

A nighttime photograph of a city street in Berlin, featuring the Berlin Cathedral (Berliner Dom) in the background. The image is overlaid with long-exposure light trails from cars and streetlights, creating a sense of motion. The text 'IETF 96: Berlin' is prominently displayed in the center.

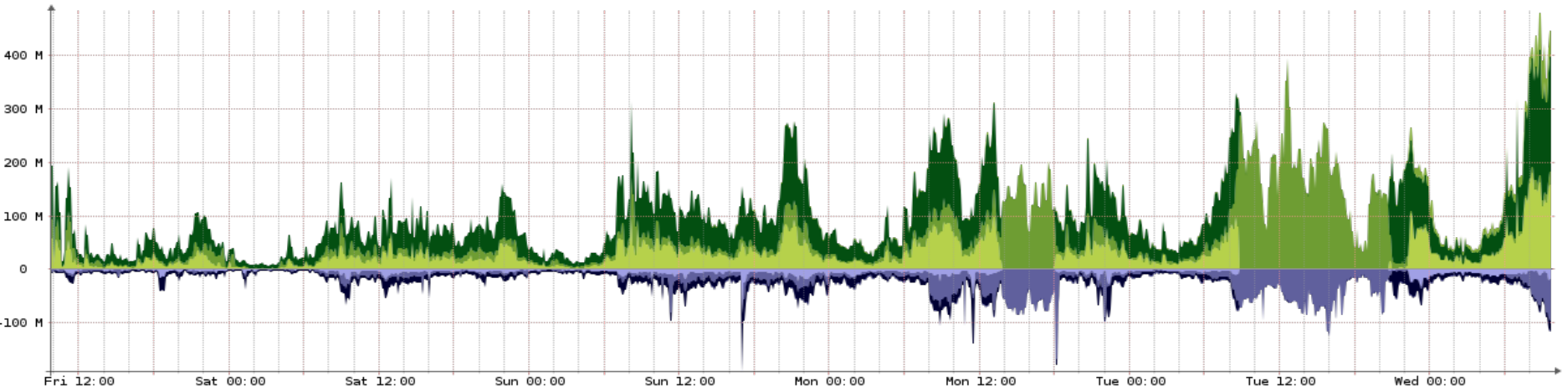
IETF 96: Berlin

NOC Report

Network Basics

- 2 Dedicated 1 Gbps Circuits from DTAG, and a 1 Gbps Dark Fiber connection to ECIX where we are peered with Strato, HE.Net and NTT Public IPv4 and IPv6 from our own AS.
- Fully redundant routing.
- Sixty-four 802.11ac Access Points deployed controlled by a Cisco Wireless LAN Controller 5520.
- IETF network extended to the hotel guest rooms via the “ietf-hotel” SSID broadcast on hotel infrastructure.

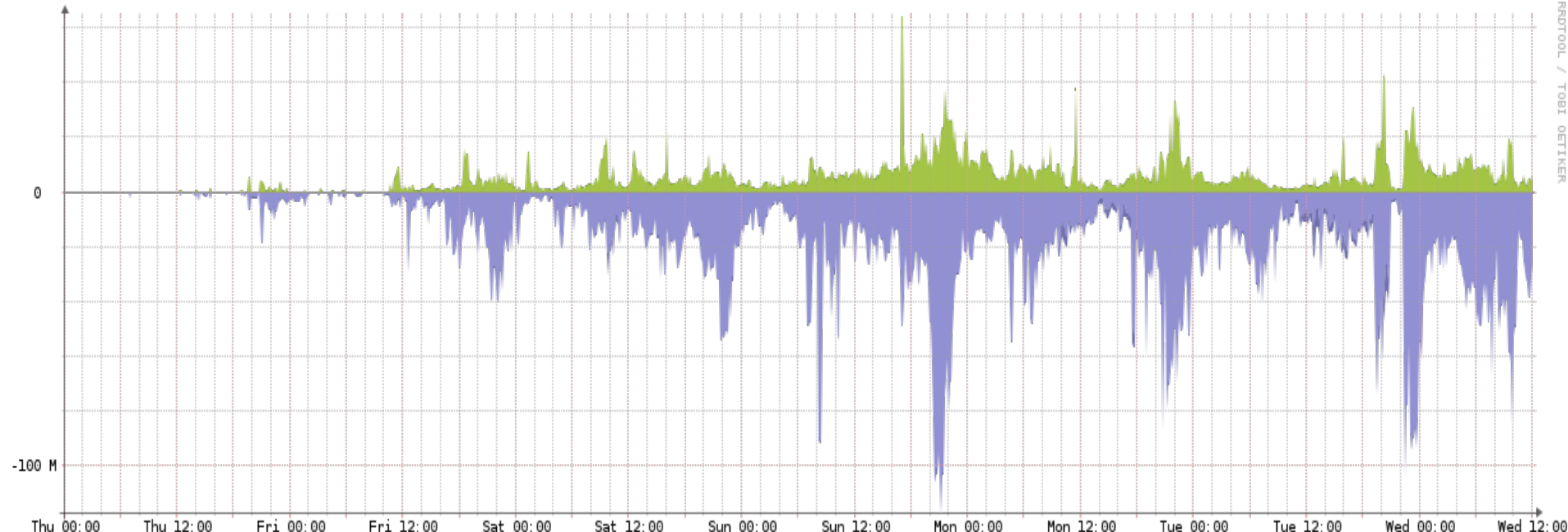
External Traffic



bps	Current	Average	Maximum	Total
rtrscoutb.meeting.	157.74Mb	25.53Mb	180.55Mb	11.03TB
eth5.305	17.65Mb	5.05Mb	74.10Mb	2.18TB
rtrscouta.meeting.	0.00 b	0.00 b	0.00 b	0.00 B
eth5.305	0.00 b	0.00 b	0.00 b	0.00 B
rtrscoutb.meeting.	0.00 b	0.00 b	0.00 b	0.00 B
eth6	0.00 b	0.00 b	0.00 b	0.00 B
rtrscouta.meeting.	0.00 b	0.00 b	0.00 b	0.00 B
eth6	0.00 b	0.00 b	0.00 b	0.00 B
rtra	26.18Mb	32.68Mb	393.42Mb	14.12TB
ge-1/1/0	79.67Mb	15.19Mb	162.36Mb	6.56TB
rtrb	0.00 b	0.00 b	0.00 b	0.00 B
ge-1/1/0	0.00 b	0.00 b	0.00 b	0.00 B
rtrscoutb.meeting.	0.00 b	0.00 b	0.00 b	0.00 B
eth7	0.00 b	0.00 b	0.00 b	0.00 B
rtrscouta.meeting.	0.00 b	0.00 b	0.00 b	0.00 B
eth7	0.00 b	0.00 b	0.00 b	0.00 B
rtra	0.00 b	0.00 b	0.00 b	0.00 B
ge-1/1/1	0.00 b	0.00 b	0.00 b	0.00 B
rtrb	1.72kb	1.69kb	36.71kb	731.18MB
ge-1/1/1	401.45 b	3.74kb	1.39Mb	1.61GB
rtrscoutb.meeting.	211.84Mb	46.76Mb	235.12Mb	20.20TB
eth5	17.82Mb	8.35Mb	108.56Mb	3.61TB
rtra	0.00 b	0.00 b	0.00 b	0.00 B
ge-1/1/2	0.00 b	0.00 b	0.00 b	0.00 B
rtrscouta.meeting.	0.00 b	0.00 b	0.00 b	0.00 B
eth5	0.00 b	0.00 b	0.00 b	0.00 B
rtrb	0.00 b	0.00 b	0.00 b	0.00 B
ge-1/1/2	0.00 b	0.00 b	0.00 b	0.00 B
rtrscoutb.meeting.	49.59Mb	2.94Mb	69.04Mb	713.79GB
eth5.720	1.55kb	42.56kb	1.10Mb	10.32GB
rtrscouta.meeting.	0.00 b	0.00 b	0.00 b	0.00 B
eth5.720	0.00 b	0.00 b	0.00 b	0.00 B
Aggregate Totals\ 5.76TB	< 0.00 b	106.48Mb	477.44Mb\ 1.54TB	> 0.00 b
		28.57Mb	190.41Mb\ 	

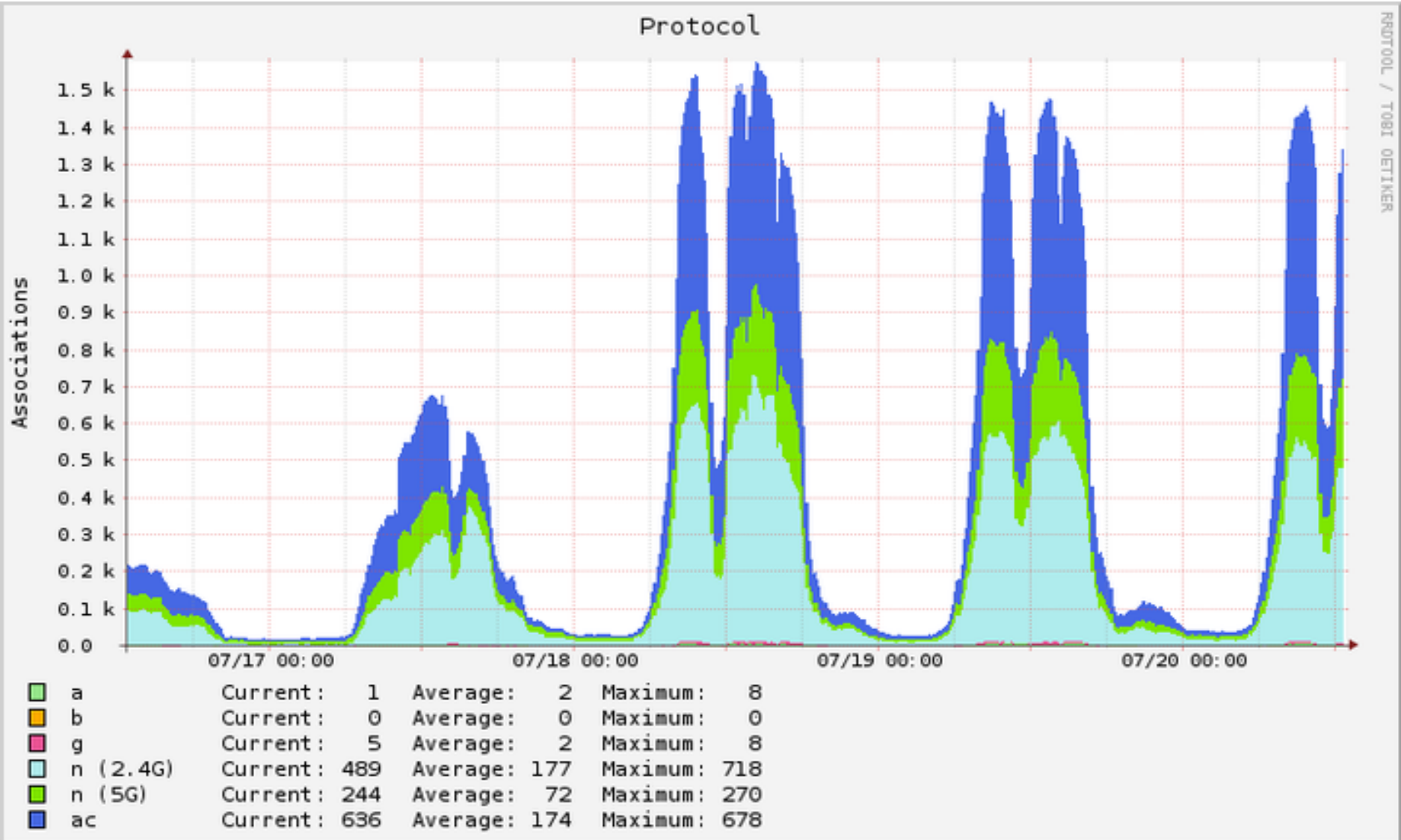
Aggregate Hotel Traffic

RRRTOOL / TOBI OETIKER

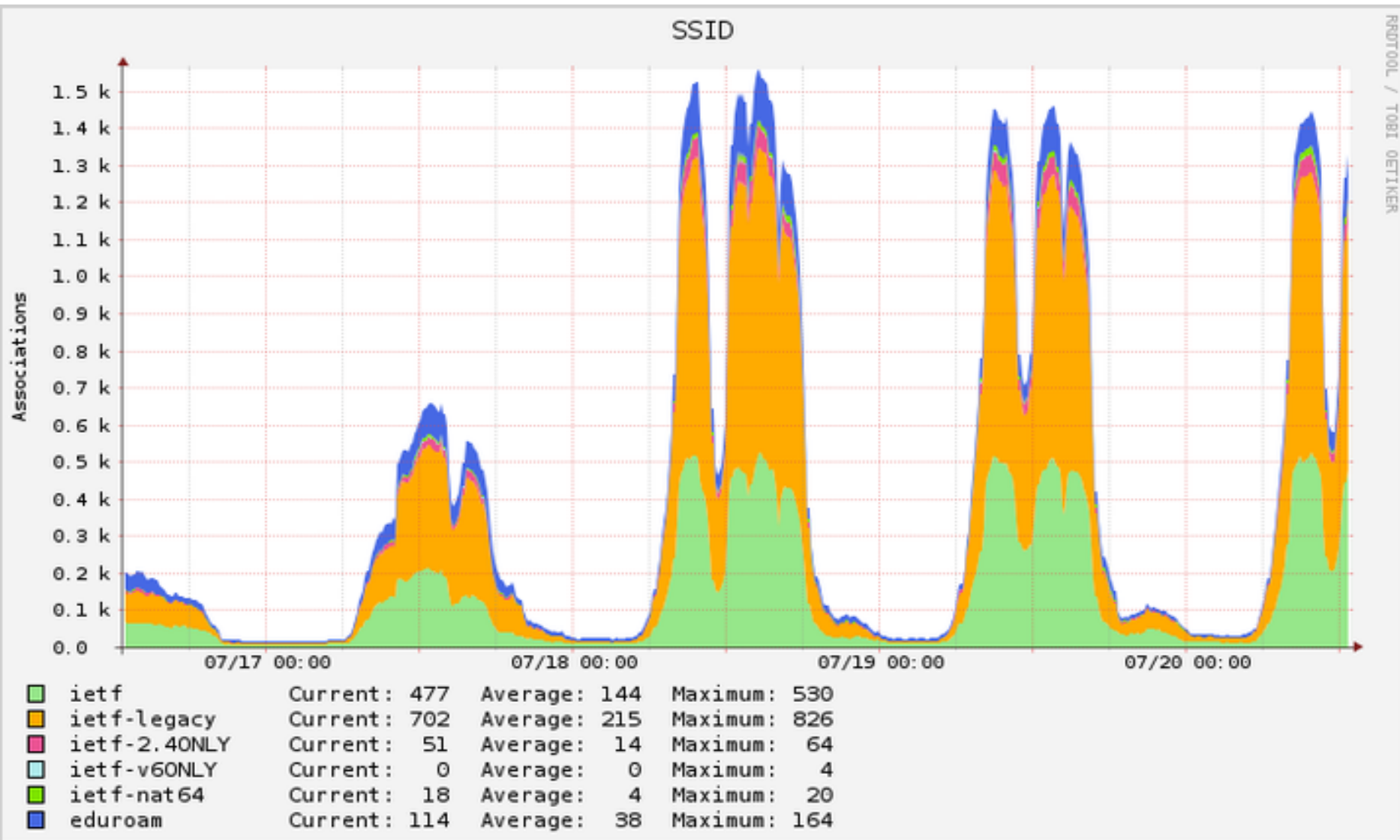


bps		Current	Average	Maximum
■	rtrscoutb	< 1.82kb	5.27kb	988.80kb
■	eth0.2144	> 10.51kb	34.04kb	2.70Mb
■	rtrscoutb	< 6.65Mb	4.96Mb	63.71Mb
■	eth0.2136	> 26.22Mb	17.34Mb	117.10Mb
■	rtrscouta	< 1.03kb	975.98 b	10.44kb
■	eth0.2144	> 0.00 b	0.00 b	0.00 b
■	rtrscouta	< 64.92kb	55.50kb	403.34kb
■	eth0.2136	> 94.50kb	497.71kb	12.70Mb
Aggregate Totals\				
350.71GB	<	0.00 b	4.99Mb	63.78Mb\
1.25TB	>	0.00 b	17.76Mb	117.46Mb\

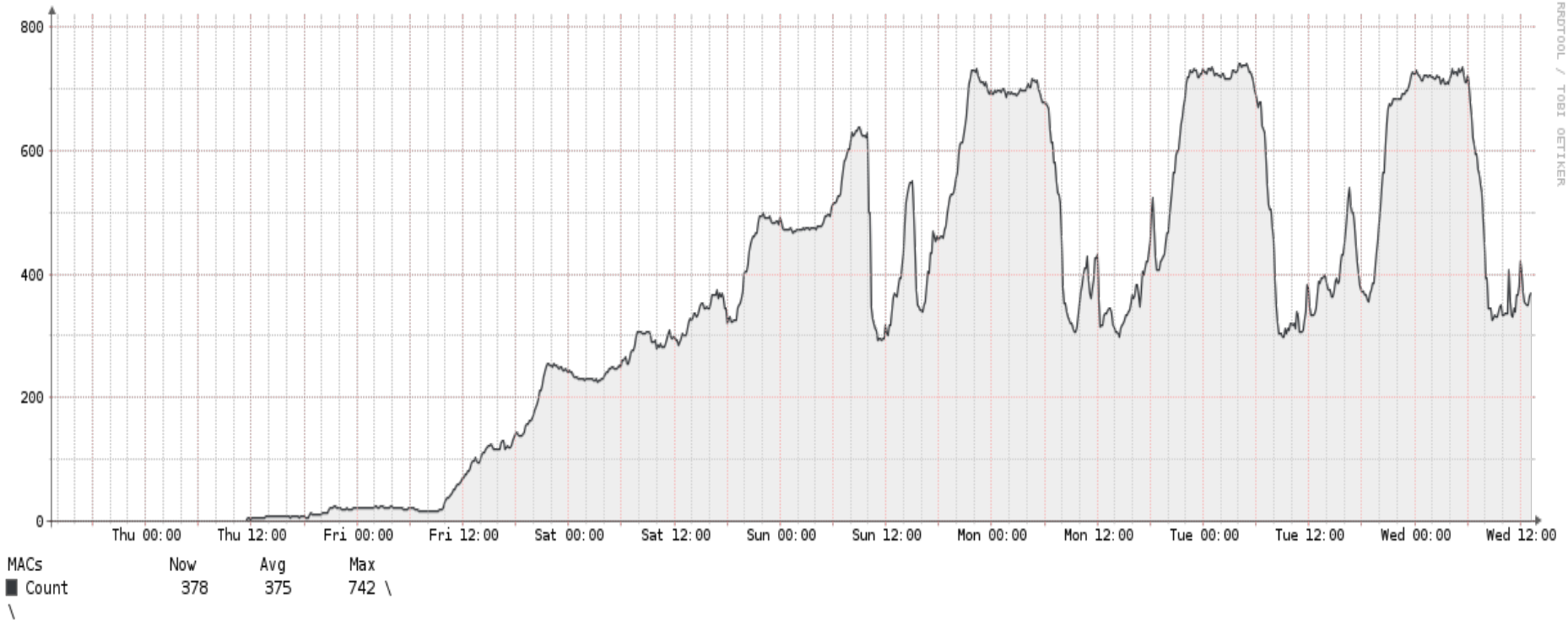
Wireless Associations (by protocol)



Wireless Associations (by SSID)



Guestroom MAC Addresses



What's New

- Replaced Cisco WLC 5508 with two Cisco WLC 5520s.
- We have expanded our monitoring tools to more closely track the switching environment.
- We have continued to add automation across the network and systems to improve setup and operational consistency.

Network Team

IETF NOC Team Volunteers:

- Hirochika Asai (The University of Tokyo/WIDE)
- Randy Bush (IIJ)
- Joe Clarke (Cisco)
- Colin Doyle (Right! Systems Inc)
- Bill Fenner (Arista)
- Joel Jaeggli (Fastly)
- Bill Jensen (University of Wisconsin–Madison)
- Hans Kuhn (NSRC)
- Warren Kumari (Google)
- Lucy Lynch (NSRC)
- Jim Martin (INOC)
- Rob Nagy (DeepDive Networking)
- Karen O'Donoghue (ISOC)
- Clemens Schrimpe

Verilan:

- James Dishongh
- Reid Kells
- Nick Kukich
- Edward McNair
- Con Reilly

Thank You

- DTAG, ECIX, Strato, NTT & HE
 - Connectivity
- Cisco
 - Gear contribution
- Juniper
 - Gear contribution
- A10 Networks
 - Gear contribution
- Netbeez
 - Gear contribution
- OSC Radiator
 - Licensing
- Ubiquiti Networks
 - Gear contribution



And our friends here at the Intercontinental Berlin