

Inovação

# Intelligent Networks Reconfiguration

Portugal Telecom Inovação, S.A.



# Overview

- **NGIN Overview**
- **Importance of reconfiguration to the NGIN solution**
- **Reconfiguring NGIN SCP**
- **Reconfiguring NGIN DSCP**
- **NGIN reconfiguration ambitions**



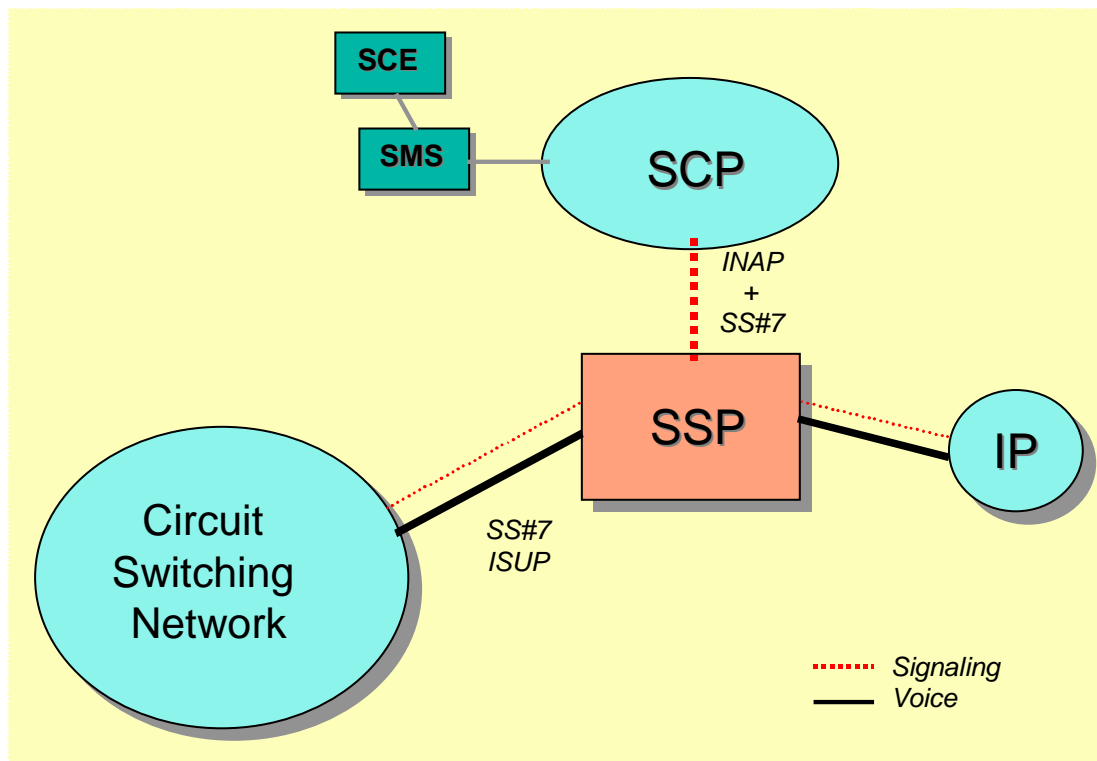
# NGIN Reconfiguration

- **Importance of Reconfiguration to the NGIN solution**
  - Improve the use of system resources
  - Achieve the best performance
  - Guarantee the proper behavior and stability



# NGIN SCP Reconfiguration

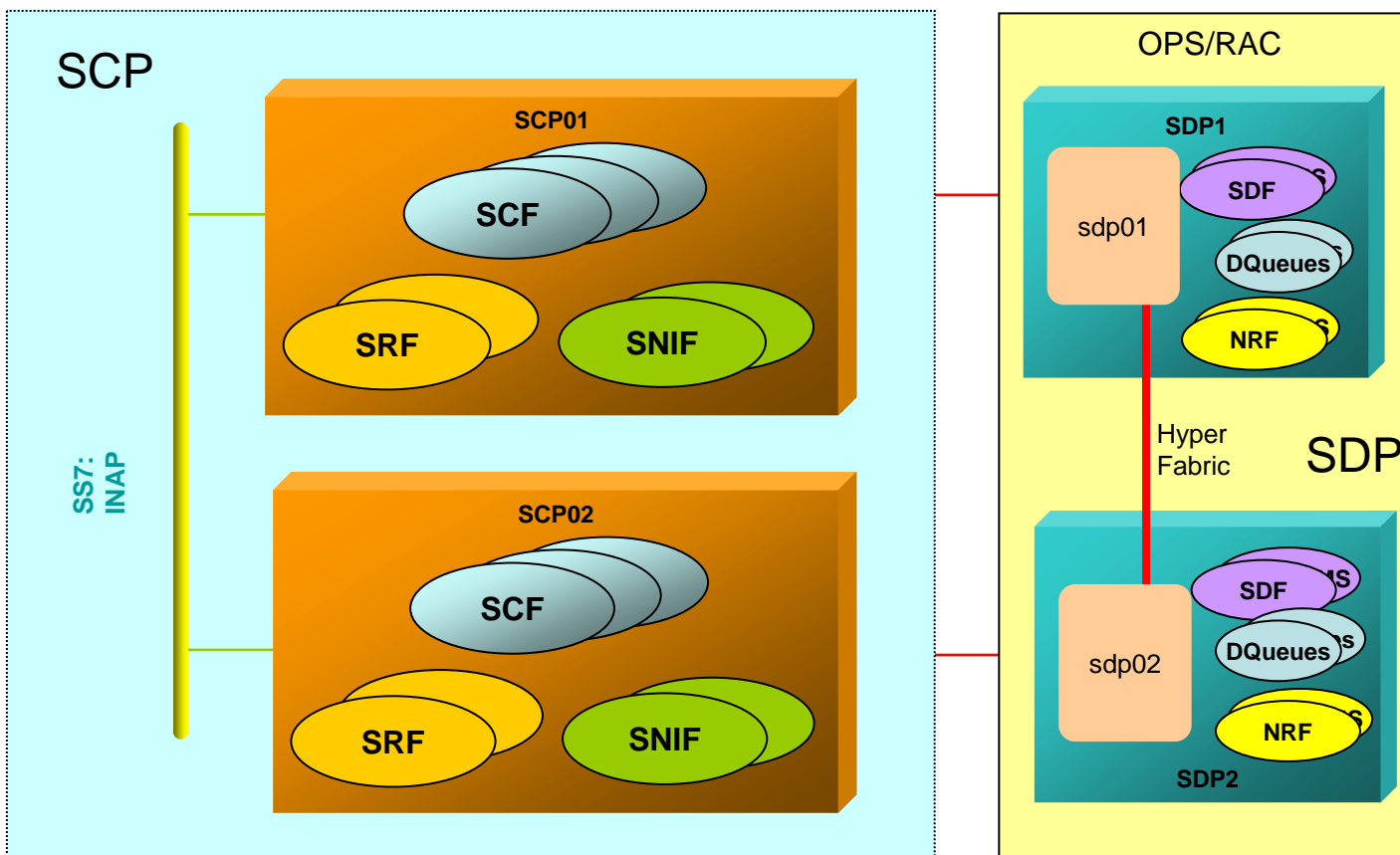
- IN Network Sketch





# NGIN SCP Reconfiguration

- SCP Sketch





# NGIN SCP Reconfiguration

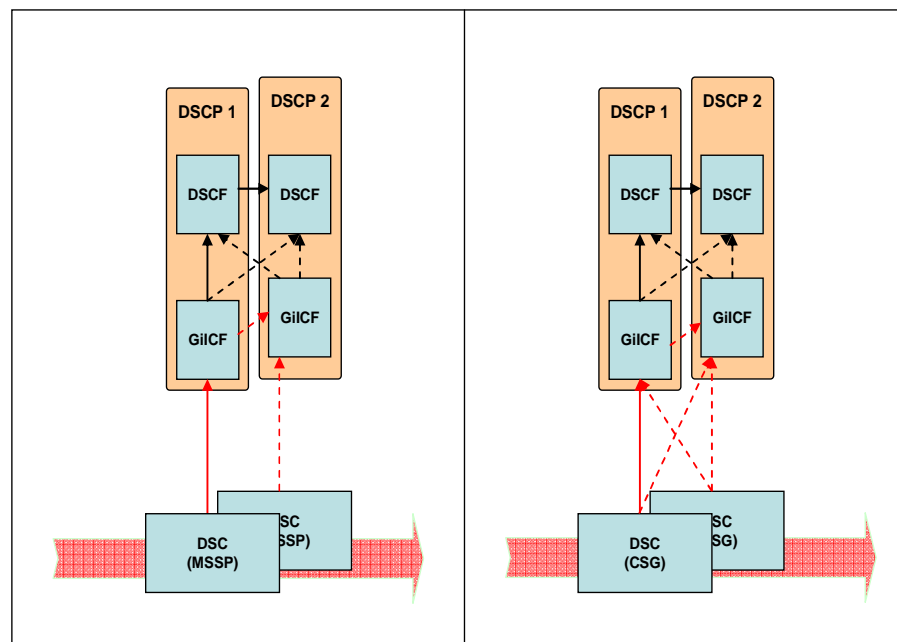
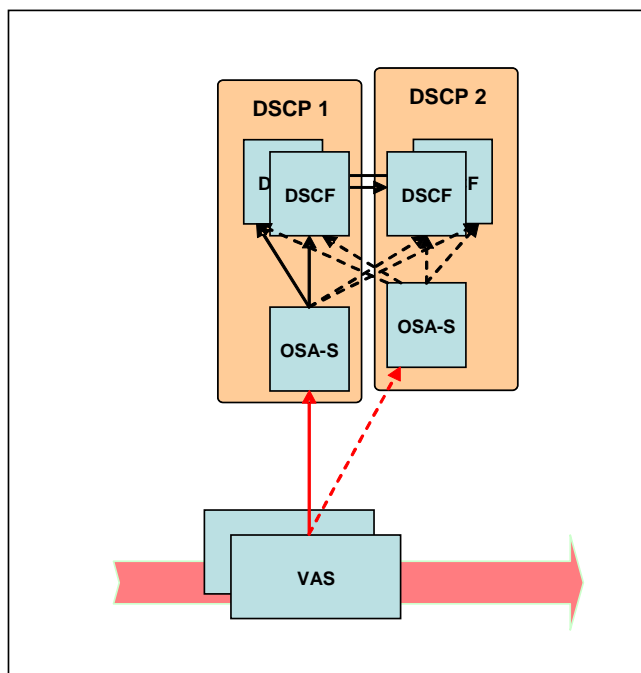
- **SCP system reconfiguration**
  - The reconfiguration of the SCP system without loss of service is only possible in the bigger solutions with redundancy
  - The reconfiguration is achieved by:
    - direct intervention in the SCF (limiting the accepted number of call attempts per second)
    - acting in the SS7 network using CallGap (IN protocol's function to limit the traffic directed to a SCP node)

# NGIN DSCP Reconfiguration

- DSCP system reconfiguration**

- DSCP system with VAS

- DSCP system with DSC





# NGIN DSCP Reconfiguration

- **DSCP system reconfiguration**
  - High-availability mechanism allows reconfiguration of the online portion of the DSCP without service loss for the clients.
  - This method implies a switch in the role of the online applications (Active <> Standby).
  - The offline portion doesn't presents such requirements because it never represents loss of service for the clients.





# NGIN Reconfiguration

- **What we would like to have**
  - Automatic reconfiguration based on the analysis of the load in a node
  - Automatic reconfiguration based on the analysis of the system and network resources in a node
  - Possibility of reconfiguration of the modules in a node based on the analysis of the entire node
  - Possibility of reconfigure the solution based on service priorities