



TETRA Forum

09/03/2011

- General Fire Brigade organisation
 - Operational
 - General
- Radio network
 - Technical description
 - Radio coverage
 - Network organisation
 - Exemple of network organisation
 - Curently VHF network
 - TETRA network
- Why TETRA network is useful for emergency services
 - Benefits of TETRA network
 - Using rules and constraints





- **Equipment :**
 - 1 Safety Control Room (SCR)
 - 2 fire engines
 - 1 reinforcement engine
 - 2 ambulances
 - 2 coordination and command cars
 - 4 reinforcement modules
- **Human resource : 57 fire-fighters**
 - 6 Officers + reinforcement team of 3 fire-fighters
 - 8 Team leaders or deputy
 - 40 fire-fighters
- **Operational coverage 24h / 365d**
 - 1 officer
 - 1 team leader
 - 8 fire-fighters

- Emergency and rescue :
 - Rescue people, take care of CERN proprieties and environment
 - Other missions : confined space control, radioactive trash control, special event (VIP, ...)
- Administrative tasks:
 - Register AL3 maintenances
 - Register of lost and found, rob and incident
 - General fire prevention advises, fire and emergency operations preparedness
 - Safety training for CERN members

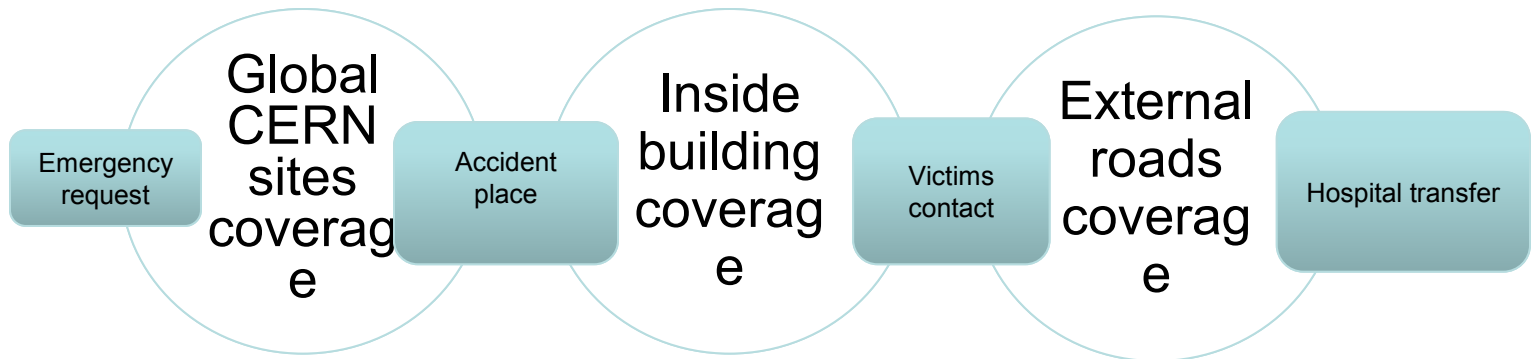




- Technical description:
 - Mono canal FM 5W
 - Fixed radios:
 - 1 main station
 - 2 rescue stations
 - Relay system for leaky feeder (SPS and LHC)
 - Mobile radios :
 - 20 hand-portables, 14 mobiles for vehicle
 - 4 channels :
 - 1 main
 - 1 rescue
 - 1 « catastrophe »
 - 1 Geneva ambulances

- coverage

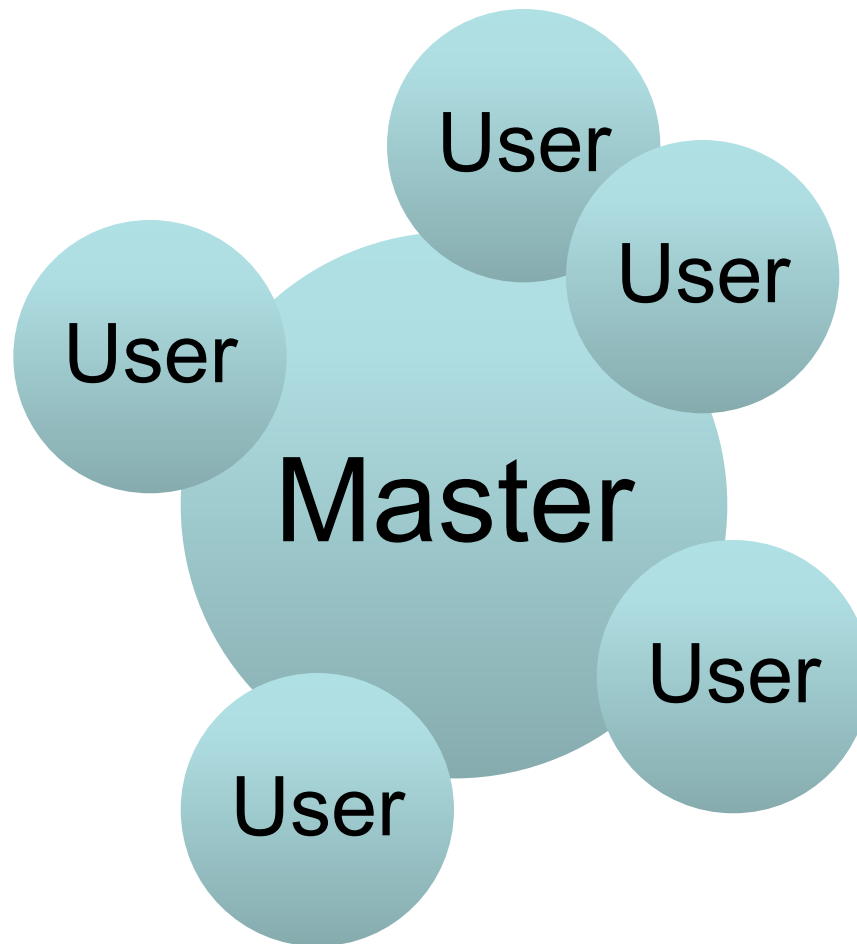
Exemple for ambulance care :



General network organisation

CERN

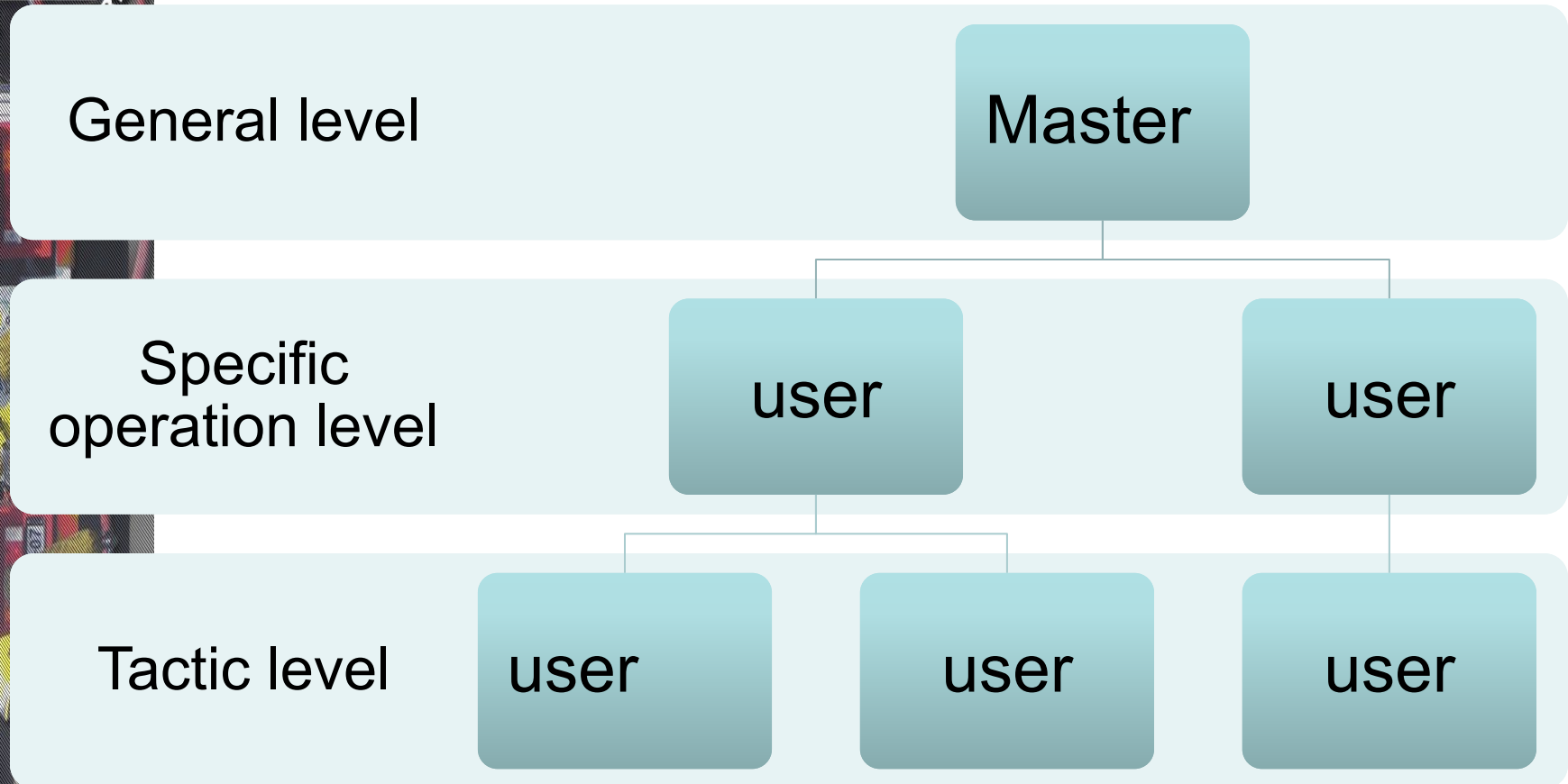
General Infrastructure
Services Department



General network organisation

CERN

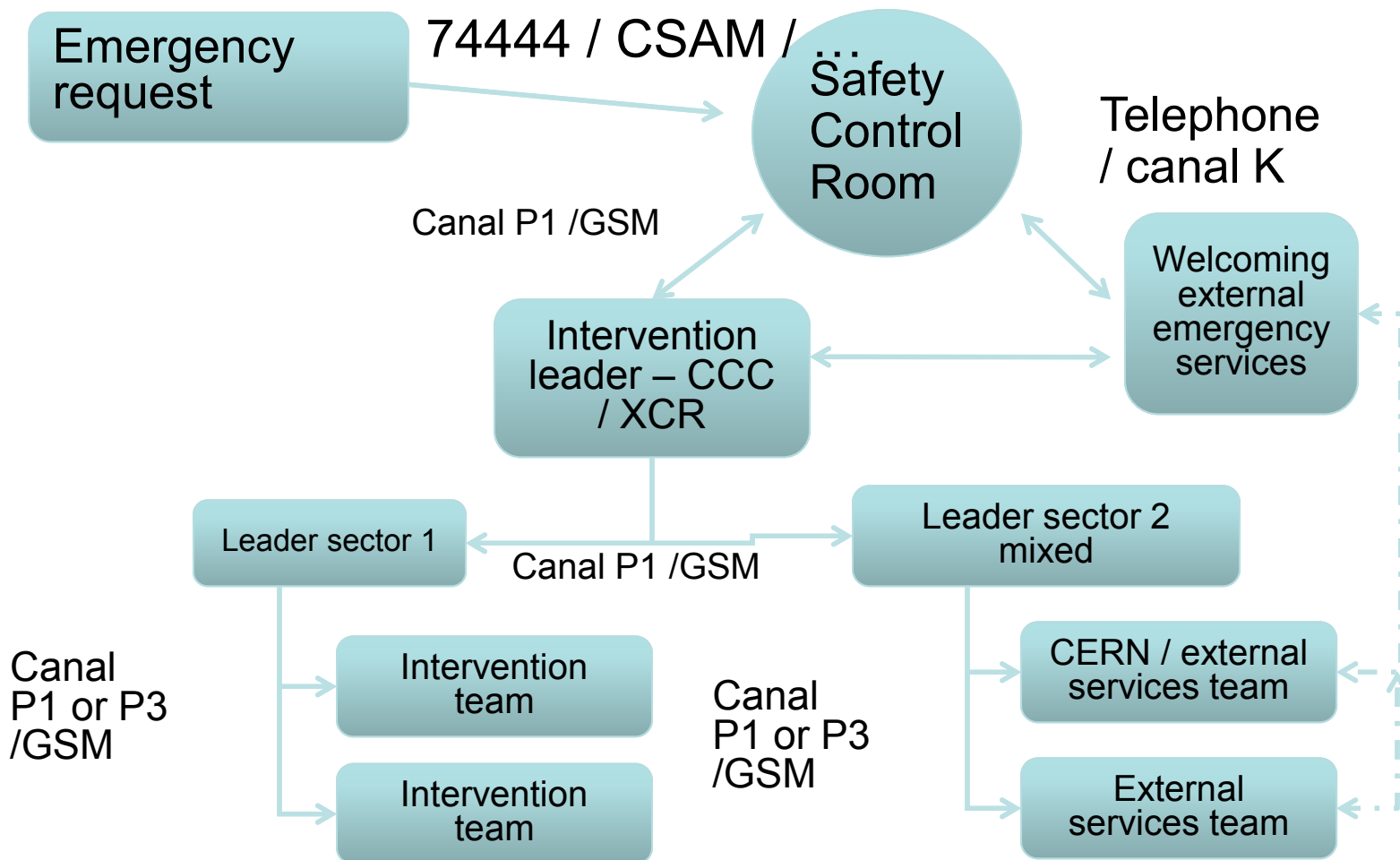
General Infrastructure
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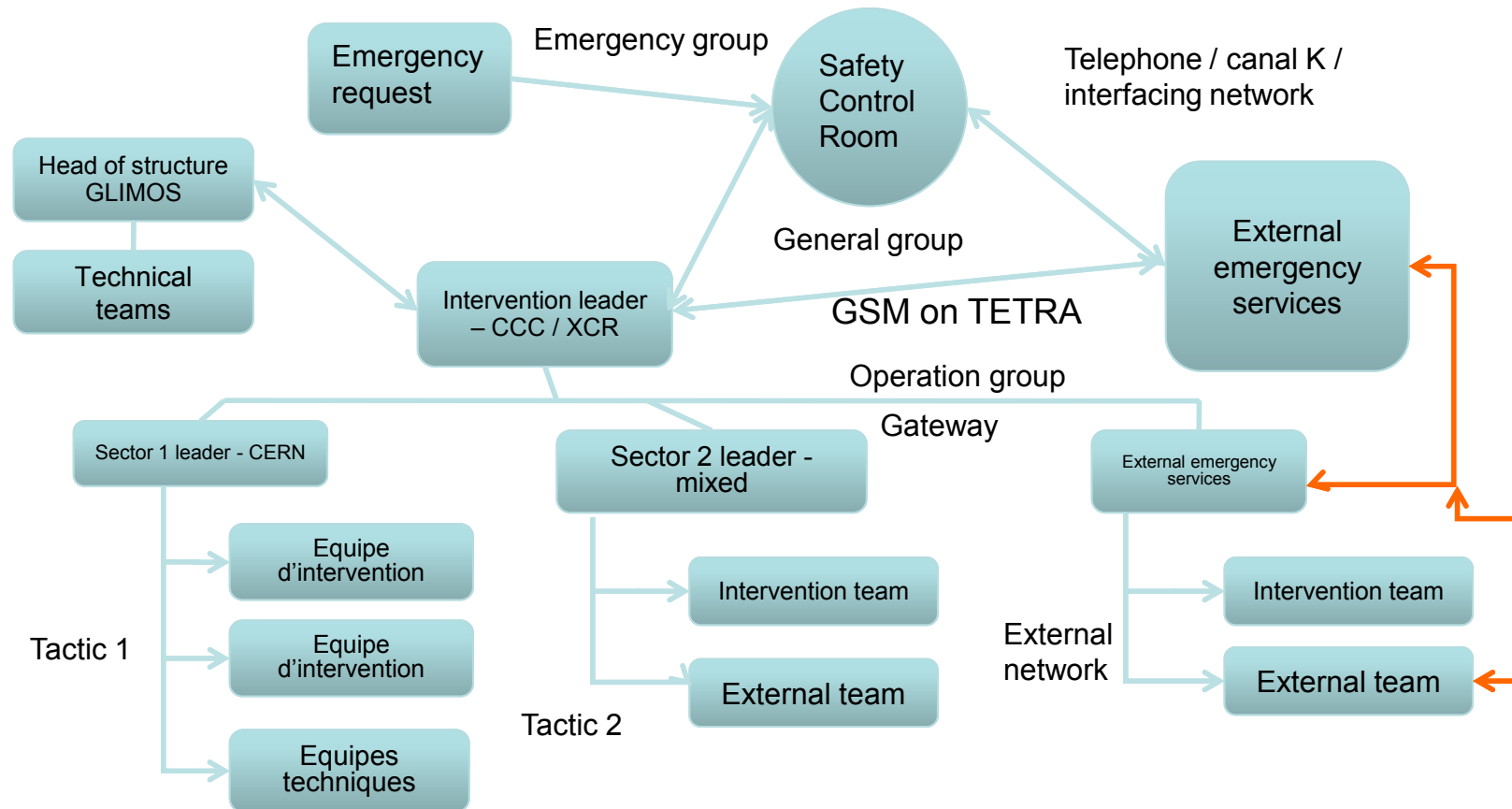
General network organisation : exemple for Fire brigade



Current VHF organisation



Possibility of technical answer by TETRA network



- Security
 - Our network
 - Encryption possibility
 - Hand-portables identification
- Possibility of very important number of groups
- Using by French and Swiss authority
 - Interfacing network – sharing group possibility
 - Relay of Swiss and French frequencies
- Options
 - Geo-localization outdoor and indoor
 - Emergency call
 - Interfacing with software for internal organisation (status)
 - Full duplex call
 - Recording with details



- Strict using rules :
 - Training with equipments : hand-portable, mobile
 - Training with rules of using
- Differences with GSM :
 - Listening trunk
 - Constraints of simultaneity
- Differences with simple talkie-walkie :
 - Share network
 - administration of the network (dispatcher)

