



Presentation to ICASA on Draft Frequency Migration Regulations November 2012

Altech Team

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Divisional structure

TELECOMMUNICATIONS

Telecoms services



Converged services & connectivity



MULTI-MEDIA & ELECTRONICS



IT



*Excludes subsidiaries and sub-brands

Administrative & Constitutional Matters

- Uncertainty regarding the process for migration of users
 - Paragraph 1.2 of the Annex allows for compensation “overarching public interest”
 - Regulation 3(5) states that “users shall not be entitled to be compensated by the Authority for the costs of migration”
 - Require clarity on this matter
- Constitutional interpretation
 - S 25 of the the constitution requires compensation in cases of expropriation
 - View that spectrum rights are covered by S 25
 - Request that the Authority seek guidance on this issue
- Consultation with the Minister
 - ECA requires in S 34 that the Authority consult with the minister
 - The process of consultation and subsequent approval does not appear in the Draft regulations
 - Require that the Authority clarify this issue

Technical Proposals

- Generally support the overall proposals by the Authority
- Public Safety Voice
 - Strongly agree that Public Safety users be migrated to a consolidated frequency band
 - Currently implemented in Gauteng where SAPS, EMS, Metro PD all use the same network infrastructure for mission critical communication
 - Model should be implemented nationally
- Public Safety LTE
 - Increasing demands of Public Safety officials require dedicated wireless broadband services
 - International jurisdictions (USA, UK, Europe) already making allocations in 700MHz for dedicated public safety LTE
 - Similar approach should be followed in SA
 - 450 to 470 MHz could be an option

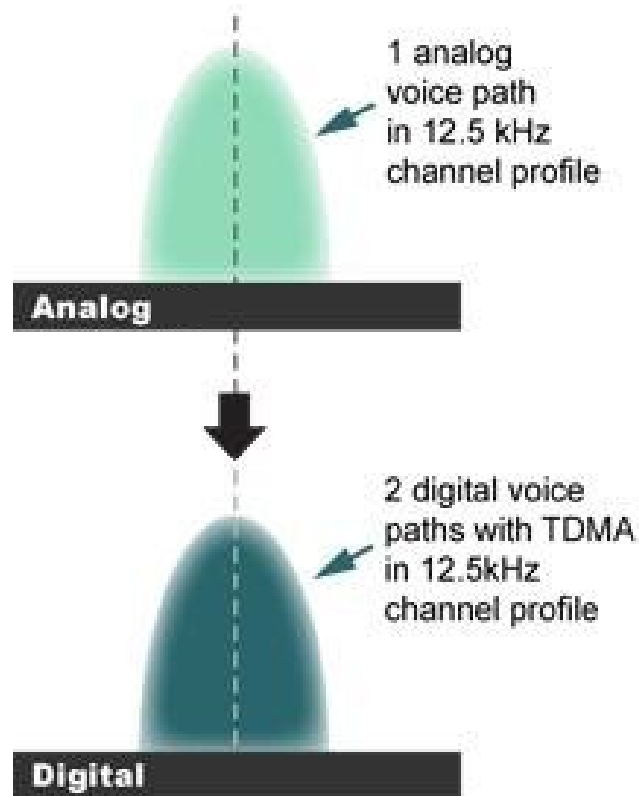
TDMA & FDMA

- Principles in the Draft Regulations are supported requiring compliance to International standards
- TDMA and FDMA PMR are both ETSI standards
 - Not ALL OEM complies with the ETSI standard at present
- TDMA enjoys substantially more OEM support
 - Ensures benefits of economies of scale
 - Encourages open systems
 - Promoted competition in the PMR sector
- Benefits of TDMA
 - Simple Capacity Increase - two time slots using SAME 12,5kHz analogue assignments - two voice circuits
 - Single Repeater system - efficient infrastructure, no need for complex repeater combiner systems
 - Advanced control features
 - Allows FULL Duplex
 - Greater Power Efficiency - reducing battery usage

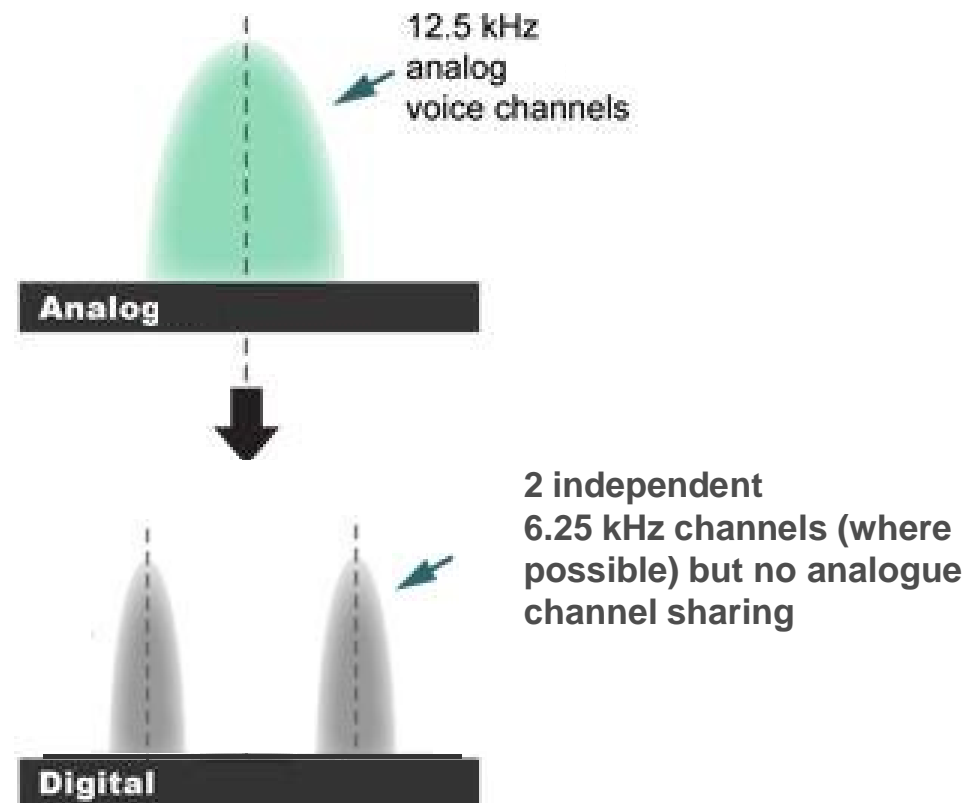
TDMA & FDMA Migration Impact on Spectrum

TDMA gives predictable doubling of capacity in existing 12.5 kHz channels and legacy analogue compatibility

12.5 kHz TDMA



6.25 kHz FDMA



FDMA Less spectrum efficient and creates complex migration challenges

TDMA & FDMA Vendor Support

DMR

ETSI standard



Extensive IOP

Limited IOP

dPMR

ETSI standard



Limited IOP

NXDN

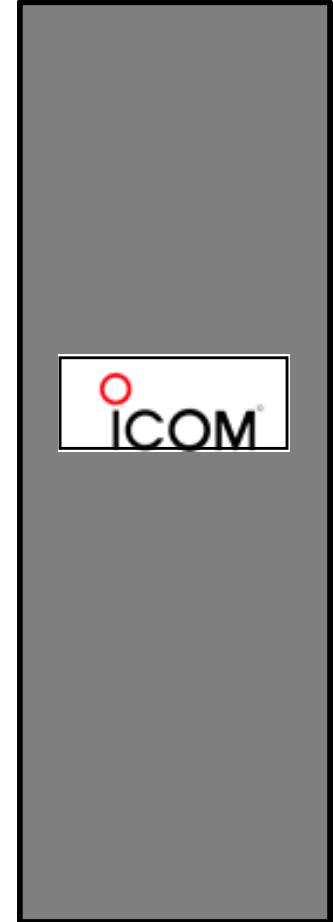
Proprietary



No IOP

iDAS

Proprietary



Limited IOP

Conclusion

- Require that the Authority provide guidance to industry on the administrative and procedural matters of the Draft Regulations
- Altech supports the technical proposals
 - Dedicated Public Safety band and for
 - Common infrastructure for Public Safety agencies
- Highlight the need for Public Safety LTE
- Require a TDMA, 12,5kHz planning model to be implemented as a standard for PMR