

http://www.defconnetworking.org

# DC Networking Interactive Session



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### DCNET Orginization













**Get Stuff Done** 



### DCNET History

**DCNet** 

Riviera

Riviera

exis Park

Park

Park

Alexis Park

exis Park exis Park

lexis Park

Plaza Aladdin

Monte Carlo Tropicana

Sahara Sands



### SF Chronicle - DefCon 9 / 2001

And, of course, brownie points for actually getting on the DefCon computer network without having some lUser eat your passwords (or your brain). [...]

"Damn, I can't get on the network!" exclaims a guy next to me with a British accent. He pushes his Sony laptop away in disgust and lights another cigarette.

"The whole thing is jammed!" says someone else who sounds Canadian. Then the Canadian laughs and adds, "What do you expect in a roomful of hackers?" Everyone is trying so hard to break into everyone else's computers that it's impossible to exchange any kind of data at all.



## Requirement Gathering



### DefCon 8 Requirements

- We will use ALL the convention space at the Alexis Park this year
- Network Link: T1 or DSL planned— still TBD
- Network Infrastructure: 10/100Mb switched ethernet to be provided to general use areas (Parthenon 1&2), hallways, and foyers, as possible.
- Wireless: GoonNet™ secured segment for staff use only (contained in the NOC); PublicNet access for general use areas Parthenon 1&2, hallways, pool, and bar (Alexis Gardens) desired.
- NOC location tenatively set at south end of Parthenon 1 (same as last year) may move it out to Parthenon 5, depending on homerun/wiring availability, for security/access reasons.



### DefCon 9 Requirements (NFP)

#### **Network Coverage Requirements**

The network will consist of a high-capacity upstream link, patch runs to the conference rooms, the existing RJ45 jack patch network, the frame room, the backbone infrastructure, and the IEEE-802.11b wireless LAN segment.

The general philosophy will be to provide wired network access in the Parthenon area, but outside of that area, network access will be done via the 802.11(b) wireless infrastructure.

Additional RJ45 do not exist outside of the Parthenon area.

We are not looking at expanding that (the hotel would have to take on the expense of having that done).

The Alexis Park Hotel has a T1 line in-house for our use already. We will investigate the option and cost for turning that up to T3 capacity (T3 or DS3).

The following conference areas have an existing network of RJ45 jacks that are tired back to the frame room patch panel:
Parthenon 1-4
Parthenon Hallways (North, South, & East)
Athena Gardens

Last year we ran a cable segment from the frame room to the center of the north wall of Zeus. That will be used for speaker use from 6am to 6pm, and for use by Noid & the DJ's, as needed.

We would like to gain additional wired-network covered to the following areas:

Apollo

Parthenon Roof (Tent)

We will be requesting the Hotel electricians run a patch line from the frame room to Apollo & the Tent. Wiring patch lines to the conference rooms will allow speakers to have live-access to the Internet for speeches & demos.

The coverage challenge this year will be an increased coverage area for the wireless segment. We will again standardize on IEEE-802.11b RF LAN equipment. The 802.11b standard gives us up to 11mb per access point (AP) to distribute to clients. Use of 802.11 (the original spec) only provides 2Mb of bandwidth. Location of installed access points will be covered later in this document.

Areas we would like covered by the Wireless LAN area:

Parthenon (ground & roof levels)

Zeus

Apollo

Athena

Bar/Gardens

Pool 1

Optional Areas (in priority order)

Building 14 (Goon Block)

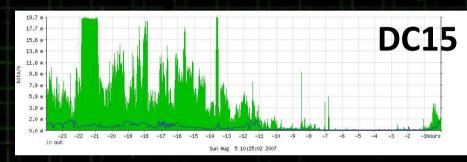
Pool Area 2

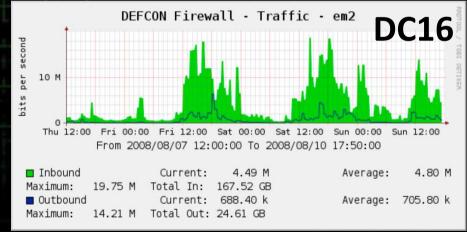
Pool Area 3



### Current Design Specifications

### **20MB External Internet B/W**





Public access via WiFi only

Public & Private subnets are physically separated

#### **Private subnets for:**

Speakers

**Press** 

Staff

**Vendors** 

Contests

Others

### **DHCP Leases:**

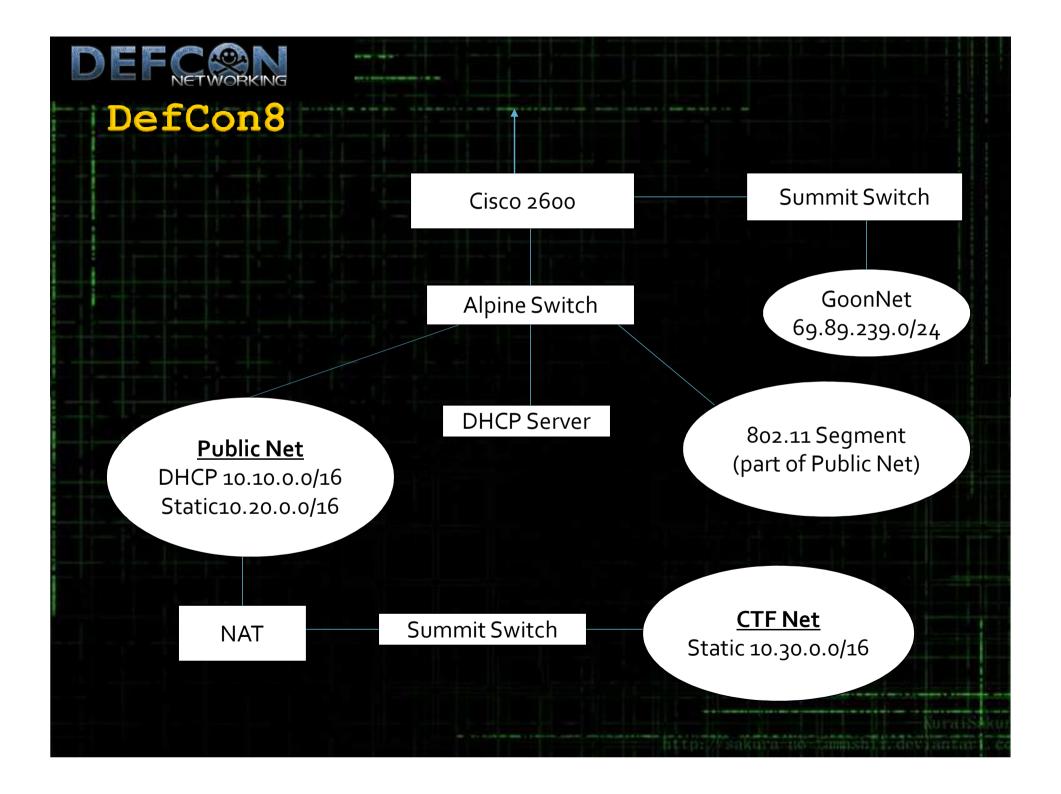
DC14: 2,355

DC15: 4,932

DC16: 4,569



# Network Layout & Design





Goon Net

207.88.64.96/27 (gateway 207.88.64.97)

**PublicNet** 

10.0.0.0/8 network

AP's on 10.10.254.0

DHCP on 10.252.0.0/16 (gateway 10.252.0.254)

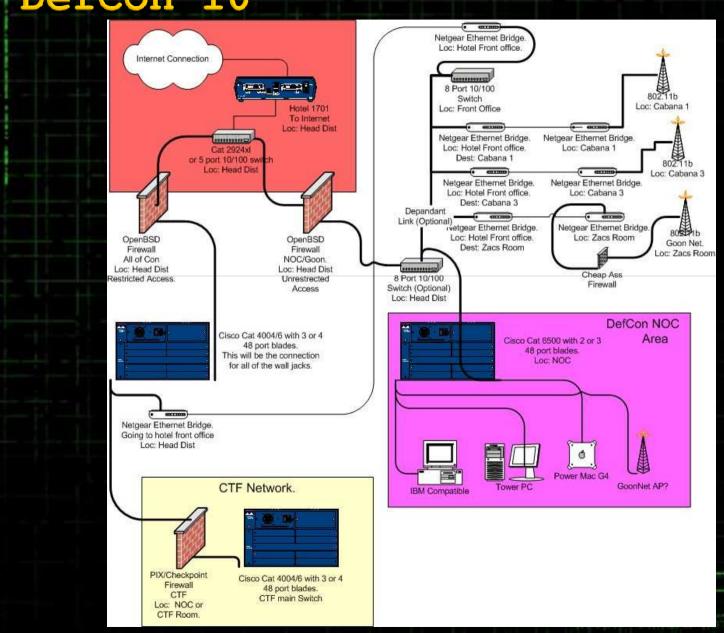
Goon Admin on 10.10.0.0/24

CTF Net

10.255.0.0/16

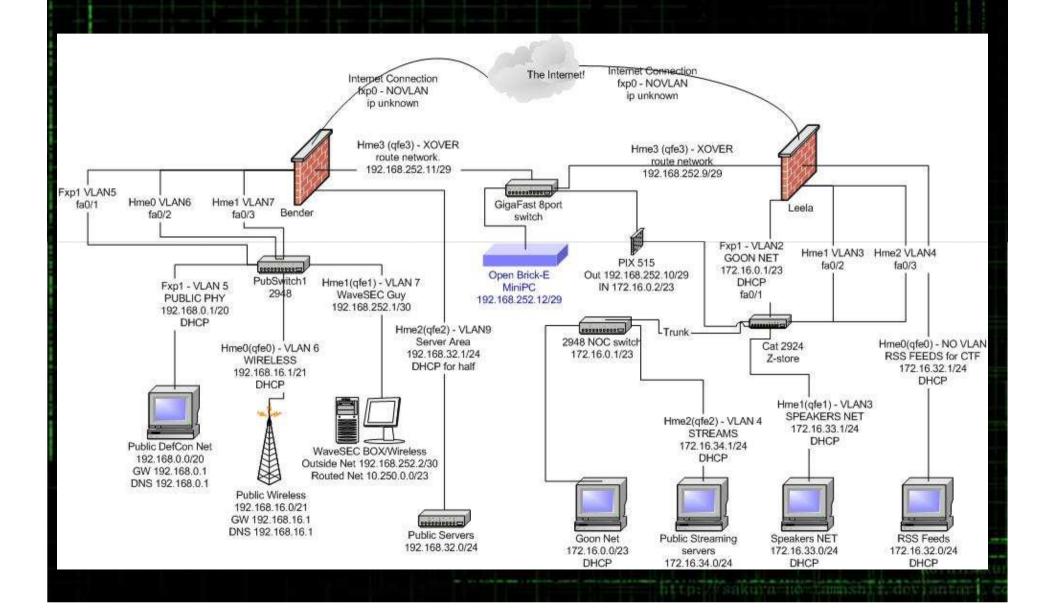
Public Net	Location	IPAddress Char	nnel Jack	Owner	Туре	PW	
AP1	Parthenon	10.10.254.254	1 CCPP-126	Lock	Cisco 4800	root/pr1xxx73a	Returned
AP2	Gardens/Bar	10.10.254.253	6 CCPP-168	Zac	Cisco 340	root/g00n3+ng	Returned
AP3		10.10.254.252					
AP4	Zac's Room	10.10.254.251	11	DT	<b>Dual Lucent</b>		With Zac
AP5	Apollo		1	Shipley	Linksys WAP1	1 USB Config'd	Returned
AP6	Cabana 2		11	Lock		1 USB Config'd	Returned
AP7	NOC	10.10.254.251	11 na/	Enigma	Lucent 1K	pw: scriptk1dd13	Returned
No console access, need							
			to disable NA	<b>Goldy</b>	D-link	pw: dark31337	status unknown
				Stainless	3Com		
AP8	available	10.10.254.248	8	Steel	3CRWE747A	pw: fuu-ba4d	Returned
				Brandon			
AP9		10.10.16.20	6 VideoMan	Palmer	Aironet AP4800	) none	Returned



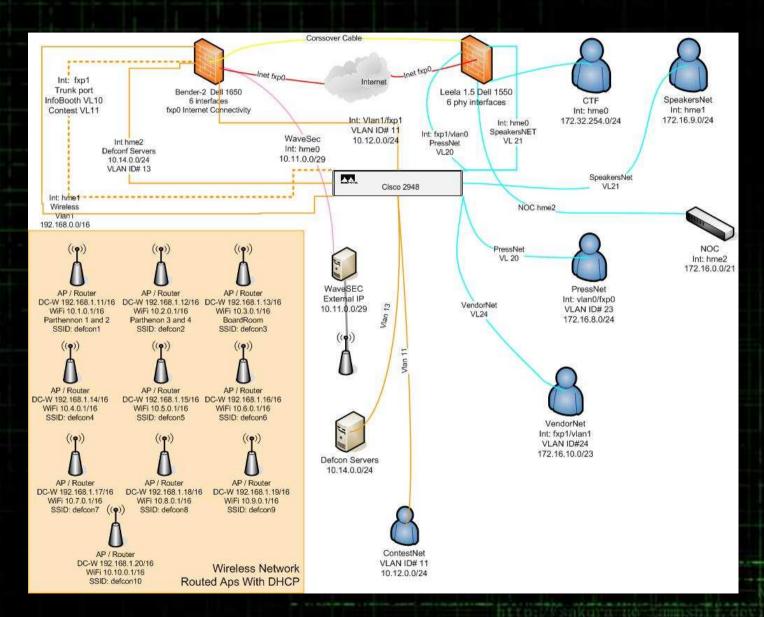


VU TrubSik

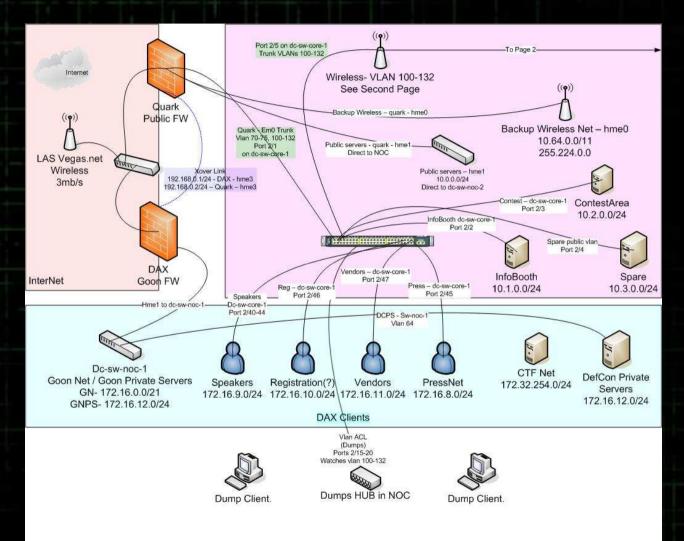






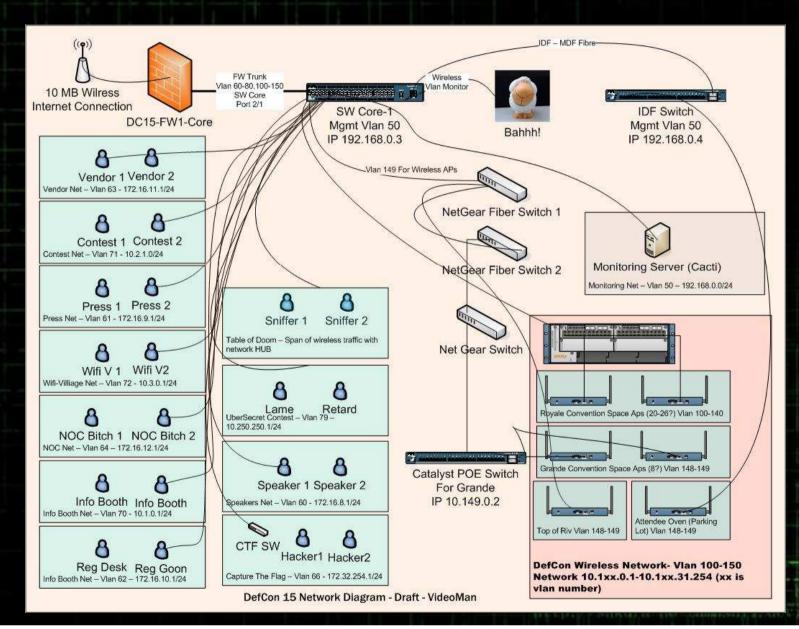






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### Challenges - pre-Riviera

- Lack of equipment
  - Beg, borrow, and...borrow-more.
- Lack of consistent equipment
  - Routers, firewalls, WiFi
- "Oh, I have this really cool firewall idea..."
- Staff would change year-to-year



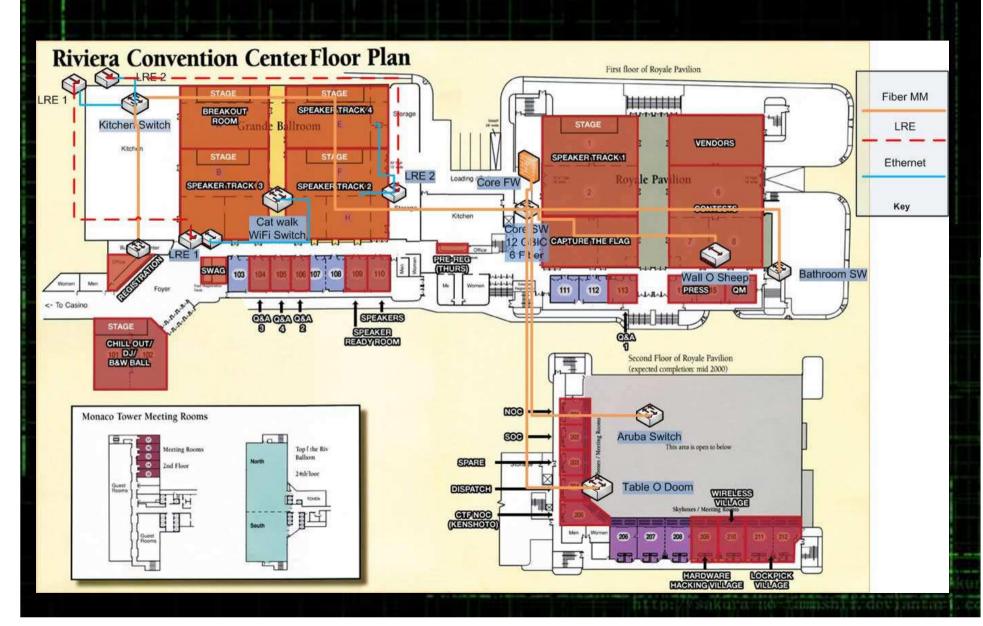


### Challenges - @TheRiv

- Grande & Royale are split segments
- Royale is split between MDF & IDF
- Data path from Grande to MDF
- It's a union hotel (+/-)

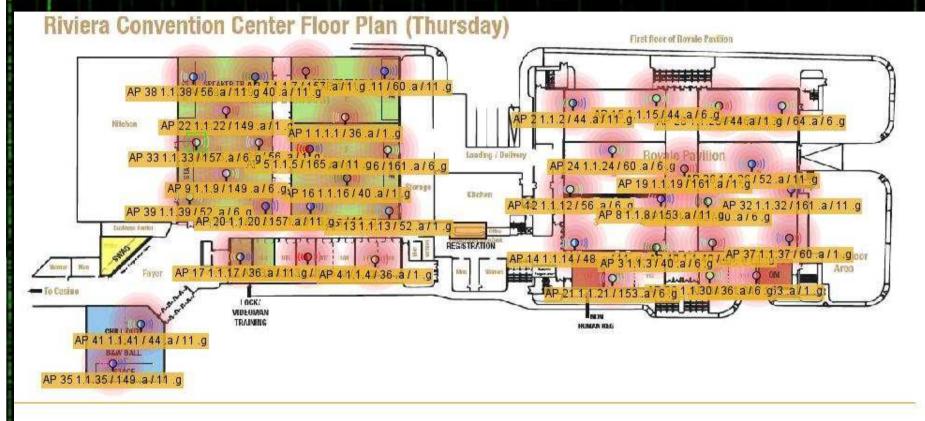


### DefCon 16 - Core Layout





### DC17 Wireless Deployment



Big rooms = 4AP/1AM Smaller rooms = 2AP/1AM



### Gear List

- 2 x Servers (FW & Monitoring)
- 1 x Cisco 3660 Core Fibre Switch (10/f)
- 3 x Cisco 2948 (48/c + 2/f)
- 3 x Cisco 3500 (24/c + 2/f)
- 4 x Cisco 2924 (24/c + 2/f)
- 1 x Linksys 24-port POE
- 2 x Netgear 8-port POE
- 1 x Aruba 6000 Controller (48/c + 2/f)
- 40 x Aruba AP70's
- 1 x guard dog (German Shepherd)