Hirochika Asai (WIDE)
- Randy Bush (IIJ)
- Joe Clarke (Cisco)
- Chris Elliott
- Bill Fenner (Arista)
- Joel Jaeggli (Fastly)
- Bill Jensen (University of Wisconsin –Madison)
- Warren Kumari (Google)
- Lucy Lynch
- Jim Martin (Internet Systems Consortium)
- Karen O'Donoghue (ISOC)
- Masafumi Oe (National Astronomical Observatory of Japan)
- Eric Oosting (NANOG)
- Clemens Schrimpe (Kiez.NET)
- Scott Weeks
- Bjoern A. Zeeb (Cambridge University – in absentia)

Verilan:

- Sean Croghan
- Hans Kuhn
- Nick Kukich
- Colin Doyle
- Rick Alfvin
- Edward McNair
- Cory White

Thank You

- Time Warner Cable
  - Connectivity
- Cisco
  - Gear contribution
- Juniper
  - Gear contribution
- OSC Radiator
  - Licensing

And our friends at the Hilton Hawaiian Village