



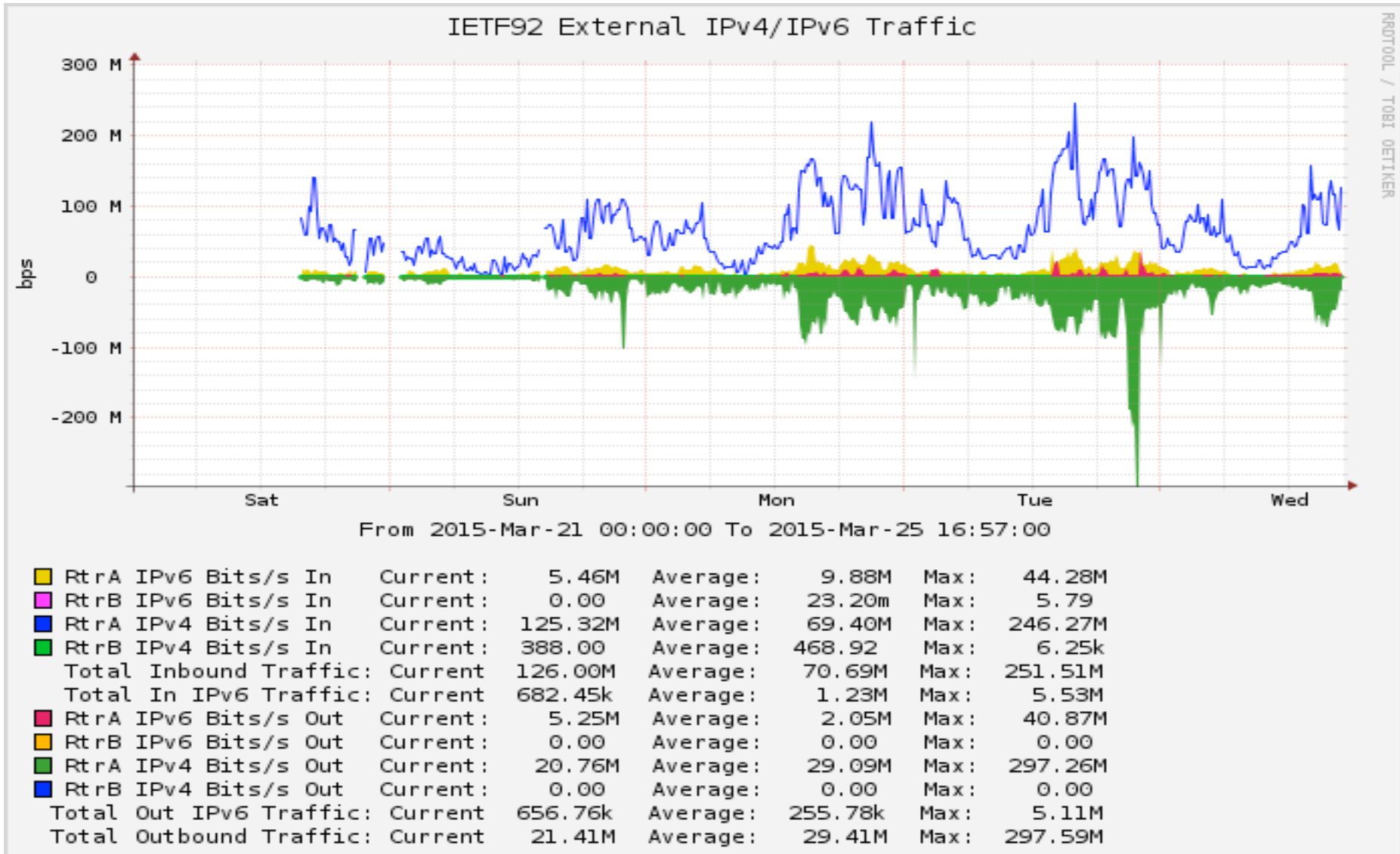
IETF 92: Dallas, TX

NOC Report

Network Basics

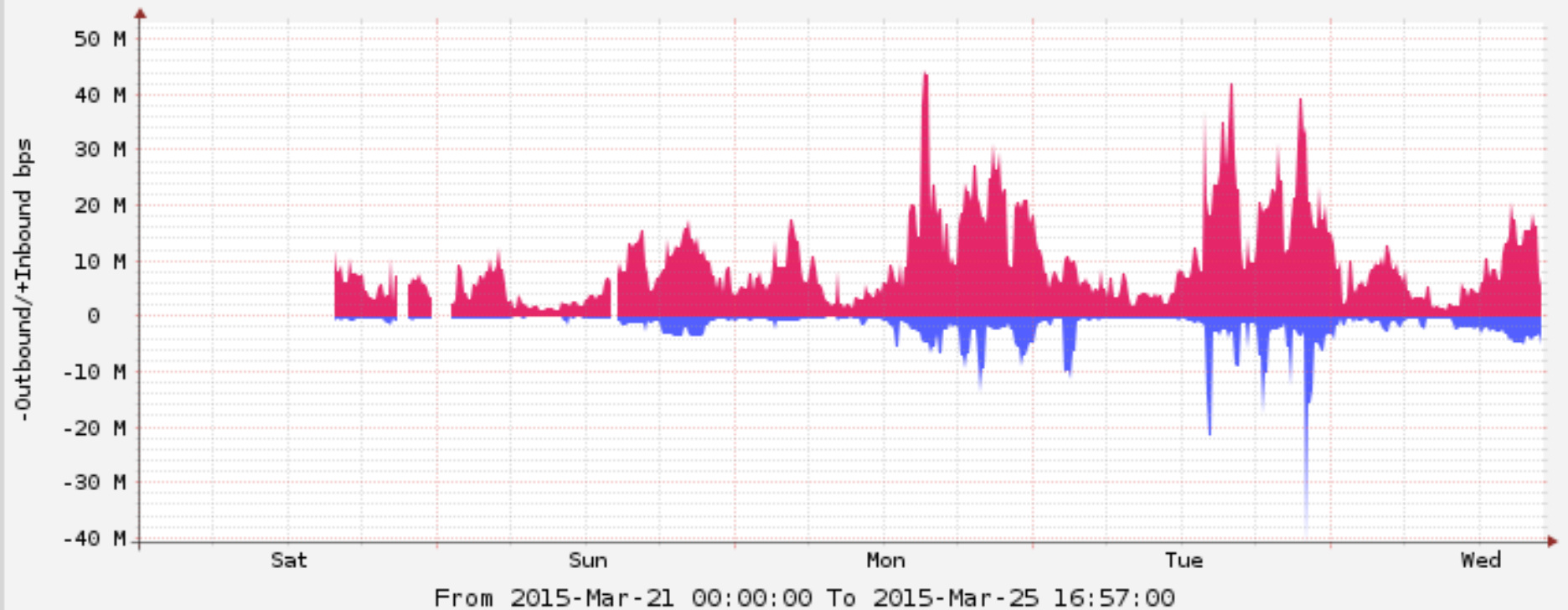
- 2 x 1 Gb/s link to Time Warner Cable
- Native Public IPv4 and IPv6 from our own AS
- Fully redundant routing and switching core
- Sixty-two 802.11ac Access Points deployed
- IETF network extended to the hotel guest rooms via wired drops in the rooms and the “ietf-hotel” SSID broadcast on hotel infrastructure

External Traffic



External IPv6 Traffic

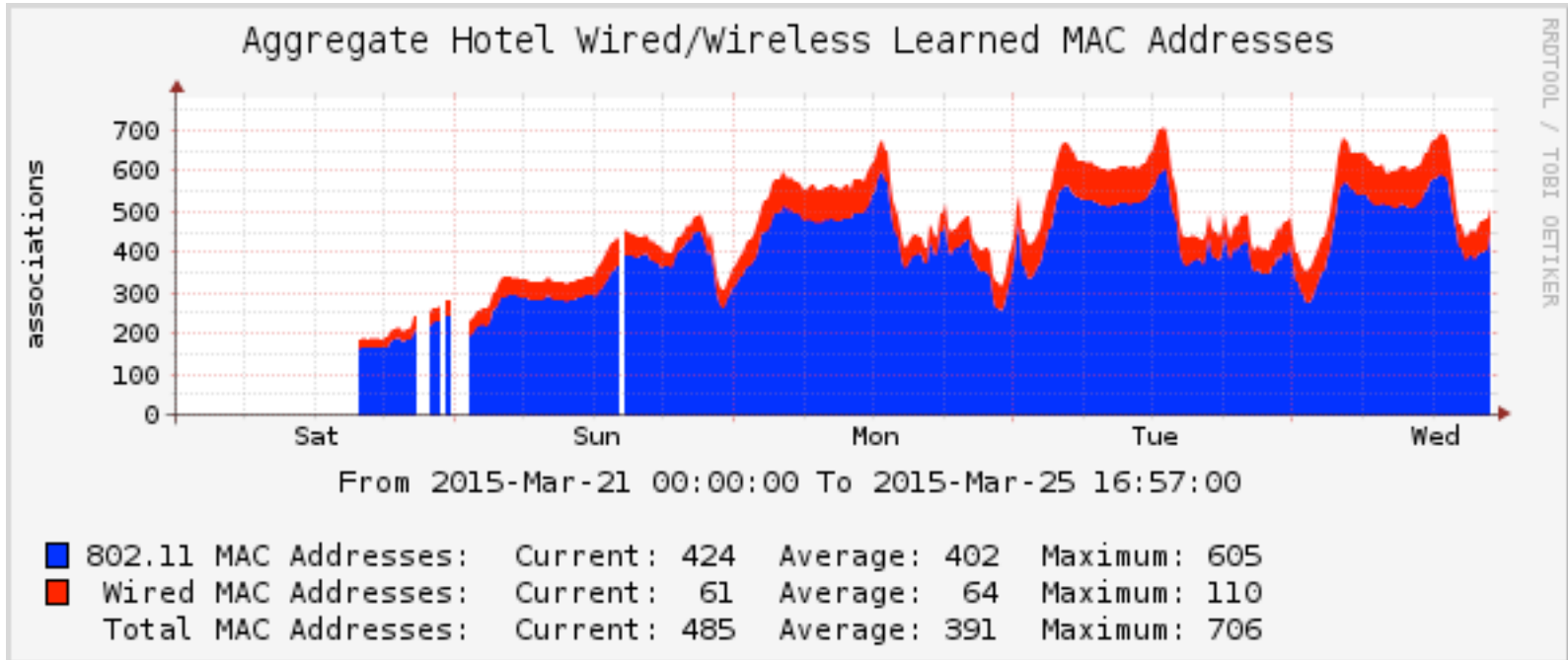
Aggregate IPv6 Traffic (basic)



From 2015-Mar-21 00:00:00 To 2015-Mar-25 16:57:00

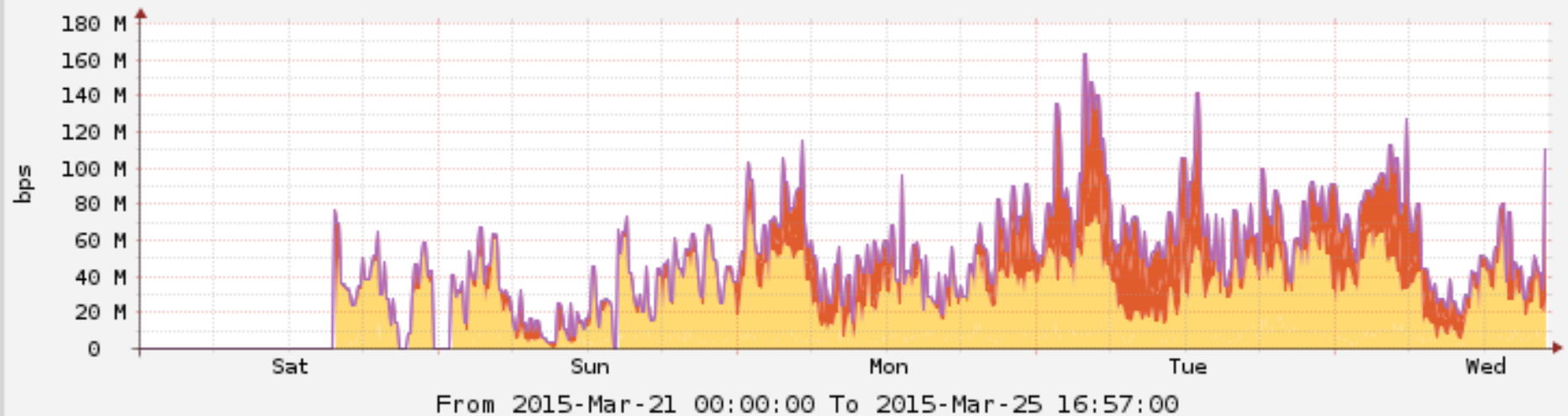
■ RtrA IPv6 Traffic from Primary	Current:	5.46 Mbps	Average:	9.88 Mbps	Maximum:	5.46 Mbps
■ RtrB IPv6 Traffic from Secondary	Current:	0.00 bps	Average:	23.20 mbps	Maximum:	5.79 bps
■ RtrA IPv6 Traffic to Primary	Current:	5.25 Mbps	Average:	2.05 Mbps	Maximum:	40.87 Mbps
■ RtrB IPv6 Traffic to Secondary	Current:	0.00 bps	Average:	0.00 bps	Maximum:	0.00 bps

Guestroom MAC addresses



Aggregate Hotel Traffic

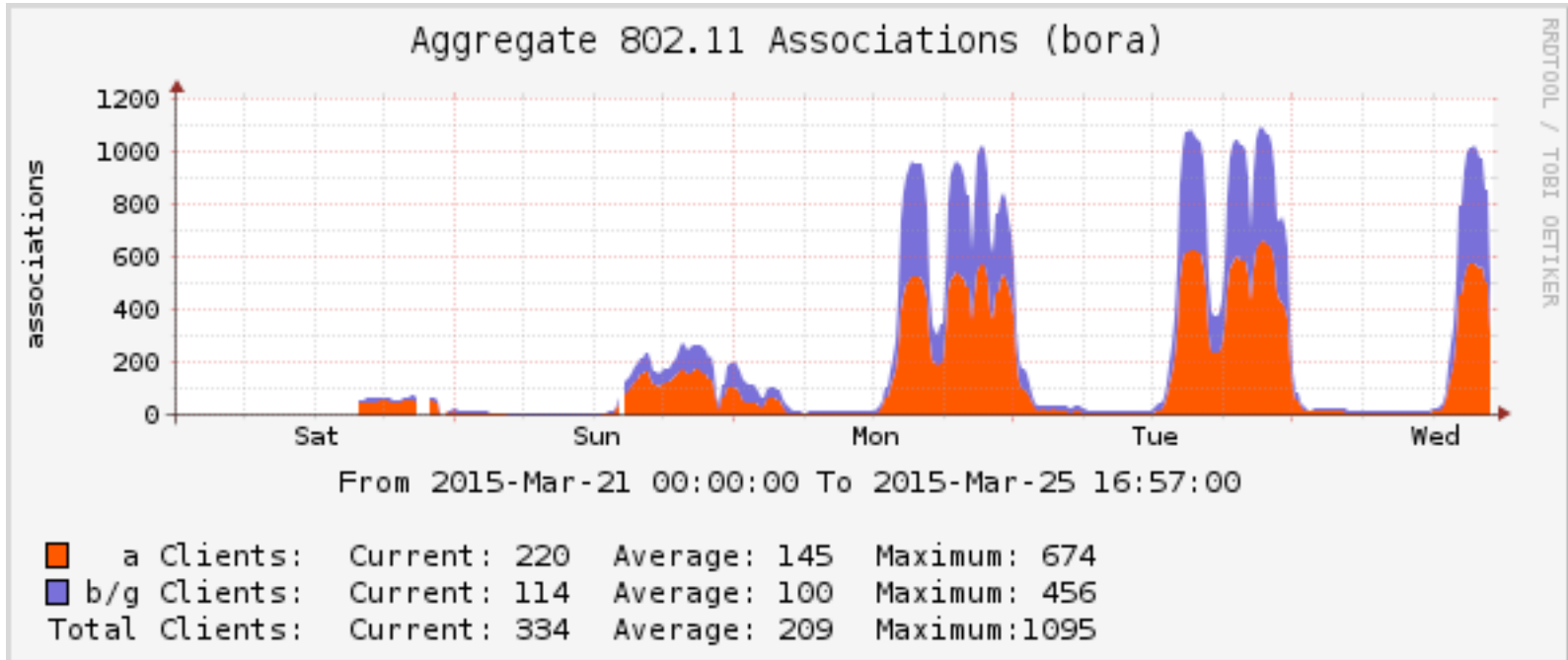
IETF - Aggregate Hotel Traffic - bits/s (64bit)



RRDTOOL / TOBI OETIKER

■	RtrA ge-1/1/0.2136 Bits/s In	Current:	5.42M	Average:	5.98M	Max:	18.85M
■	RtrA ge-1/1/0.2136 Bits/s Out	Current:	18.87M	Average:	28.66M	Max:	72.86M
■	RtrA ge-1/1/0.2144 Bits/s In	Current:	2.64M	Average:	7.42M	Max:	40.10M
■	RtrA ge-1/1/0.2144 Bits/s Out	Current:	83.40M	Average:	12.52M	Max:	90.46M
■	RtrB ge-1/1/0.2136 Bits/s In	Current:	10.25k	Average:	40.33k	Max:	134.59k
■	RtrB ge-1/1/0.2136 Bits/s Out	Current:	0.00	Average:	2.76	Max:	149.33
■	RtrB ge-1/1/0.2144 Bits/s In	Current:	9.32k	Average:	11.63k	Max:	72.37k
■	RtrB ge-1/1/0.2144 Bits/s Out	Current:	0.00	Average:	0.00	Max:	0.00
■	Traffic	Current:	110.35M	Average:	45.93M	Max:	163.61M
■	Traffic	Current:	110.35M	Average:	45.93M	Max:	163.61M

Wireless Associations



A Few Changes

- We're now encrypting all user traffic with WPA2-Enterprise *by default* (with the exception of ietf-legacy and ietf-hotel)
- The “default” IETF SSID is now encrypted and 5Ghz only
- This is our first meeting with a verifiable certificate for WPA
- The new Access Points have interoperability issues with certain Intel wireless chipsets and drivers
We've helped about 50 affected users over the past few days and will continue to update drivers when members come see us
- Our SSID changes have resulted in a higher use of encrypted traffic. Roughly 75% of the users attending the Technical Plenary were using encryption. (Up from ~30% at the last meeting.)
- The meeting.ietf.org zone is now DNSSEC signed

(More) New Gear!

- We've deployed 3 new UCSC-C220-M4S Cisco servers

(Thank you!)

- We're continuing to build our virtualization environment
- We've continuing to use Netdot to help us manage DNS and our address space

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Network Team

- Randy Bush (IIJ)
- Hirochika Asai (WIDE)
- Joe Chulke (GIPCO)
- Brandon Height
- Nick Kukich
- Edward McNair
- Joel Jaeggli (Fastly)
- Bill Jensen (University of Wisconsin –Madison)
- Hans Kuhn (NSRC)
- Warren Kumari (Google)
- Nick Reilly
- Lucy Lynch (NSRC – in absentia)
- Edward McNair
- Jim Martin (Internet Systems Consortium)
- Con Reilly
- Karen O'Donoghue (ISOC)
- Masafumi Oe (National Astronomical Observatory of Japan)
- Clemens Schrimpe (Kiez.NET – in absentia)
- Bjoern A. Zeeb (Cambridge University – in absentia)

Thank You

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



And our friends here at the Fairmont Hotel