

Camp 2011 NOC Review

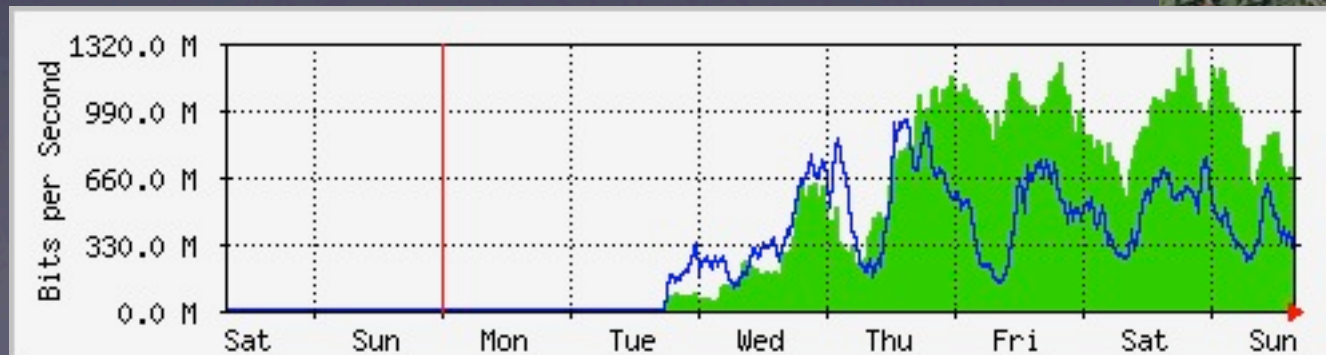
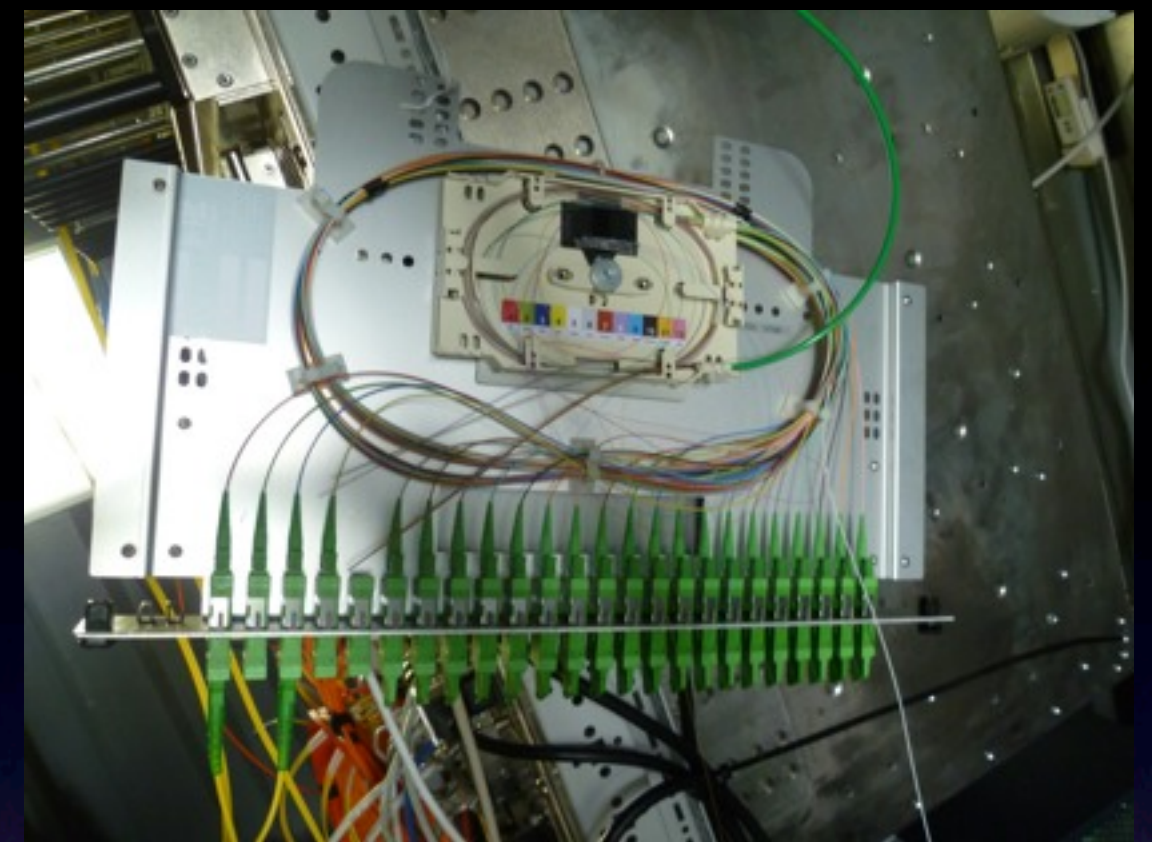
Topics

- Uplink
- Hardware
- Buildup
- Datacenter
- Camp Network
- Weathermap
- WLAN
- Problems



Uplink

- 1 GE Telta
- 1 GE Layer2 to Berlin
- Carrier5 1, Netsign, CCC
- ~4 km through the woods
- only 20m of cable left on the spool :-)



Hardware

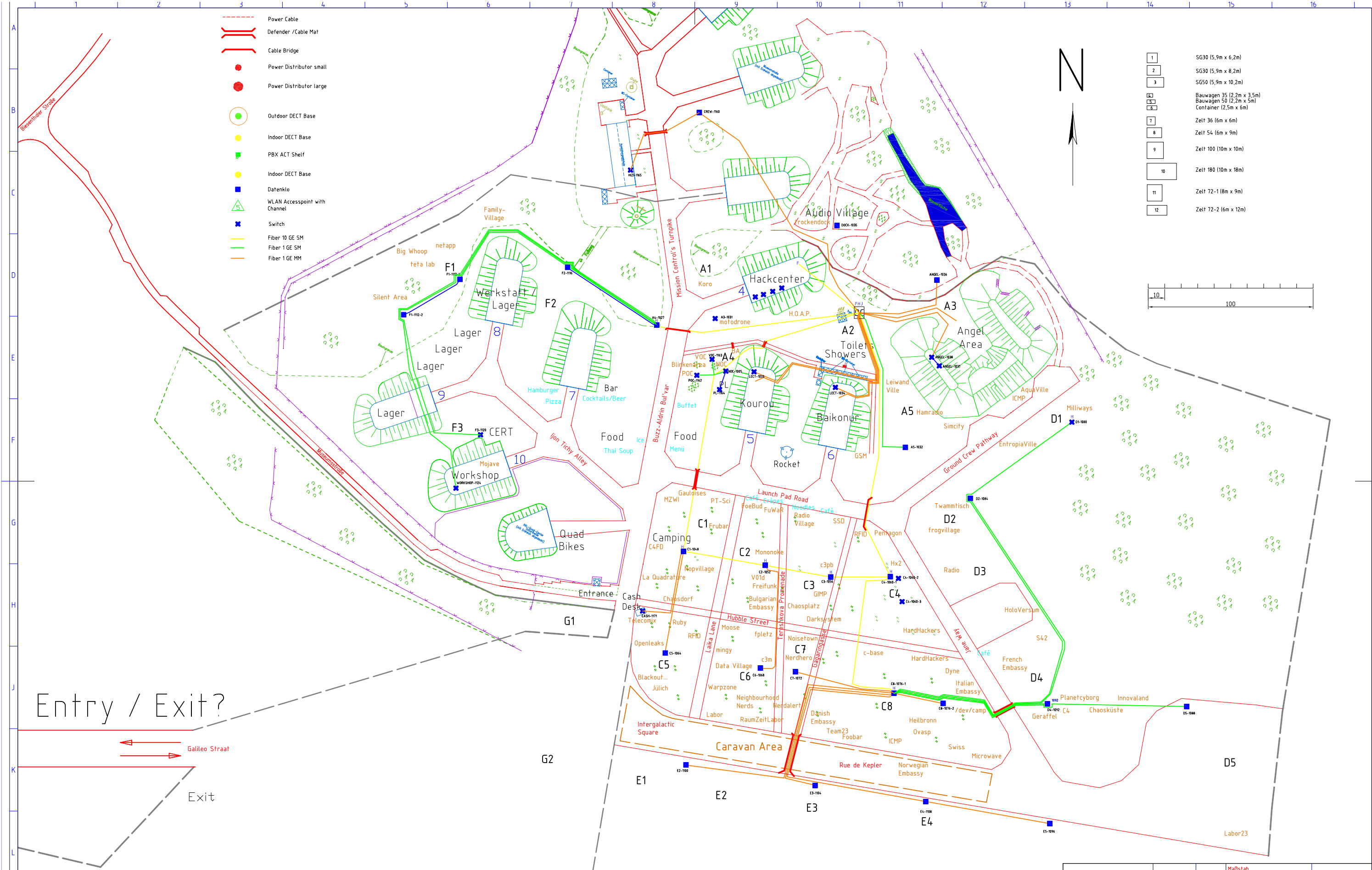
- MX80 as BGP Router
- Force 10 E600 Core Router
- Force 10 E300 Hackcenter/Colo
- we bought ~60 HP Access switches
- ~12 Hirschmann Mach4k2 distribution switches



Buildup

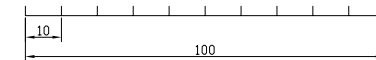
first draft





- Power Cable
- ||| Defender / Cable Mat
- Cable Bridge
- Power Distributor small
- Power Distributor large
- Outdoor DECT Base
- Indoor DECT Base
- PBX ACT Shelf
- Indoor DECT Base
- Datenklo
- △ WLAN Accesspoint with Channel
- ✕ Switch
- Fiber 10 GE SM
- Fiber 1 GE SM
- Fiber 1 GE MM

- | | |
|----|---------------------------|
| 1 | SG30 (5,9m x 6,2m) |
| 2 | SG30 (5,9m x 8,2m) |
| 3 | SG50 (5,9m x 10,2m) |
| 4 | Bauwagen 35 (2,2m x 3,5m) |
| 5 | Bauwagen 50 (2,2m x 5m) |
| 6 | Container (2,5m x 6m) |
| 7 | Zelt 36 (6m x 6m) |
| 8 | Zelt 54 (6m x 9m) |
| 9 | Zelt 100 (10m x 10m) |
| 10 | Zelt 180 (10m x 18m) |
| 11 | Zelt 72-1 (8m x 9m) |
| 12 | Zelt 72-2 (6m x 12m) |



Entry / Exit?

Galileo Straat

Exit

Maßstab

splicing

120++ fusion splices

Digging

- have to dig ~3km fibre
- 20cm deep against tent pegs
- so... we built a plow



Plow



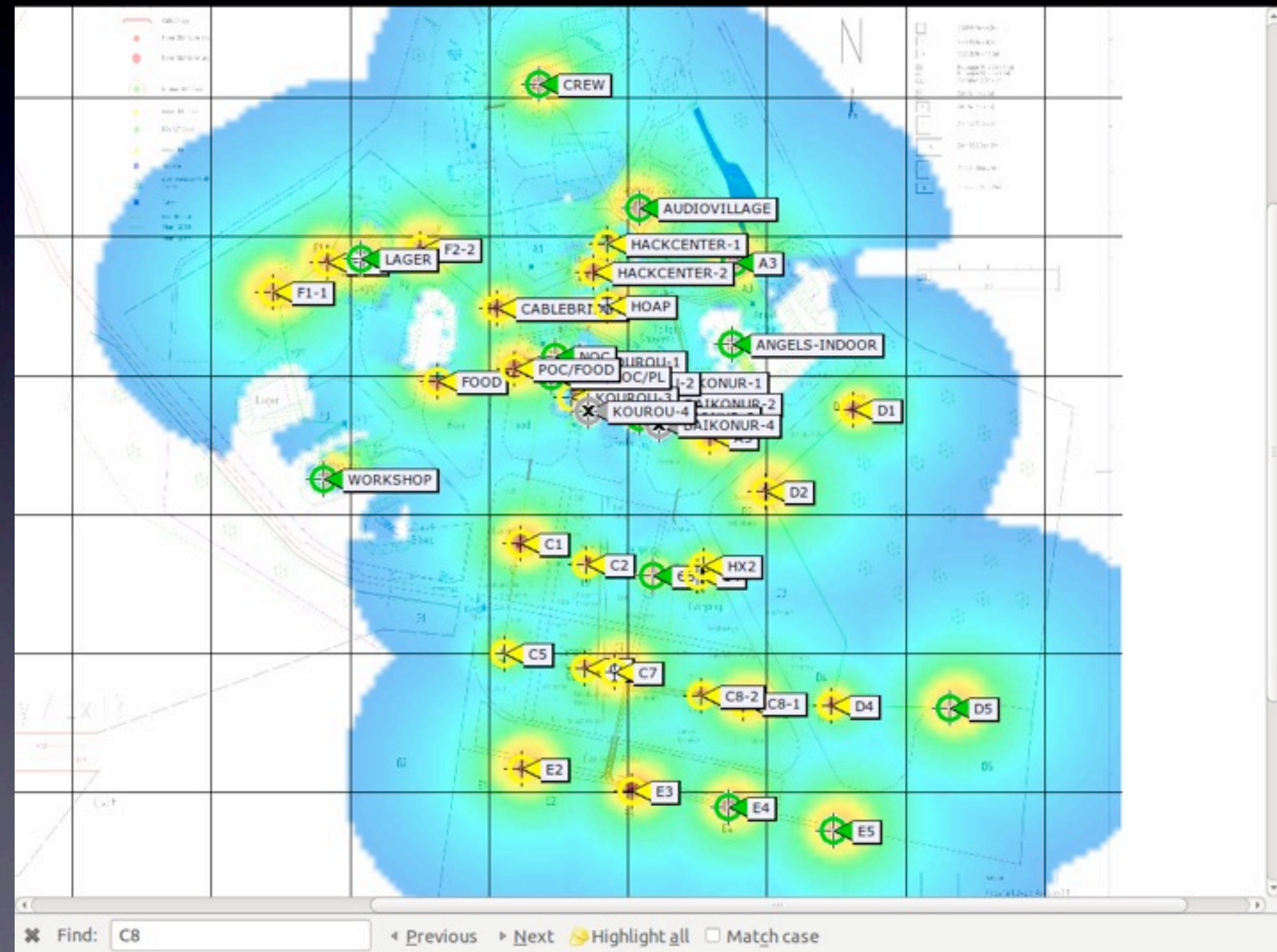
← first version

after several fixes →



WLAN

- 1* Cisco WLC 5508
- 18* 1142 APs
- 7* 1252 APs
- 28* 3502 AP



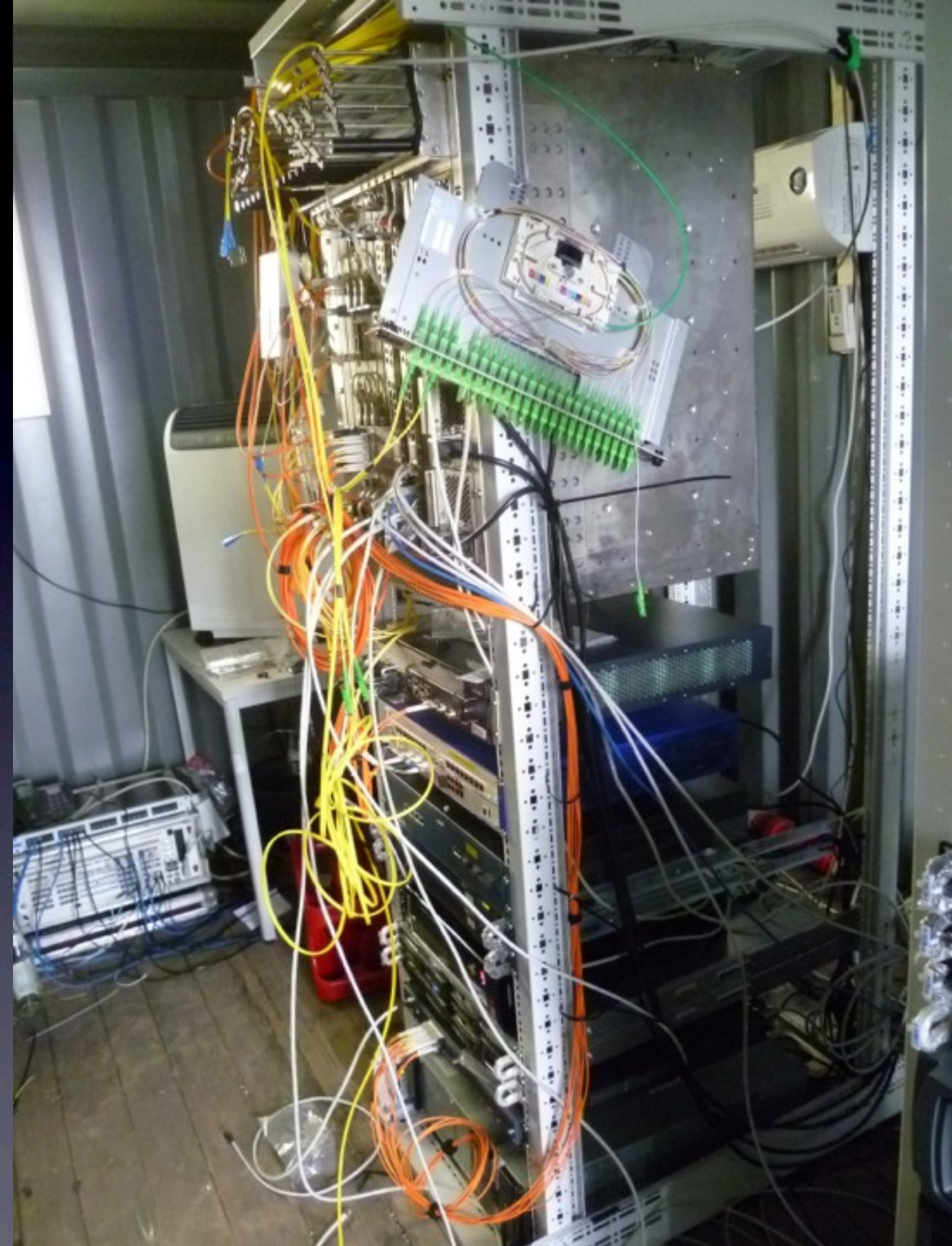
WLAN APs

- should be protected
 - against rain
 - against uv
- 2-3 metre high
- horizontally mounted

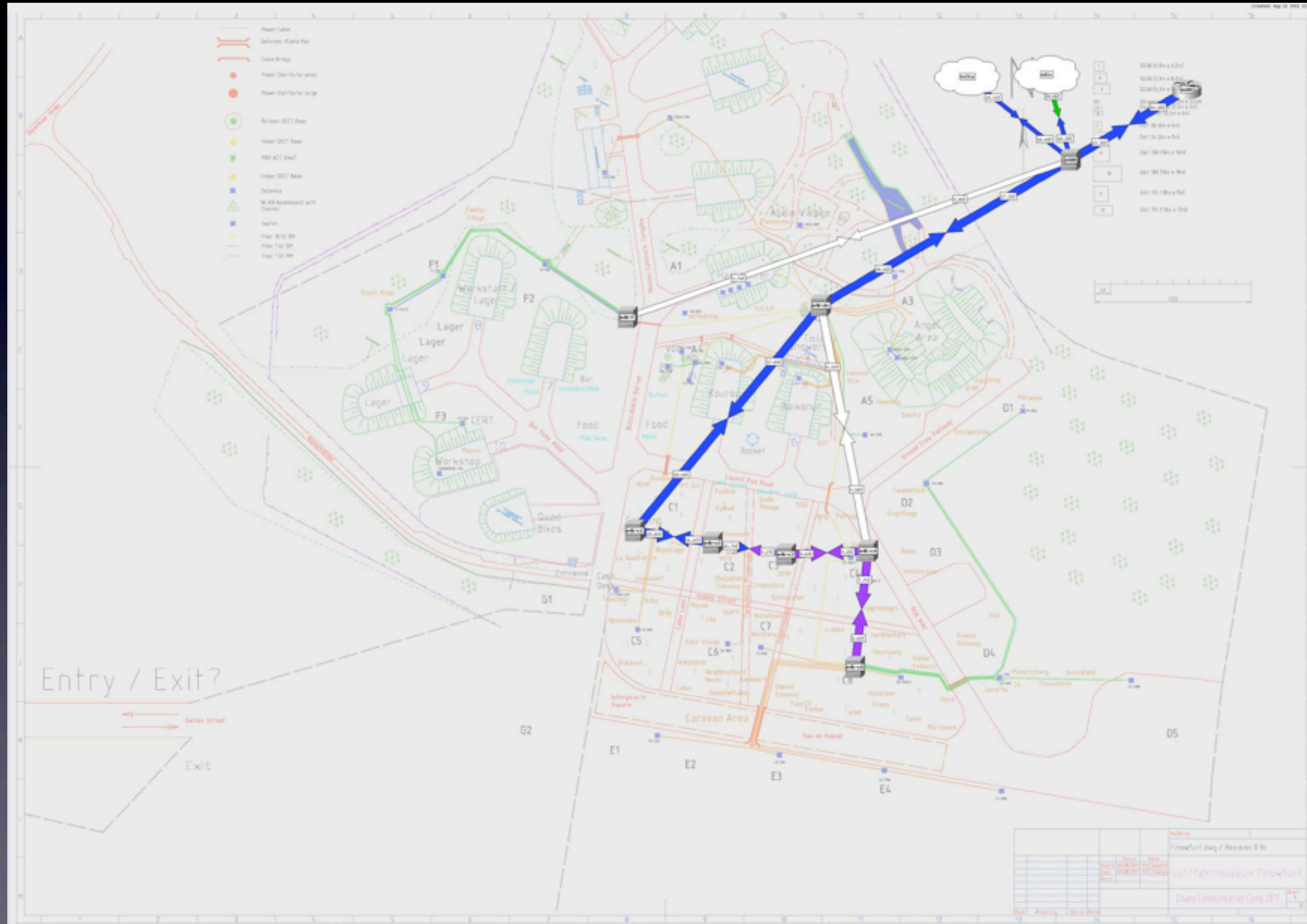


Datacenter

- we expected a datacenter
- raised floor
- airconditioning
- miscommunication
- we got a shipping container
- 2 home split ac
- 2 open lab racks from rittal



Weathermap



Problems

- Pinky & Brain Servers (DNS/DHCP)
 - Hard disk failures
- Cat5 ground loop problems in Hackcenter, Angel Area
 - Fixed by disconnecting the shield at one end.



Future

