

UK&I EMEA

Network & Telecoms

My cookie cutter is BROKEN!
Why half-baked WiFi design will give
indigestion!

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Introduction

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Specialise in Wireless networks

Routing and Switching

IP Telephony

Fujitsu Services 14 years

Cisco System Multiservice TAC 3.5 years

CCNP routing switching

Working towards CWNE



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Educate the Customer

- My Cookie Cutter has BROKEN!
- Attitude I have WiFi at home?
- One size doesn't fit all
- Multiple things need to be taken into account:
 - Office, Industrial/Warehouse
 - Internal or external coverage reqs
 - Materials



- **Pit falls of such designs**
 - Long term costs v short term gain
 - Poor performance – often coverage based

- **Overcome Vendor marketing**

- **Wireless theory 101**

Better Customer Knowledge leads to better decisions and results!

- Basic RF
- MCS Tables and the importance SNR
- AP types
- Multipath and SISO/ MIMO
- Why?
- Once informed customer is more open to change
- Allows a better design cycle.
They understand the importance of site surveys and Validation surveys



RF Design can start with better customer engagement

■ Requirement gathering

- Look to get floor plans early as possible!
- Top 10 Client Device types – which is least capable
- Roaming Type i.e. VOIP phone over a laptop
- Is voice required?
- Do mobiles connect? Wireless assisted calling?
- Applications
- Guest
- IOT?



Capacity Planner
User Guide

Version 1.0

Revolution Wi-Fi

- **Site visit – pre-predictive survey**
 - Initial visit get a feel for building materials
 - Take RF samples if required for predictive survey
 - Do a spectrum scan to check on non 802.11 interference
- **Site visit – post –predictive survey**
 - AP on a stick – confirmation/adjustment
- **Site visit – post install**
 - Validation survey after implementation. Passive scan
 - Client device validation

Oops?



Other influences

■ Network

- Underpins the wireless solution
- Cable runs and Comms Cab placement
- Network systems (DNS etc) up to the job

■ Wireless Tech Refresh

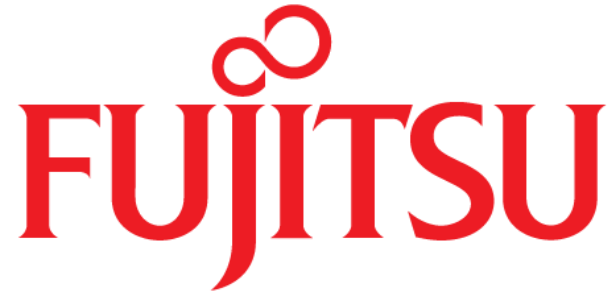
- Passive survey
- Air sample – Eye PA

Primary access to the network has changed

- Future trends will impact design.
 - Now most network access is by WiFi
 - Pure wireless networks on greenfield sites
 - No cable runs and lower switch count give massive cost savings

 - Culture change regarding desktop support
 - Wireless 'savvy' and have the appropriate tools
 - Client is king – more emphasis on a sub set of supported corporate devices and NIC drivers
 - No backup Ethernet ports!
 - Design needs to be spot on

End of Document



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