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ELECTRONIC SYSTEMS

Managing the assets

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What are assets?



- In ICT 'ASSETS' are the set of methods and technologies that implement the transmission, the reception and processing of information
- Assets are investments made by the Railways

- Telecommunication Network
- GSM-R
- LAN
- Telephone
- PBX

Managing complex and mixed infrastructures



- the rapid evolution of Electronic Support Systems and Telecommunication Infrastructure requires a

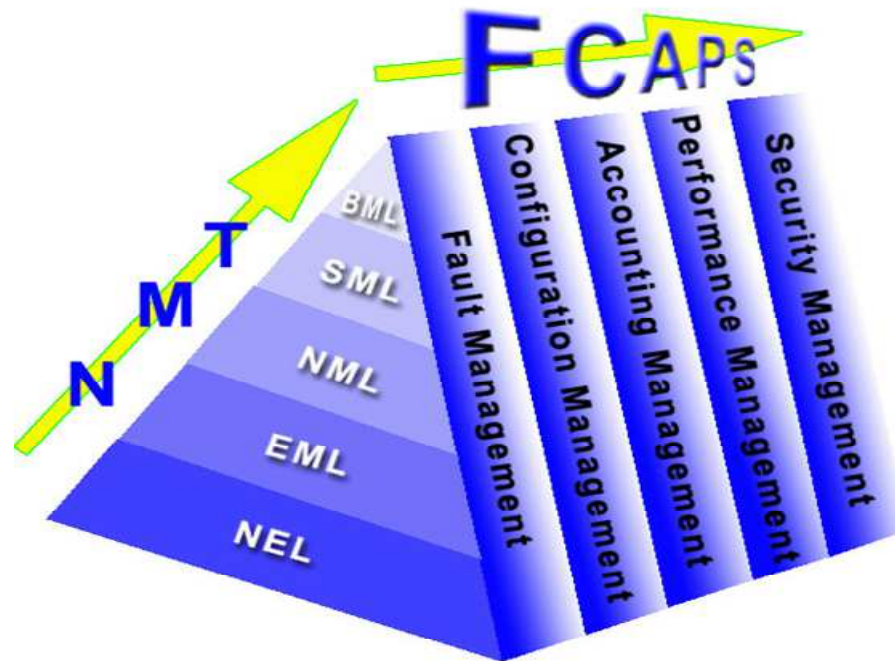
INTEGRATED MANAGEMENT and OPERATION

- ... of “mission critical assets”
- create synergy between heterogeneous systems

Operation, Administration and Maintenance



- OA&M are classical methods for control and supervision of telecom networks

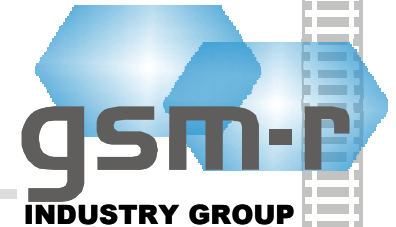


Operational Support Systems



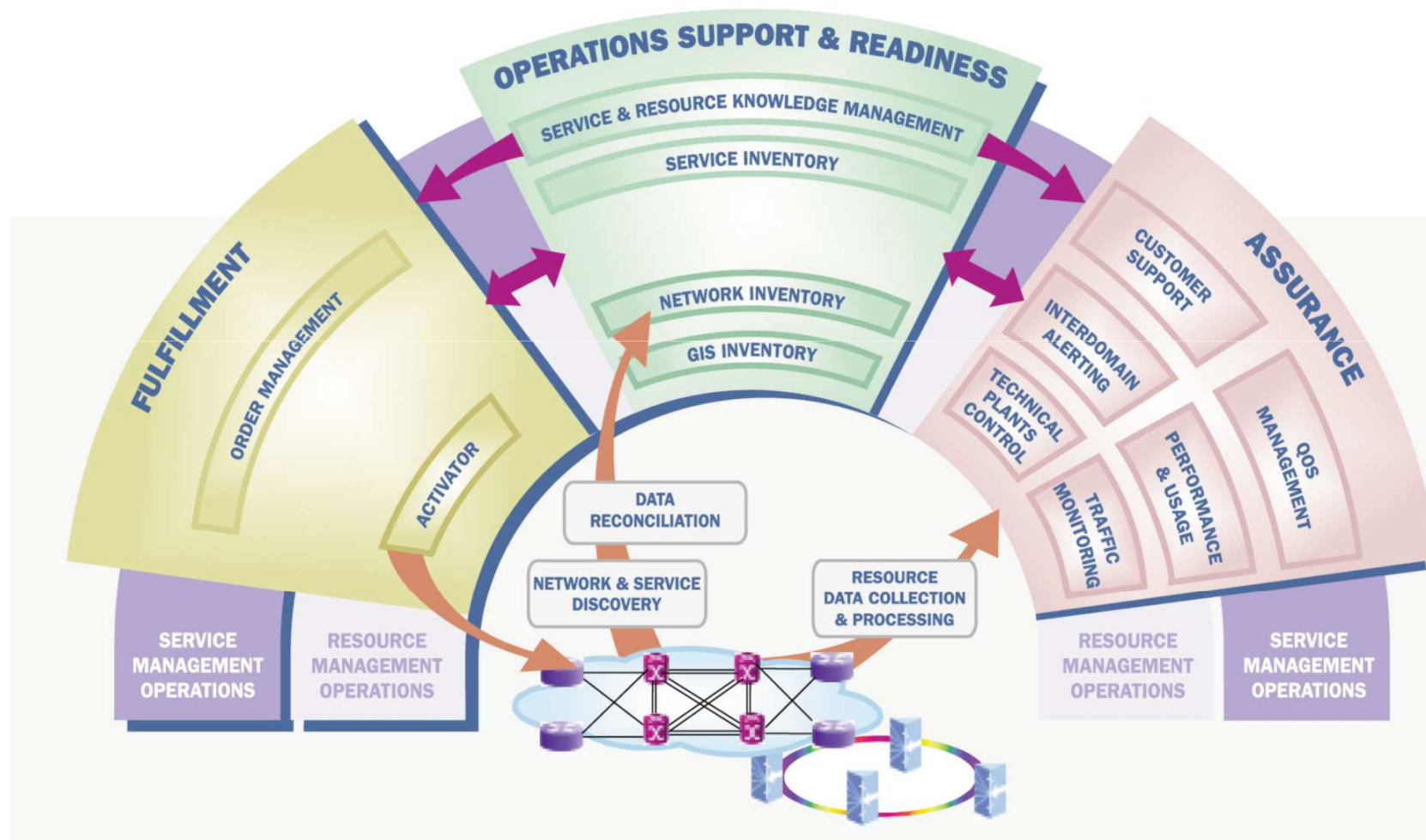
- OSS provides a unified operational view of the network equipment
- OSS supports processes such as
 - maintaining network inventory
 - provisioning services
 - configuring network components
 - managing faults

Operational Support Systems



- Tailored OSS solutions can exit from the “classical” Telco space and cover specific customer requirements like Railways
- The OSS Solution is made of the following modules:
 1. Alarm Handling & Root Cause Analysis
 2. Topology & Network Management
 3. Network Inventory System
 4. Trouble Ticketing System
 5. Service Management

OSS for Networks and Services



OSS solutions for Railway



Selex ES OSS systems are addressed to:

- improving the User Experience by optimizing quality of service
- consolidating OSS solutions and systems to reduce OPEX and TCO
- enabling Operators to supply complex, converging services running highly dynamic processes
- obtaining a highly integrated OSS environment that can deliver information on the real status of network resources and services

M40oss - Selex ES Operations Support Systems



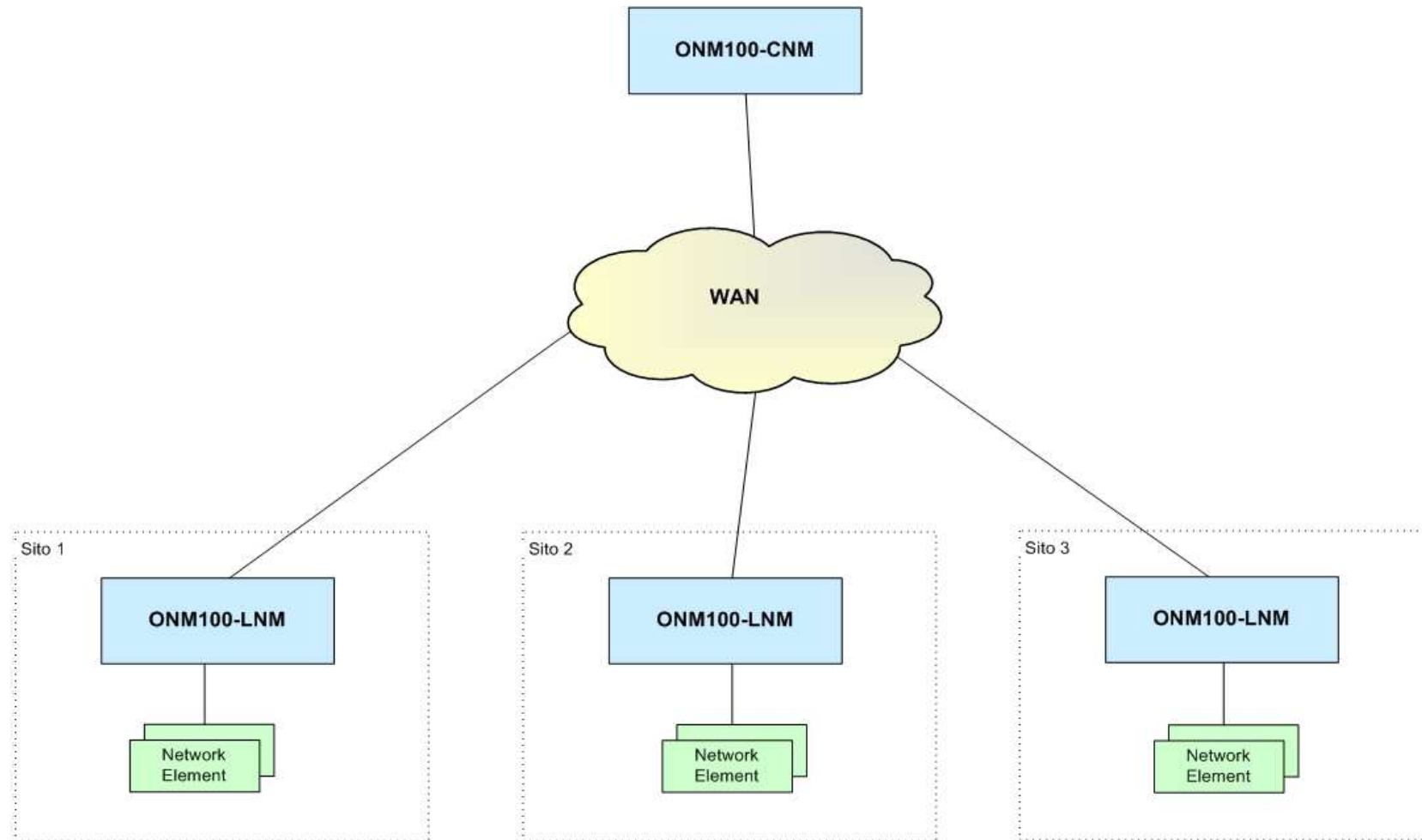
- M40oss is the Selex ES OSS
- easily customizable for railway telecommunication networks realized in any technology, both transport and access, with national extension which consist of many hundreds of sites.

Case study: ONM100

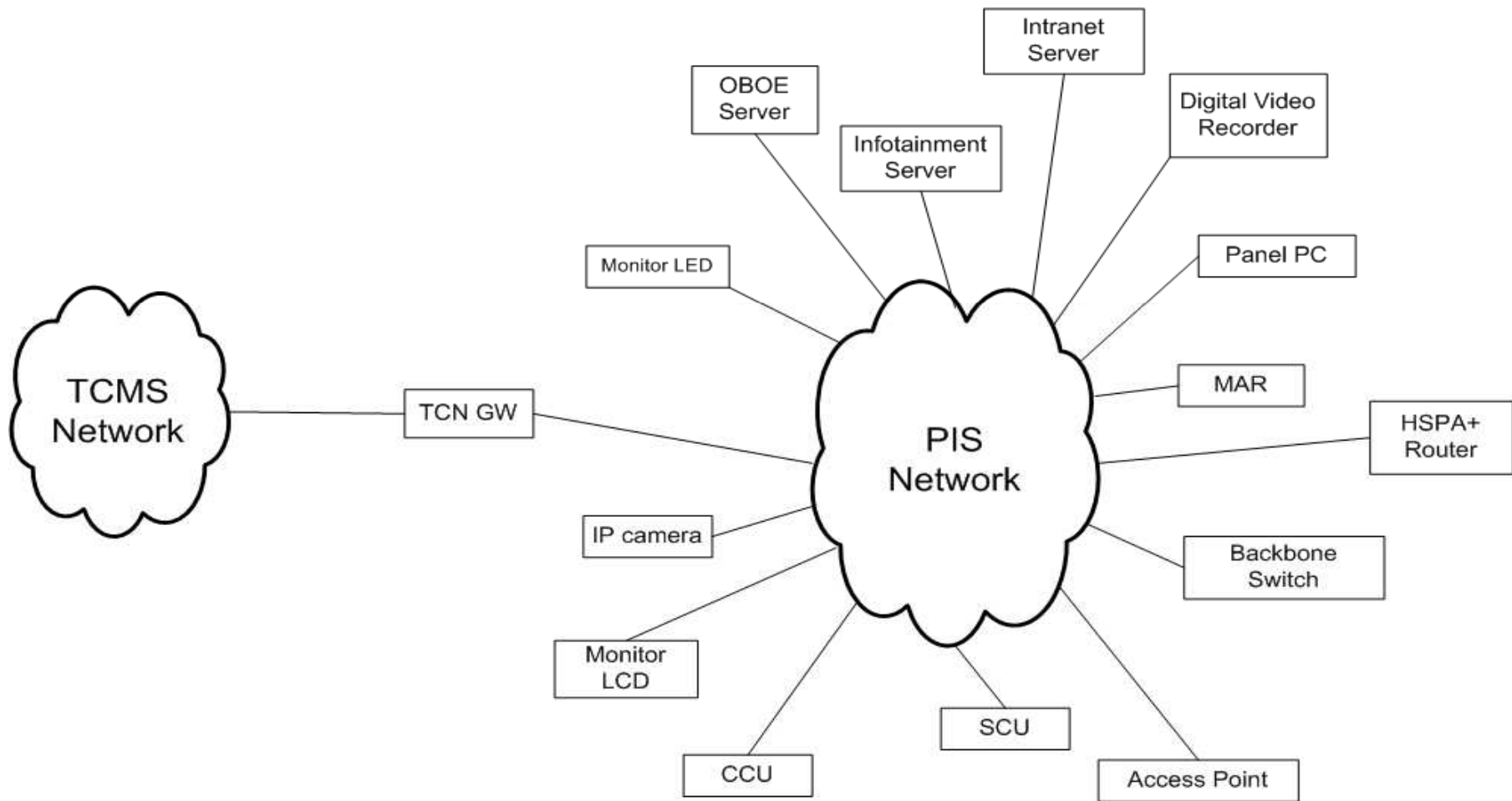


- ONM100 is the solution realized for the new Italian High Speed Train ETR1000
- ONM100 is scalable EM that can be integrated with OSS M40
- ONM100 is based on client-server architecture

Logical level ONM100



Network Elements of PIS&CCTV



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Thank you