



simoco
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“Thinking Outside In”

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FCS Business Radio
in the Internet of Things





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What did we find back then?

- Despite the internet, IP backbones weren't commonplace in PMR
- The PMR community was scared to use IP
 - 4 wire leased lines
 - Microwave
 - Backbones as legacy as it's the internet
 - It's not safe
 - It's not reliable
 - Hackers/Virus Attacks





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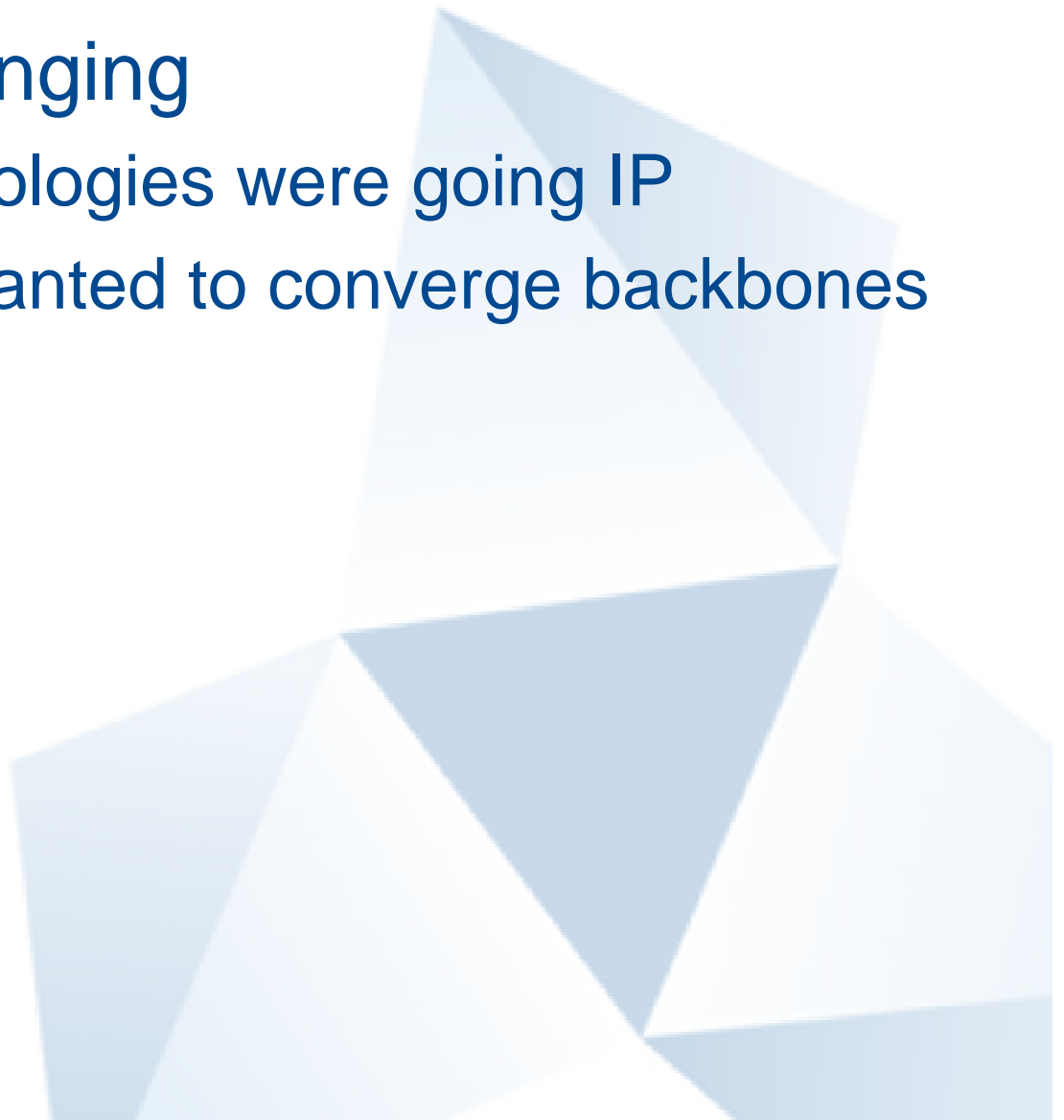
What did we find back then?

- But ... it was changing
 - Backbone technologies were going IP
 - Organisations wanted to converge backbones

CHANGE

IS GOOD

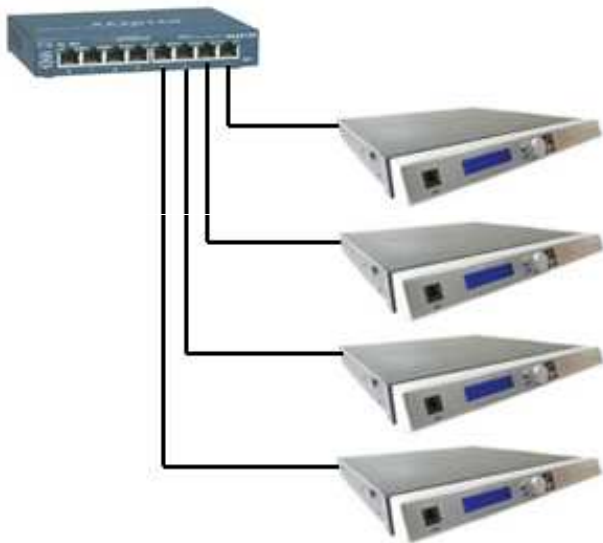
You go first!



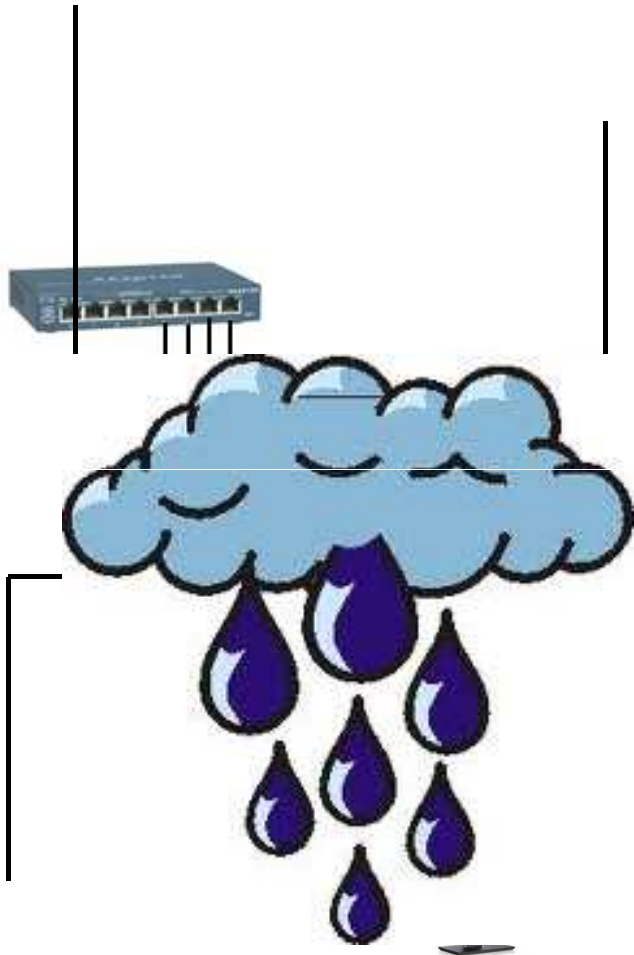


It wasn't about the internet

- Away from the backbone, IP allowed us to
 - Connect PMR equipment together (nothing new!)
 - Create a distributed/resilient architecture
 - Use standard protocols/applications e.g. TCP/FTP

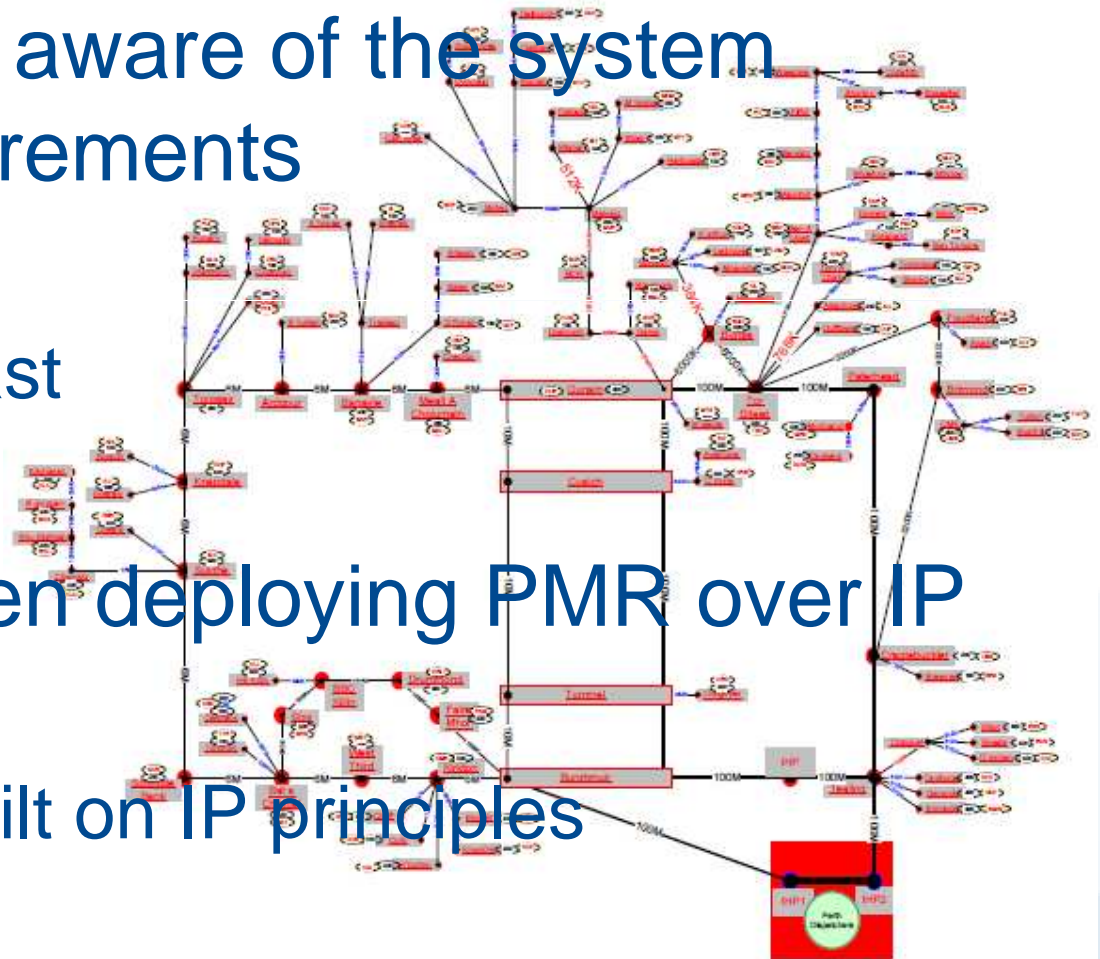


Larger networks



- **Extreme distributed sites with cheap ADSL?**
Significant cost reductions for fully resilient systems
- **Can we use public MPLS services?**
- **Enhanced remote support capabilities (1st, 2nd, 3rd line)**
- **Interacted backbone for PMR & other systems**

- Do you need to know what's in the cloud?
- You need to be aware of the system backbone requirements
 - Bandwidth
 - Unicast/multicast
 - Latency/Jitter
- Simoco has been deploying PMR over IP for 6 years
 - DMR is fully built on IP principles





Where are we now?

- Voice is still the main driver
- What else can I do with the radio system?
- Data where it suits – it's not broadband
- Radios traditionally assigned to people
 - internet of things e.g. data collection/control
- Less bespoke, more standards based
- PMR system as part of overall comms strategy (voice & data)
 - E.g. PDA's deployed using WiFi, GPRS or radio
 - User ignorant of how the app talks to the server

- PMR has joined the IP cloud in recent years
- New standards such as DMR are the catalyst for new product developments
- Standard interfaces to enable PMR to be part of comms solutions

It's no longer on another planet



Thank you