



International Telecommunication Union



Resource and Admission Control in NGN

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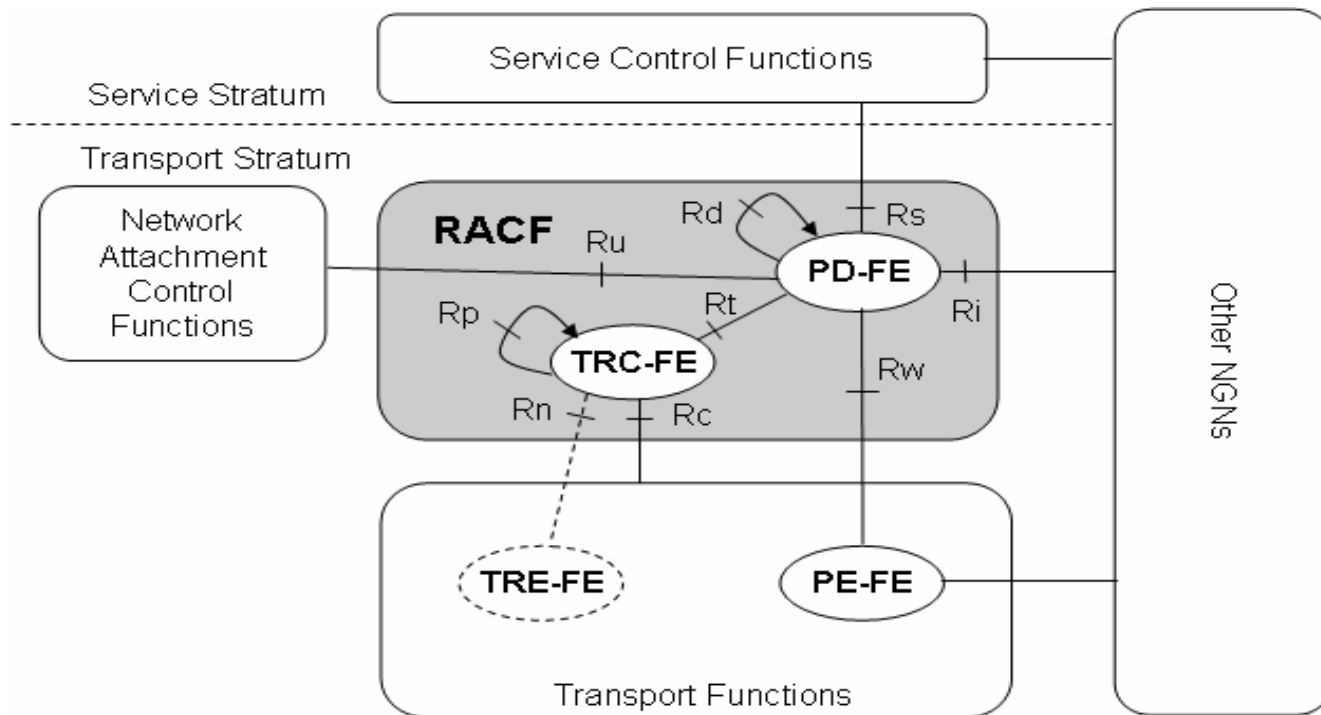
Outline



- o Works on RACF in ITU-T
- o Key features of RACF
- o RACF implementation requirements
- o RACF implementation scenarios
- o Example E2E QoS solution
- o RAC solution for ADSL/LAN access
- o RAC solution for UMTS access

RAC ---- Resource and Admission Control

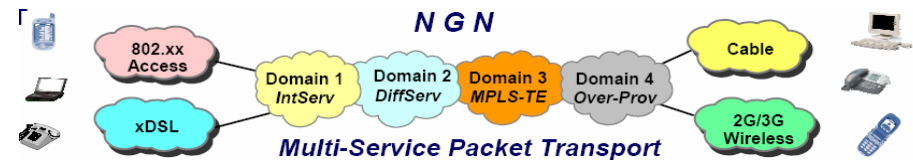
The functional architecture of RACF as defined in ITU RACF document



- SCF-- Service Control Functions;
- NACF-- Network Attachment Control Functions;
- PD-FE -- Policy Decision Functional Entity
- RACF -- Resource and Admission Control Functions;
- TRC-FE -- Transport Resource Control Functional Entity;
- PE-FE -- Policy Enforcement Functional Entity (PE-FE);
- TRE-FE -- Transport Resource Enforcement Functional Entity

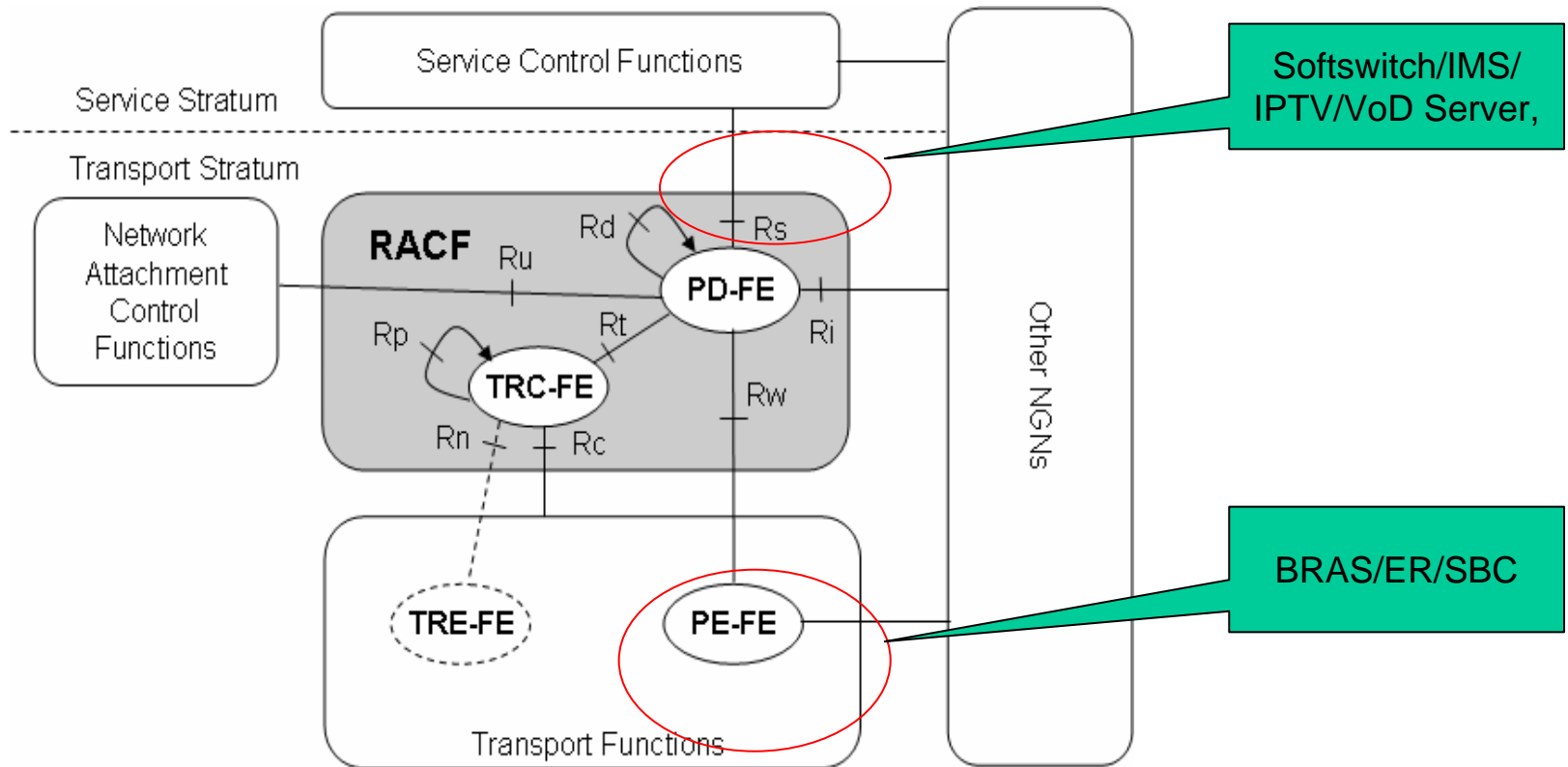


Key Features of RACF



o Key Features of RAC:

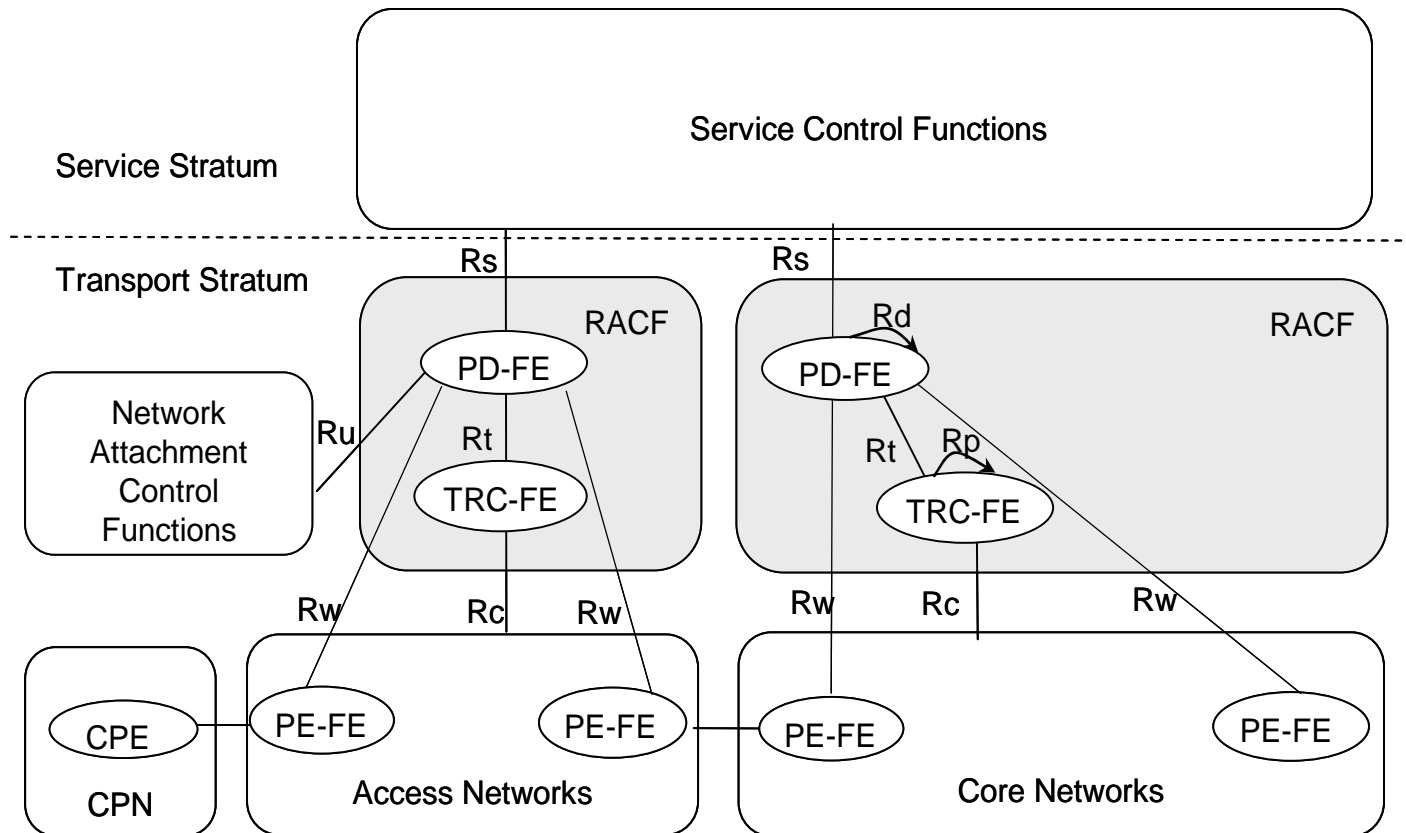
- Resource arbitrator
- Service-driven QoS control, traffic control, NAPT control and FW inspection mode selection
- Incremental implementation
- Unified Rs to the service layer
- Unified Rw interface going down to network edge devices
- Compliance checking of the traffic and QoS against subscribed bandwidth and QoS



The early stage implementation of RACF requires the current network to support the Rs, Rw and the PE-FE functions.

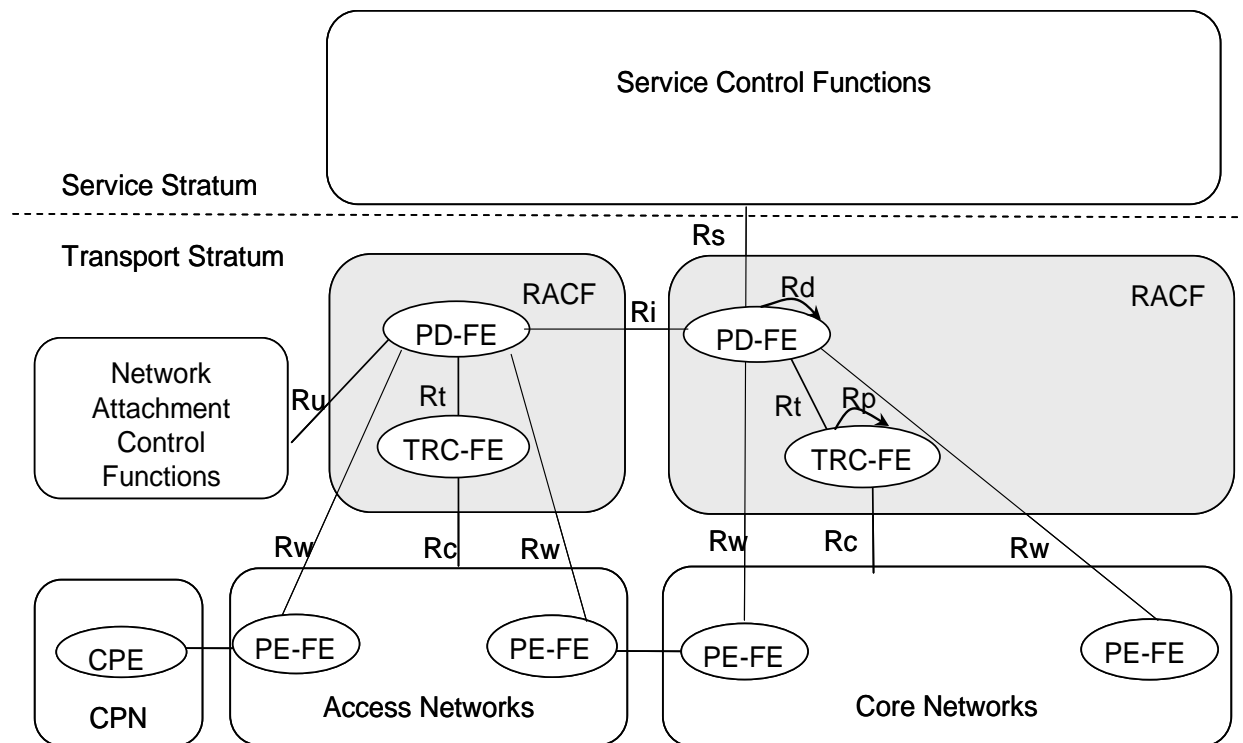
Implementation Scenario 1

Scenario 1: the access network and the core network belong to different administrative domains, and the RACFs at both sides interact with the SCF with no information exchanged in the between.



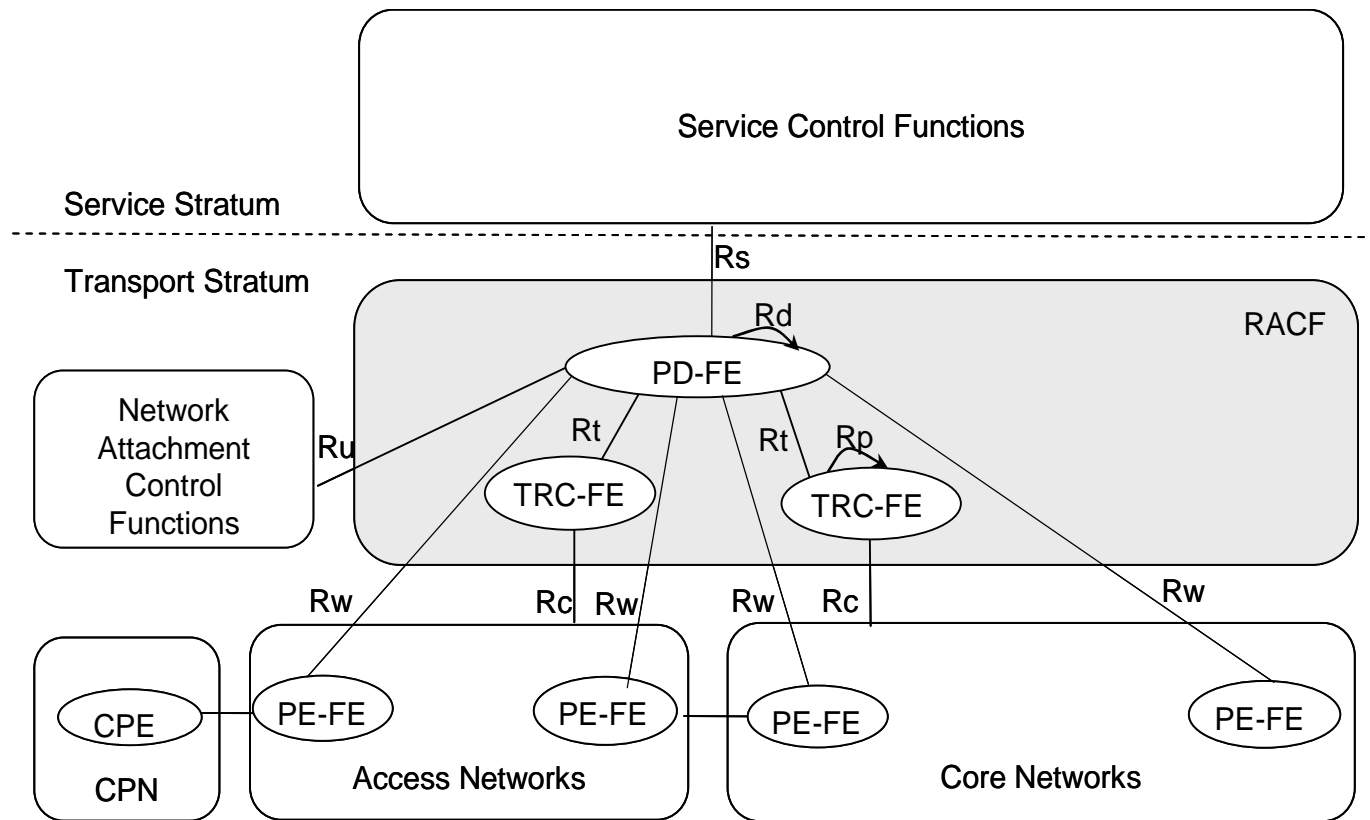
Scenario 2: The access and the core belong to different administrative domains, and the SCF interacts with either of the RACFs at the two sides. The RACFs in the core and the access exchange information via the Ri reference point.

Note: The Ri reference point is to be detailed in R2.

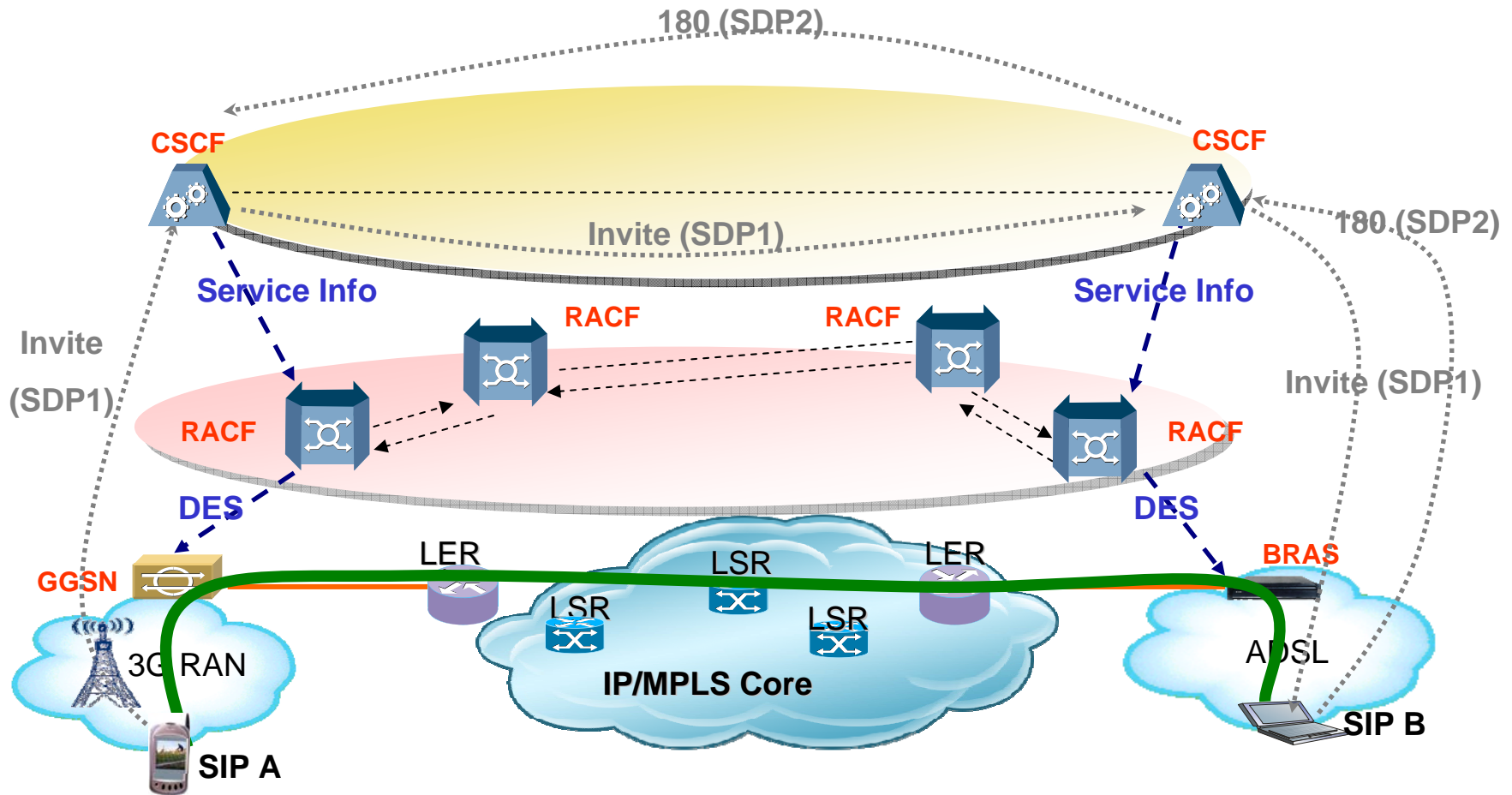


Implementation Scenario 3

Scenario 3: The access and the core belong to the same administrative domain.

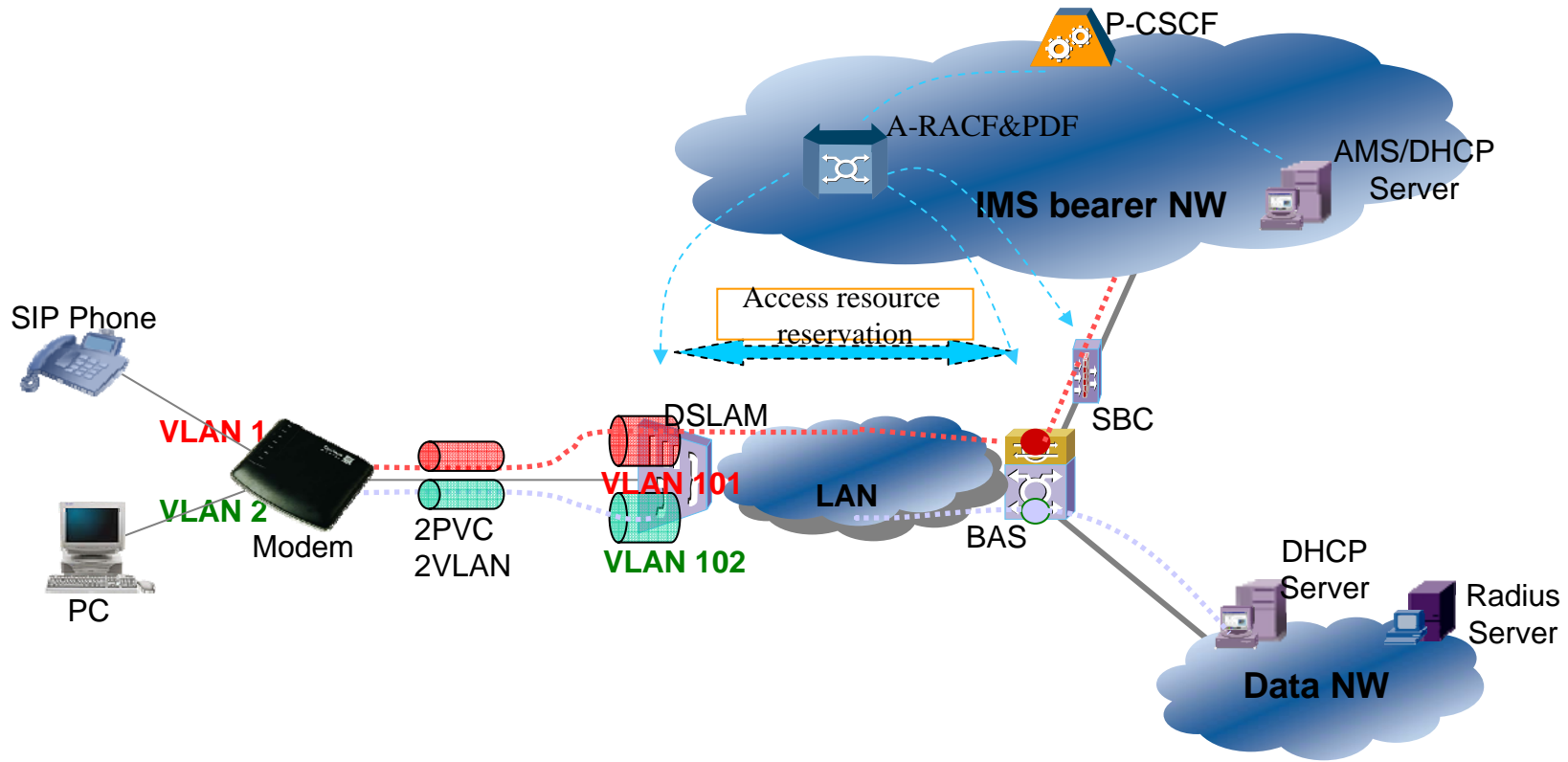


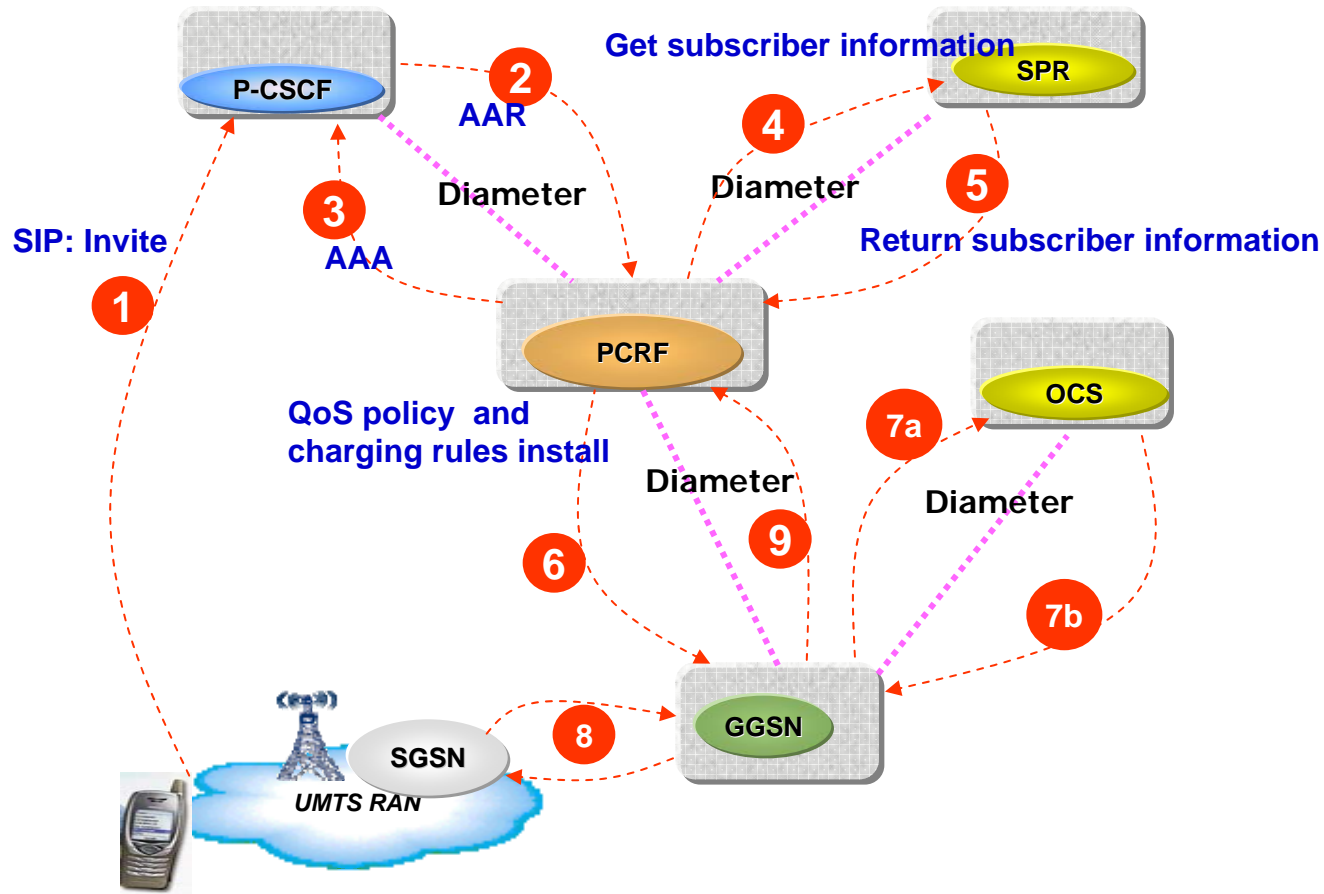
An E2E QoS Solution





RAC solution for ADSL/LAN access





Note: 3Gpp PCC compliant



The End



Thank you for your attention!

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