



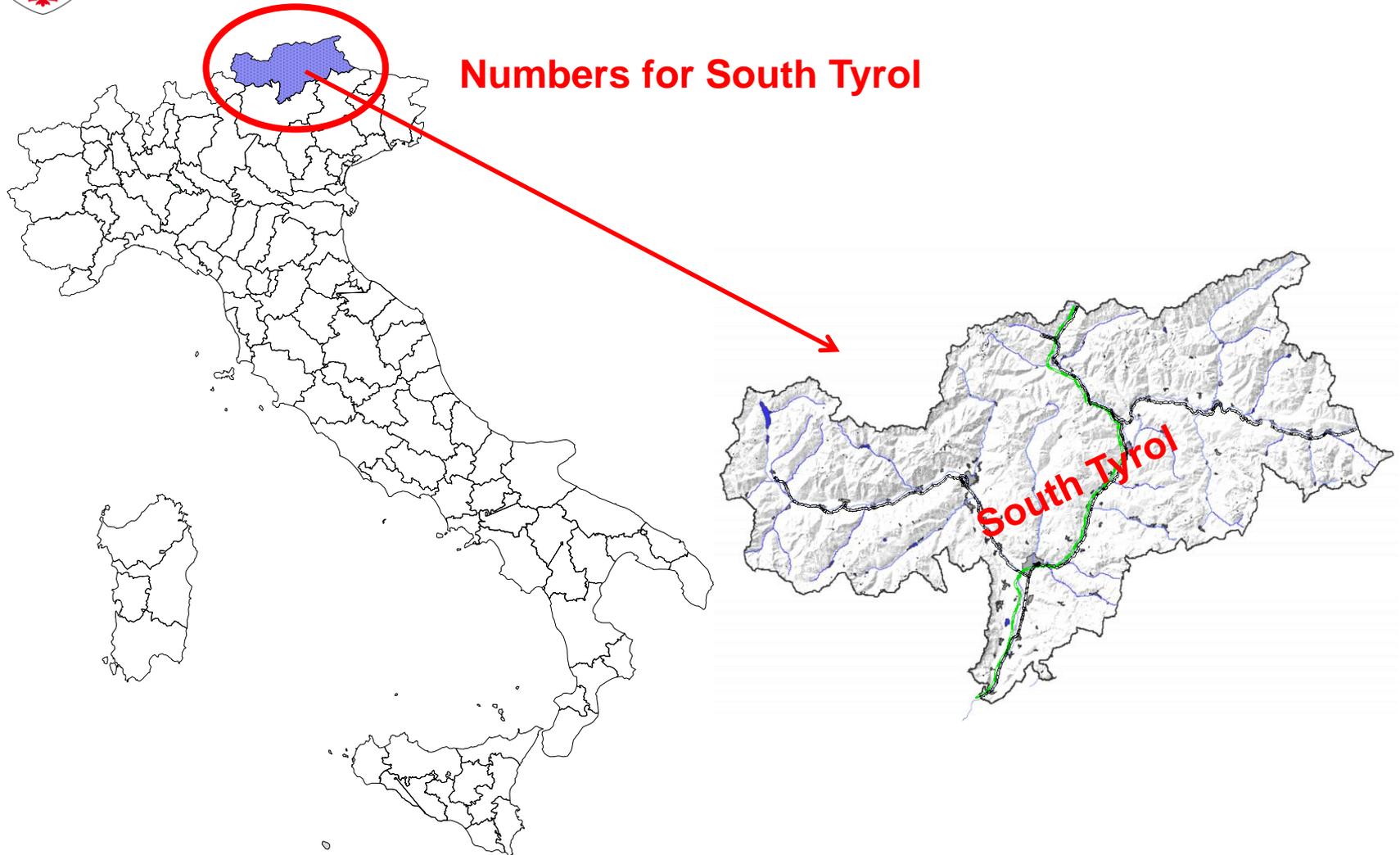
Contents

- South Tyrol – numbers, pictures
- Importance of dispatching a centralised alert in the event of natural catastrophes
- Deciding between TETRA or POCSAG
- Requirements for the system
- System design
- Experience during the migration
- Experience in the real operation



AUTONOMOUS PROVINCE OF BOZEN (BOLZANO) – SOUTH TYROL

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Numbers for South Tyrol

South Tyrol

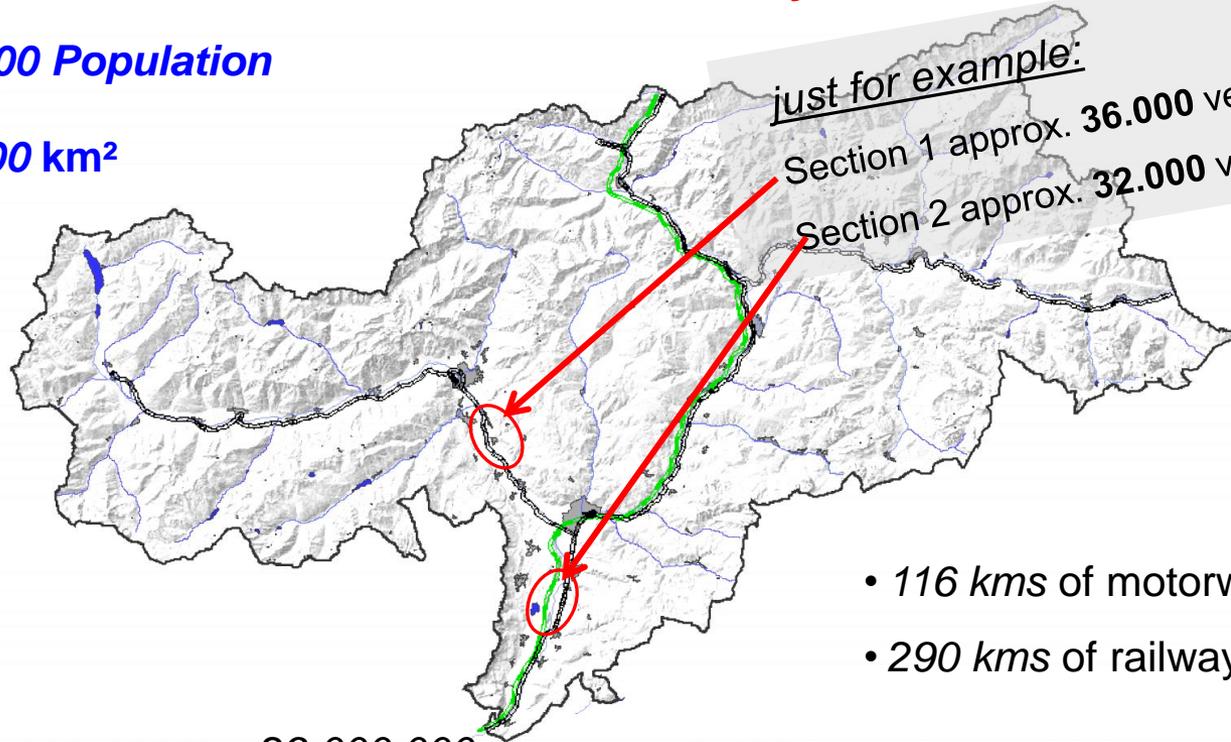
Italy



Numbers for South Tyrol

approx. 515,000 Population

Total area 7,400 km²



- Overnight stays/year: approx. 29,000,000
- tourist accommodations: approx. 10,300 with approx. 220,000 beds

- 116 kms of motorways
- 290 kms of railway networks
- 2,100 kms of state highways & country roads
- 2,500 kms of municipal roads
- 3,400 kms of supply and forest roads



Pictures of South Tyrol





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Pictures of South Tyrol





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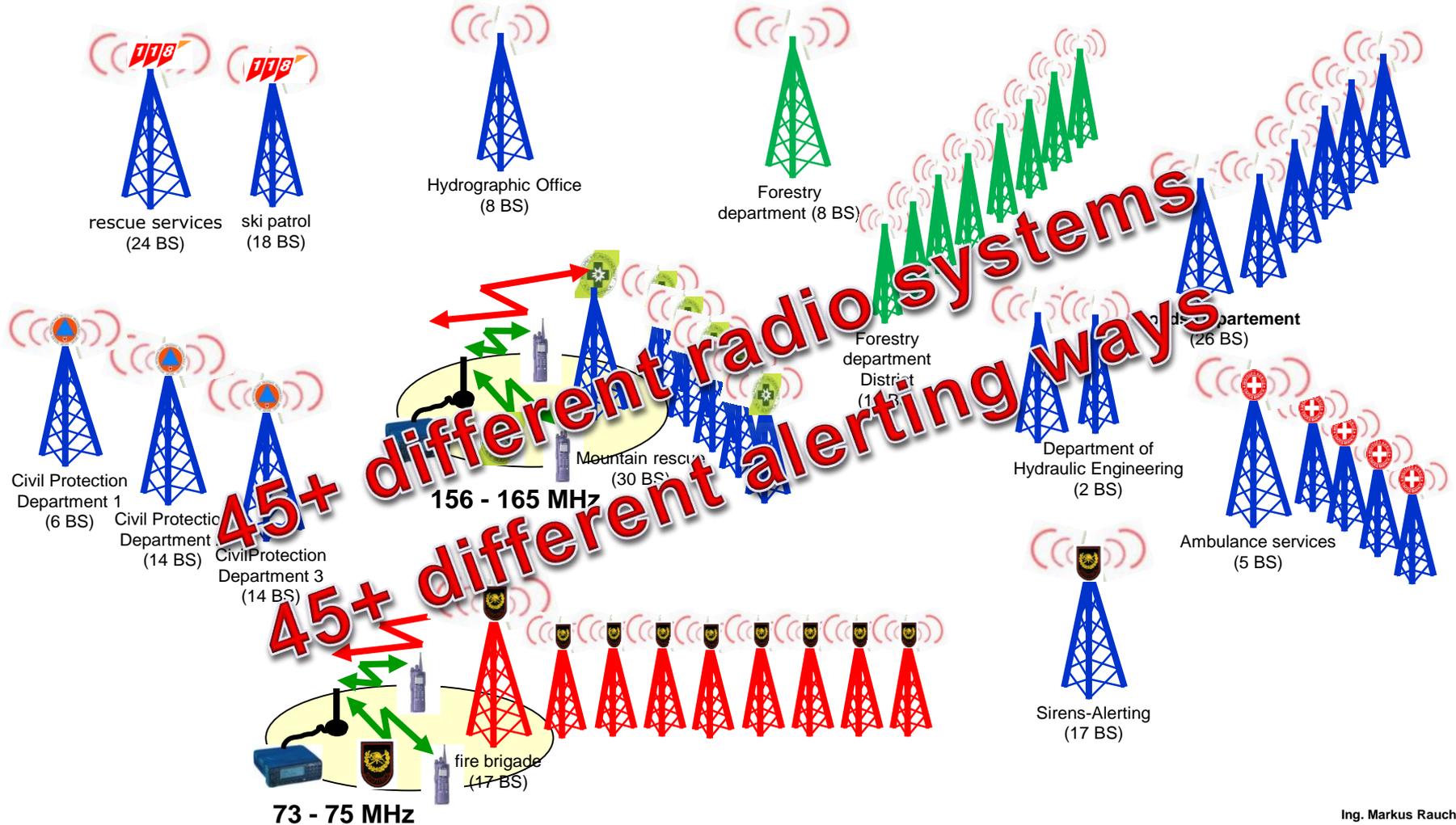
Public Safety Organizations in South Tyrol





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Prior Set-Up of the South Tyrolean Civil Protection Alerting Systems





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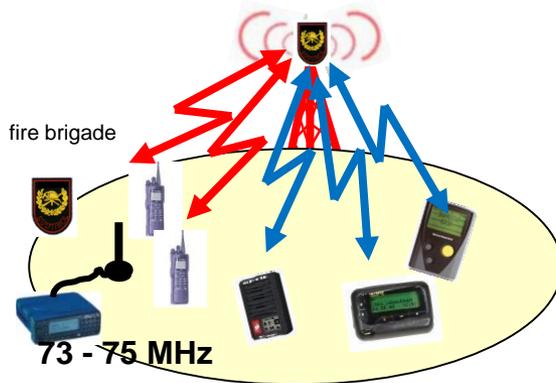
Prior Set-Up of the South Tyrolean Civil Protection Alerting Systems





New Alerting Systems for the South Tyrolean Civil Protection Agency Primary Decision

PRIOR SET-UP



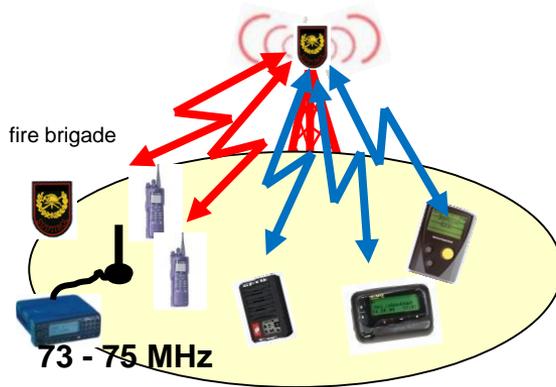
One radio network for:

- alerting
- Voice communication



New Alerting Systems for the South Tyrolean Civil Protection Agency Primary Decision

PRIOR SET-UP

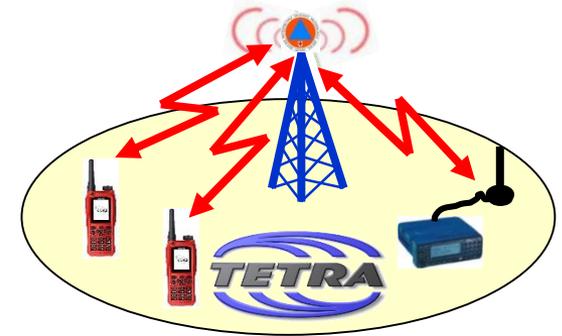


One radio network for:

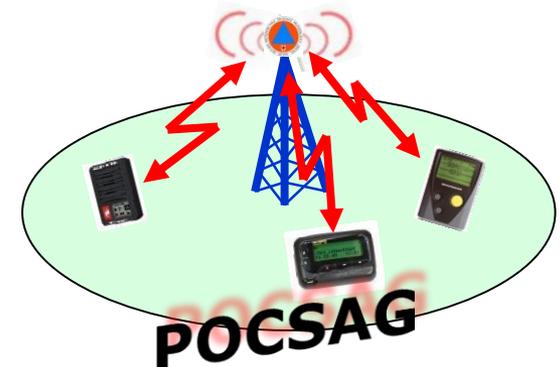
- Alerting
- Voice communication

Voice communication

Alerting



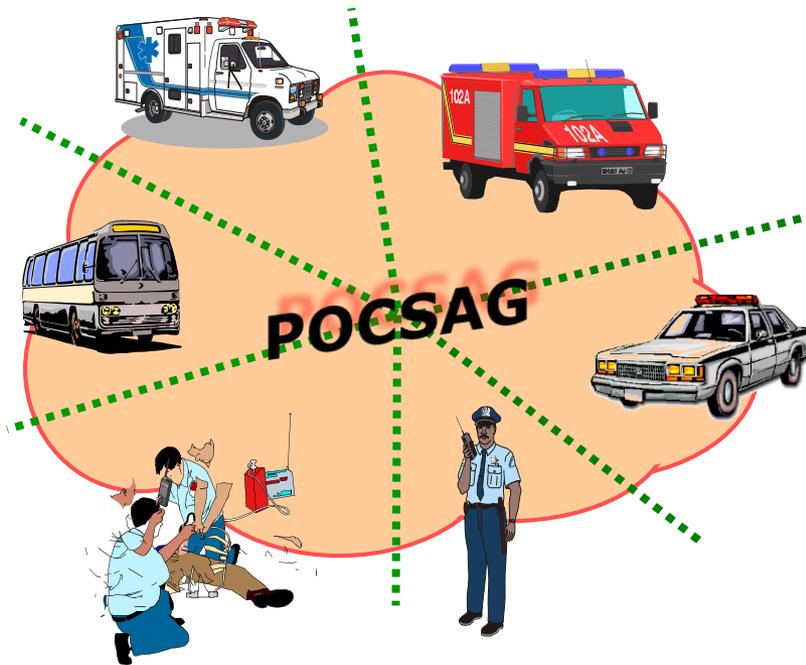
TARGET SITUATION



Separate Voice and Alerting Networks for increased redundancy and safety



New Alerting Systems for the South Tyrolean Civil Protection Agency Conditions / Requirements



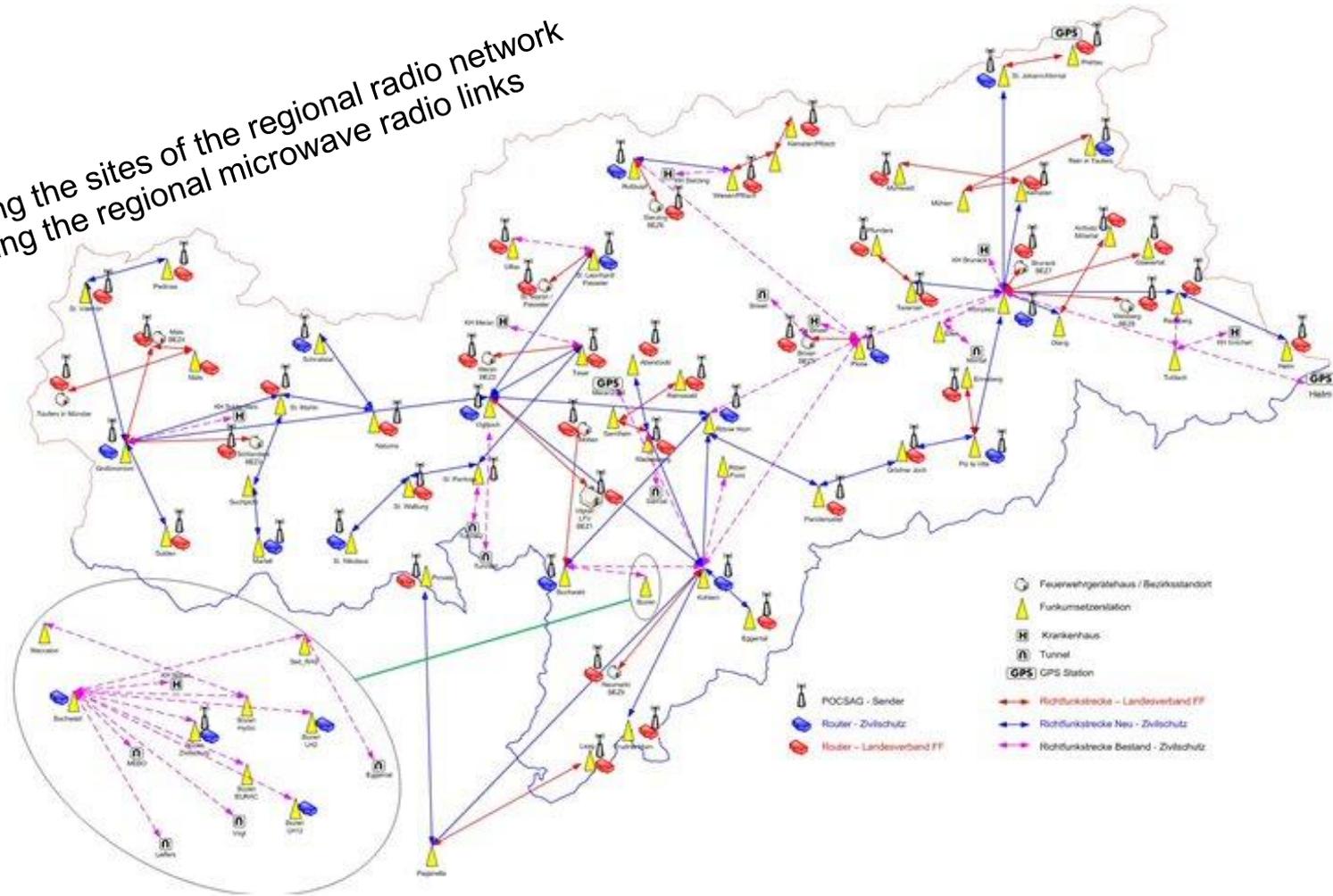
- Each organization manages and develops own alerting database
- One terminal device for rescuers who are members in several organizations
- Robust and cost-effective devices with high sensitivity and battery autonomy
- Possibility of making encrypted alerts

Cost-efficient operation and maintenance of a single infrastructure for all organizations



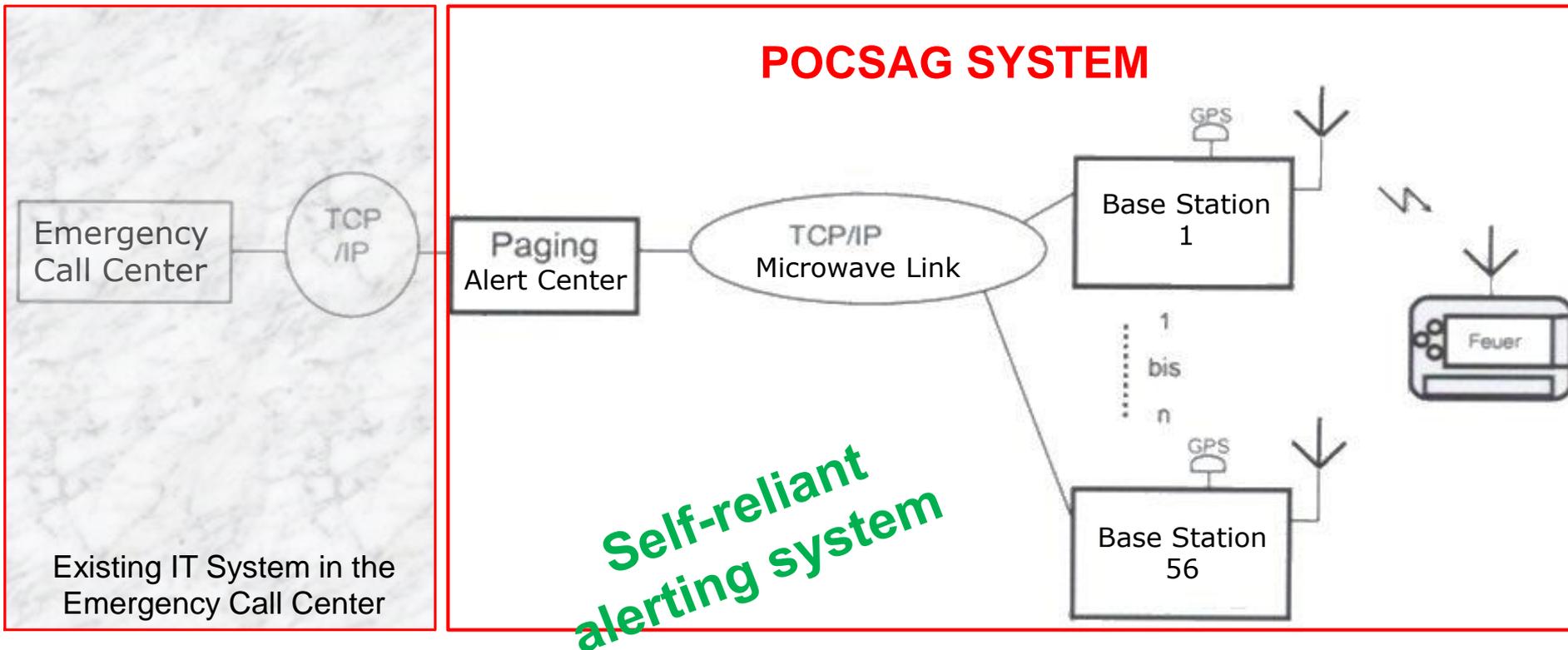
New Alerting Systems for the South Tyrolean Civil Protection Agency Conditions / Requirements

➤ using the sites of the regional radio network
➤ using the regional microwave radio links



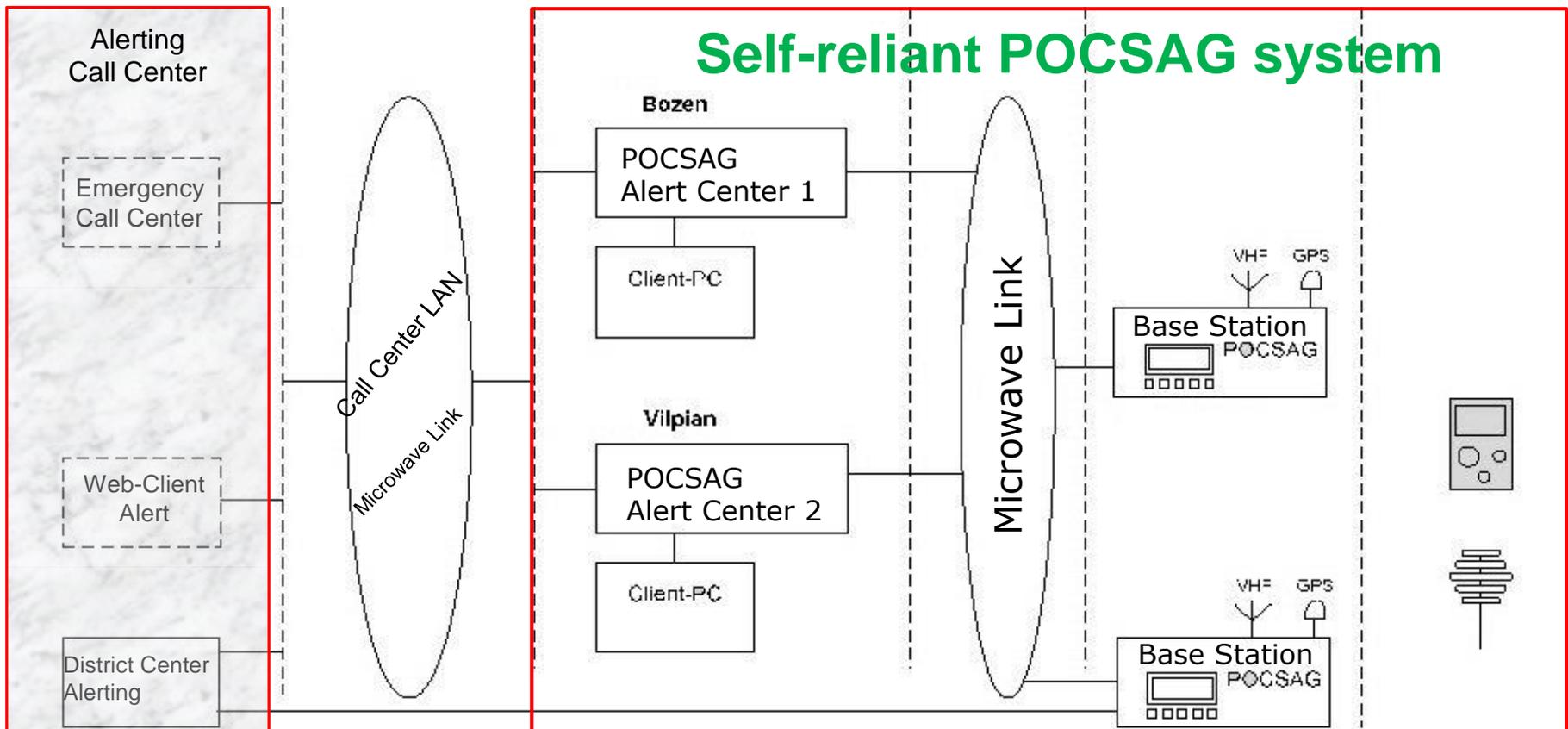


New Alerting Systems for the South Tyrolean Civil Protection Agency Conditions / Requirements



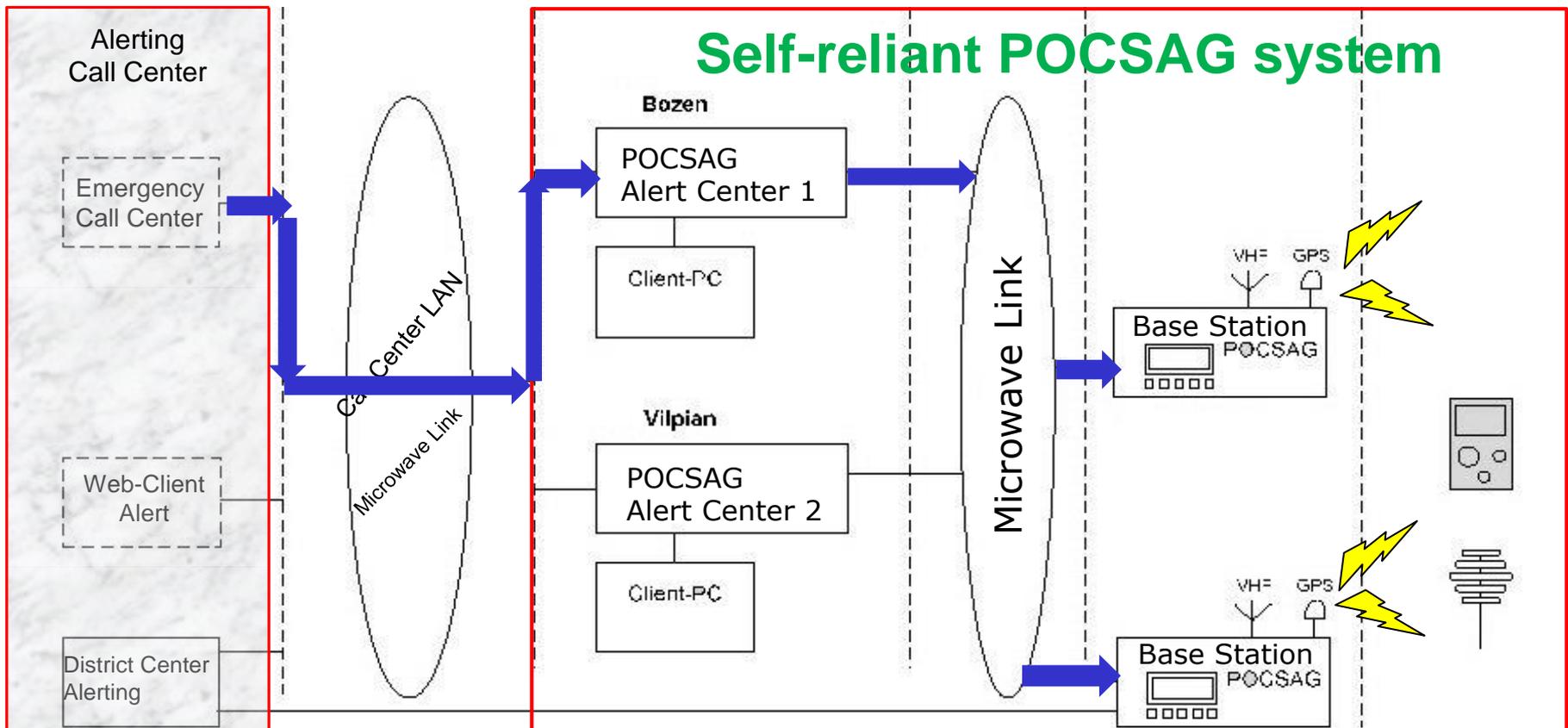


New Alerting Systems for the South Tyrolean Civil Protection Agency **Self-Reliant Paging System**



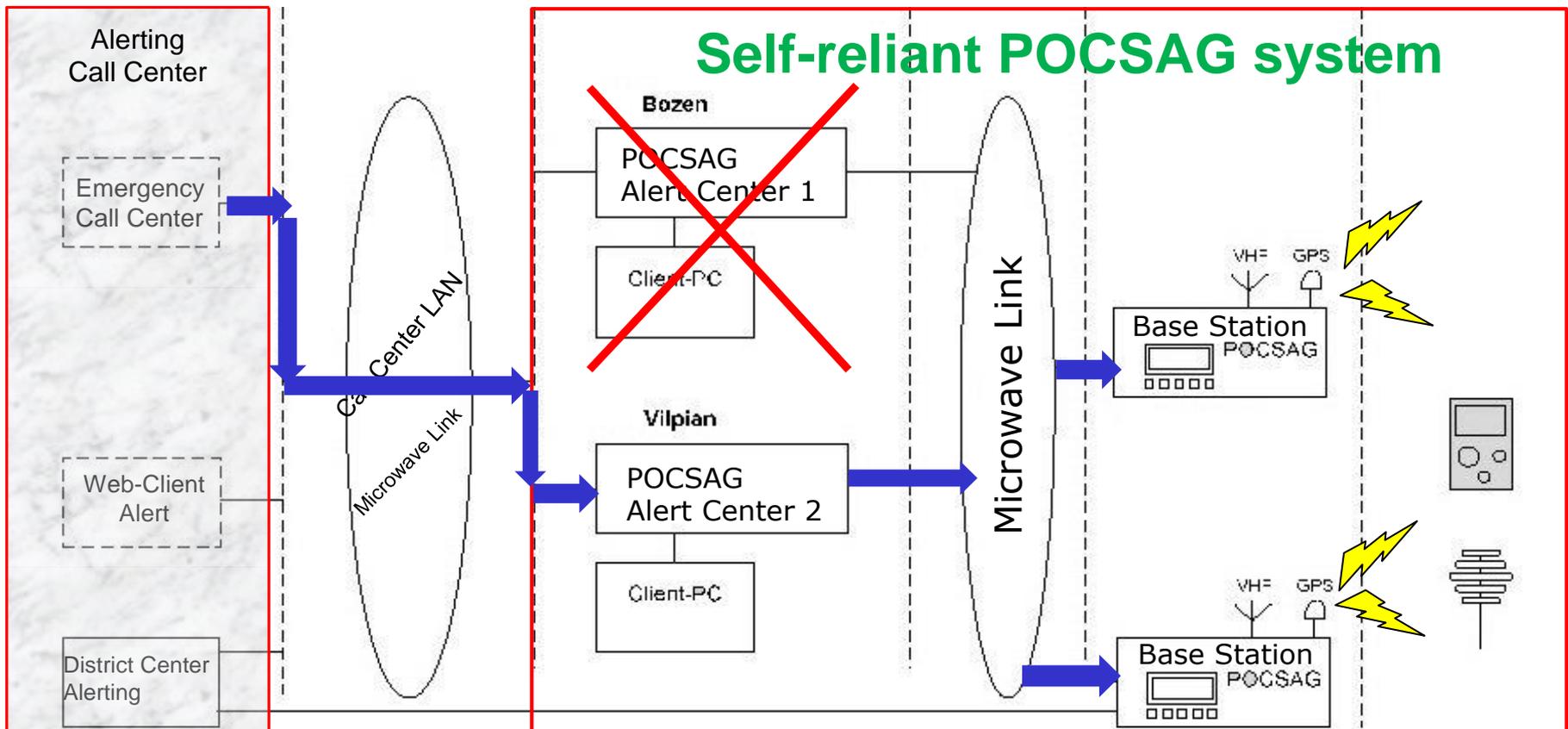


New Alerting Systems for the South Tyrolean Civil Protection Agency Normal Status



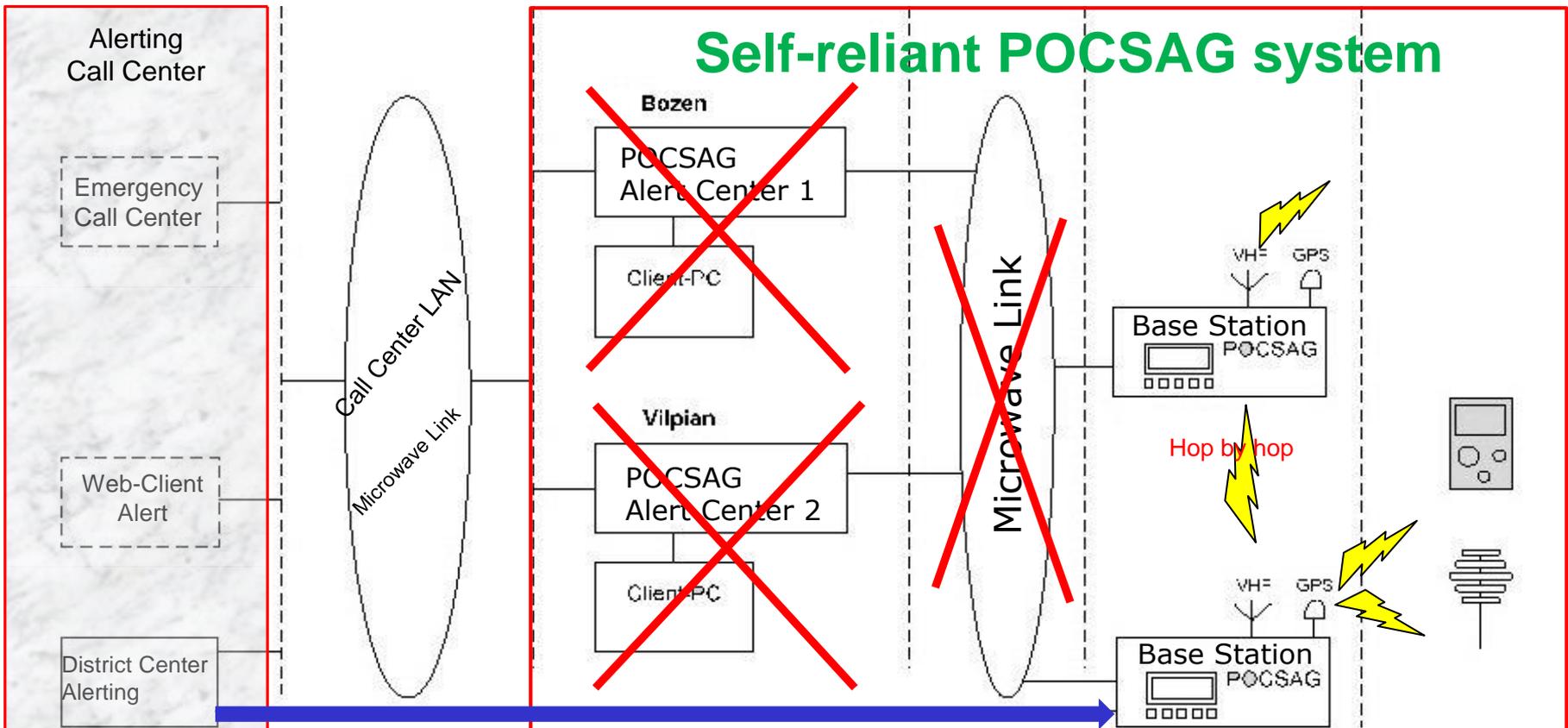


New Alerting Systems for the South Tyrolean Civil Protection Agency Emergency Status 1



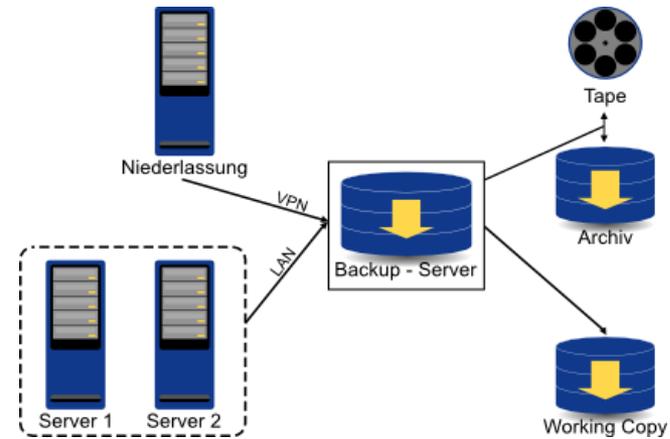
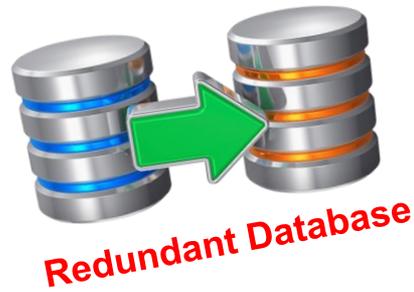


New Alerting Systems for the South Tyrolean Civil Protection Agency Emergency Status 2

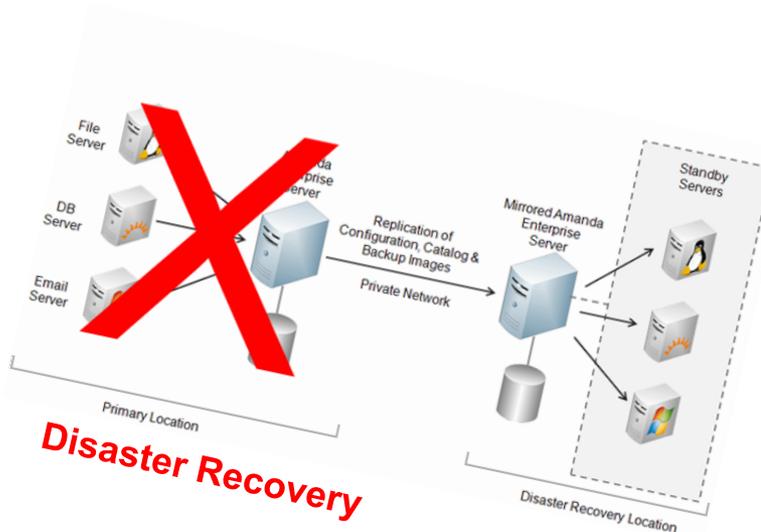




New Alerting Systems for the South Tyrolean Civil Protection Agency



Multiple Server, Backups, etc.



Disaster Recovery



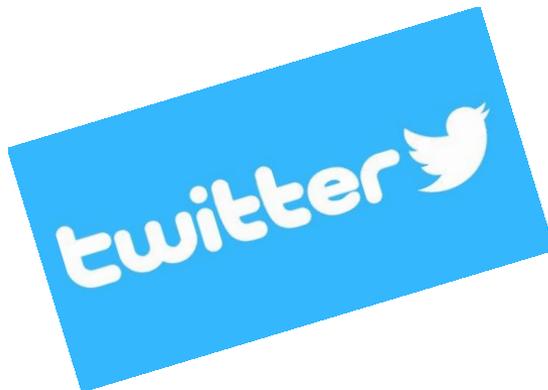
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New Alerting Systems for the South Tyrolean Civil Protection Agency



WIKIPEDIA
The Free Encyclopedia





New Alerting Systems for the South Tyrolean Civil Protection Agency Power Supply





New Alerting Systems for the South Tyrolean Civil Protection Agency Power Supply on the Sites Challenges / Site Accessibility



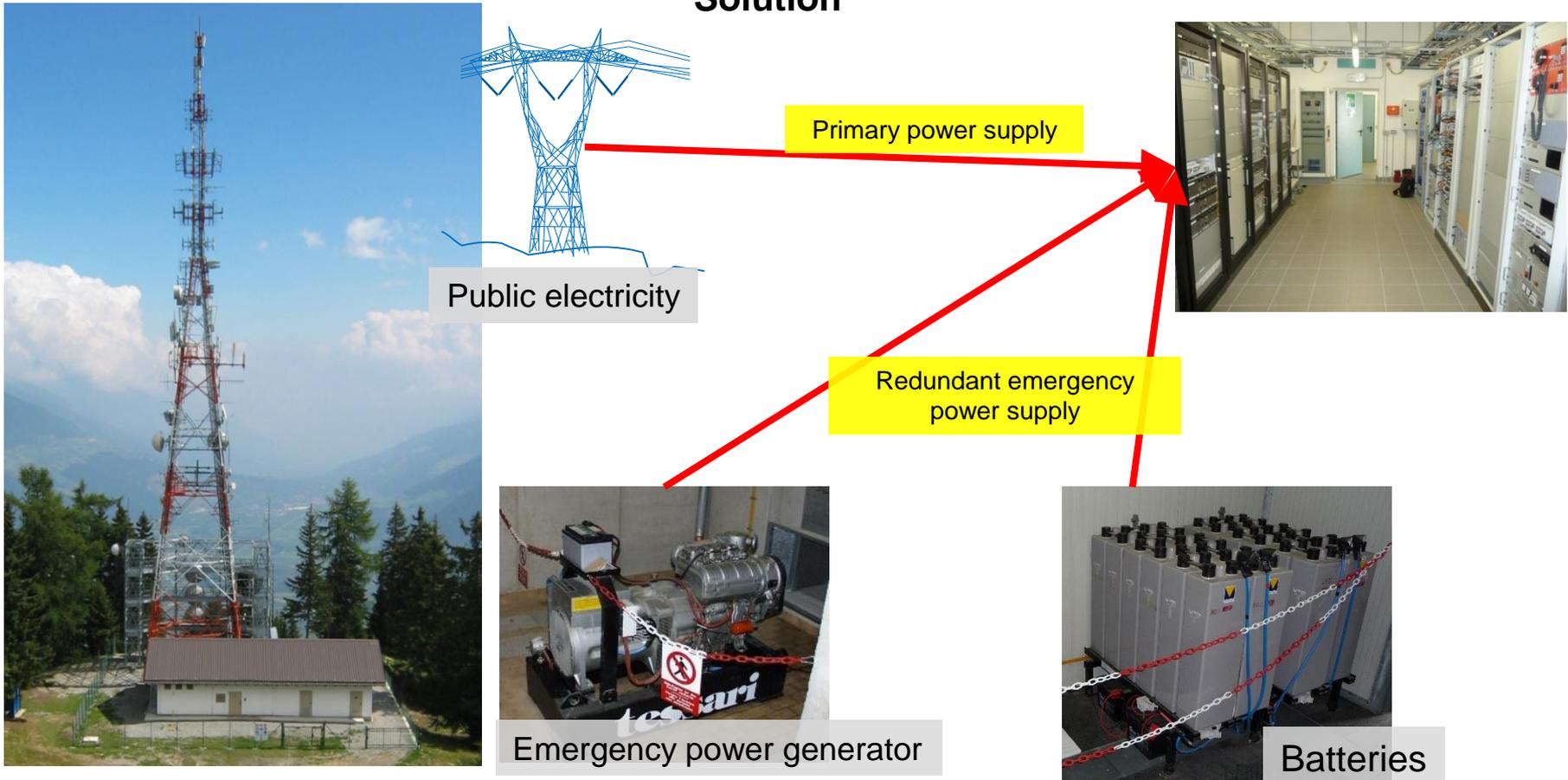
Where is the door??





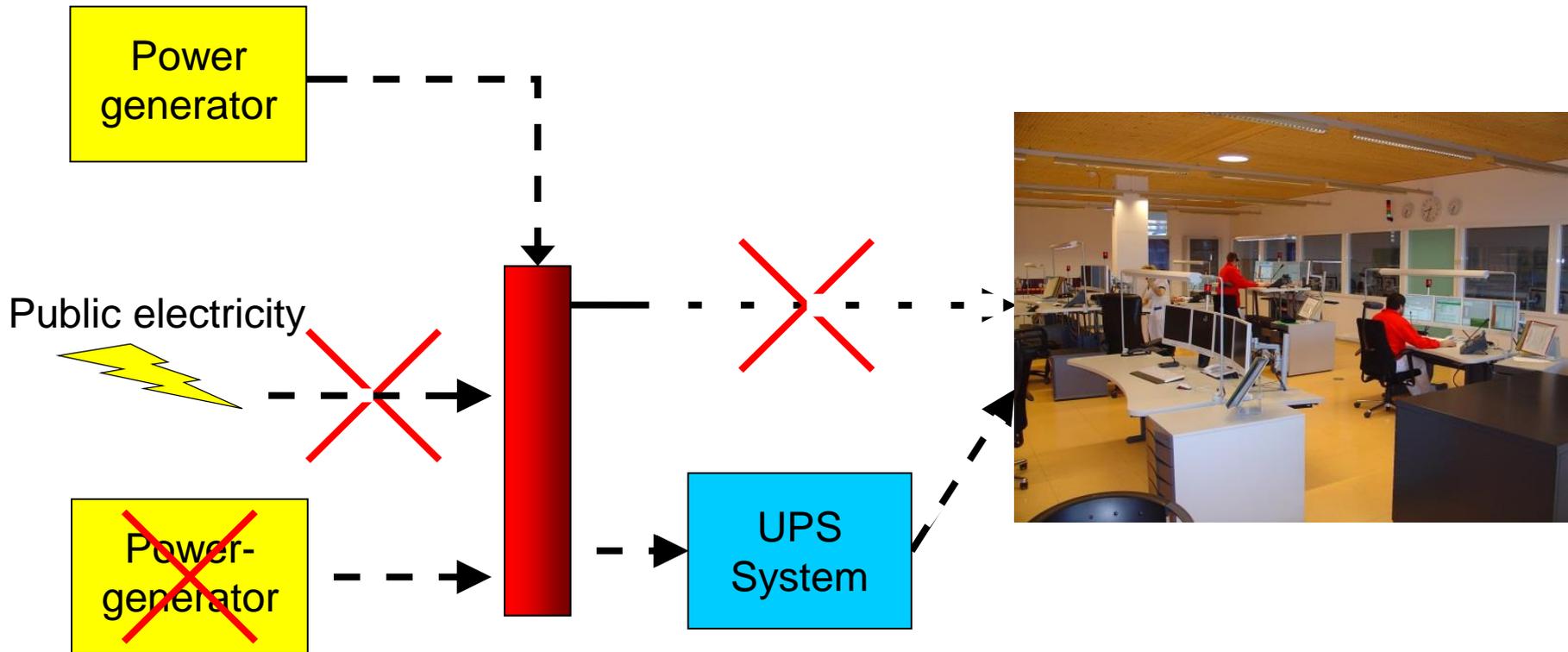
New Alerting Systems for the South Tyrolean Civil Protection Agency

Power Supply on the Sites Solution





New Alerting Systems for the South Tyrolean Civil Protection Agency Power Supply in the Emergency Call Center





New Alerting Systems for the South Tyrolean Civil Protection Agency **Experience**

Migration on the new system

- ✓ Implemented migration step by step (one district at a time) for each of the organizations
- ✓ Parallel operation for approx. 2 years
- ✓ ongoing improvements of the radio coverage during the migration
- ✓ More digital devices were put into operation than analogue devices



New Alerting Systems for the South Tyrolean Civil Protection Agency **Experience**

Operation of the new system

- ✓ During the storms of the past few years there were no problems with the alarm
- ✓ Result so far: One emergency status / no network failure
- ✓ Terminals show long battery life and best possible reception
- ✓ Compact and robust terminal provides a high user acceptance
- ✓ POCSAG is also used as a supplementary information service (SMS service)



New Alerting Systems for the South Tyrolean Civil Protection Agency

End Users



Professional Fire Brigade



Forestry Department



Ambulance & Rescue Services



Voluntary
Fire Brigade



Emergency
Call Center



Agency of
Civil Protection



Department of
Hydraulic Engineering



Mountain Rescue



Water Rescue



AUTONOMOUS PROVINCE OF BOZEN (BOLZANO) – SOUTH TYROL

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Thank you for your attention



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