

PSC Forum

"How to combine efficiently end-to-end telecom infrastructures with user needs for Public Safety?"

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All the space you need

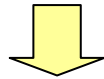
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Context

- On the one hand, a mix of different user needs:
 - Very different needs, situation dependant
 - Short, medium term reaction
 - Different kinds of applications : voice, data, geo-location services, site constraints, ...
 - Expressed in user language (non technical)
 - Not always considering licensing & regulatory issues "on the field"
- On the other hand, many individual telecom infrastructures under development, validation, pre-or fully operational
 - But not always used in a coherent and efficient way by Service Providers



The challenge for medium and longer term future:

- Facilitate public safety service providers access to operational telecommunications means
- Be able to define and operate an optimised infrastructure to serve future public safety needs

Diversity of available solutions – Added value of Satcoms

- Satellite Telecommunications will be a key component of future public safety architectures:
 - Faster and optimised data collection to enhance reactivity of service providers
 - Dissemination of products wherever and whenever needed
 - Better service quality thanks to higher volume and data rates
- A set of existing eligible telecom solutions, including:
 - Broadband combined with terrestrial mobile networks for fixed and mobile users
 - Satellite radio broadcast with return link
 - In-situ data collection improved systems, including very high rate solutions

Key drivers of a Common Telecommunications Services Platform for Public Safety

- Common Telecommunication Services Platform
 - To facilitate access of service providers / public safety providers to the most adapted telecommunications solutions
 - Privileged interface to satellite communications services
 - Fast access
 - Optimised cost of satellite bandwidth
 - Seamless interoperability with existing public safety platforms
 - Compliance with advanced public safety application requirements
 - Optimised use of telecommunication infrastructures to maximise benefits at reasonable cost
 - Which can be operated by a "meta-operator"

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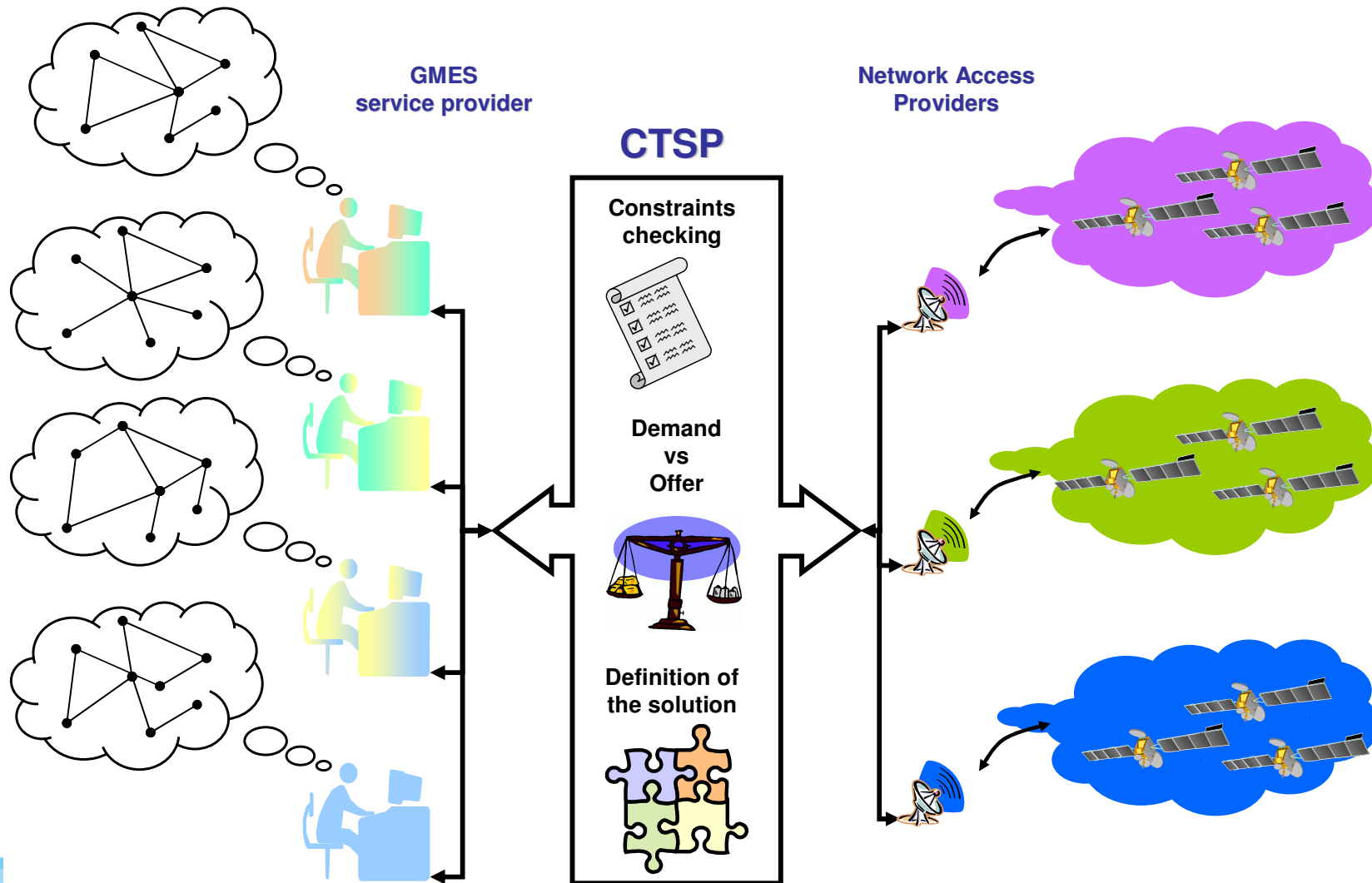
Example of a first implementation: the FP6 TANGO project (1/3)

- Key objectives of the TANGO platform
 - Facilitate the definition of ad-hoc communication networks to support specific GMES services, including public safety
 - Provide an efficient tool for all network management aspects
- Telecom solutions considered:
 - Broadband combined with terrestrial mobile networks: PMR and GSM coupled with DVB-RCS
 - Satellite Radio Broadcast combined with autonomous return link
 - Broadband to fixed and mobile users: based on DVB-S/DVB-RCS and SATMOD standards
 - Data relay optimised infrastructure
 - In-situ data collection improved systems
 - TANGO also offers telecommunications solutions based on operational systems – like INMARSAT BGAN - to service providers for dedicated applications

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Example of a first implementation: the FP6 TANGO project (2/3)

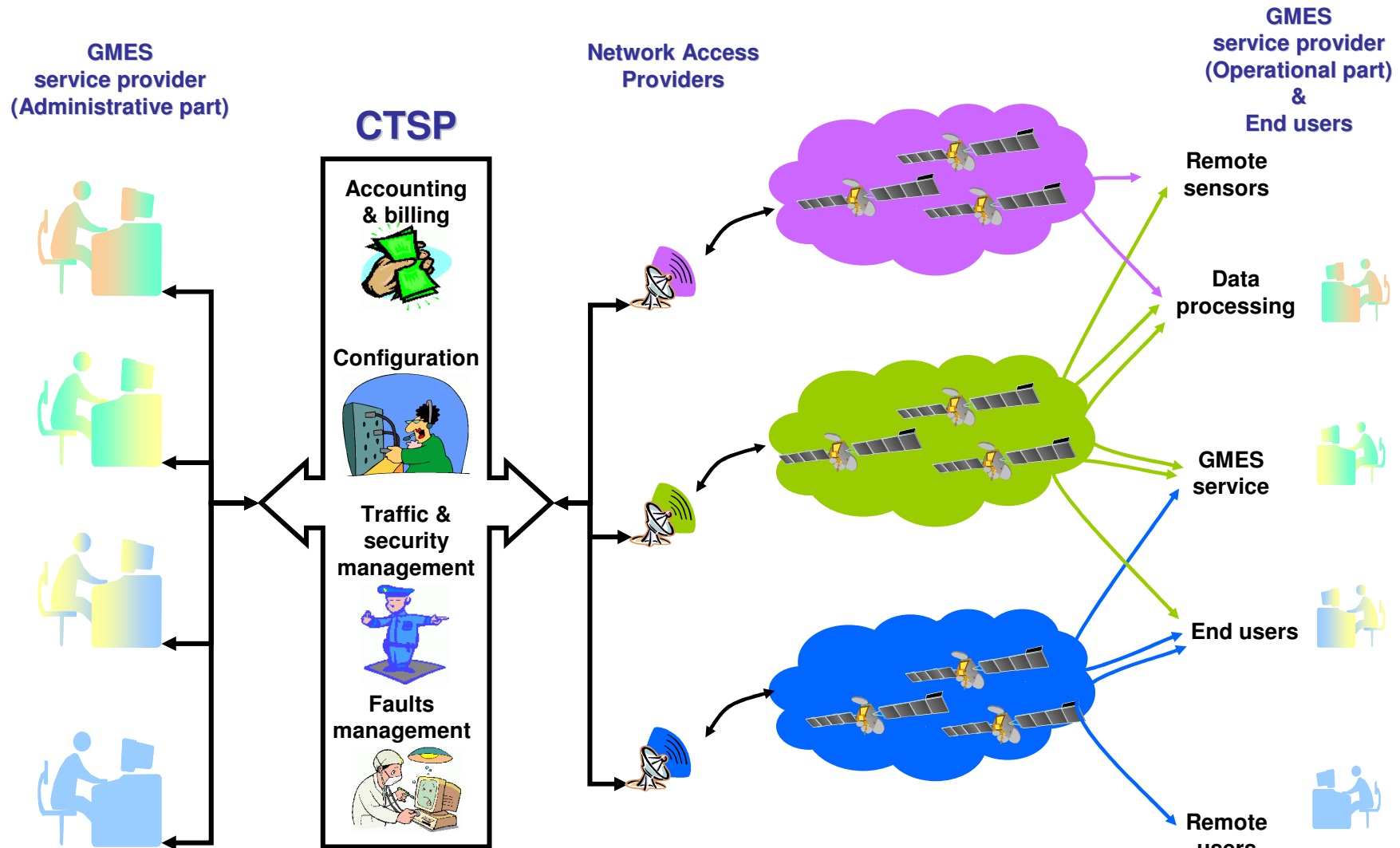
Network definition of the Common Telecommunications Services Platform (CTSP)



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Example of a first implementation: the FP6 TANGO project (3/3)

Network management of the Common Telecommunications Services Platform (CTSP)



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Way forward for a fully operational embedded telecom system

- Necessary to consolidate and federate user needs
 - To fully cover public safety needs
- Consolidation of the role of the meta-operator
 - Interface with customers and capacity providers
 - Roles and responsibility (technical, commercial, regulatory)

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