

COMMS 2014
CONNECT

*“Open Standard DMR Tier III
Trunking”*

Andy Grimmett

Position and comp Head of
Product Strategy,
Simoco



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Open Standard DMR Tier III Trunking

Andy Grimmett

HEAD OF PRODUCT STRATEGY



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Outline



- “Open Standards”
 - why are they important?
 - what is an open standard?
 - what are the keys to success?

- DMR Tier III Trunking



Importance of standards



- PMR systems are privately owned and operated
 - End customer
 - Managed service networks

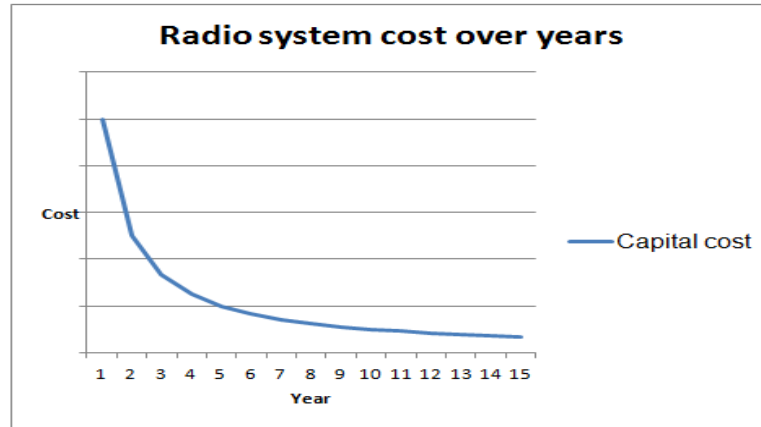
- Both cases represent an investment



Longevity



- Radio systems involve capital cost
 - Infrastructure & terminals
 - Site structures, masts, antennas, backhaul etc
- 10+ year lifespan



PMR vs Public Cellular



Driver	PMR	Public Cellular
Coverage	Specifically designed	Concentrated on dense population
Reliability/resilience	Power backup, redundancy, mesh backhaul	Minimal to minimise site costs
Contention	Sized for traffic profile, queuing, pre-emption	Call failures during busy periods
Security	Built in or upgrade	e.g. phone hacking
Group communication	Standard	PTT over cellular, LTE 3GPP
Performance	Fast call setup, talk without answer	Longer setup, user has to answer



Protection



- PMR is essential for a lot of organisations but what protects the purchaser

“Open Standards”



Open Standards



- Definition;
 - Published specification
 - Anyone with expertise/resources can implement to realise products
 - ***General availability***
 - Free
 - Purchase specification
 - Organisation membership fees
 - Royalty or IPR licensing



3 keys to Standard success



General availability of the standard



Critical mass of suppliers



Market demand



Standards Battles



Sony
Toshiba
Sanyo
NEC
Pioneer



JVC
Panasonic
Hitachi
Phillips
Mitsubishi
Sharp
Akai
Matsui



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The Digital PMR Landscape



Public Safety

- P25
- TETRA

Low Cost Digital

- DMR
- dPMR
- NXDN
- PDT
- e-DMR



DMR Standard



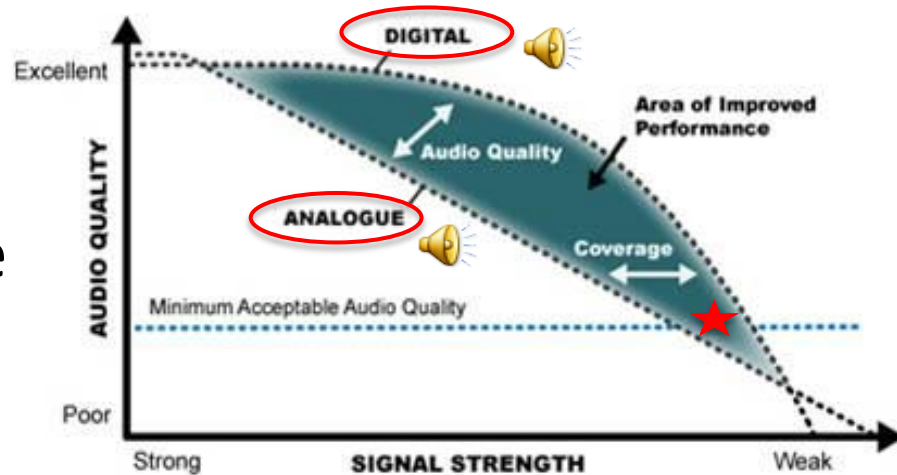
- ETSI Standard
- Manufacturer Extensions – MFID
- Interoperability
 - Robustness
 - Goal of “low cost digital”
- Ongoing standards development



DMR Tier III Trunking



- 2 slot TDMA in 12.5kHz
- 66 – 960mHz
- Digital voice
- 'Perceived' coverage increase



DMR Tier III Trunking



- Control channel (up to 4)
- Single, multi-site
- Individual, group (broadcast, all) priority, emergency, telephony voice calls
- Status, short data, packet data



Developments



- AIS (Application Interface Specification)
- Encryption
- Dynamic grouping
- Ambient listening



3 keys to Standard success



General availability of the standard

✓ Freely available

✓ IPR licence



Critical mass of suppliers

✓ 90% analogue



Market demand



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Summary



- Open standards are critical to long term support and stability
- They create a level playing field

DMR

- Strength of the DMRA
- Robust interoperability programme
- Commitment of manufacturers



Whitepaper available



“Open Standard DMR Tier III Trunking”

www.simocogroup.com

<http://www.simocogroup.com/resource-library/white-papers/open-standard-dmr-tier-iii-trunking>



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Conference materials available soon at

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