

DEF CON 26 REVIEW

NoC

What kind of network you usually have here?



NOC

Oh, we got both kinds. We got

Wired

- Villages
- Press
- Contests
- Vendors
- InfoBooth
- Dispatch
- Speakers
- Closed Captioning
- DC TV
- Roots

WOW-Fi

- For the brave





Site Visit

Planning

Pre-staging gear

Post DC25

MDF/ IDF
Connections

Firewall

Caesars Aruba
Controller

Internet Uplink

Orange Whips

Sunday

NOC Setup

Moar Core
Switching

Flamingo &
LINQ
Connections to
Caesars

wifireg site up

Patching
Caesars

Monday

Flamingo &
LINQ Aruba
Controllers

Patching
Patching
Patching

APs hanging

Orange Whips

Tuesday

Flamingo &
LINQ Aruba
Controllers

APs Installs
done at Caesars

Patching
Flamingo &
LINQ

Fiber and
Hardware issues
at Caesars

Wednesday





Moar Patching
for Flamingo
while...

Scrambling to
get DC101 up
and running

Wireless
Client-isolation
vs Multicast

Villages Setup

Thursday

DC Labs setup

Patching last
minute changes

Contest area
Patching

Chillout patching

Media Server
Busted

Bump up
Internet Uplink
speed

Friday

Shit worked with
minor issues/
requests

Workshops
teardown

Saturday

Teardown

Orange Whips

Sunday

Finish Teardown

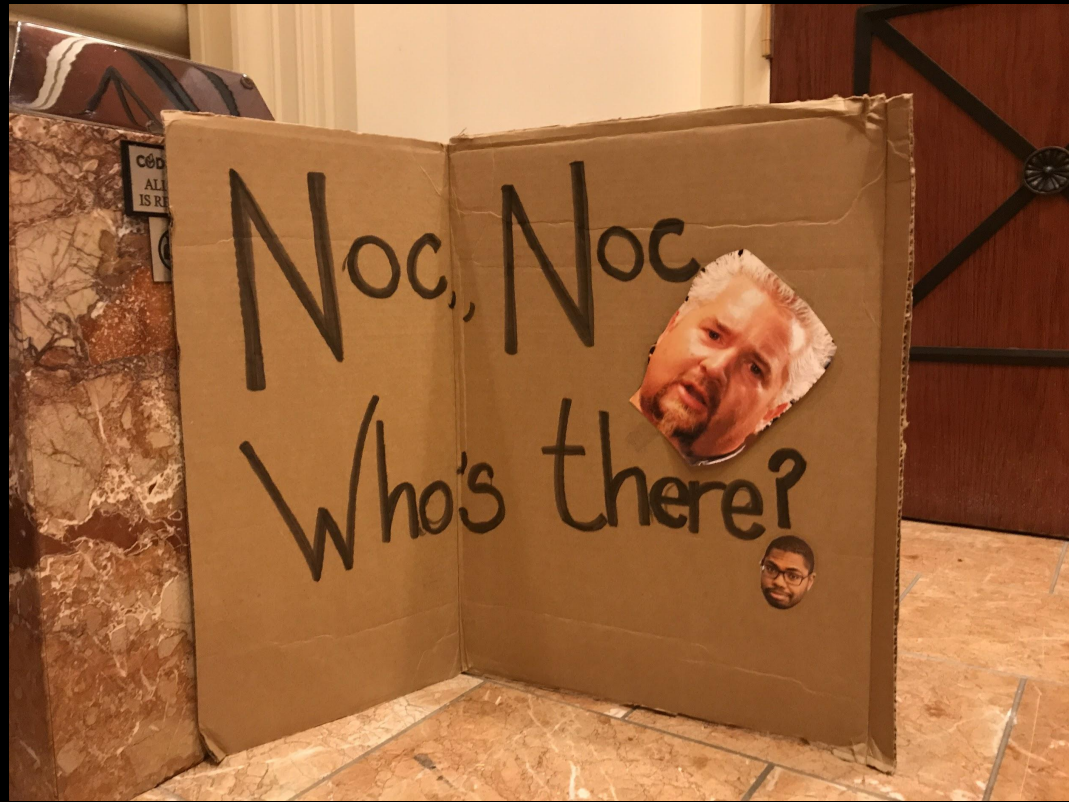
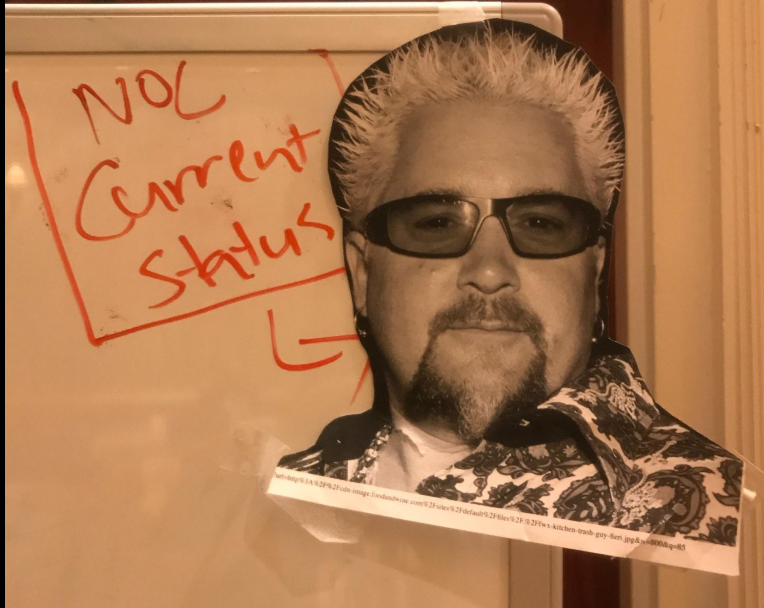
Packing

Go home!

Detox

Monday

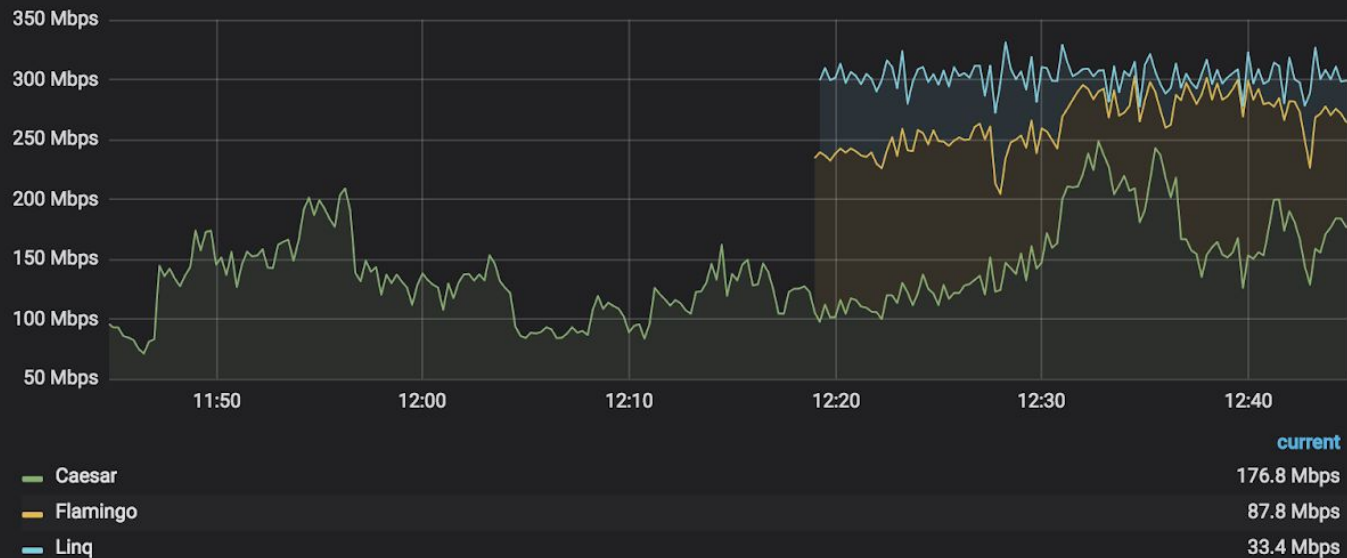




NOC

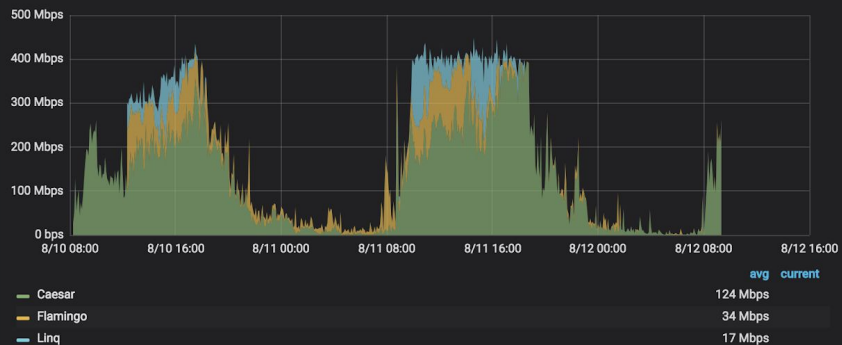
Internet Download

305 Mbps



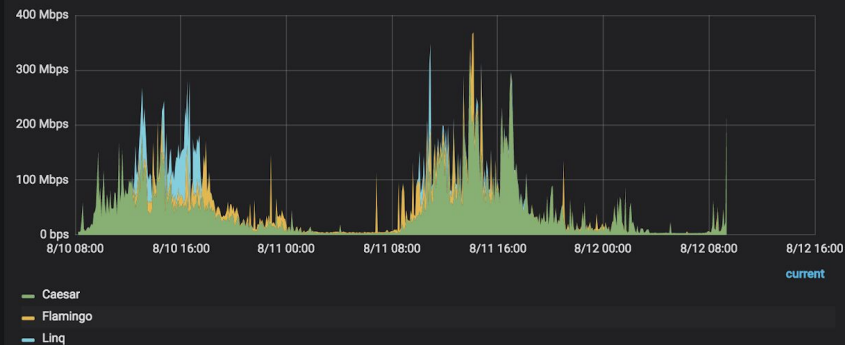
Internet Download

176 Mbps



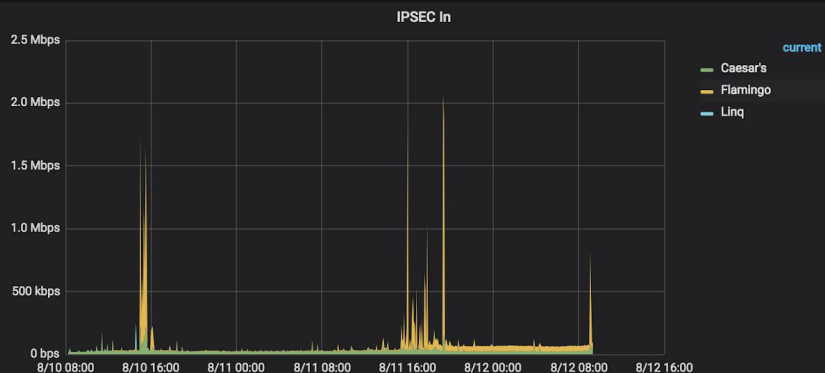
Internet Upload

62.6 Mbps



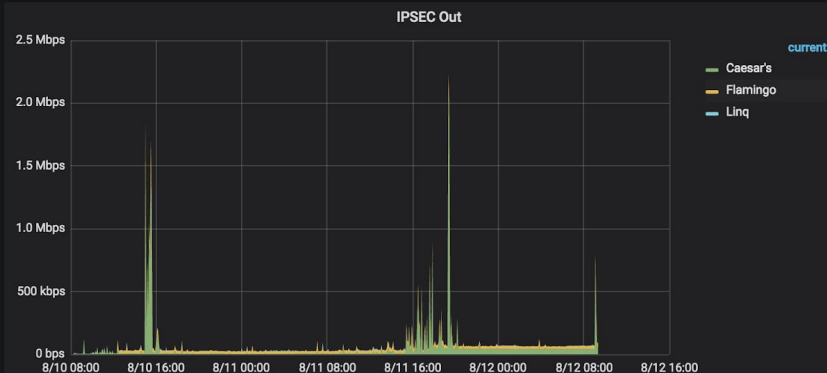
IPSEC In

887 kbps



IPSEC In

765 kbps



Challenges/ Issues : aka yoloOps

- Bandwidth
- Some of the fiber connections
- Switch swap/ power issue
- Client-isolation vs Multicast
- AP coverage and capacity at times
- 802.1X understanding



The Network

10 Gbps backbone (with some 1Gbps fallbacks)

~~300-350~~ 400 Mbps internet uplink (Caesars)

And then...

Flamingo

LINQ

Layer 3/ IPSec between the properties



Gear

Wired Gear

3 x Firewalls - FreeBSD

3 x Core Cisco Switches

17 x Edge Cisco Switches

Tons of unmanaged switches

3 x Monitoring "Servers"

1 x WiFi Registration "Server"

THE Media Server



Gear

Wireless Gear

3 x Aruba Controllers

136 x Aruba Access Points (model 305) THANKS ARUBA NETWORKS!

110 x Caesars

20 x Flamingo

6 x LINQ



(the usual) Stats

9.11 TB of internet traffic (double of last year)

- Inbound: 6.71

- Outbound: 2.40

7,398 users registered on wifireg

2,403 wireless users peak

8,365 total number of devices on WoW-Fi

15k unique DHCP leases

12k different mac addresses

15 TB of wireless traffic

15 GB media server traffic

5.1 Gbps of peak traffic on the core



effffn and The Orange Whips

Leads

@effffn
mac

Infra/Systems

#sparky
c7five
deadication
musa

Monitoring

c0mmiebstnd

WOW-Fi

CRV
Jon2

n00bs

johntitor
wish





Melanie Ensign @iMeluny · 13h



Amazing when longtime #DEFCON attendees assume the con lacks structure or process on the backend. After 26 yrs, there is a well-oiled machine behind the scenes. Every year = another stress test.

I have my work cut out for me to bring this all to light so everyone can see it.



Thank you, gracias, obrigado!

- DT
- Charel
- Nikita
- Will
- QM
- Caesars IT
- Encore Staff
- @thepacketrat
- @thelockheed
- Apostrophe Bar Staff
- The very nice folks who brings us snacks
- All other DEF CON departments
- YOU!



Defconnetworking.org

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