

# VoIP Management and Security

Dave Milham  
BT Group CTO Office

And colleagues in the ETSI TISPAN WG8  
and TMF IPNM teams

VoIP MaSE 2006, 3<sup>rd</sup> April 2006



# The three important things

- Subscription Management (SuM)
- Enterprise Information Model
- Identity management

And a new design method

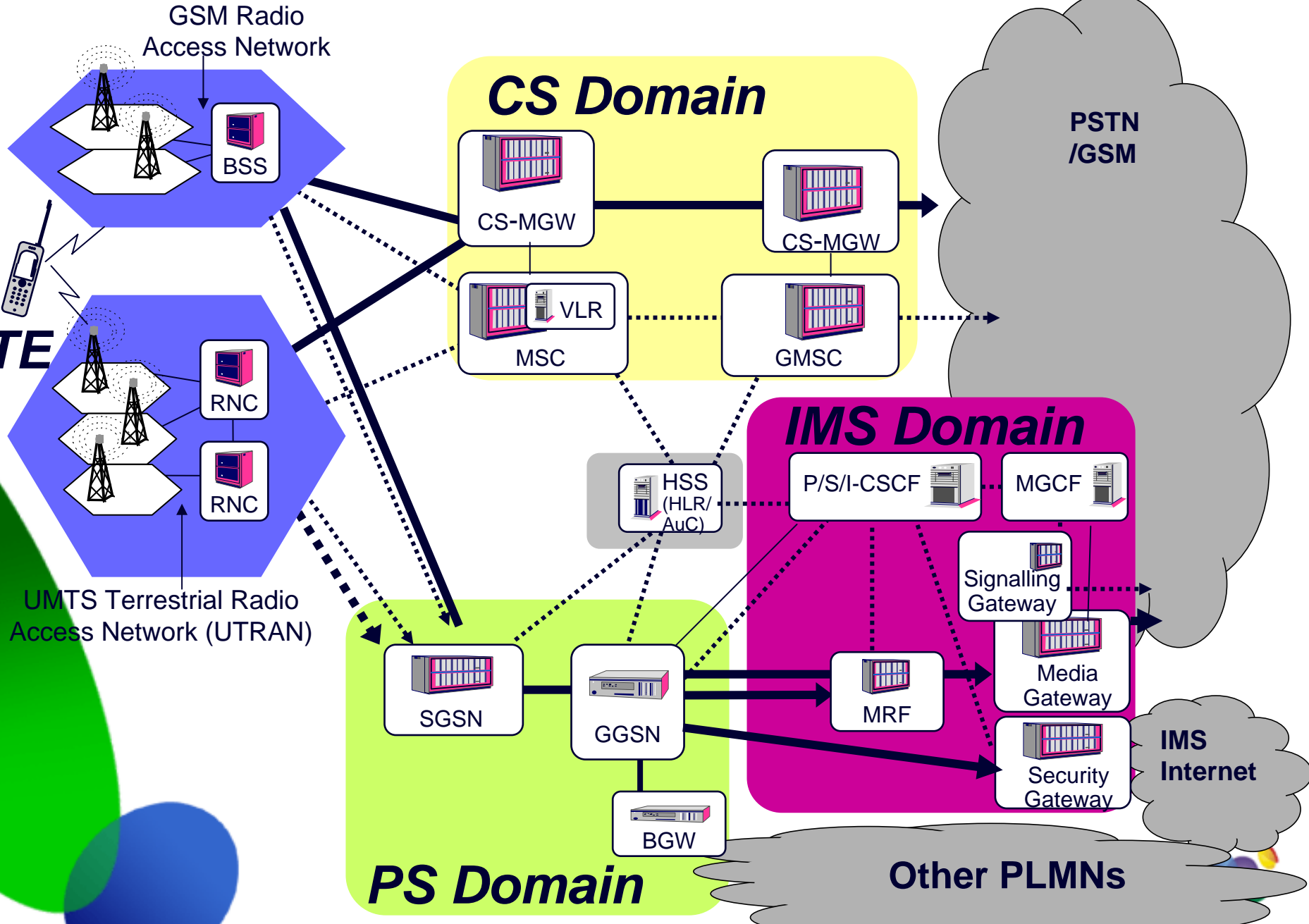
– Service Orientated Architecture

# Inspiration for observations

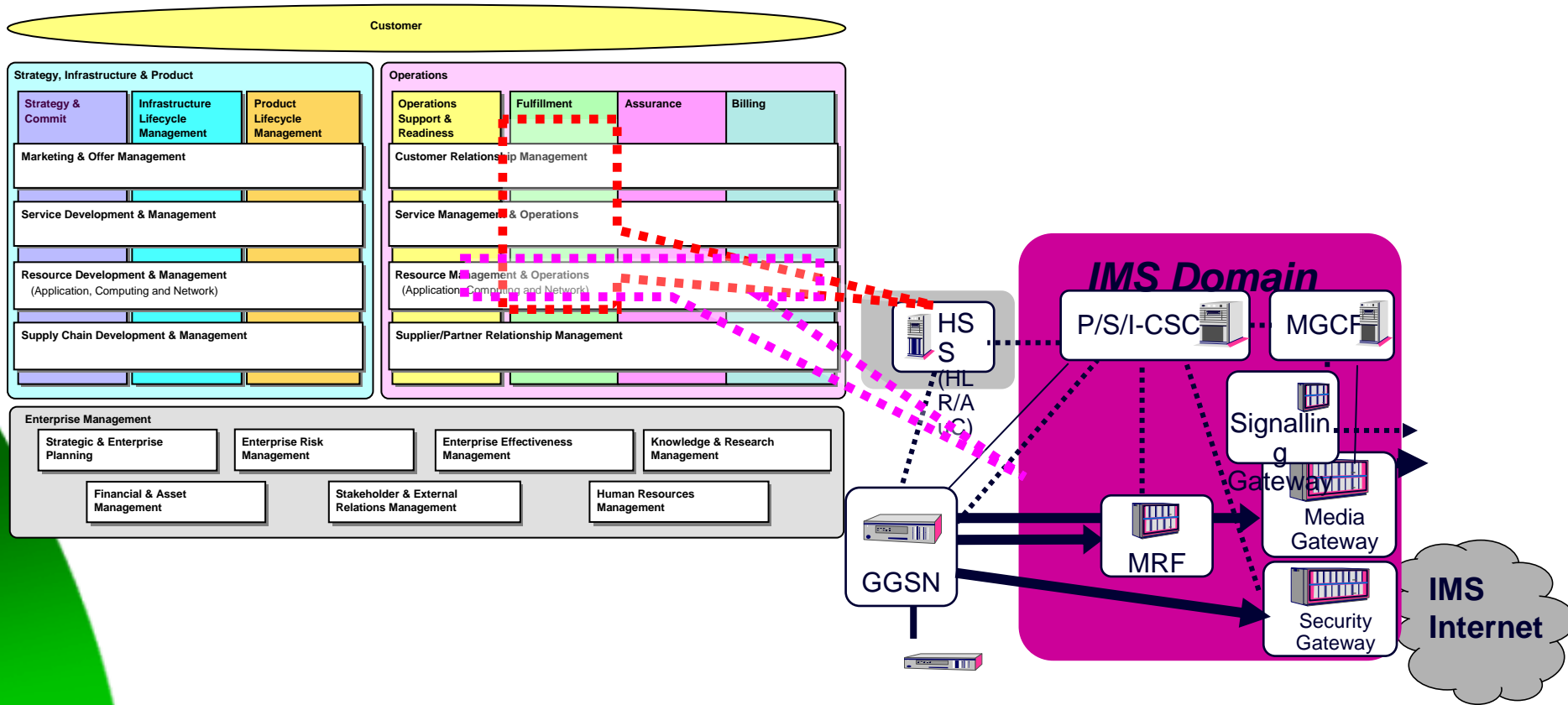
- **IMS Management in 3GPP SA5**
  - TS 22.228 v7.0.0 IP Multimedia Core network Subsystem Stage 1 (Release 7)
  - TS 23.228 v6.7.0 IP Multimedia Core network Subsystem Stage 2 (Release 6)
  - TS 23.008 V6.7.0 Organization of subscriber data
  - TS 32.141 V6.1.0 Subscription Management (SuM) architecture
  - TS 32.172 V6.2.0 Subscription Management IRP Information Service (IS)
  - TS 32.632 V6.2.1 Core network resources Integration Reference Point (IRP) Network Resource Model (NRM) R6 32.
- **ETSI TISPAN WG8 IMS Management for Fixed Mobile**
  - DTS 188 002 TISPAN Subscription Management Requirements
- **TMF IPNM VoIP management**
  - TMF 514 VoIP Business Requirements
  - TMG 611 VoIP Implementation Agreement
  - VoIP Information Model

# Access Network

# Core Network



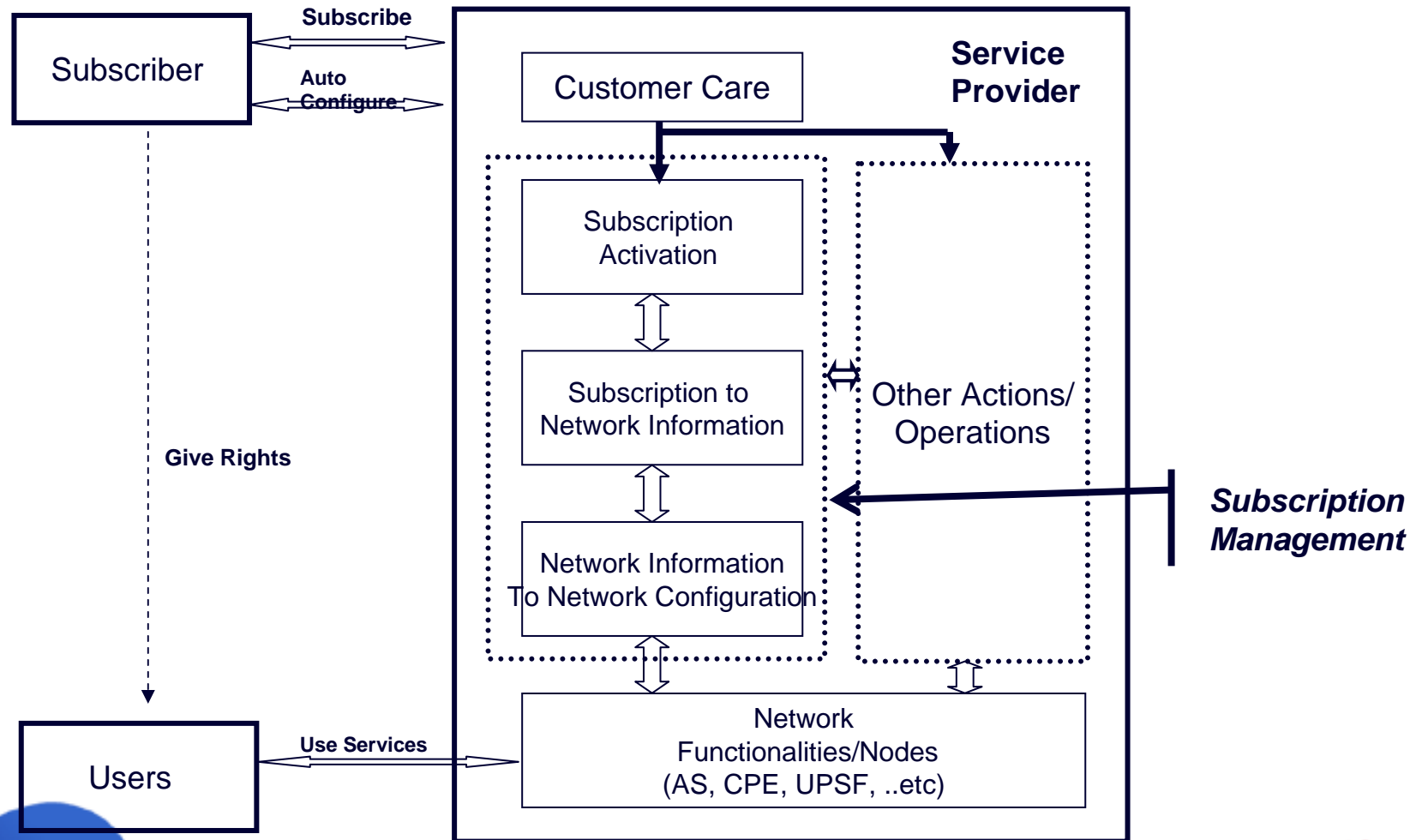
# Where does IMS fit into management?



TMF eTOM  
Process  
Framework

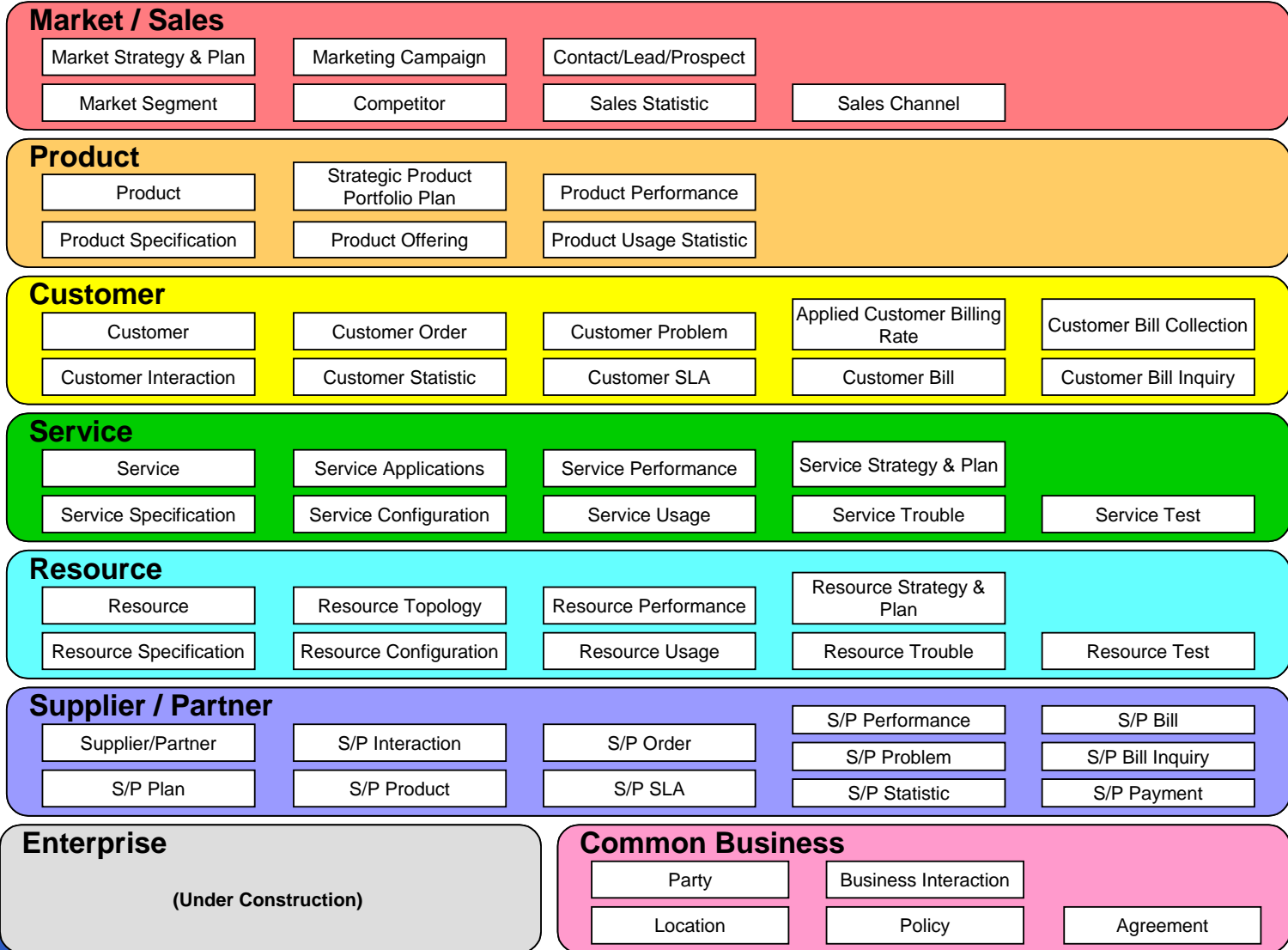


# TISPAN Subscription Management



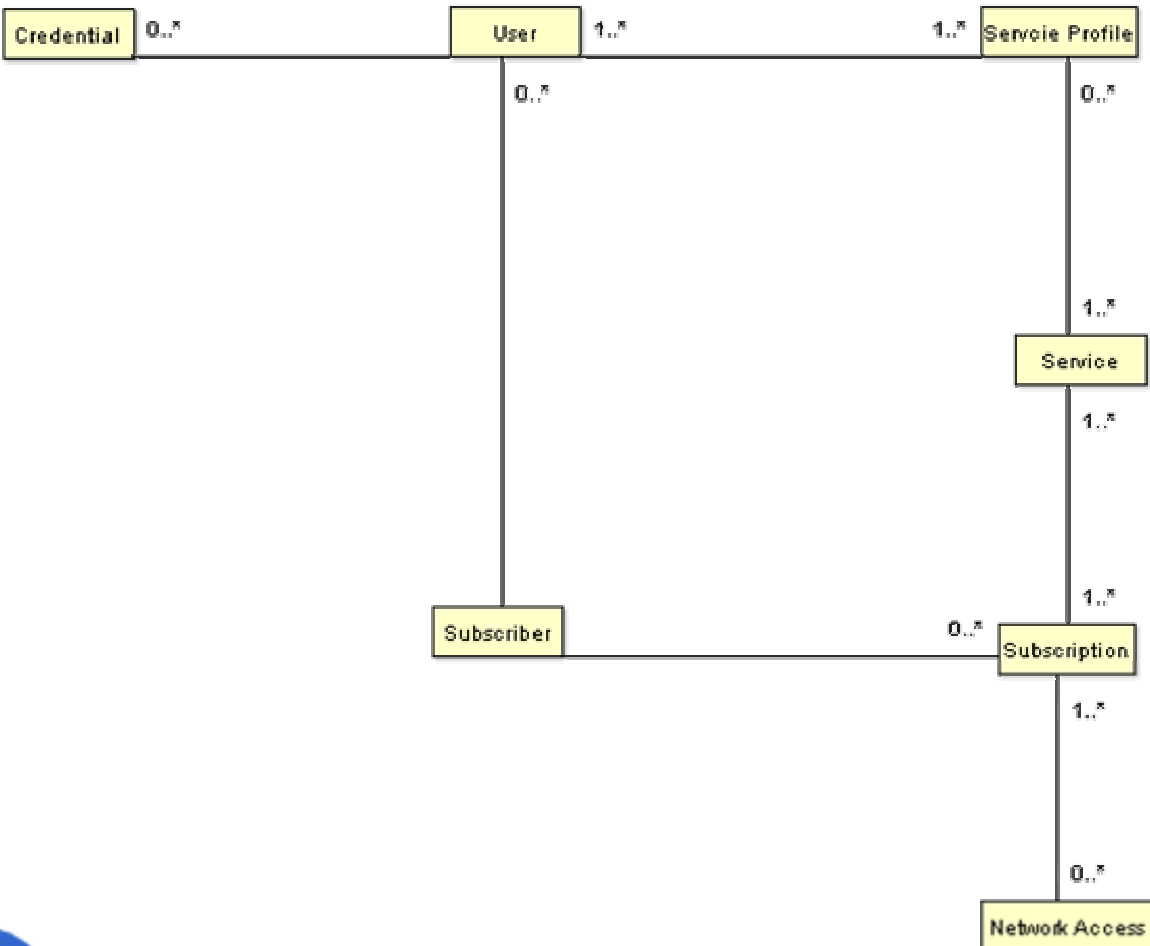
# Enterprise Information Models

# The SID Business Framework (GB922)





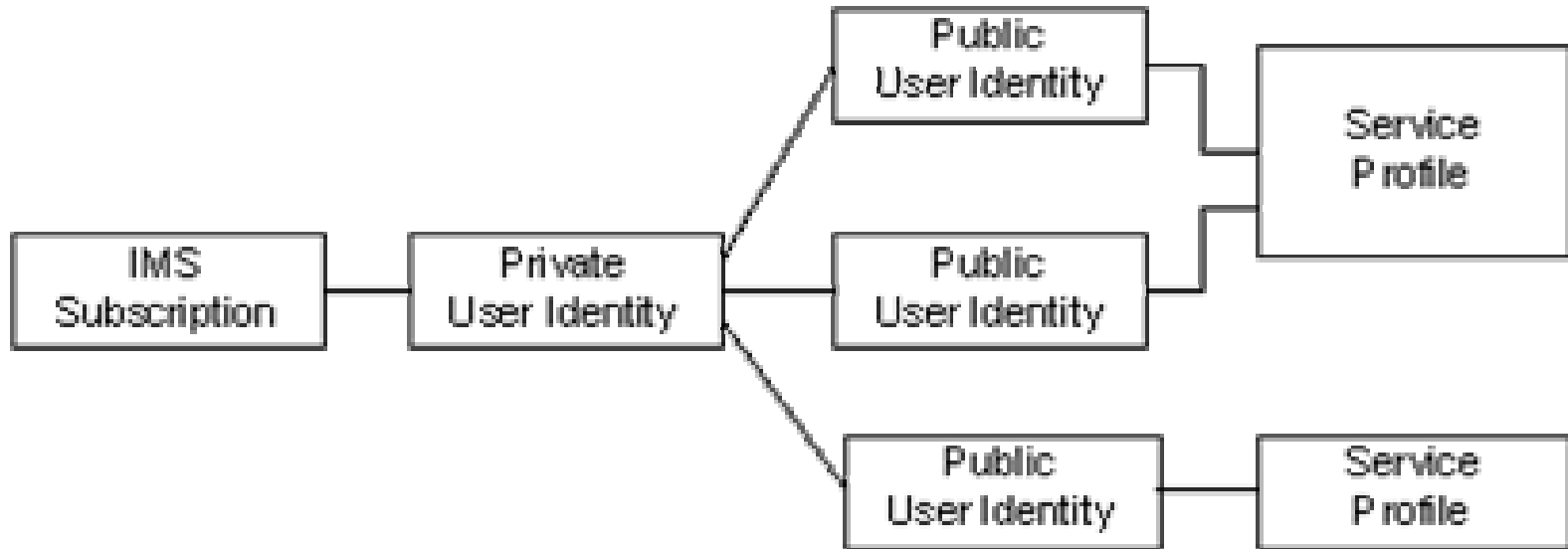
# Current TISPAN model 10bTD149



# Current SuM Model issues

- Discovered by “**do-not-disturb**” **Use case**
- Service Specialisation/ classification
- Cardinality and aggregation relationships  
User < --> Service Profile
- User Roles
- Learned Credentials

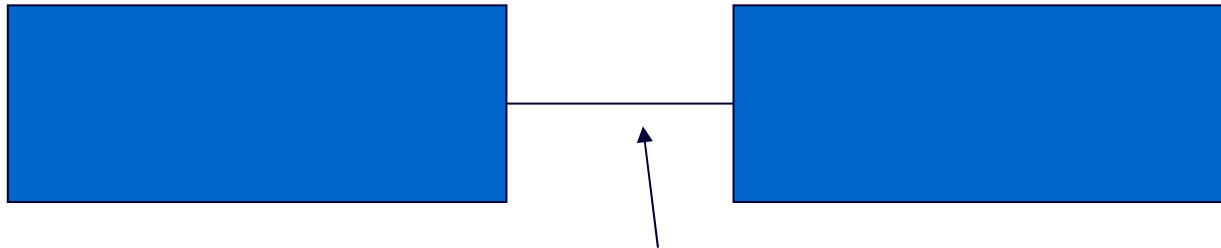
# Identity Management



From TS 23.228

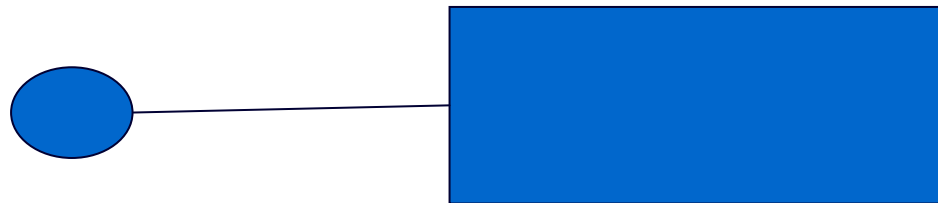
# Service Orientated Architecture

## Traditional Static Architecture



System/Application      Interface

Assumption that relationships are static and 1:1



Exposed business functions  
Relationship N:1 and dynamic

# The three important things

- Subscription Management
- Enterprise Information Model
- Identity management

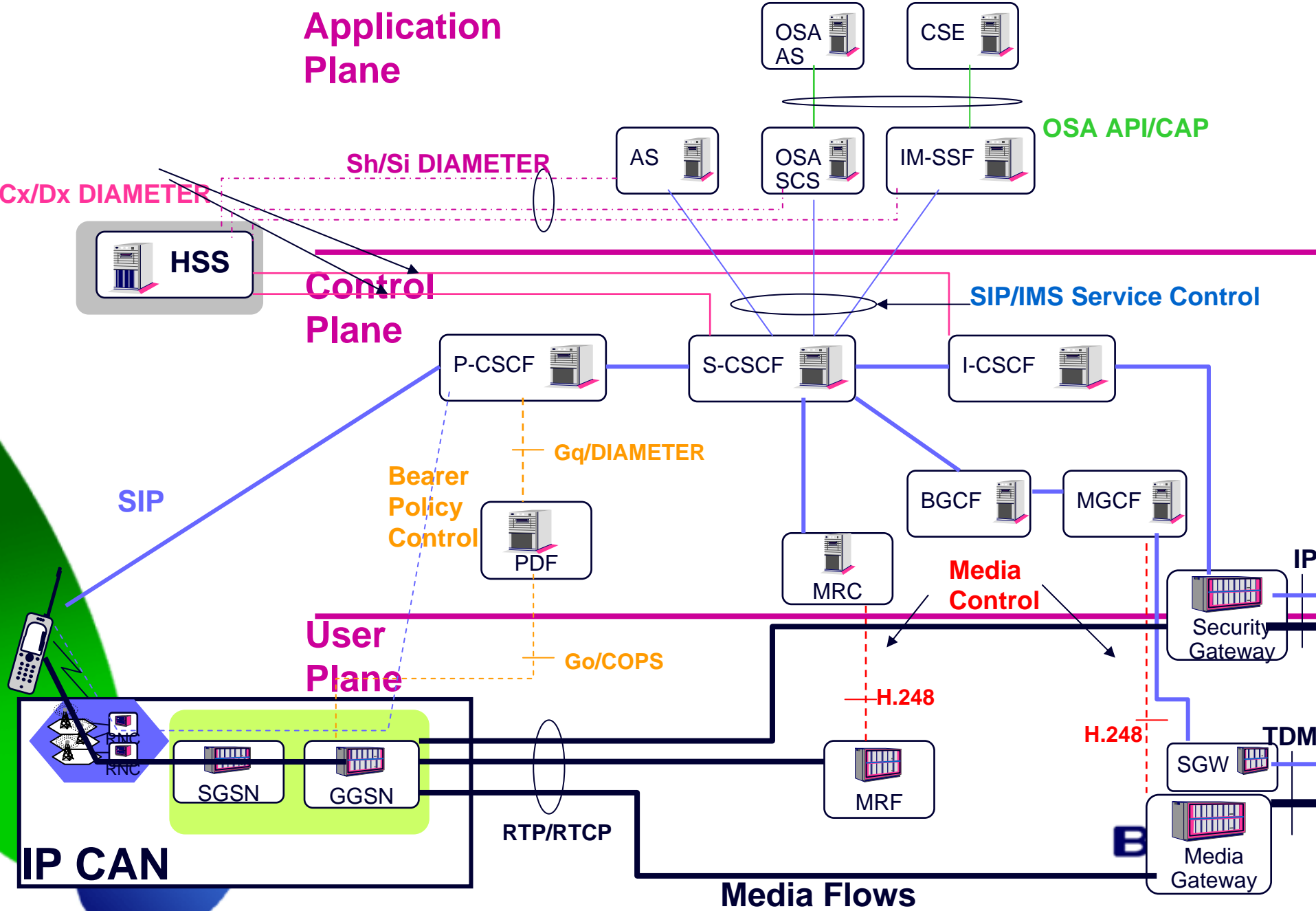
And a new design method

– Service Orientated Architecture

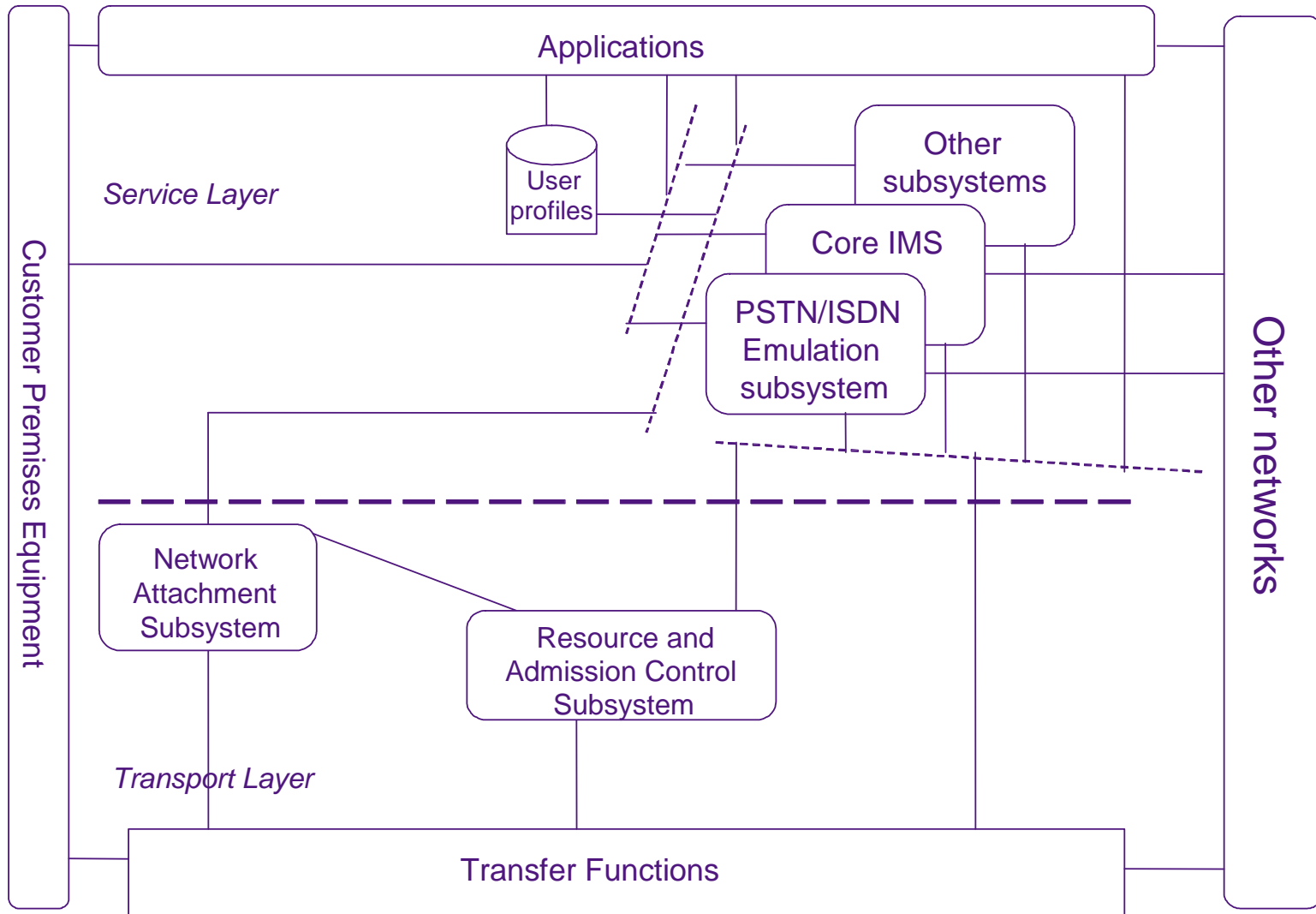
# Spares



# IMS Functional Architecture



# TISPAN Architecture based on IMS





# TISPAN Information Model

