



# Welcome / Introduction

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TETRA + Critical Communications Association

Presentation on behalf of the TCCA – The Critical Communications Association

North America  
TETRA FORUM





## *What is TETRA?*

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- **TETRA = Terrestrial Trunked Radio**
- **Mature** and proven **Standard**. Originally developed by ETSI for mission-critical / public safety use. Today it is present in all market sectors.
- Continuously **evolving**
- **Multi-vendor**: Implemented by the **largest** number of system, radio terminal, accessory, and application OEMs
- Certified **interoperability**
- Fast, **spectrum efficient**, secure, reliable & resilient
- Rich functional feature set
- Designed to serve demanding **critical communication** users who work and need to communicate in groups



## *Core technology*

- 4 TDMA slots in 25 kHz channel (6.25 kHz equivalent)
- $\pi/4$  DQPSK modulation
- Gross data rate 36 kbps, Net 28 kbps.
- Circuit and packet mode data
- Short data over control channel
- ACELP codec (4.6 kbps)
- High audio quality
- Fast call set-up (<300 msec typical)
- Air Interface and End-to-End Encryption options
- Available 450 / 800





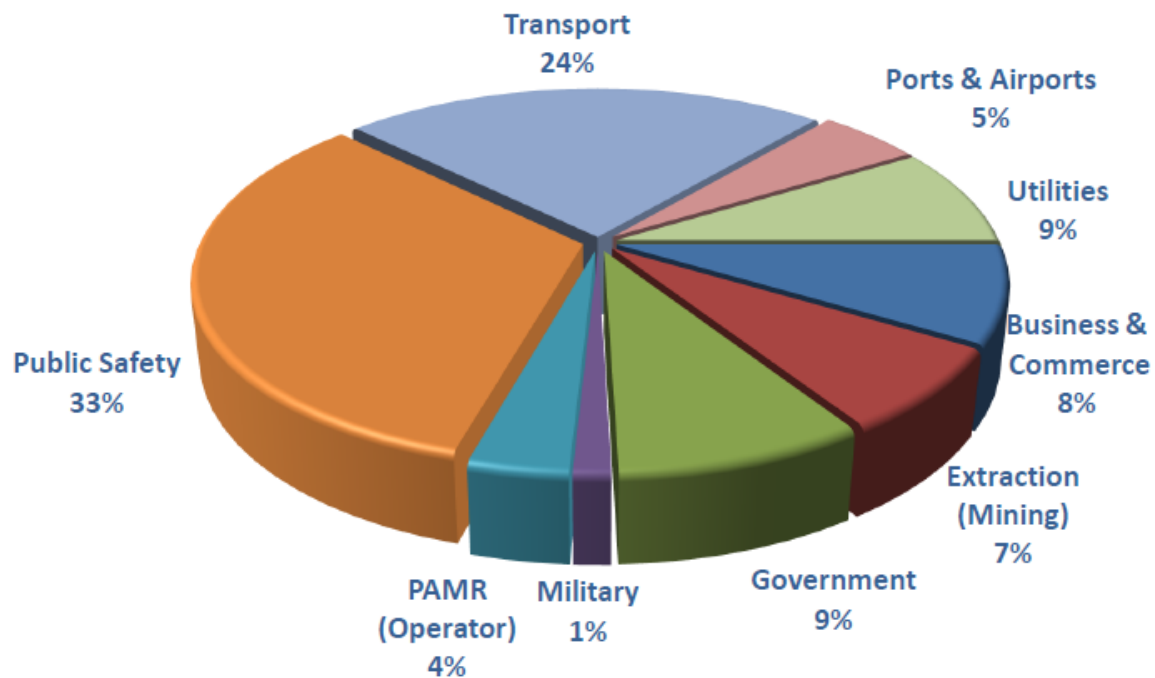
## ***Feature rich***

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- Simultaneous voice & data
- Simplex calls
- Full duplex calls
- Broadcast calls
- Various modes: TMO, DMO
- Telephone interconnect
- Short Data Service (SDS)
- Circuit / packet data
- GPS protocol
- DGNA
- Area selection
- Handover
- Roaming
- Gateways
- Repeaters
- Air Interface Encryption
- E2E Encryption
- OTAR



# Analysis by sector (worldwide)





## TETRA in the World

### Installed Systems

*By region*

*(approx. values)*

- Western Europe 30%
- Eastern Europe 15%
- Scandinavia 4%
- Asia-Pacific 34%
- Middle East 5%
- Africa 6%
- Latin America 5%
- North America < 1% (but growing rapidly)





## **TETRA in North America**

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### Installed Systems

#### *By Sector*

- Utilities 8
- Transit 4
- Airports 4
- Mining 4
- Oil & Gas 2
- Military 1

### In progress...

- +1
- +3



# TETRA in North America

- BC Hydro
- New Jersey Transit
- Rockwell-Collins (LAX, EWR, SFO, and JFK airports)
- Cobb EMC
- Diverse Power
- Toronto Transit Commission (TTC)
- Canadian Navy (Halifax Frigate Project)
- Agnico Eagle Mining
- Flint Hills Resources
- Ontario Power Generation (OPG)
- DEMCO







***For more information...***

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North America  
TETRA FORUM



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