COMVERSE UNIVERSITY

Service Logic Unit (SLU) Overview

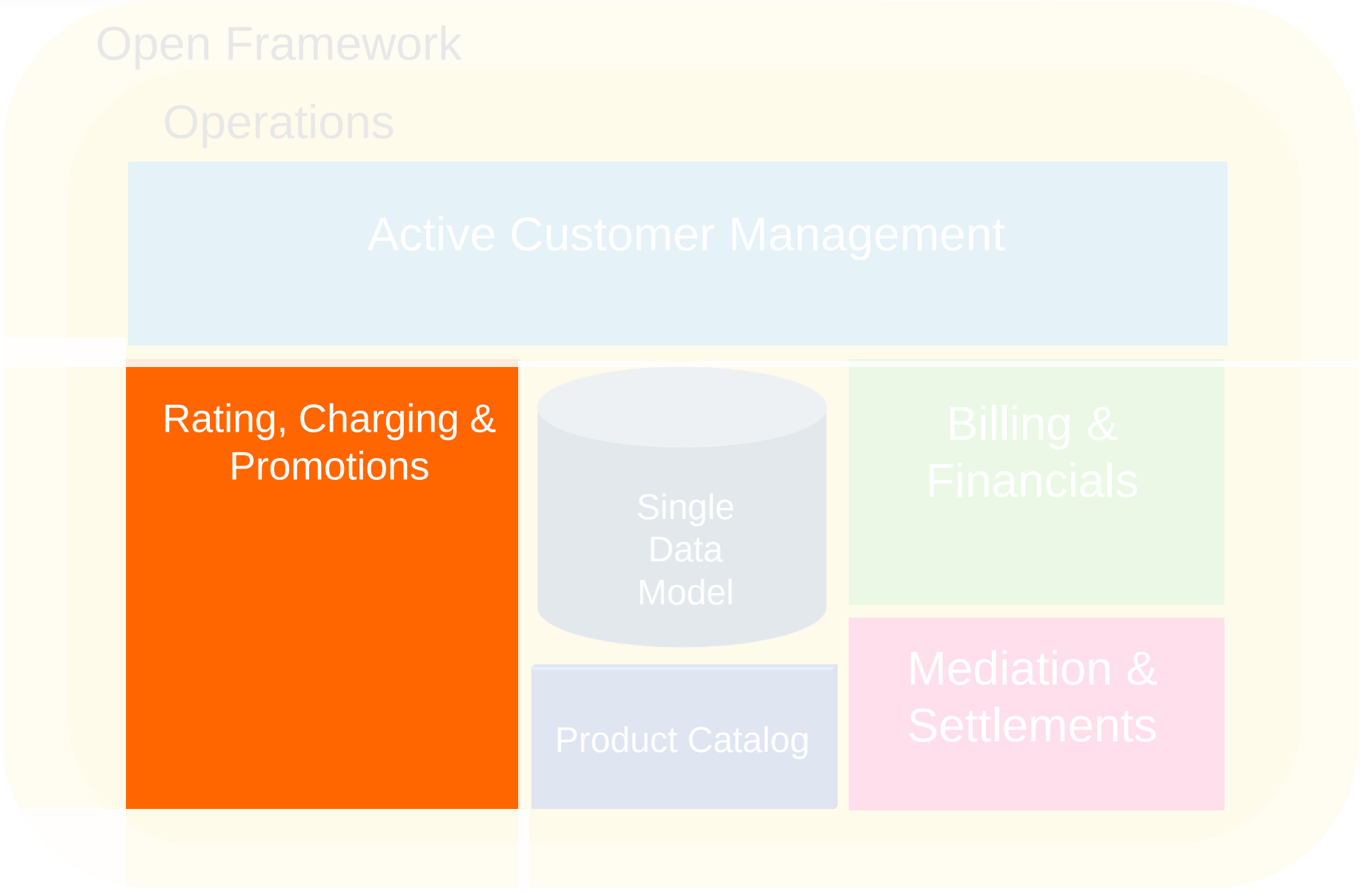
Comverse ONE

Lesson Objectives

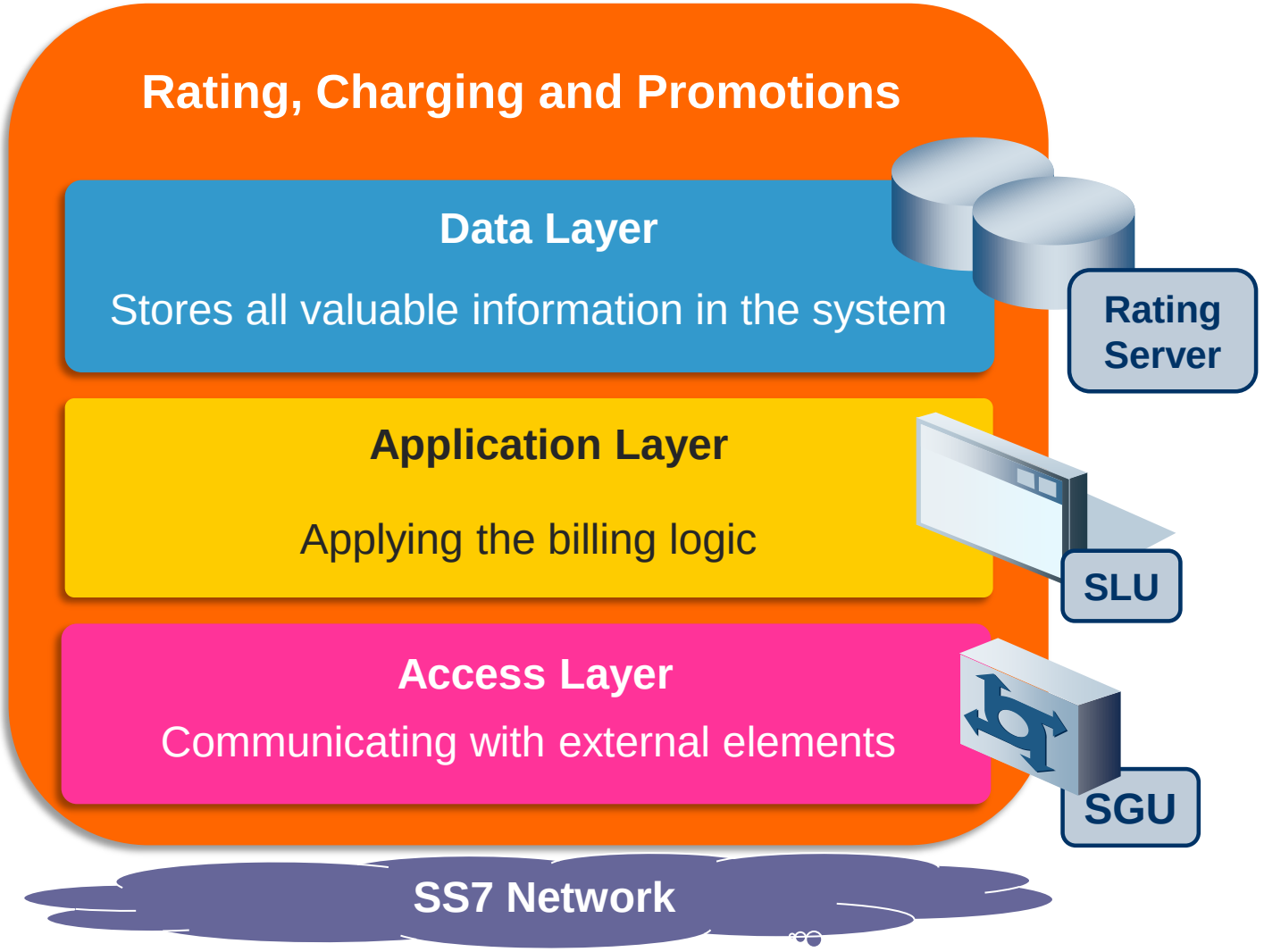
By the end of this lesson you will be able to:

- List the SLU functionalities in Comverse ONE system
- List the SLUs structure and components
- Describe the different types of SLUs
- List the common processes that take place in the SLU

Comverse ONE Functional Architecture



The Service Logic Unit (SLU)



Agenda

Service Logic Unit Functionalities

SLU – Structure and Components

Types of SLUs

Common Processes

Voice CAP2 Call Flow

MSC

Comverse ONE

Voice Call

Initial DP

Apply charging

Call Setup

Answer

Answer

Subscriber in Conversation

Activity test

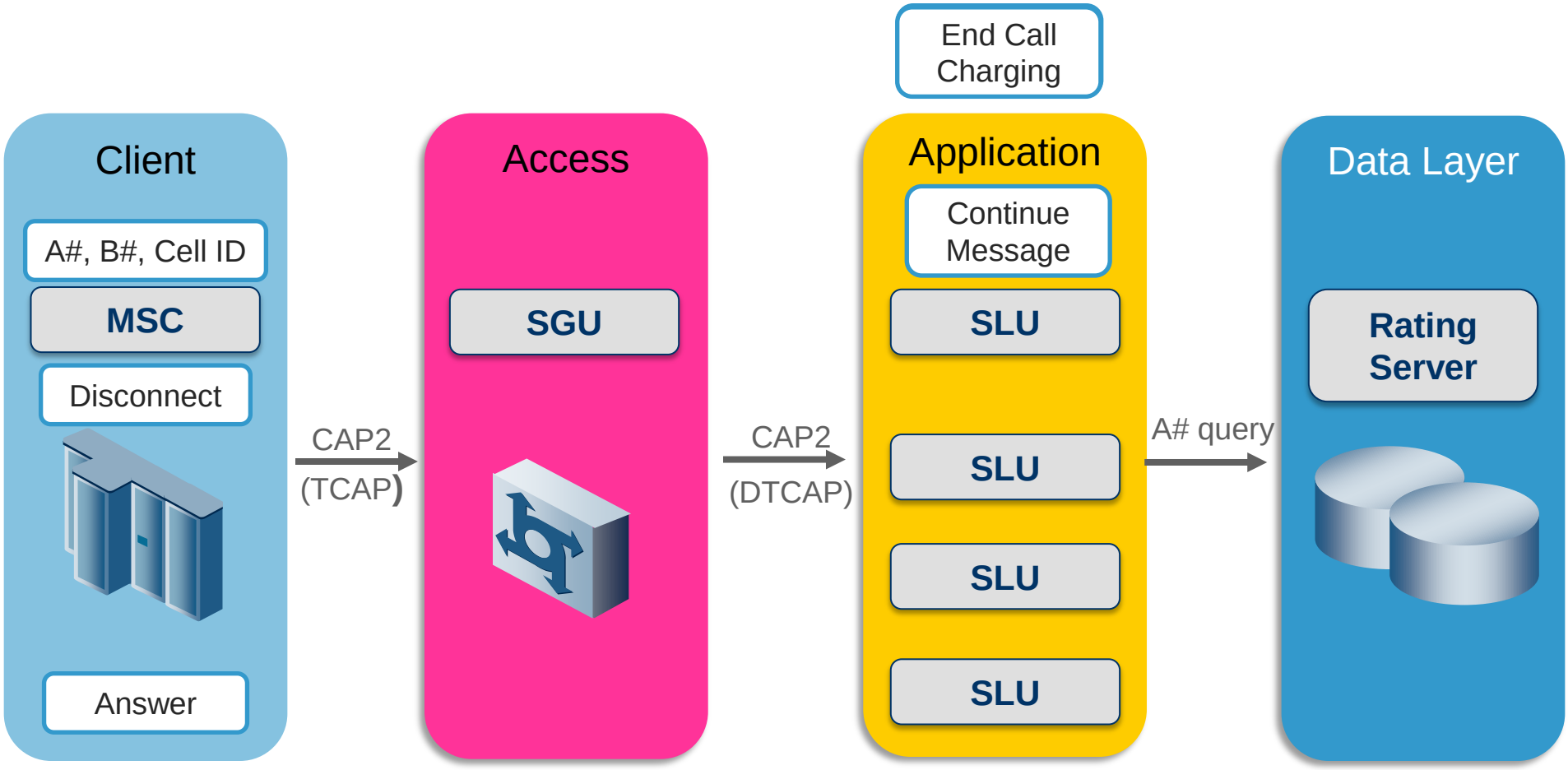
Result

End

Disconnect

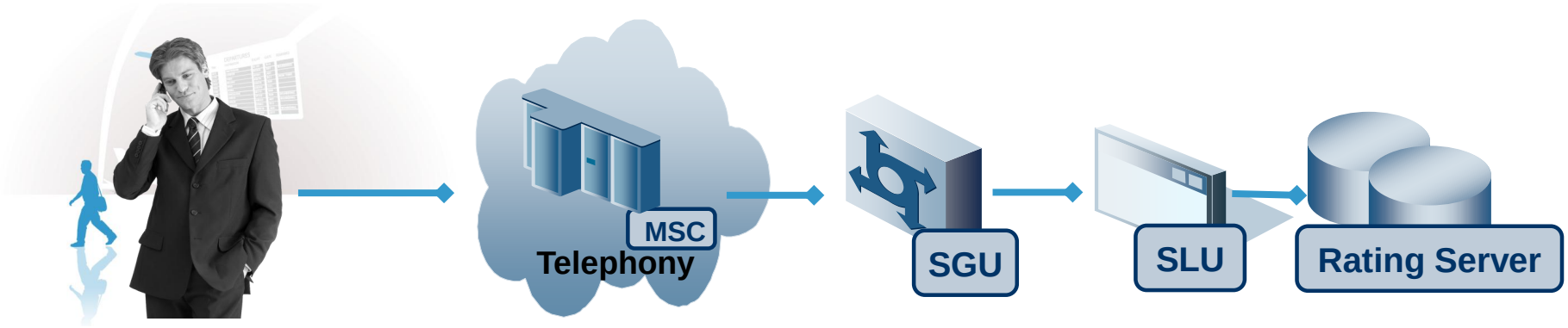
Apply charging report

Basic Call Flow Building



Service Logic Unit (SLU)

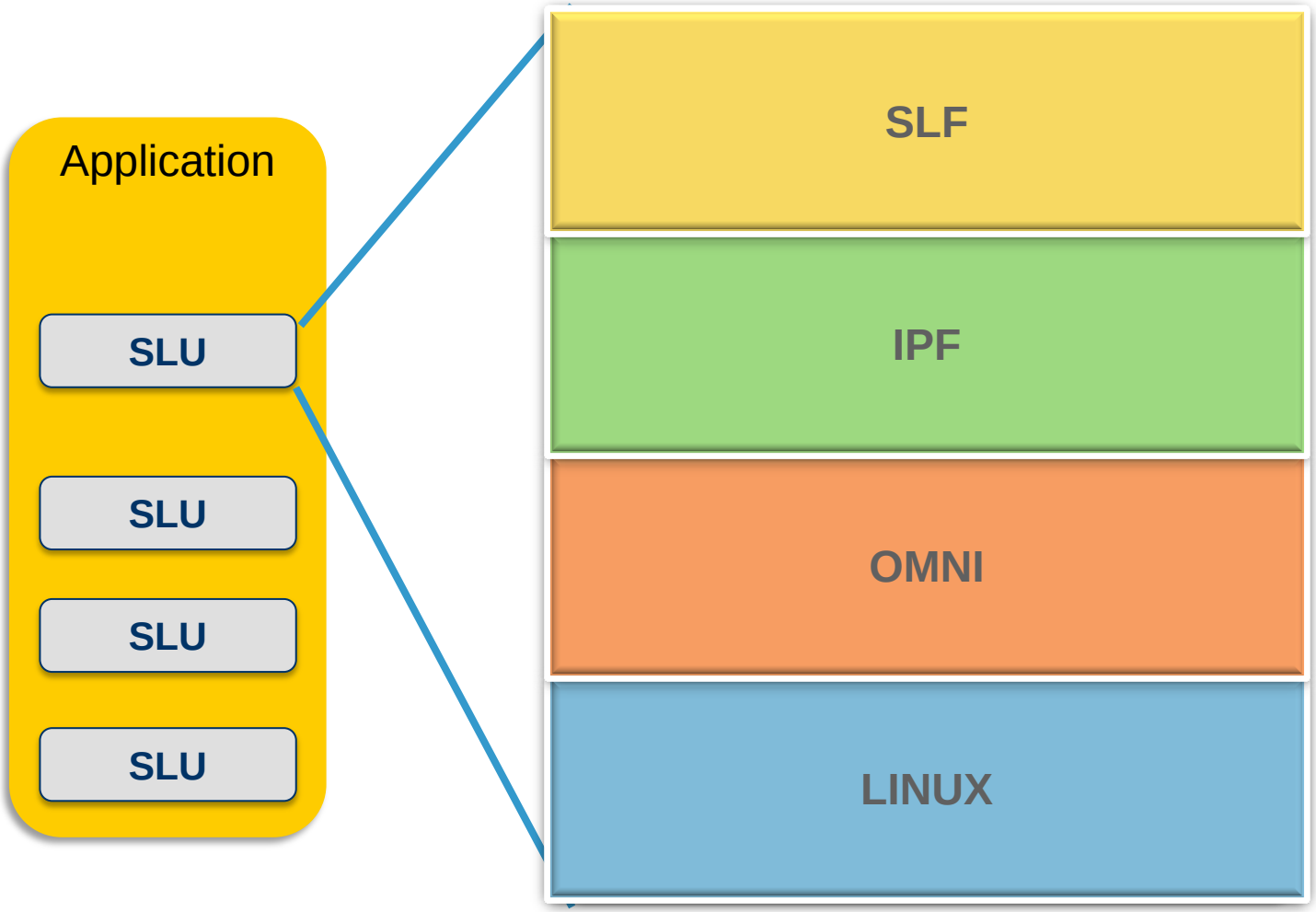
- Interface to the Access Layer
- Identifies user, payer and activity
- Calculates price, discounting and promotional features
- Distributes charges across multiple balances
- Manages business rules around balances
- Queries and updates the SDP



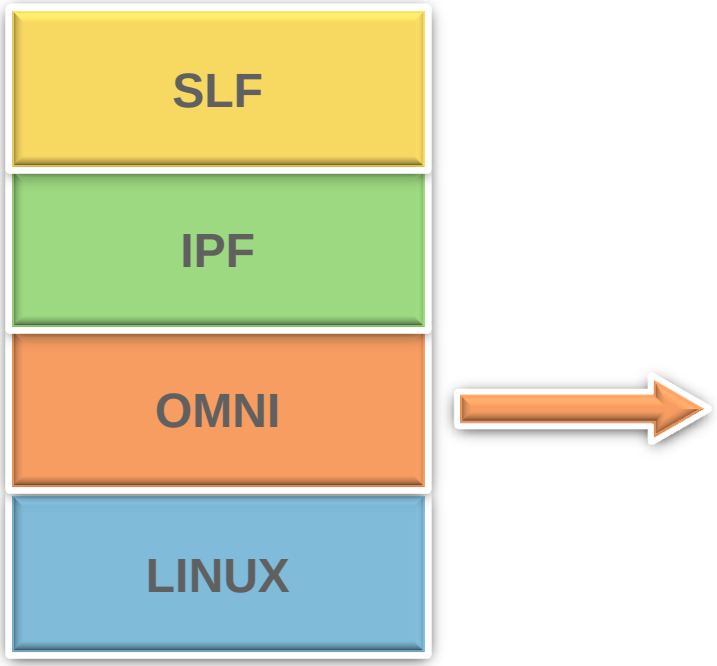
Agenda

- Service Logic Unit Functionalities
- **SLU – Structure and Components**
- Types of SLUs
- Common Processes

SLU – Structure and Components



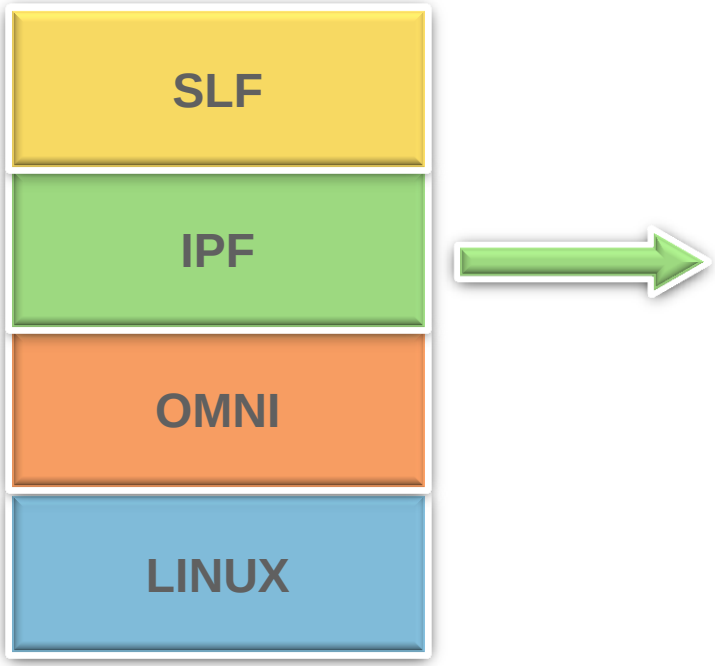
OMNI on SLU



OMNI

- An interface between the OS and the IPF processes of the SLU
- Provides services such as:
  - Clustering
  - Debugging
  - Maintenance interface

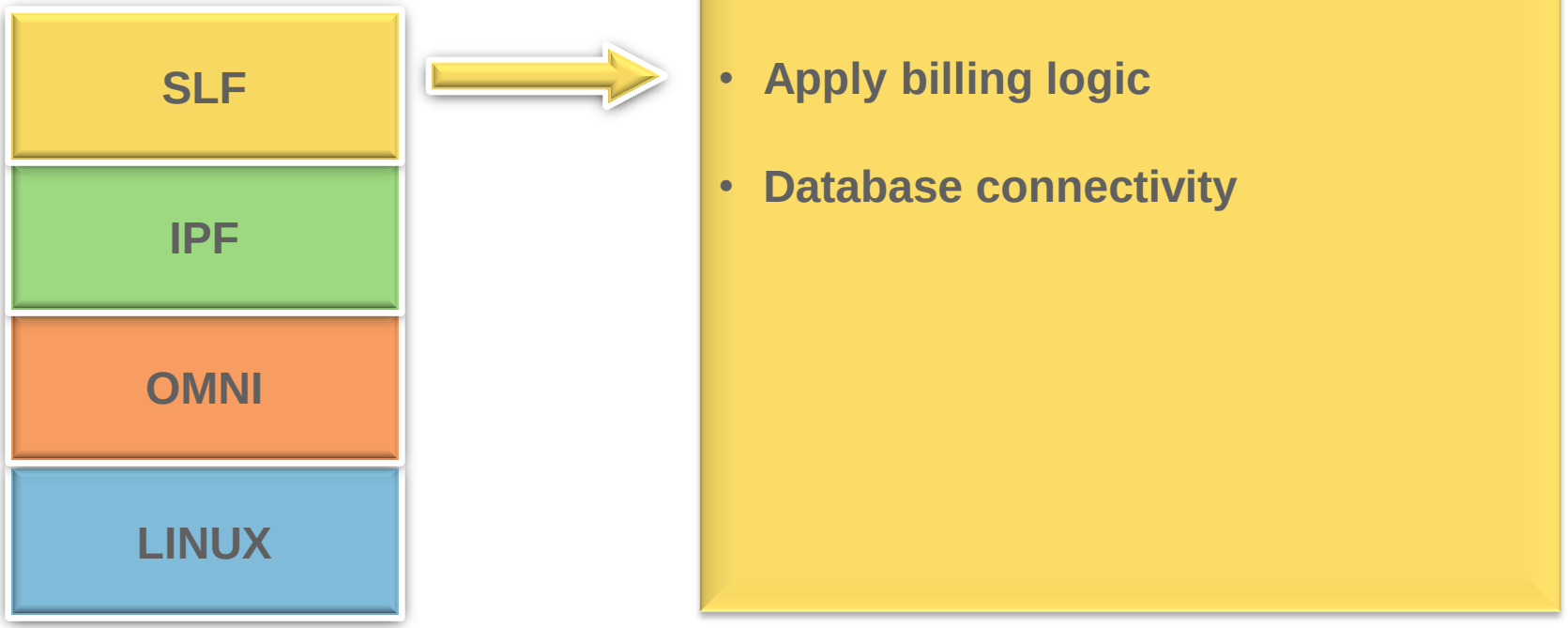
IPF – Intelligent Peripheral Function



Intelligent Peripheral Function (IPF)

- Communication with Intelligent Networks (SS7, Diameter, OSA/Parlay)
- Provide services such as:
  - Billing
  - Statistics
  - Alarm Management

SLF – Service Logic Function



Review Question (3)

The IPF layer is responsible for?

A. Routing incoming calls to the SLF
B. Providing an interface to the peripheral units SGU
C. Database connectivity
D. Both A and B

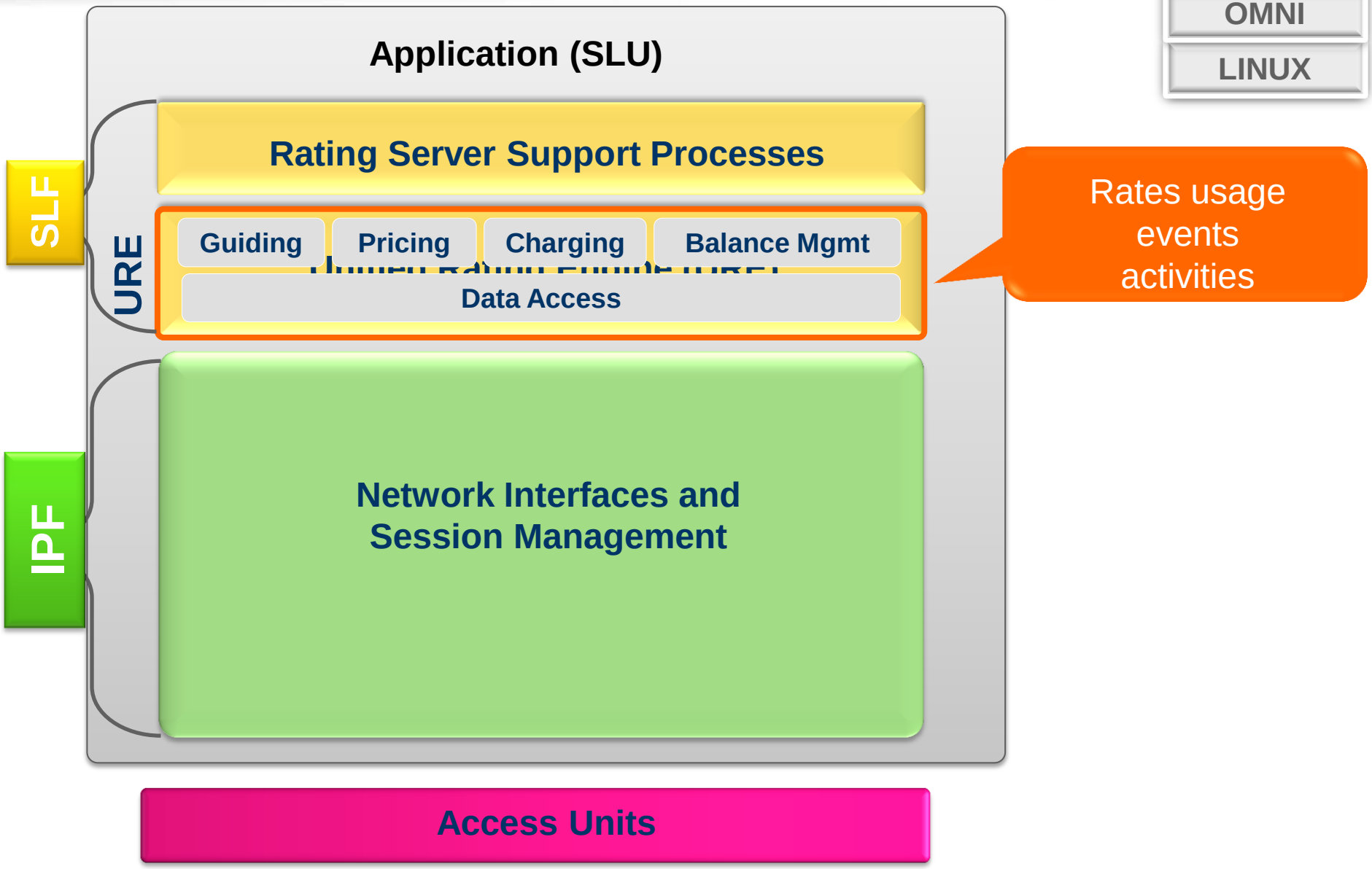
Review Question (4)

Which of the following statements about the SLF is NOT true?

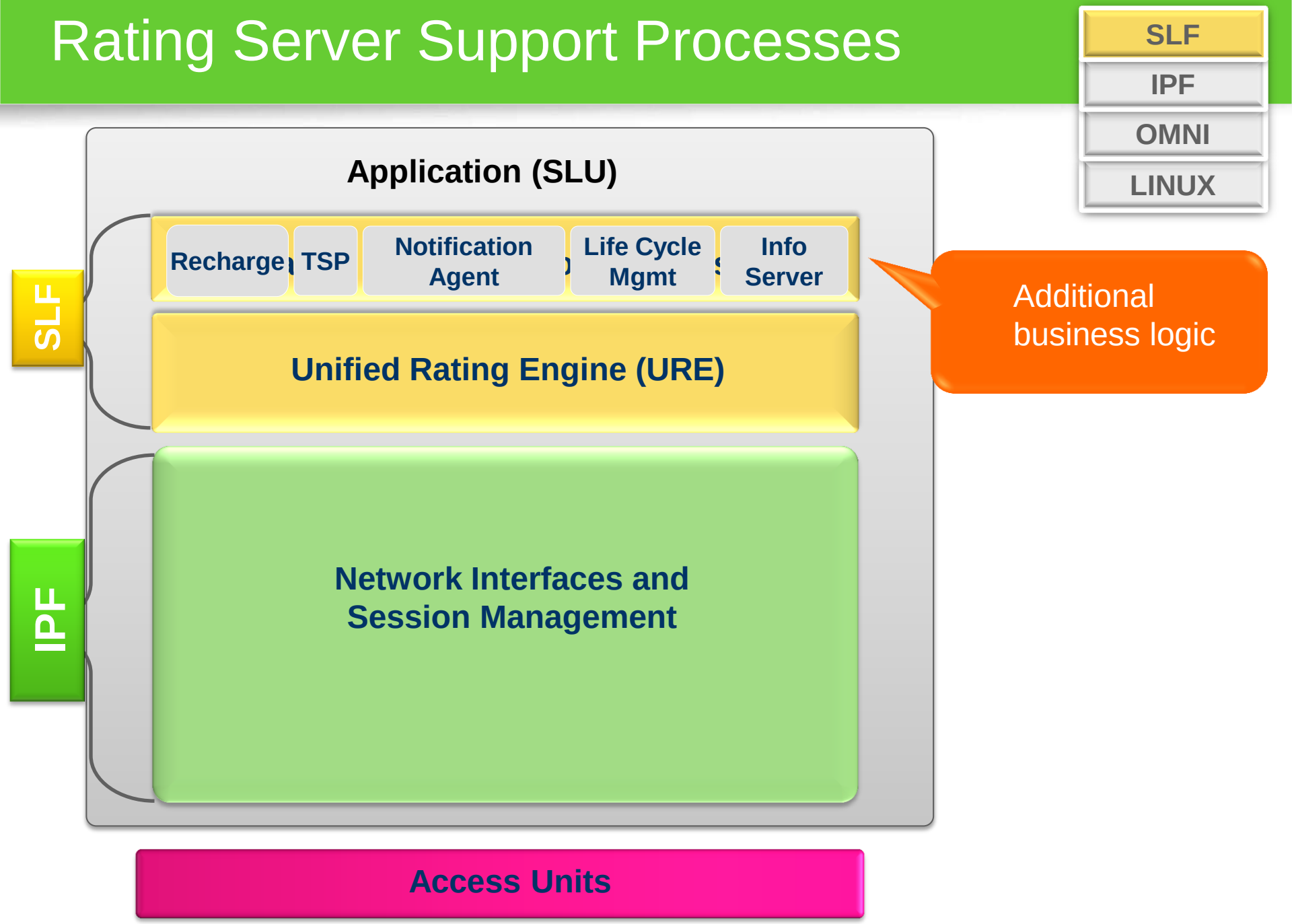
1. Responsible for the database connectivity
2. Provides an interface to the signaling world
3. Includes different service applications
4. Responsible for applying the necessary billing logic

Unified Rating Engine (URE)

SLF
IPF
OMNI
LINUX



Rating Server Support Processes

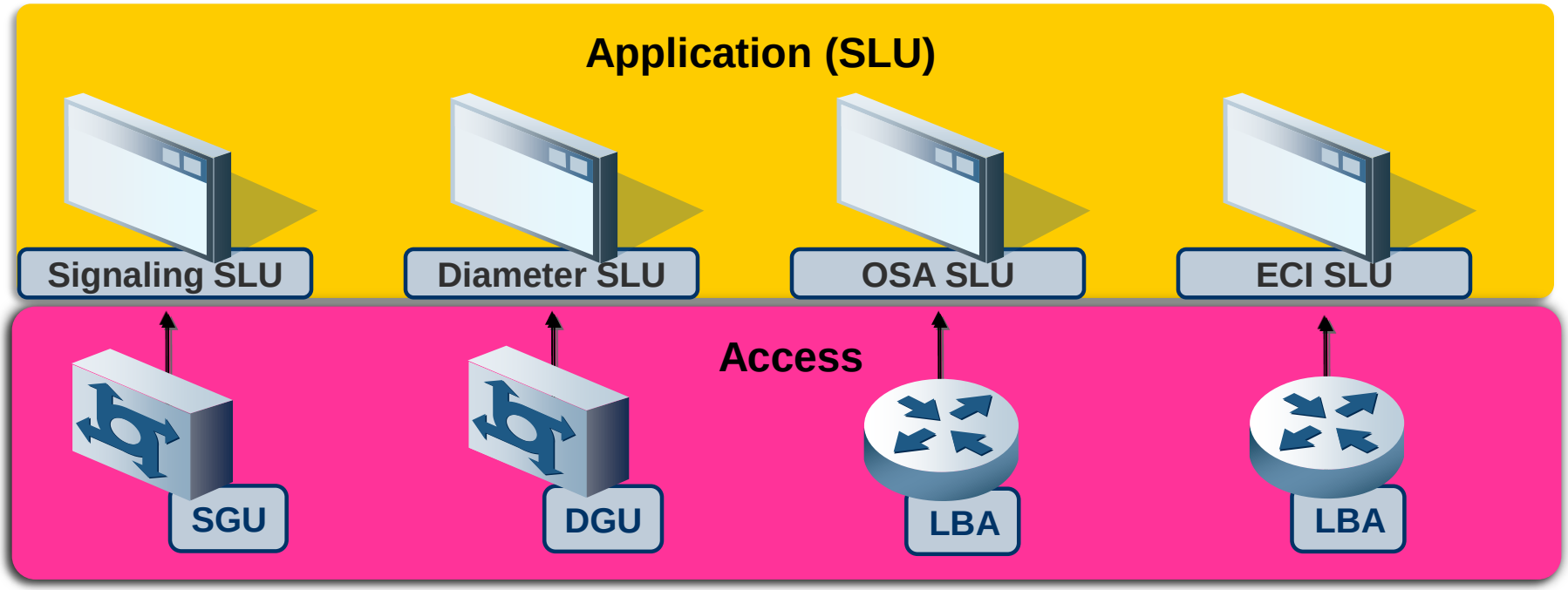


Agenda

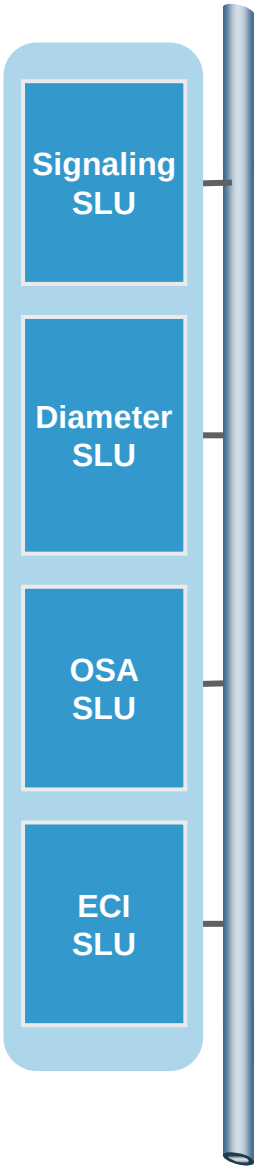
- Service Logic Unit Functionalities
- SLU – Structure and Components
- **Types of SLUs**
- Common Processes

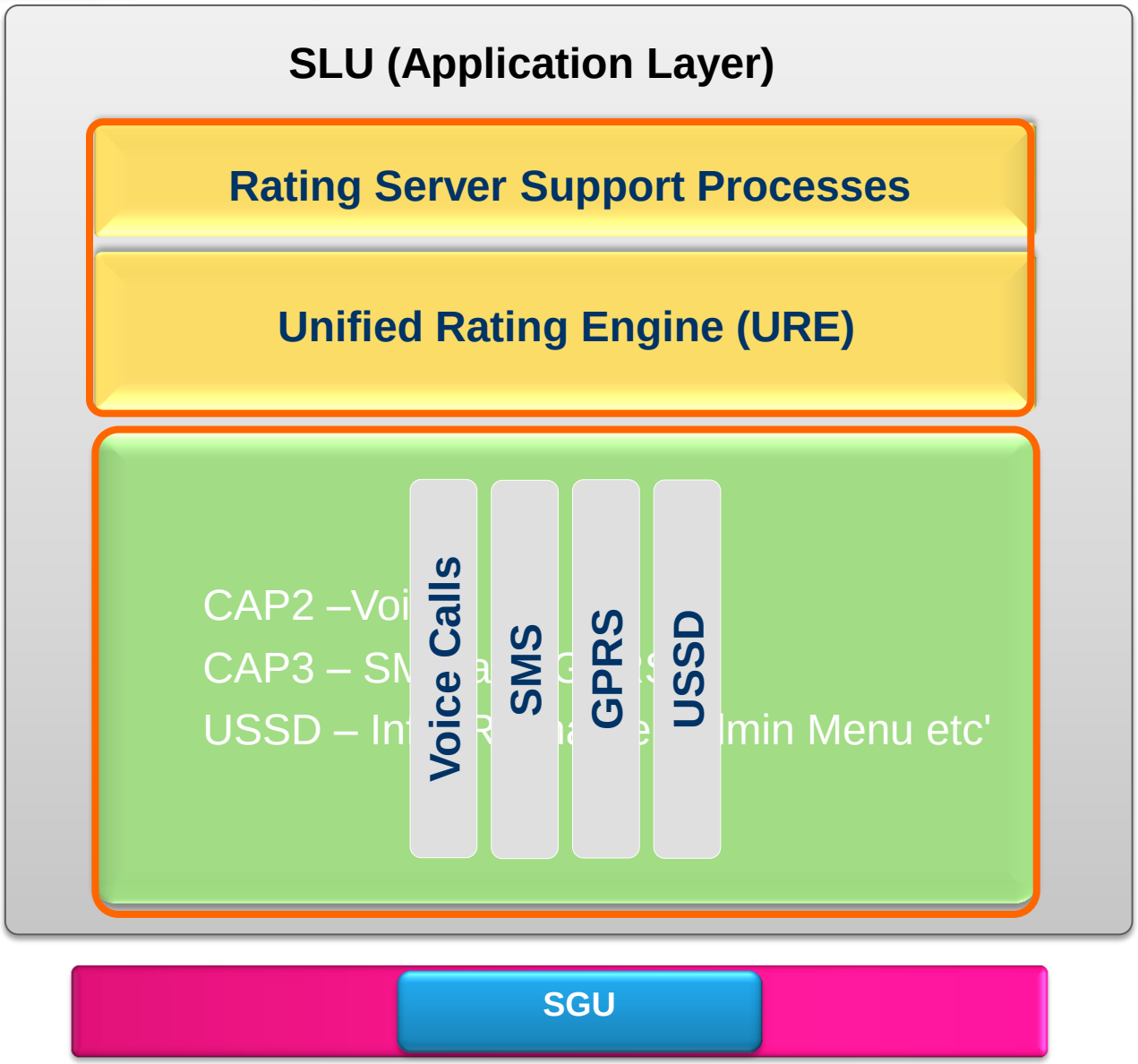
SLU as Part of the Application Layer

- Implements the actual rating and charging logic
- Unique billing logic for dedicated SLUs

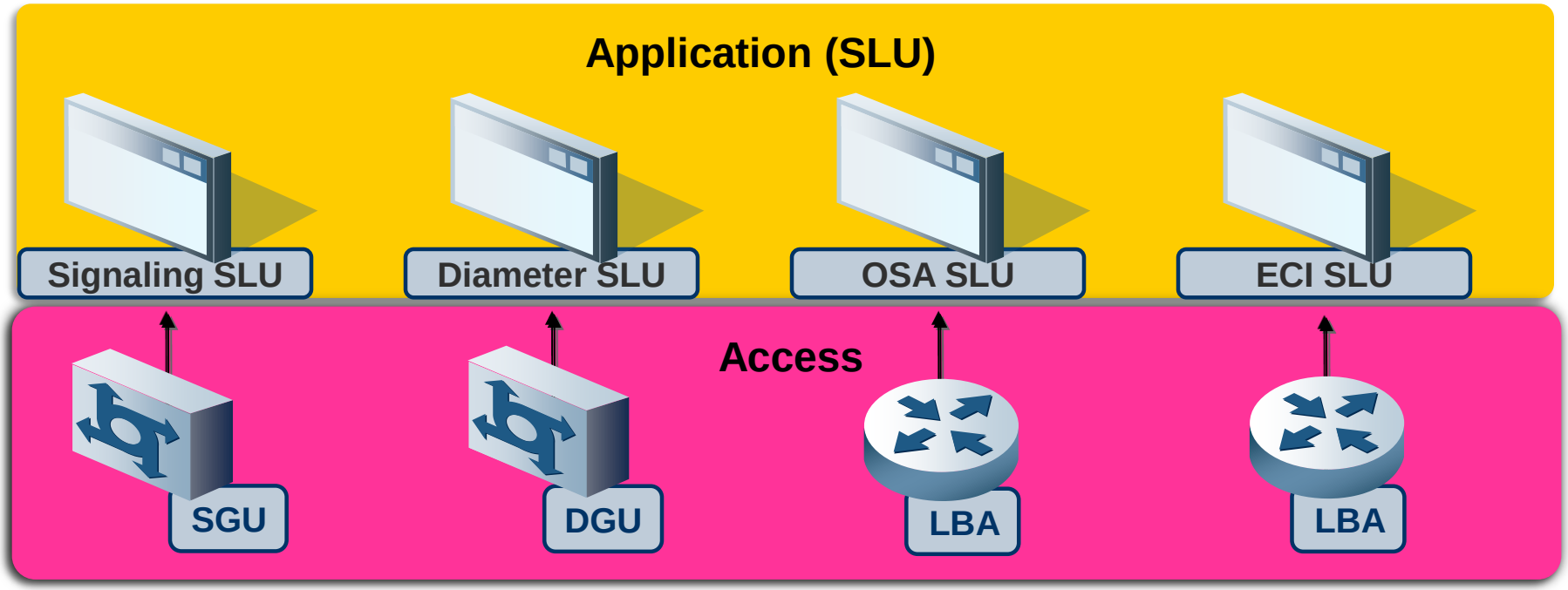


Signaling SLU

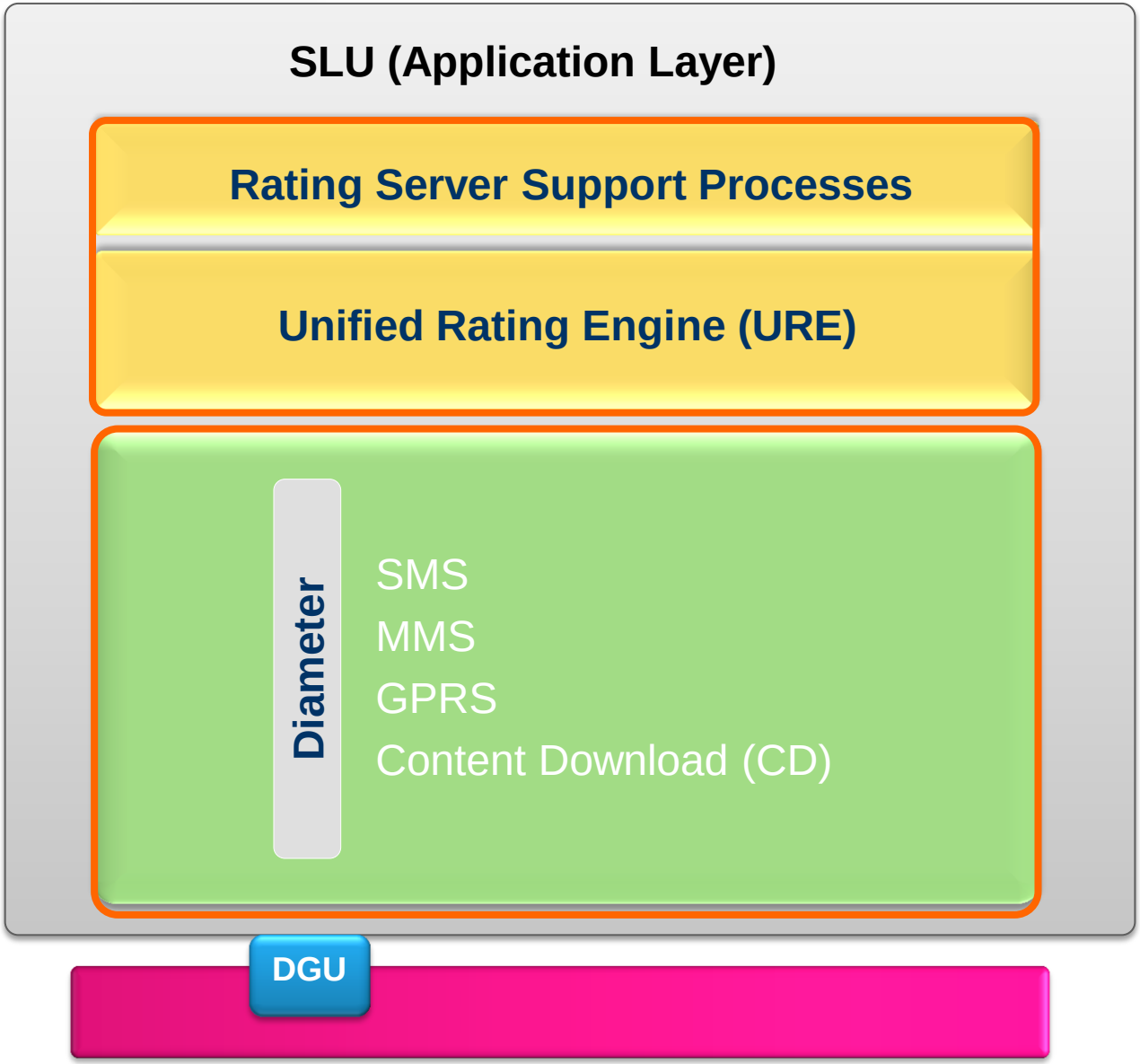




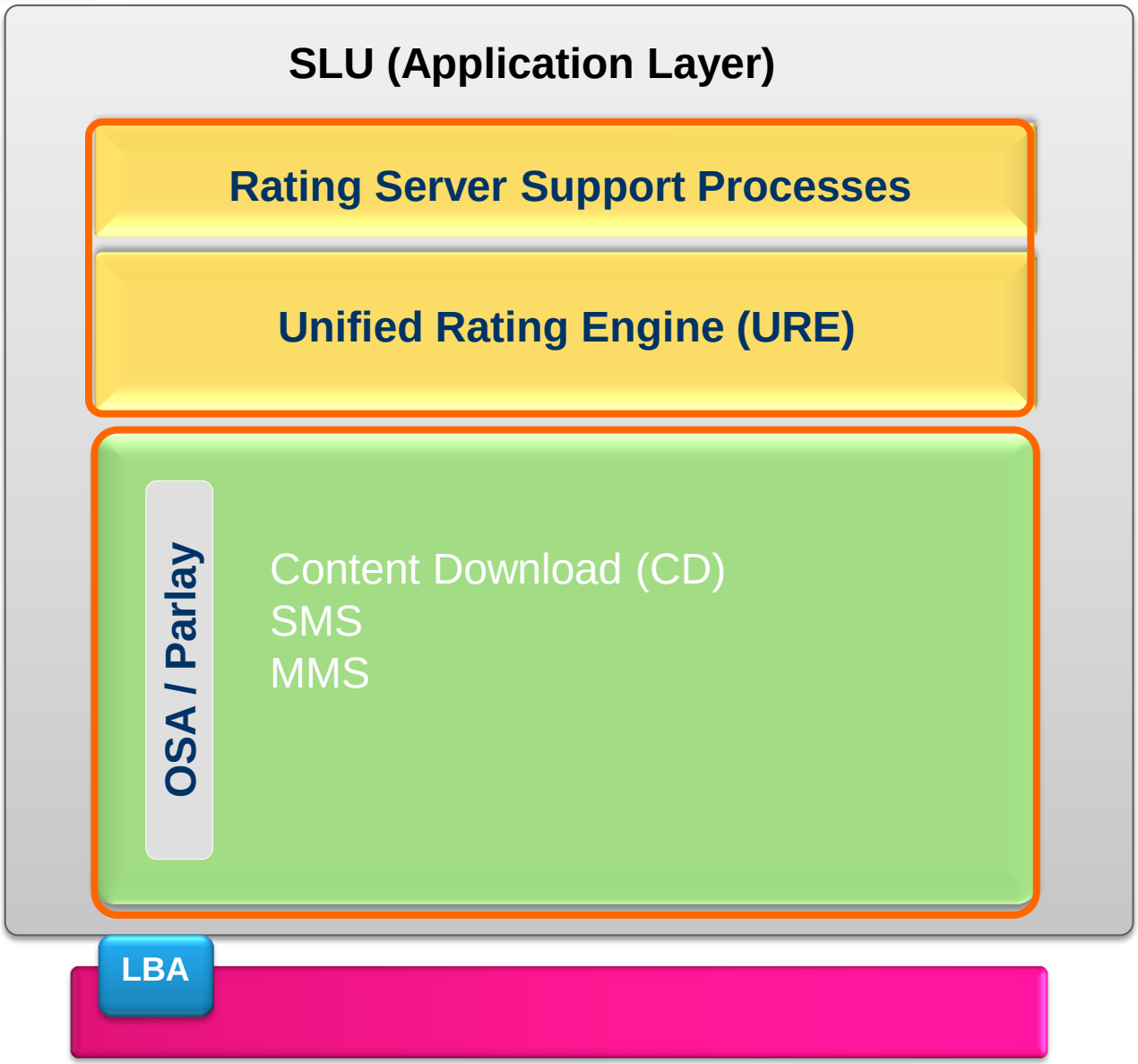
Additional SLU Types



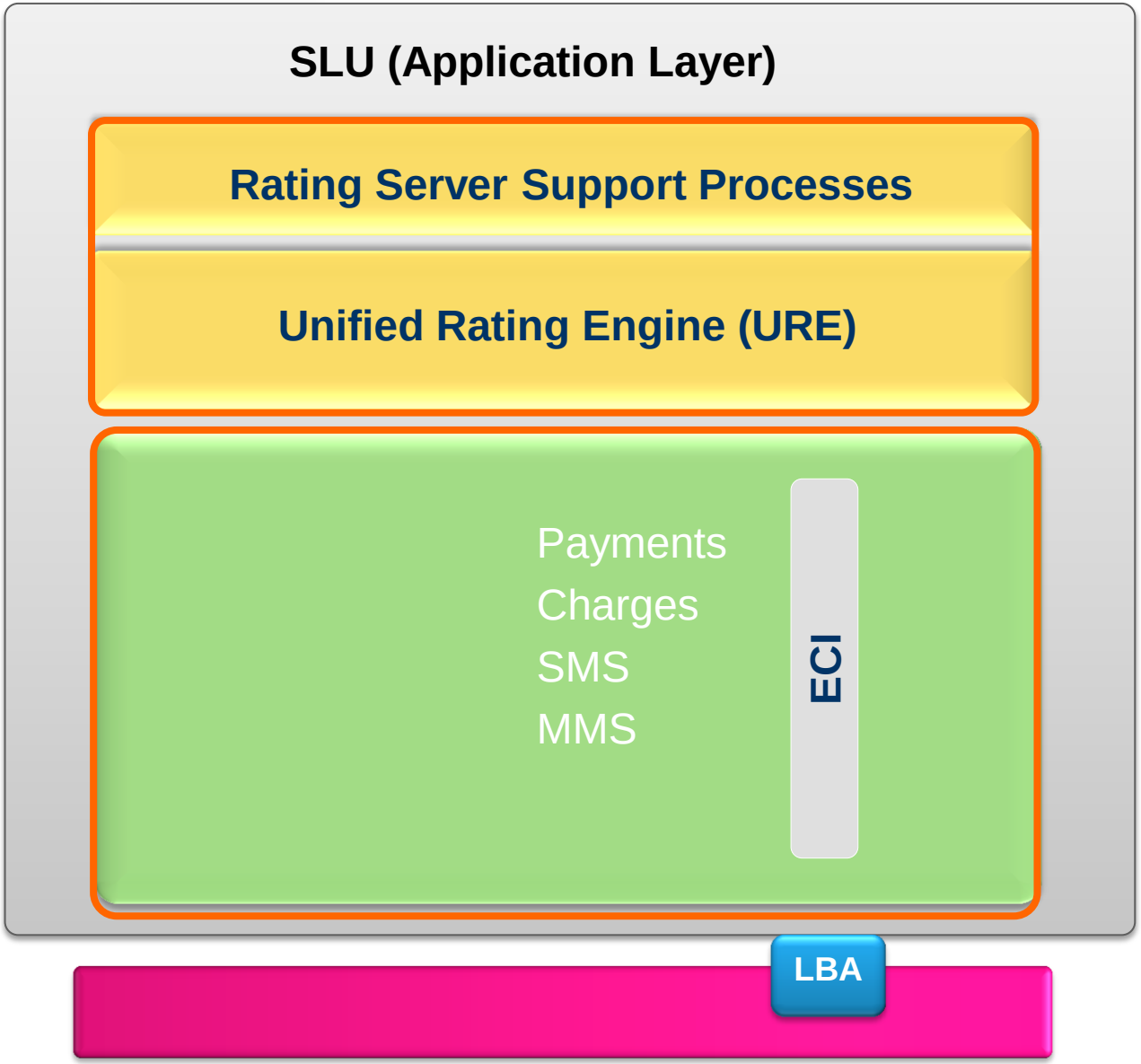
Diameter SLU



OSA SLU


SLU (Application Layer)
Rating Server Support Processes
Unified Rating Engine (URE)
OSA / Parlay
Content Download (CD)
SMS
MMS
LBA

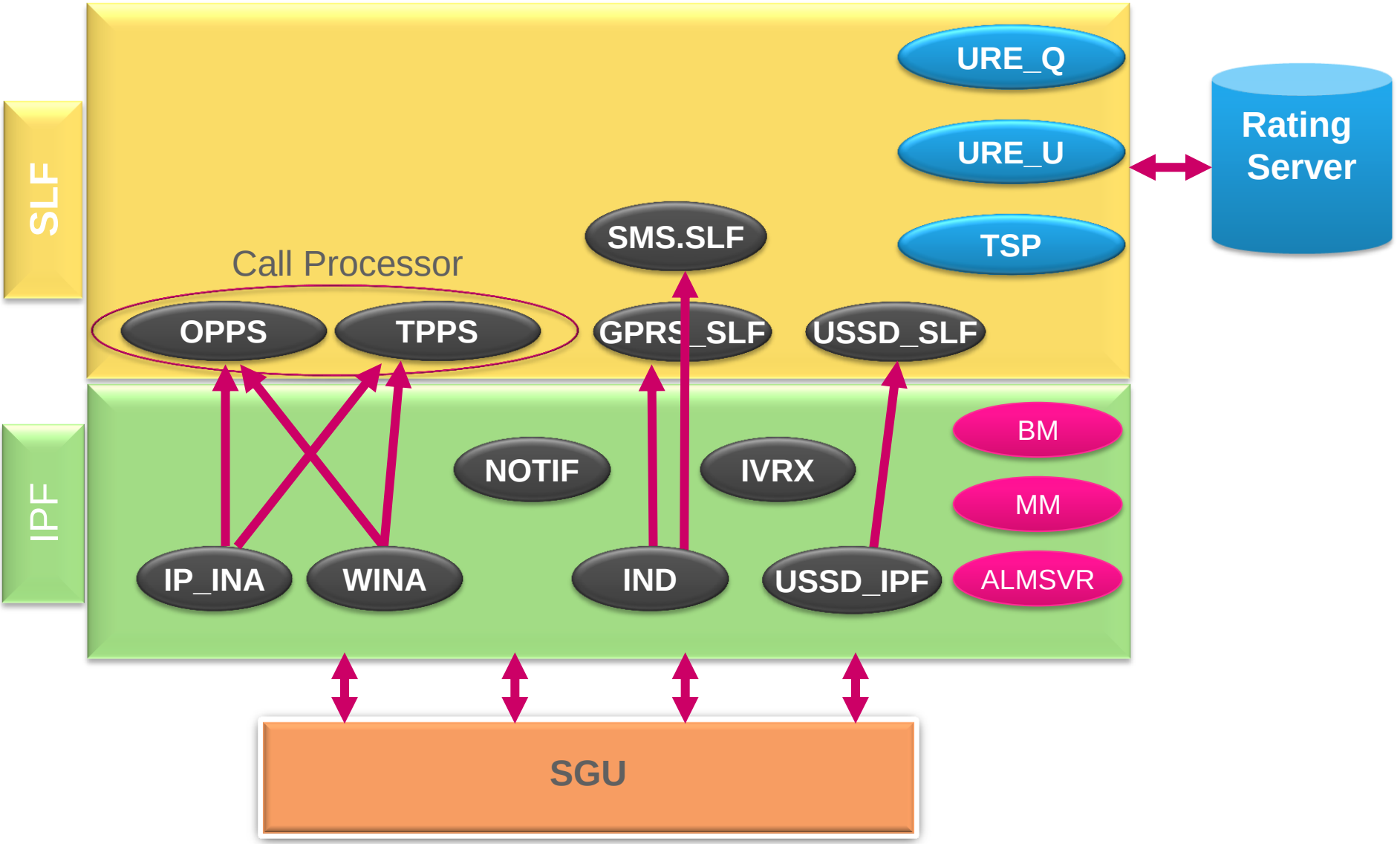
ECI SLU


SLU (Application Layer)
Rating Server Support Processes
Unified Rating Engine (URE)
Payments
Charges
SMS
MMS
ECI
LBA

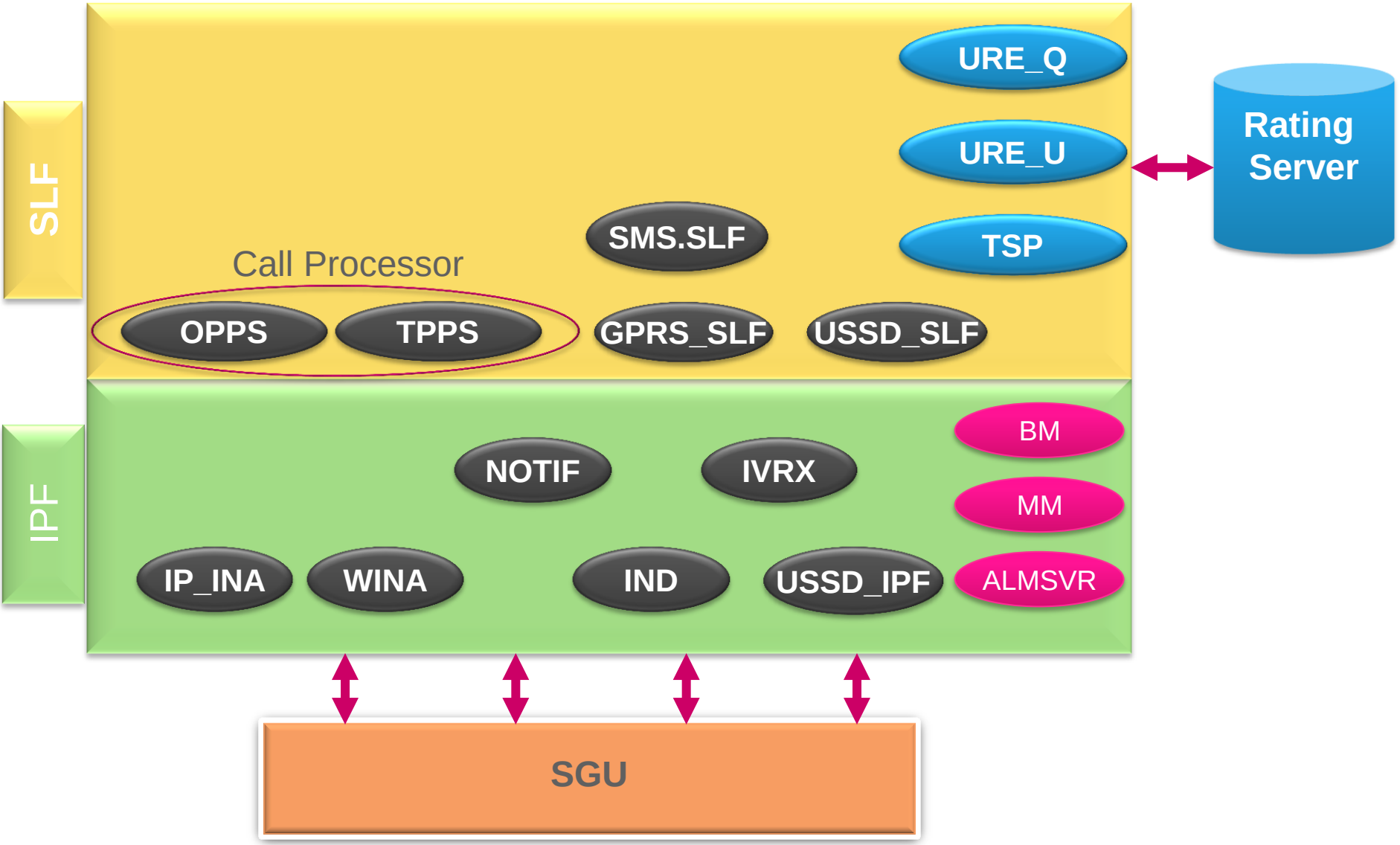
Agenda

- Service Logic Unit Functionalities
- SLU – Structure and Components
- Types of SLUs
- **Common Processes**

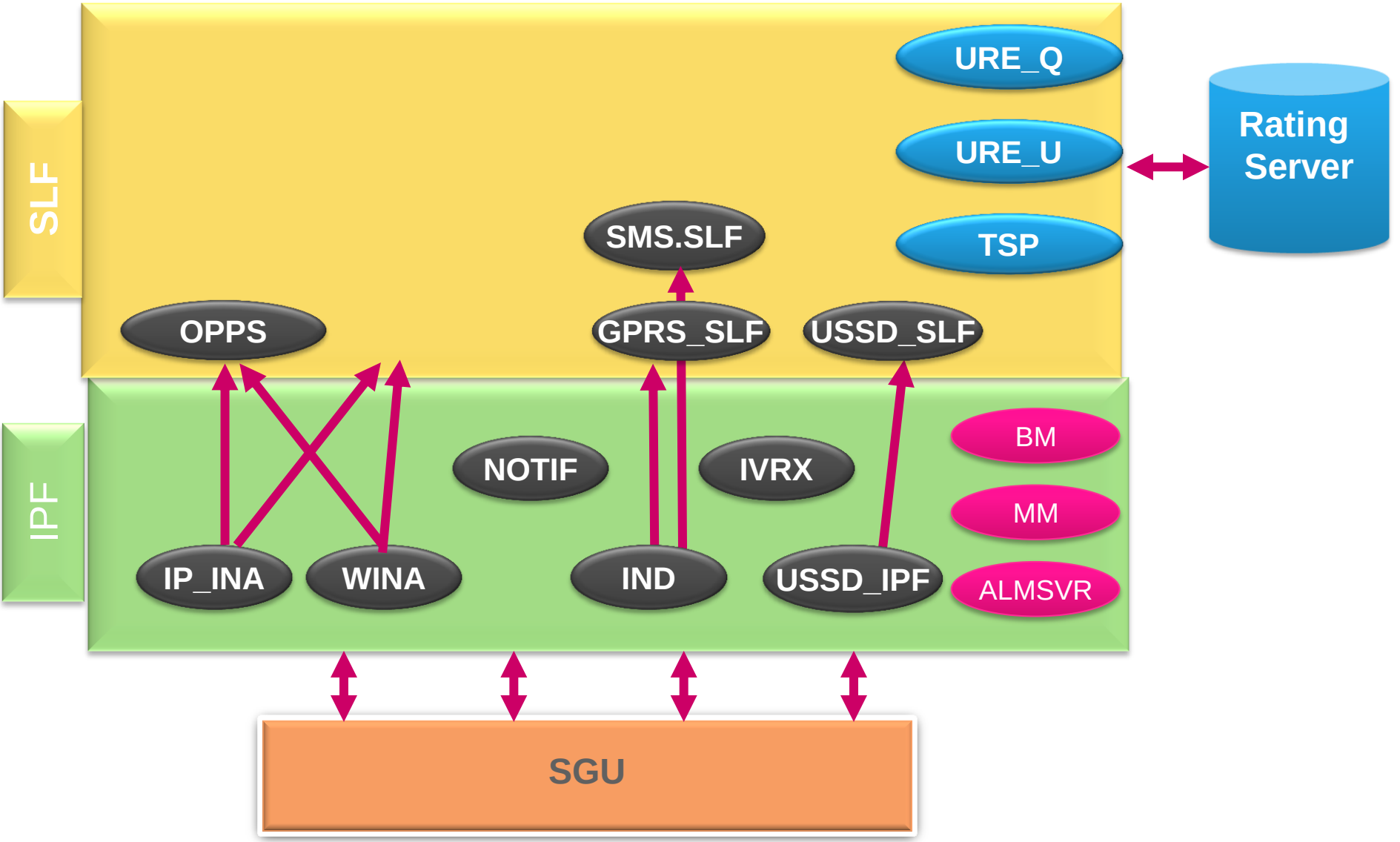
IPF and SLF Processes Relationship (1)



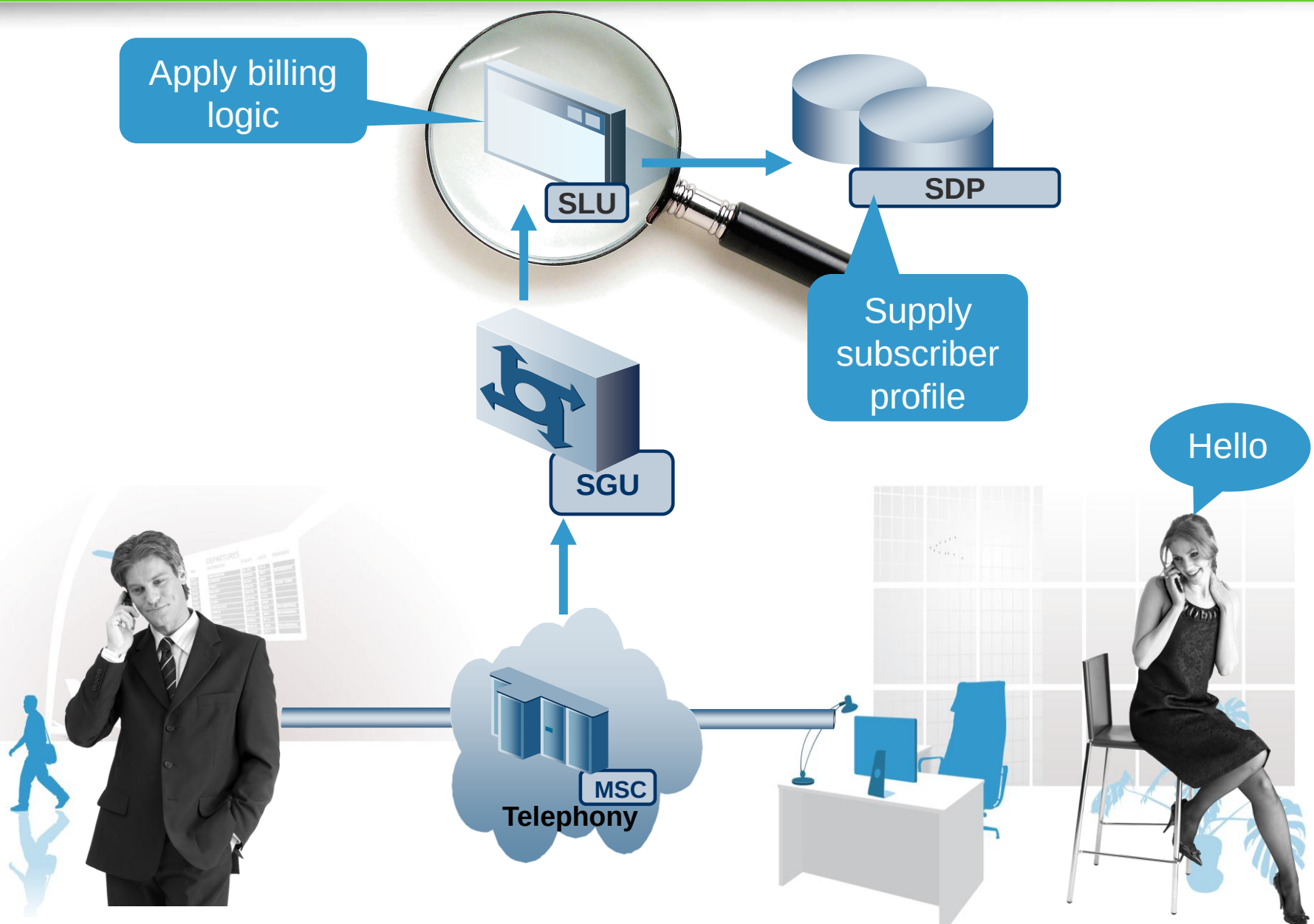
SS7 Signaling SLU Processes (1)



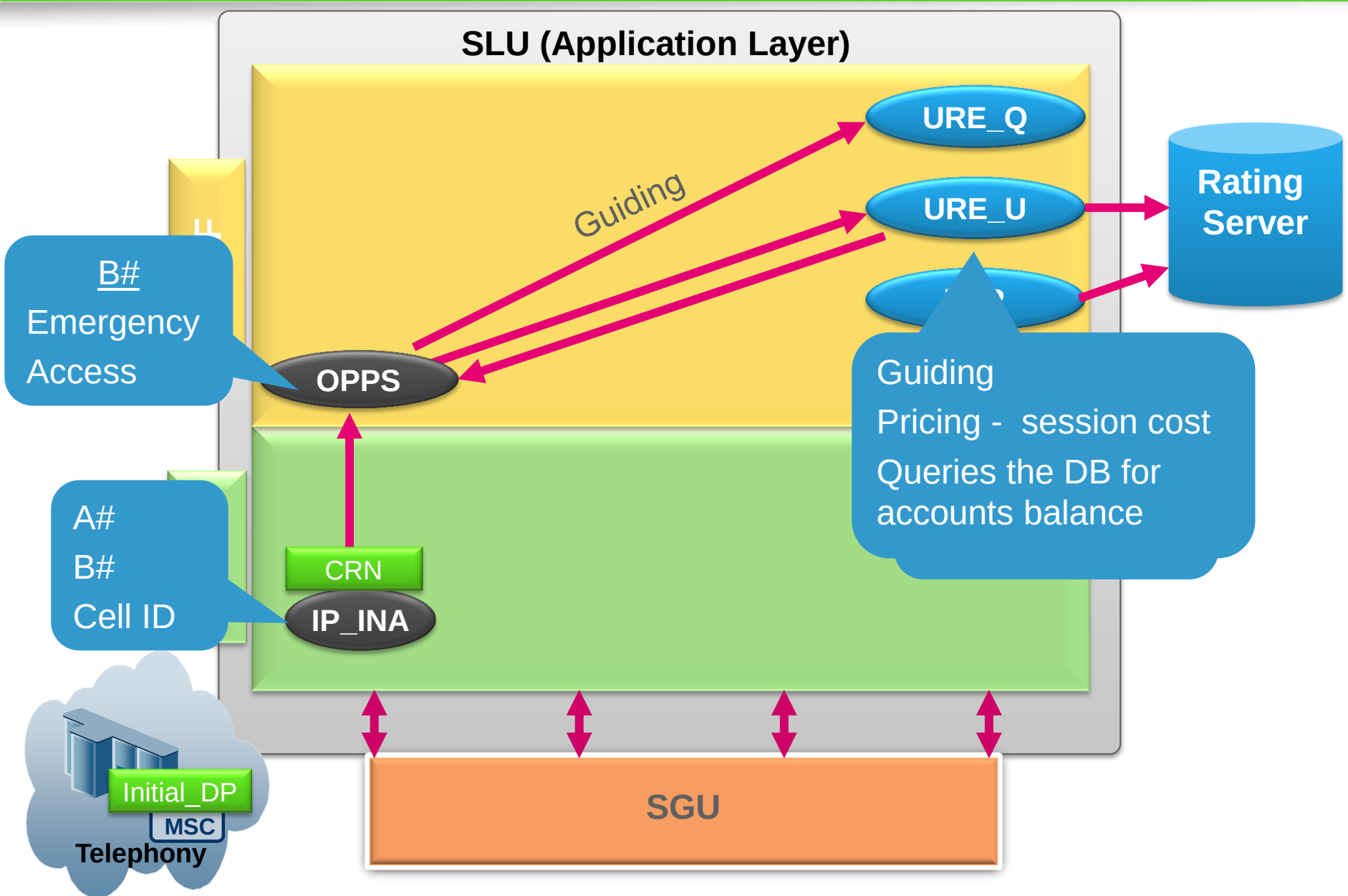
SS7 Signaling SLU Processes (1)



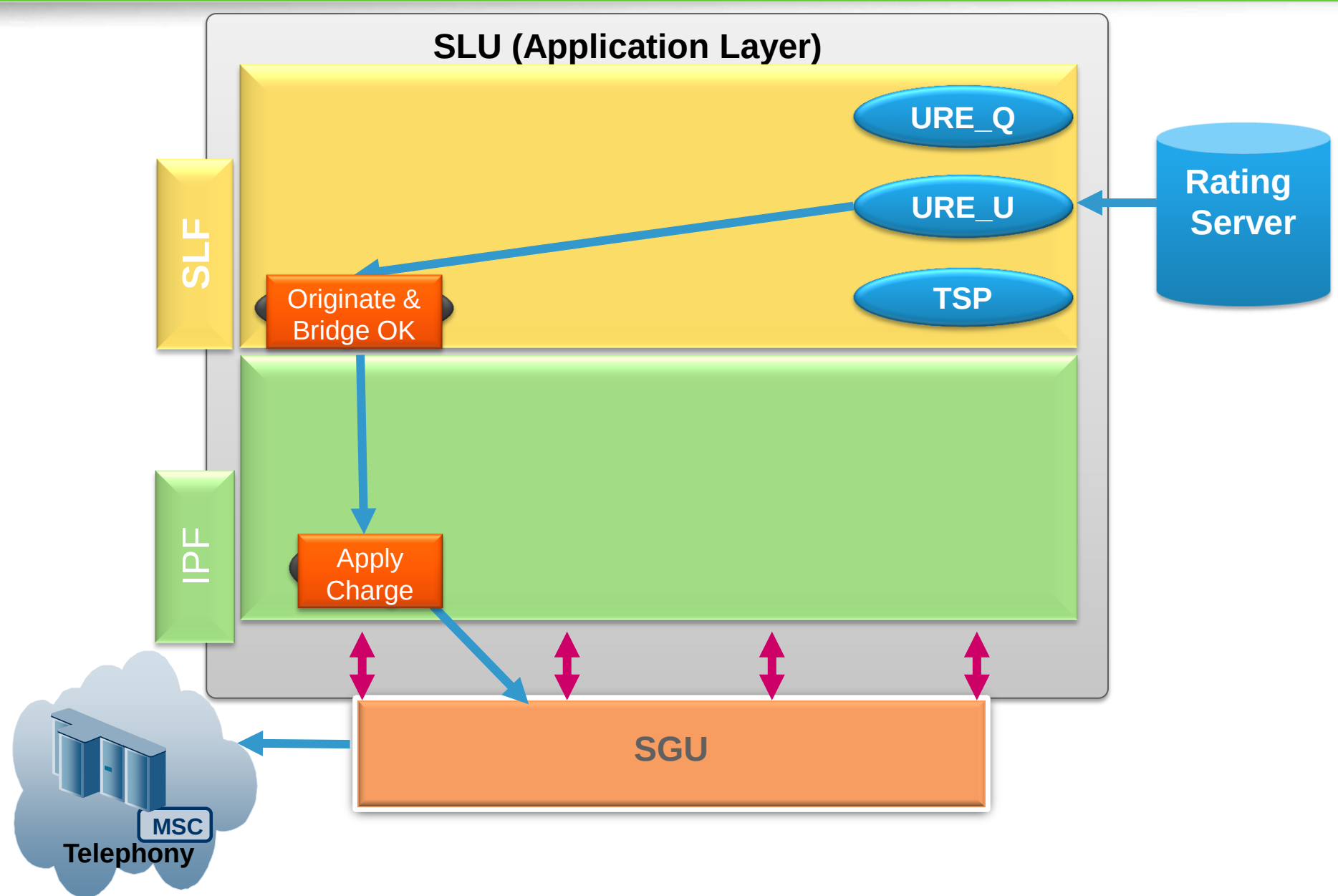
Voice Call Scenario – Example



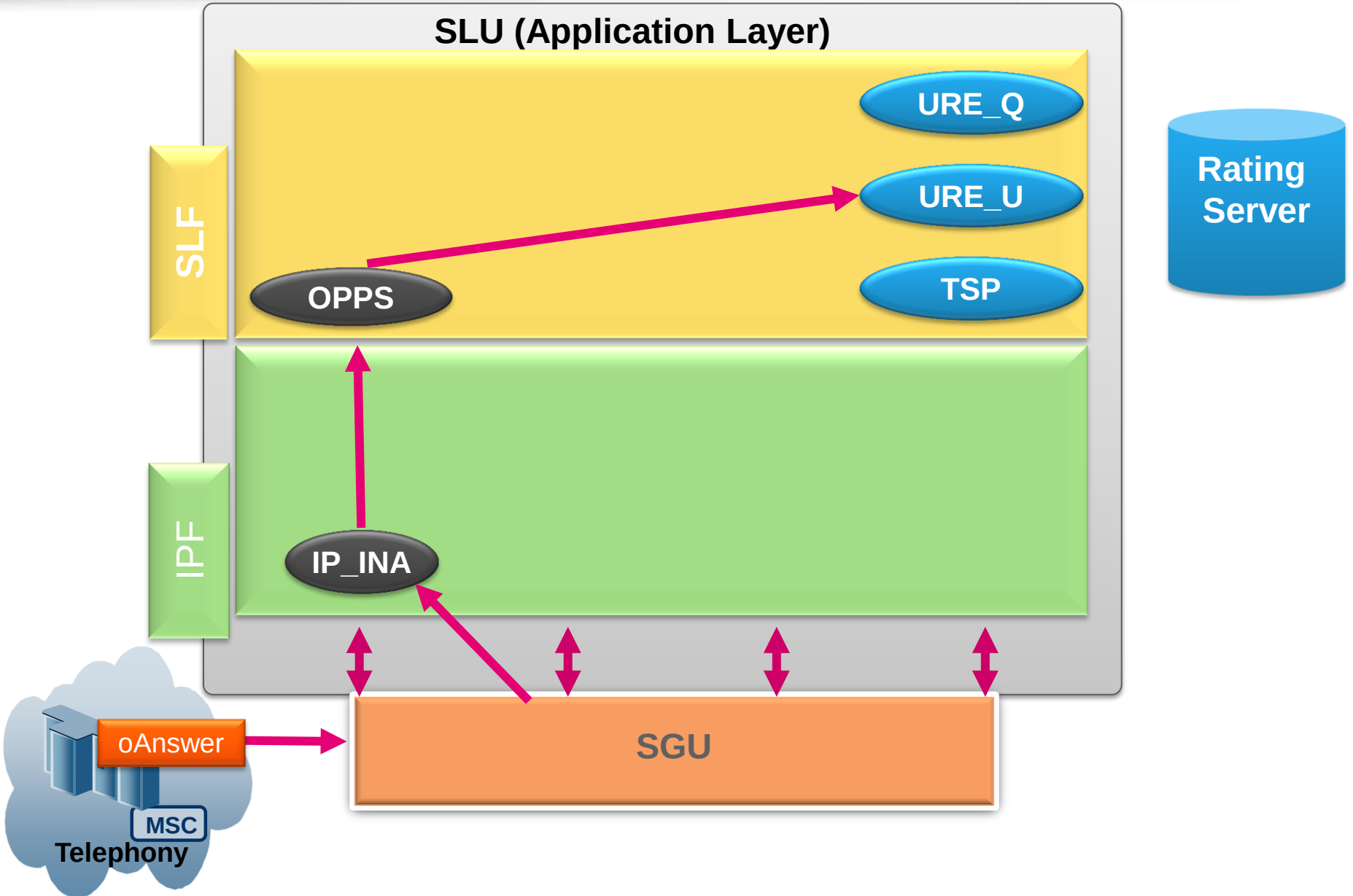
A Normal Voice Call Charging Flow (1)



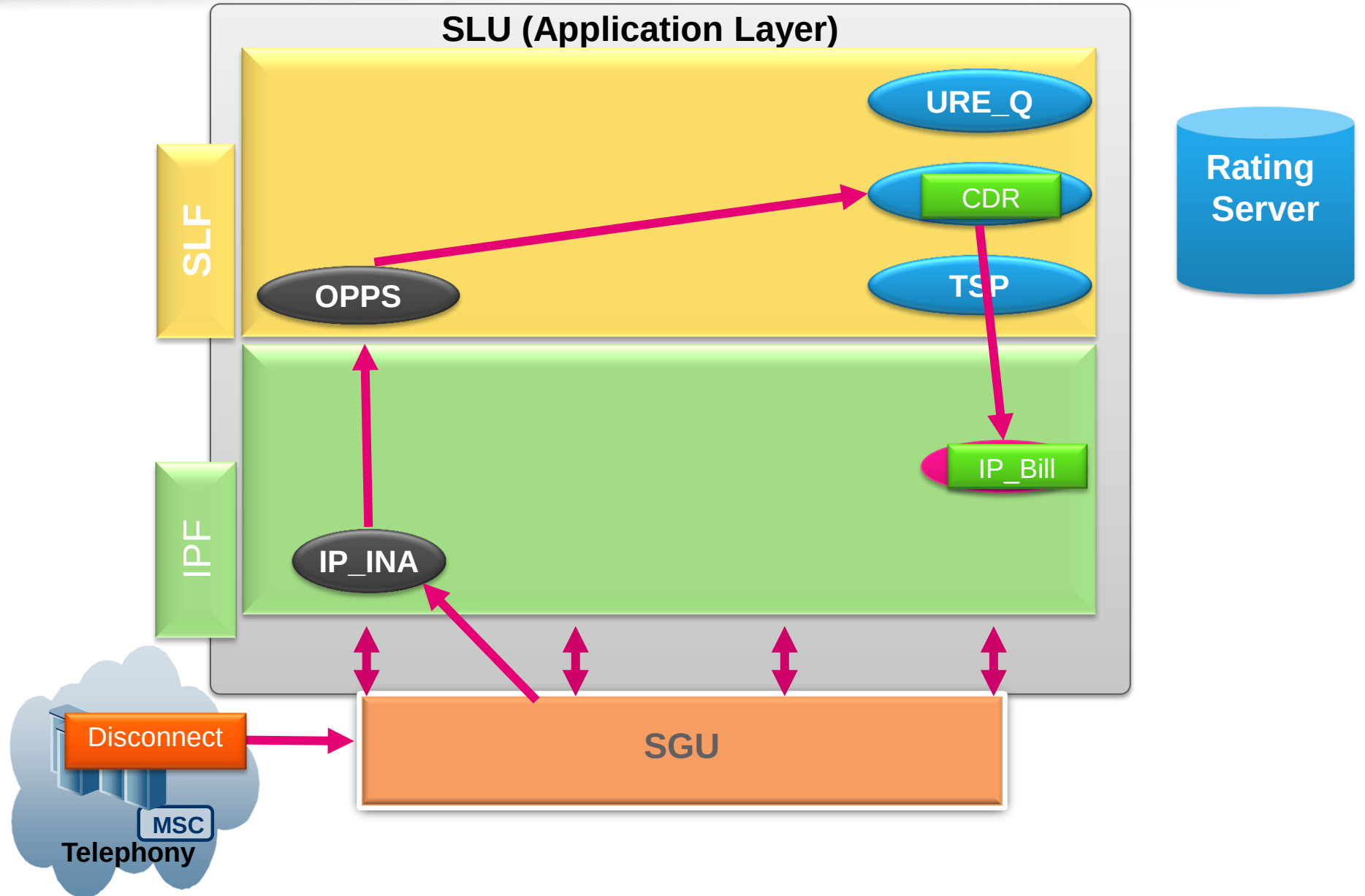
A Normal Voice Call Charging Flow (2)



A Normal Voice Call Charging Flow (3)



A Normal Voice Call Charging Flow (4)



Review Questions

1. Which process validates the A number, B number and the Cell ID, and generates a Call Reference Number (CRN)?
    a. TSP
    b. IP_INA
    c. OPPS
    d. URE_U
2. Which of the following processes does NOT communicate directly with the rating server?
    a. TSP
    b. OPPS
    c. URE_U
    d. URE_Q
3. Which process is the “brain” that calculates the expected price of the call
    a. TSP
    b. IP_INA
    c. OPPS
    d. URE_U

Summary

This lesson has covered:

- SLU functionalities in the system
- The SLUs structure and components
- Types of SLUs
- Processes that take part in the voice call flow

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