



COMVERSE
UNIVERSITY

Real-Time Flow

Lesson Objectives

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


- Explain online processes
- List the components in the online processes
- Describe basic prepaid flows

Common Real-Time/Online Billing Flow

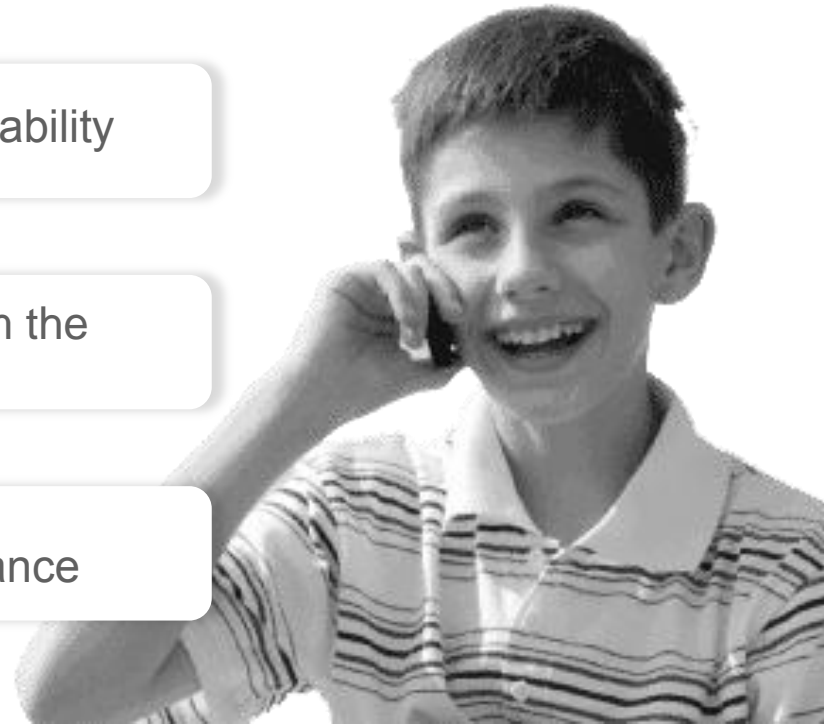
- 
- Request is received

- 
- System calculates the cost of the activity

- 
- System checks subscriber's accountability

- 
- System gives authorization to perform the activity

- 
- System updates the subscriber's balance



Comverse ONE Functional Architecture

Open Framework

Operations

Active Customer

- Real-Time Authorization
- Rating
- Balance Management
- Real-Time Promotions
- Notifications

Rating, Charging
and Promotions

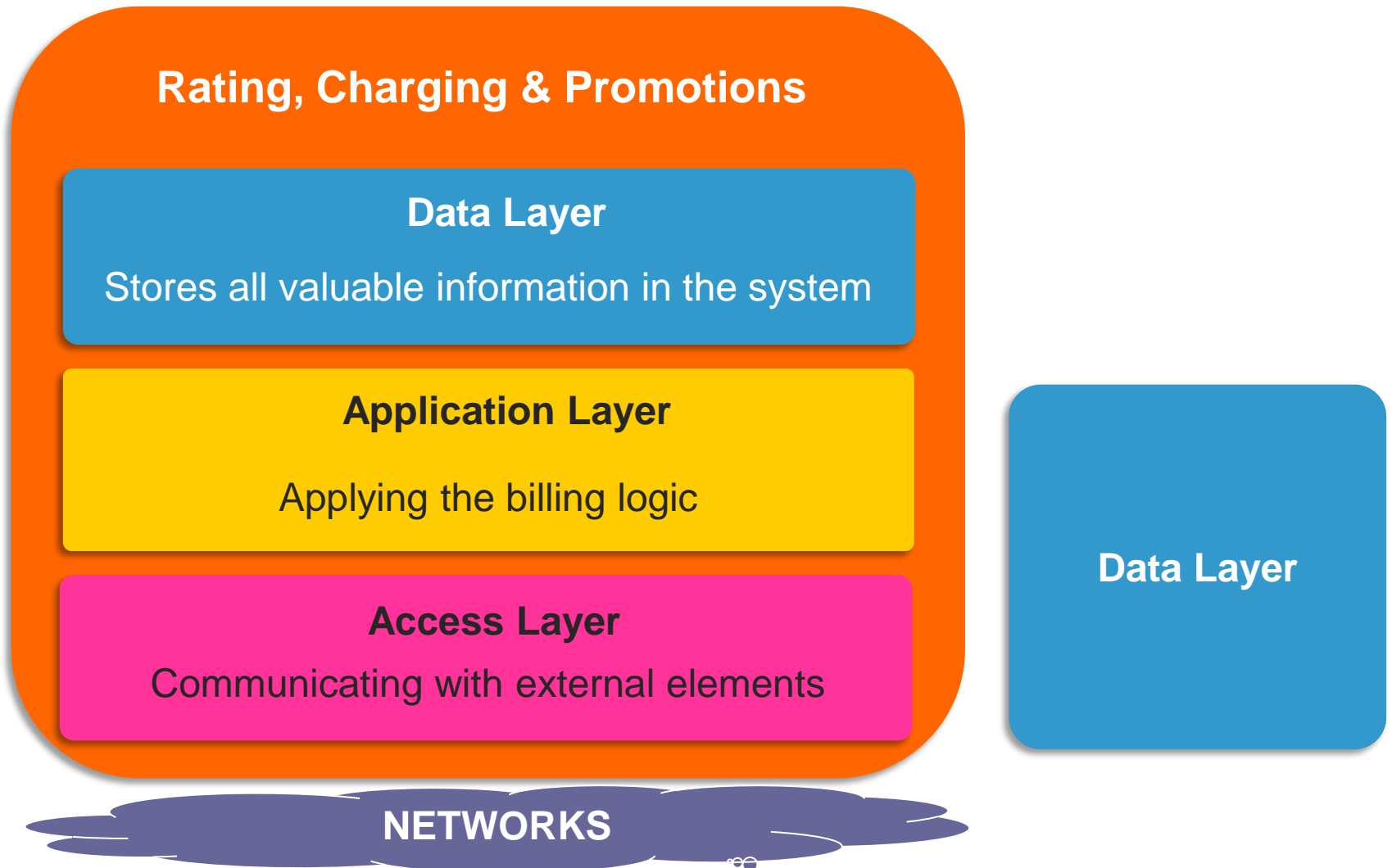
Single
Data
Model

Billing &
Financials

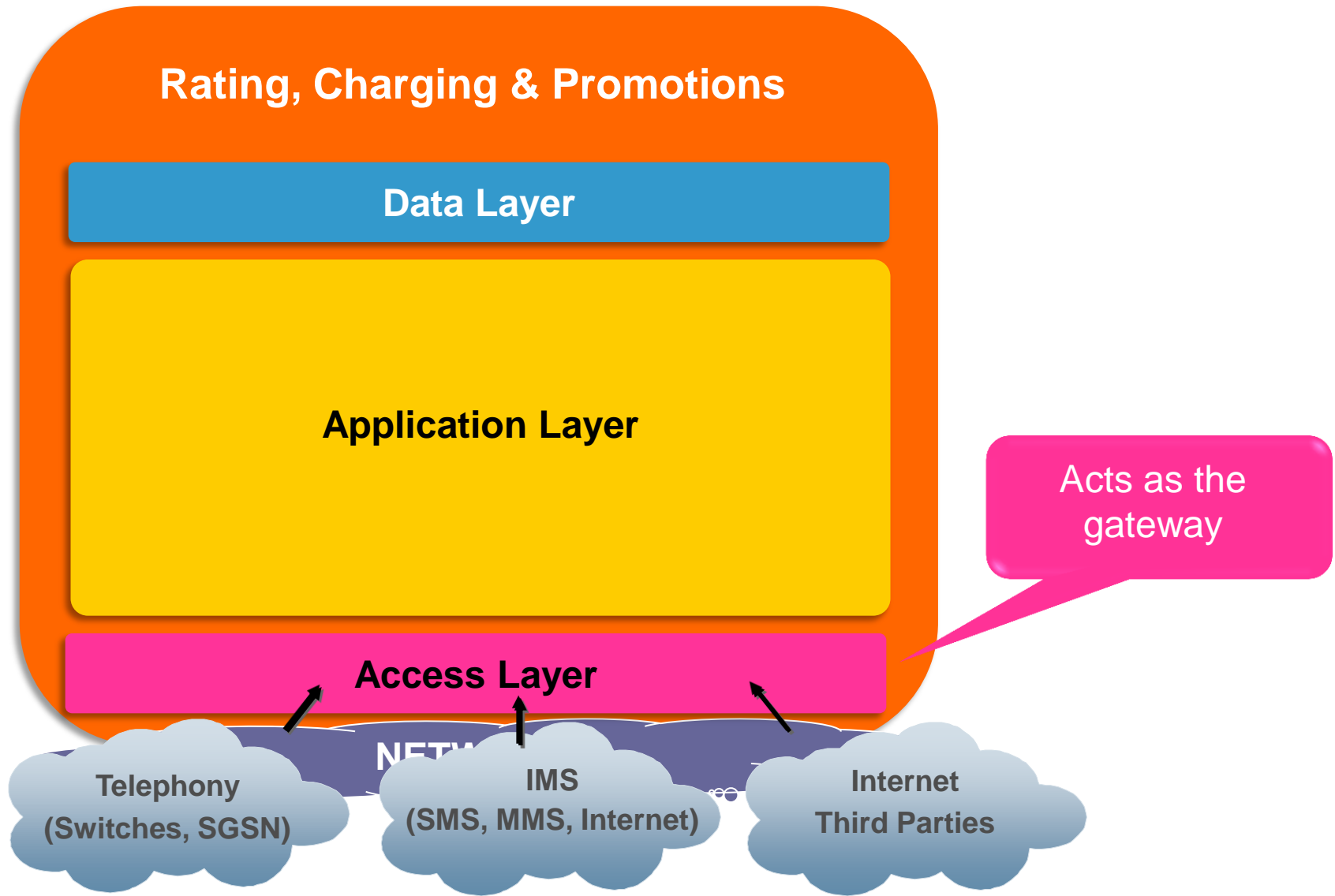
Product Catalog

Mediation &
Settlements

Real-Time (Online) Rating

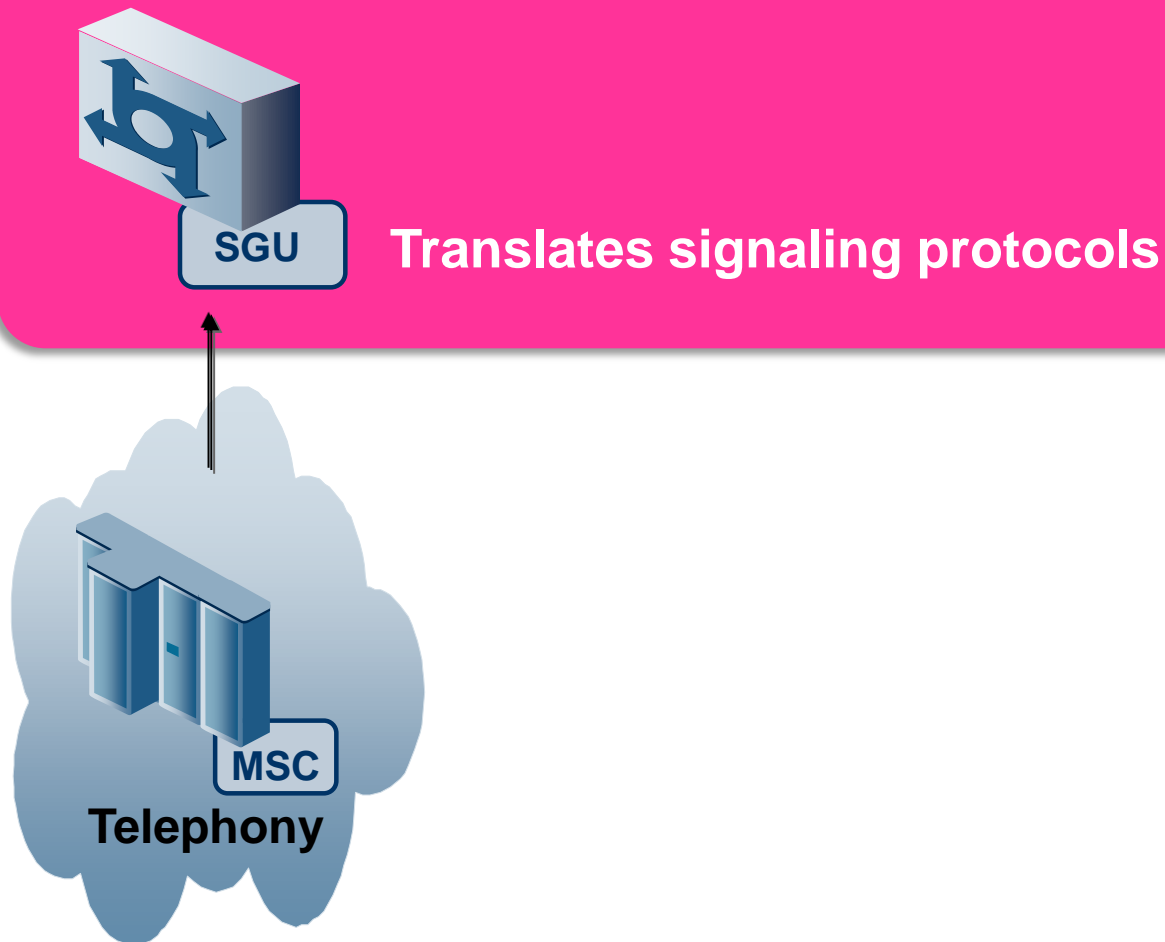


The Access Layer

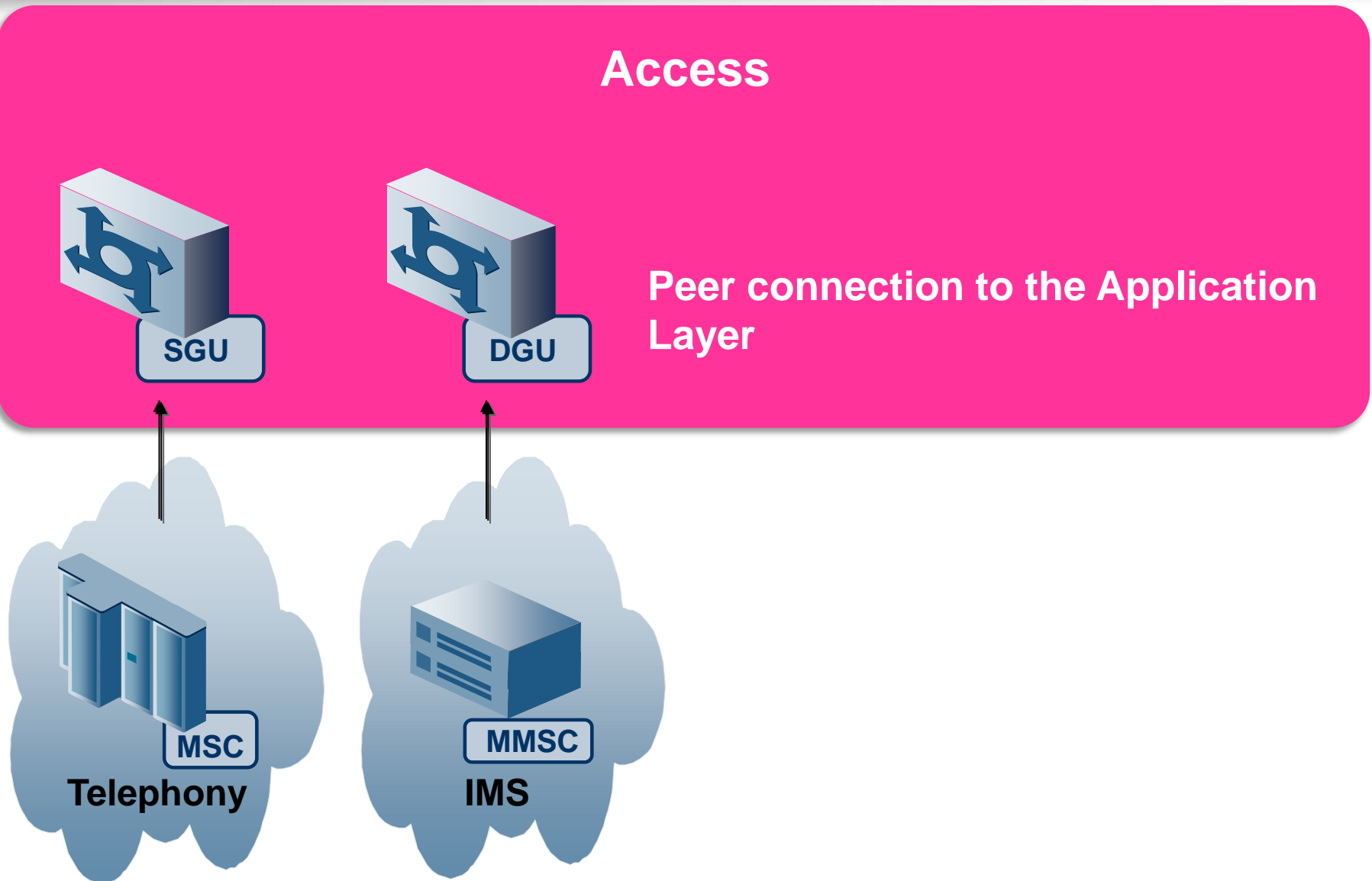


The Access Layer – the Signaling Path

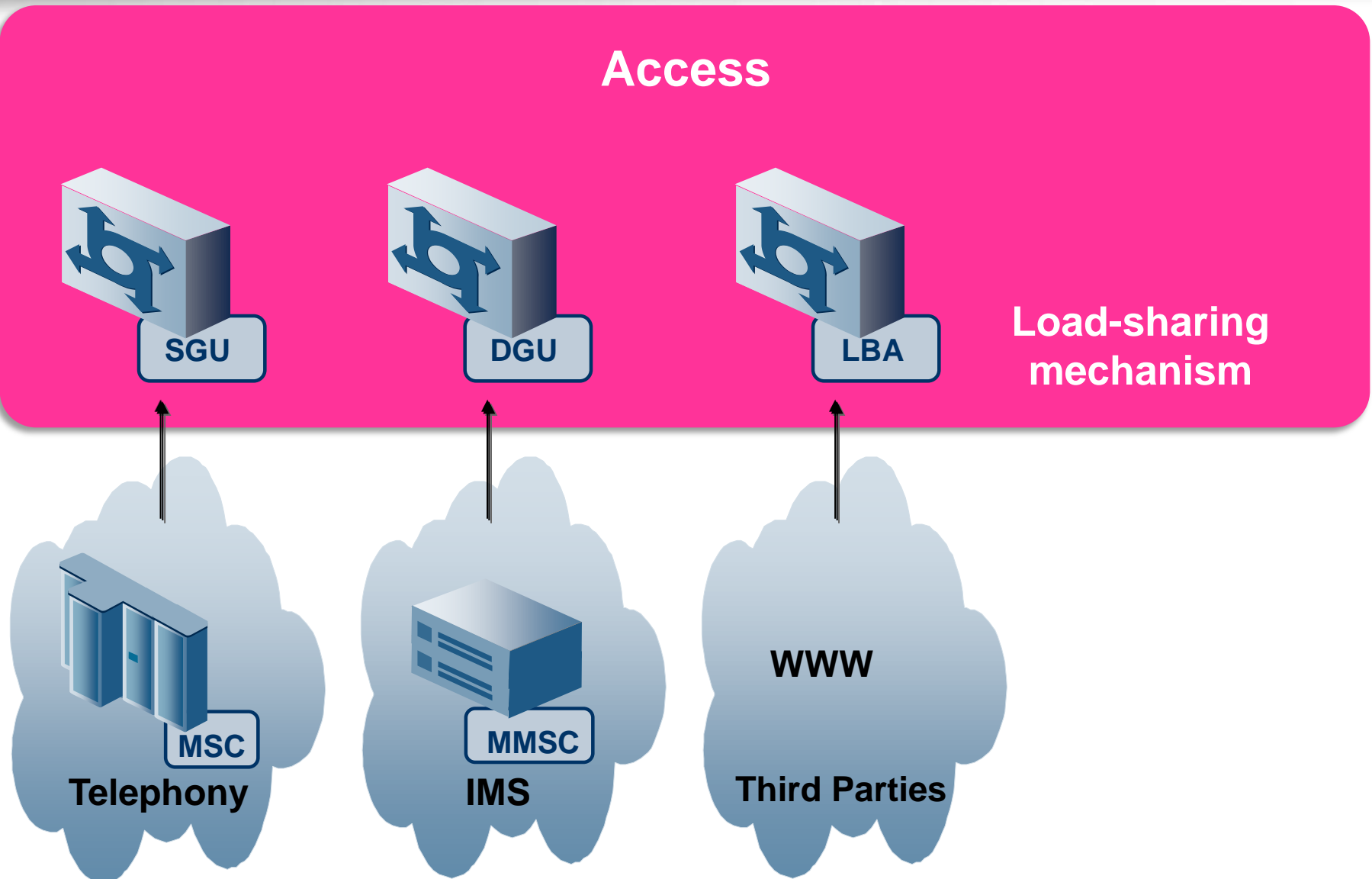
Access



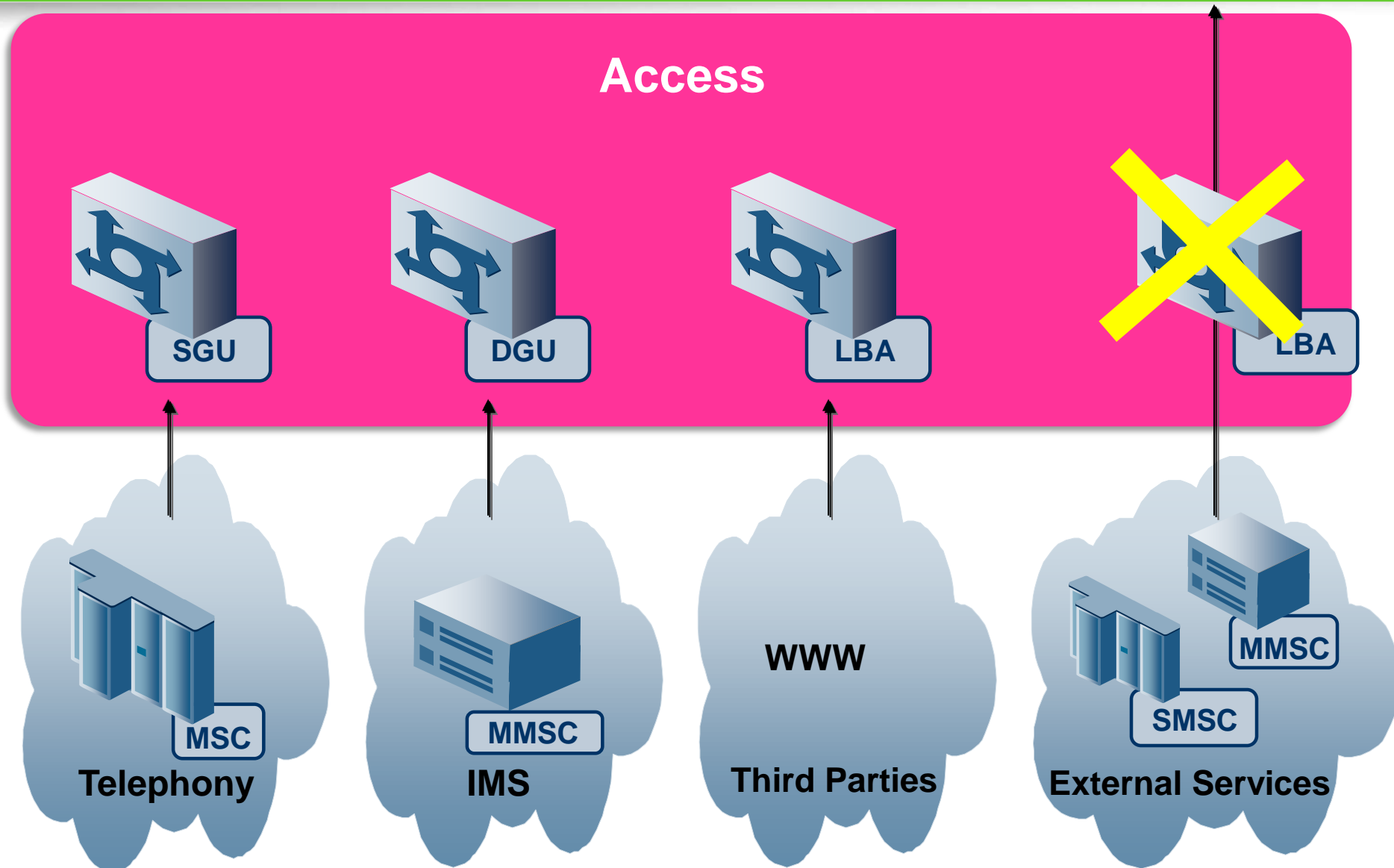
The Access Layer – the Diameter Path



The Access Layer – the OSA/Parlay Path



The Event-Charging Interface (ECI)

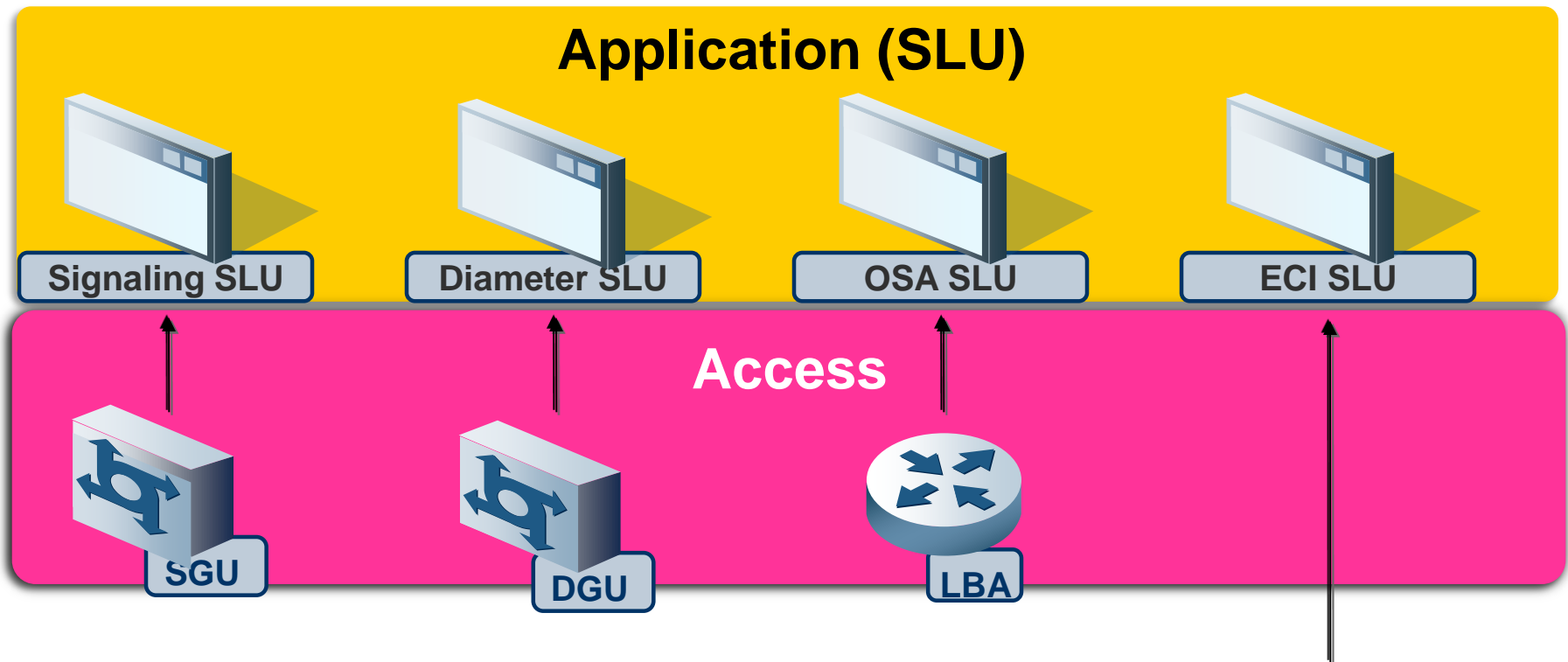


Review Questions

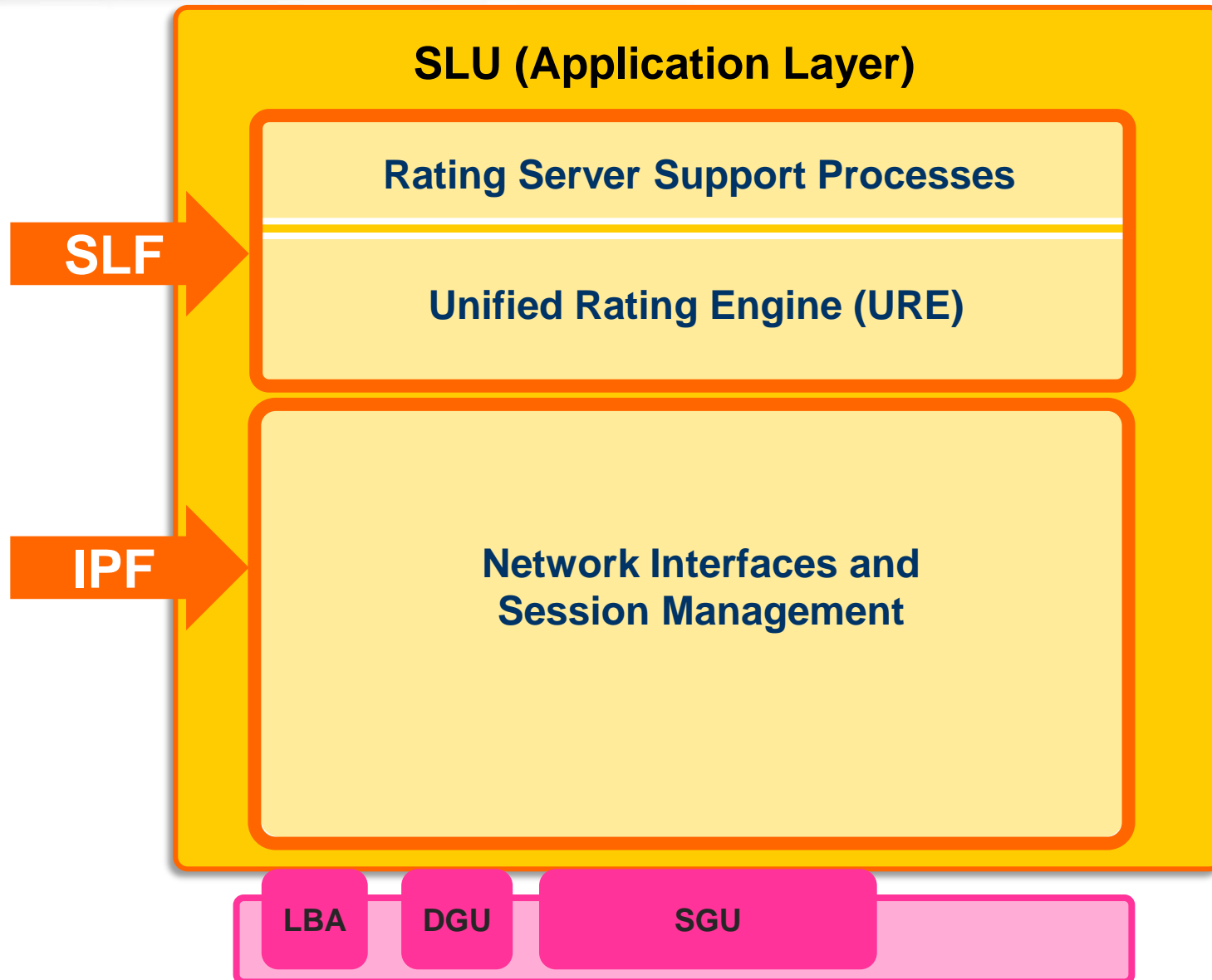
1. Which of the following access layer components is in charge of establishing voice calls and translating signaling protocols?
 - a. SGU
 - b. DGU
 - c. LBA
 - d. ECI
2. Which of the services allows an external system to validate and debit the accounts of subscribers
 - a. SGU
 - b. DGU
 - c. OSA/Parlay
 - d. ECI
3. Which of the following access layer components is in charge of supporting the Diameter protocol that is used to rate a variety of value-added IMS services.
 - a. SGU
 - b. DGU
 - c. OSA/Parlay
 - d. ECI

The Application Layer

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



Service Logic Unit (SLU)



Signaling SLU

Signaling SLU

SLU (Application Layer)

Rating Server Support Processes

Unified Rating Engine (URE)

Call Processor

SMS

GPRS

USSD

SGU

Diameter SLU

Diameter SLU

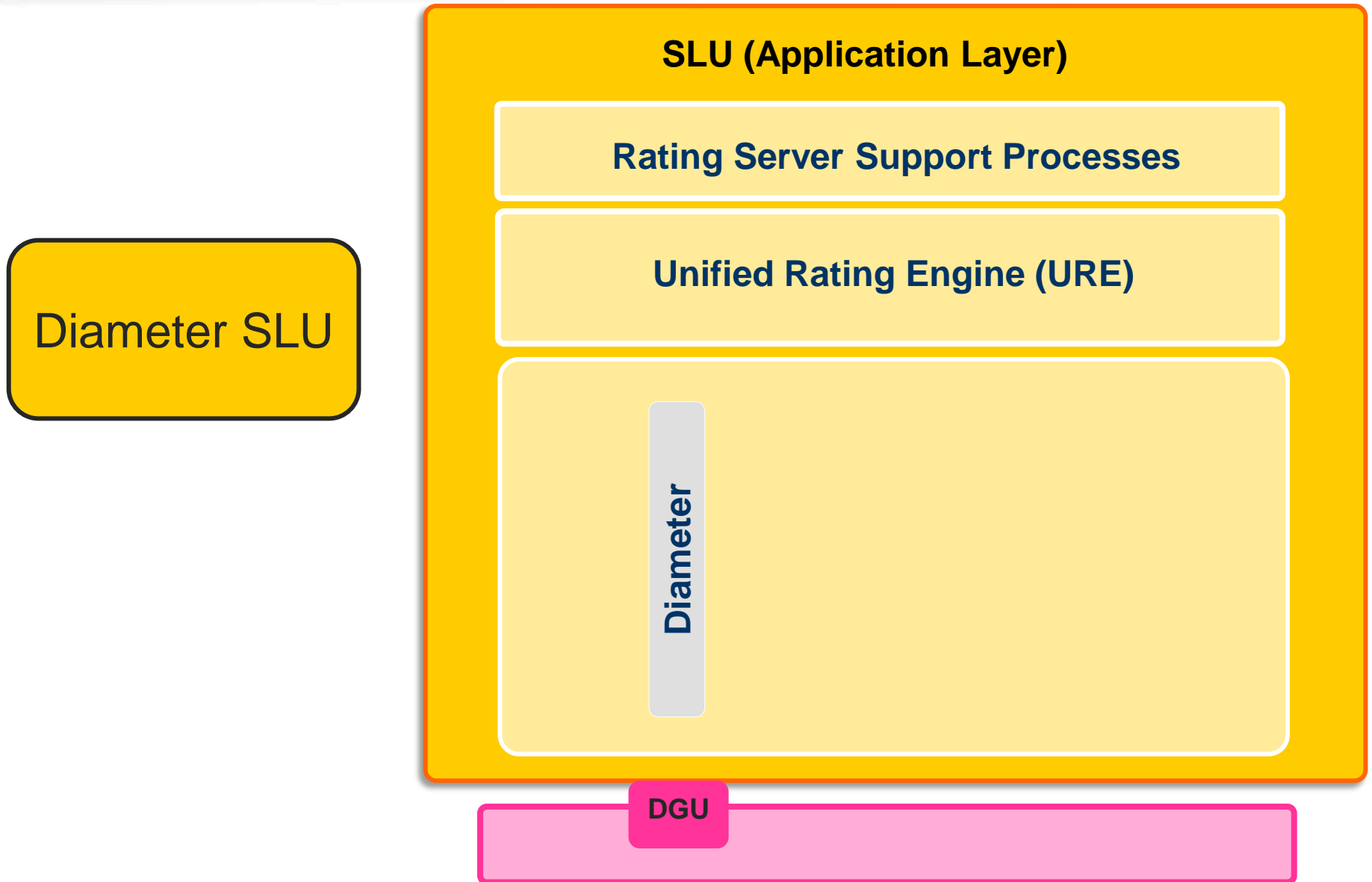
SLU (Application Layer)

Rating Server Support Processes

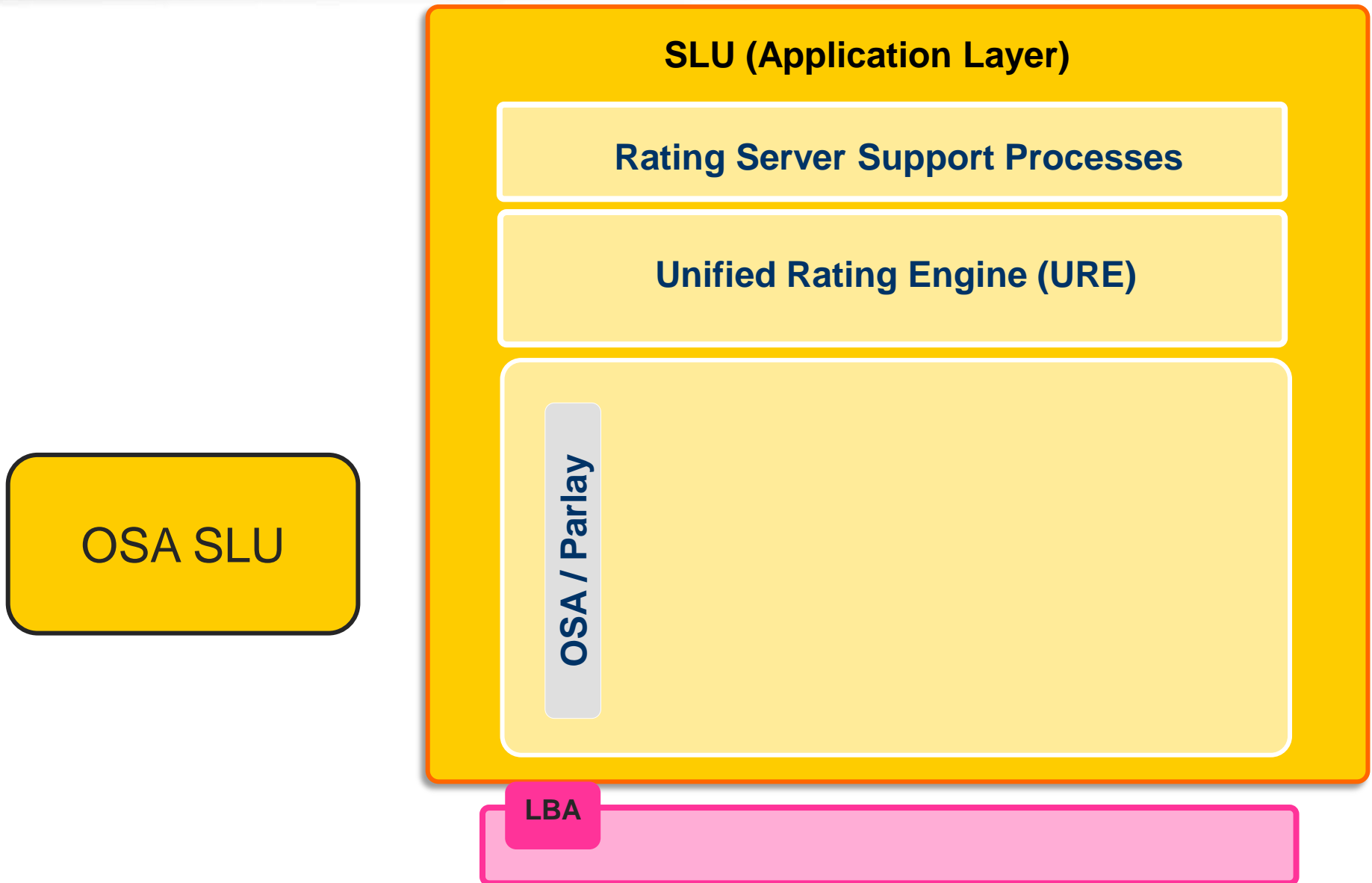
Unified Rating Engine (URE)

Diameter

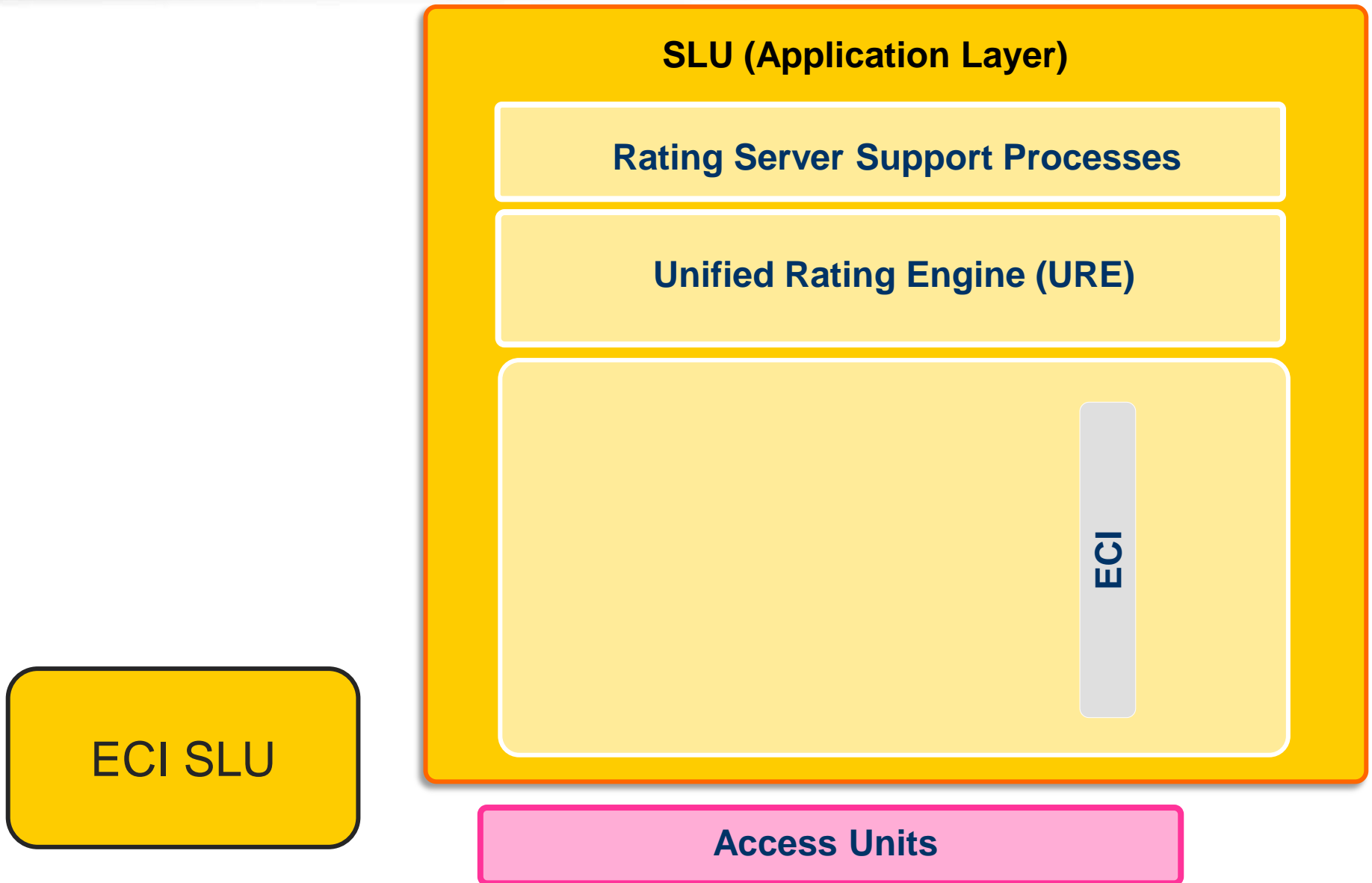
DGU



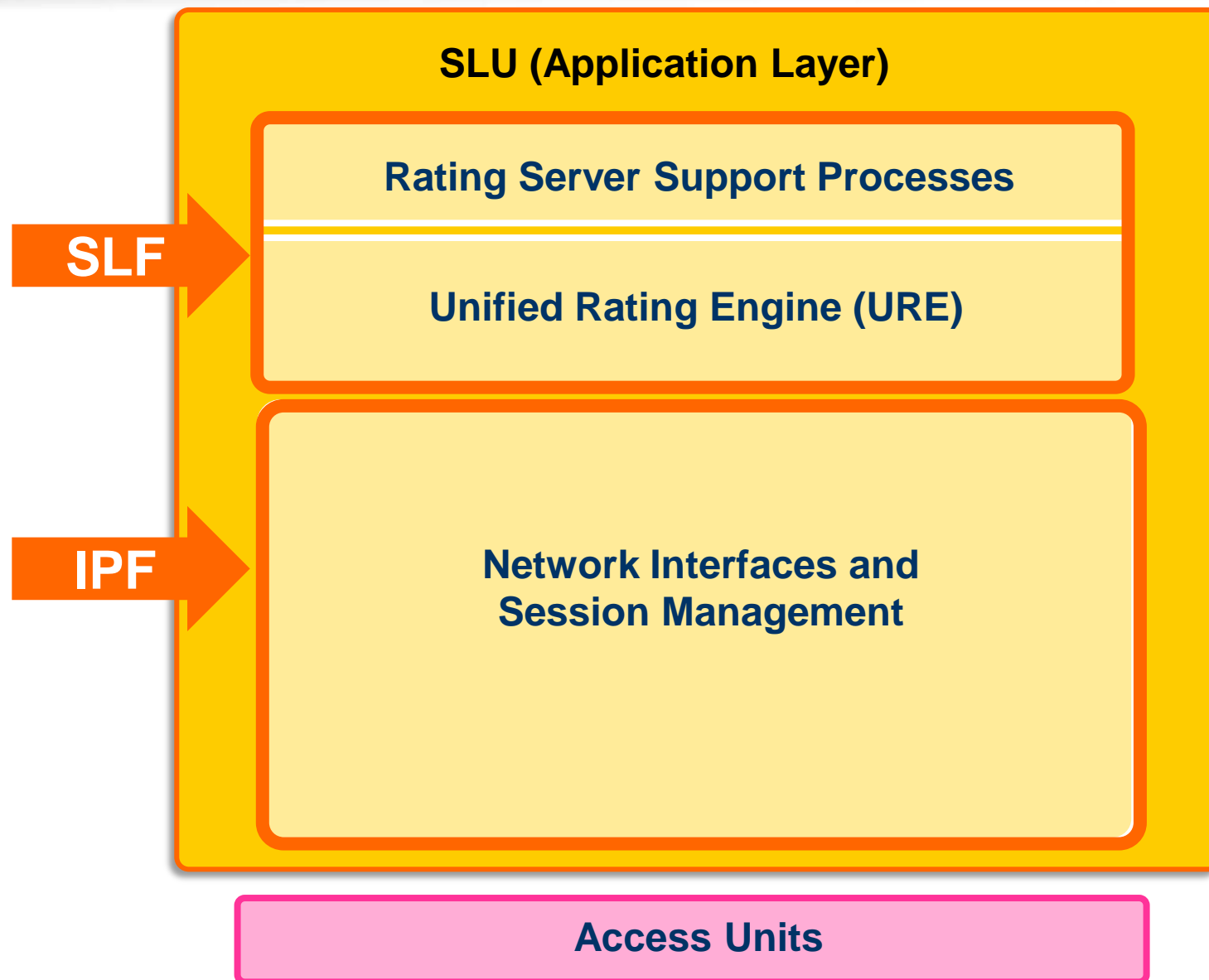
OSA SLU



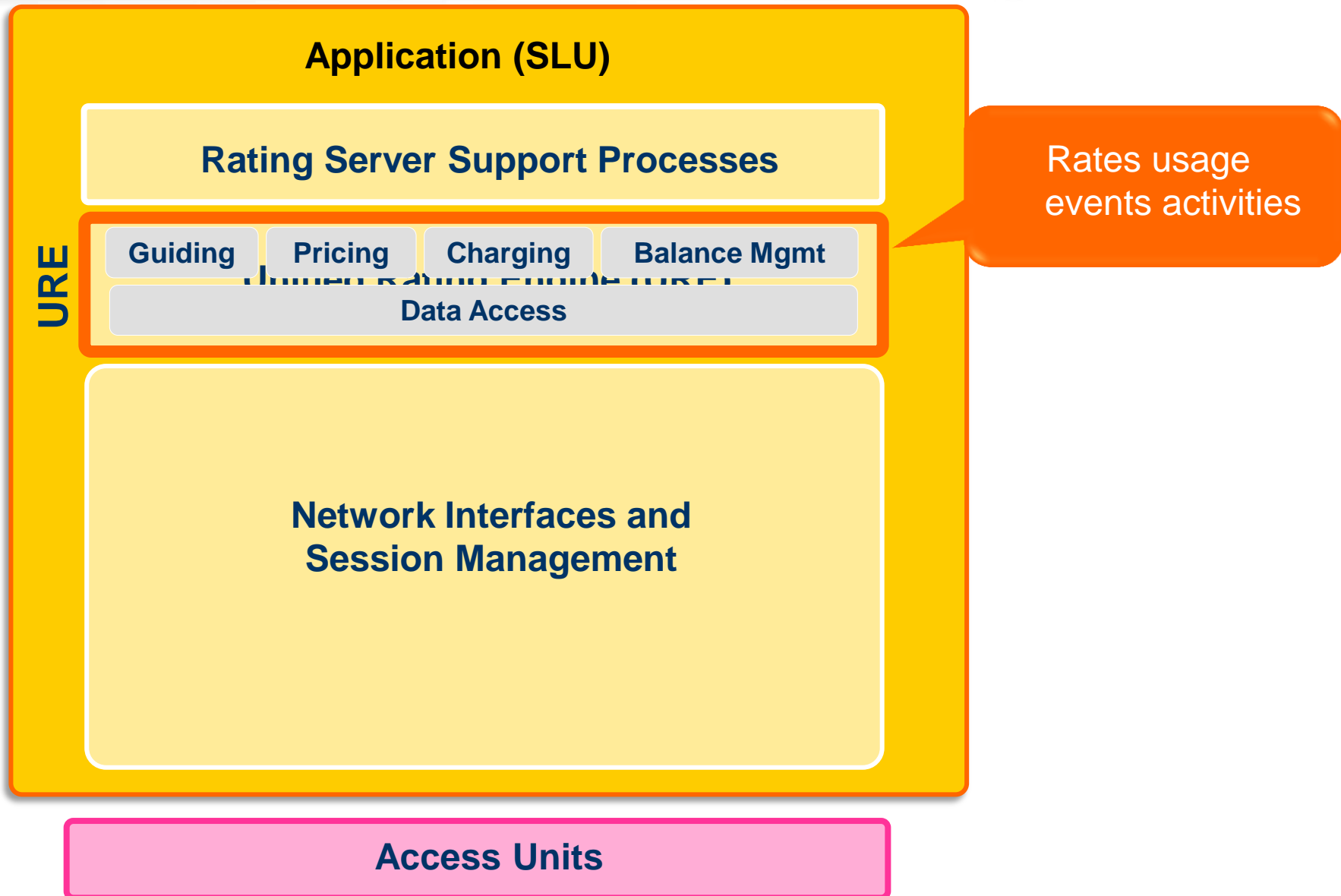
ECI SLU



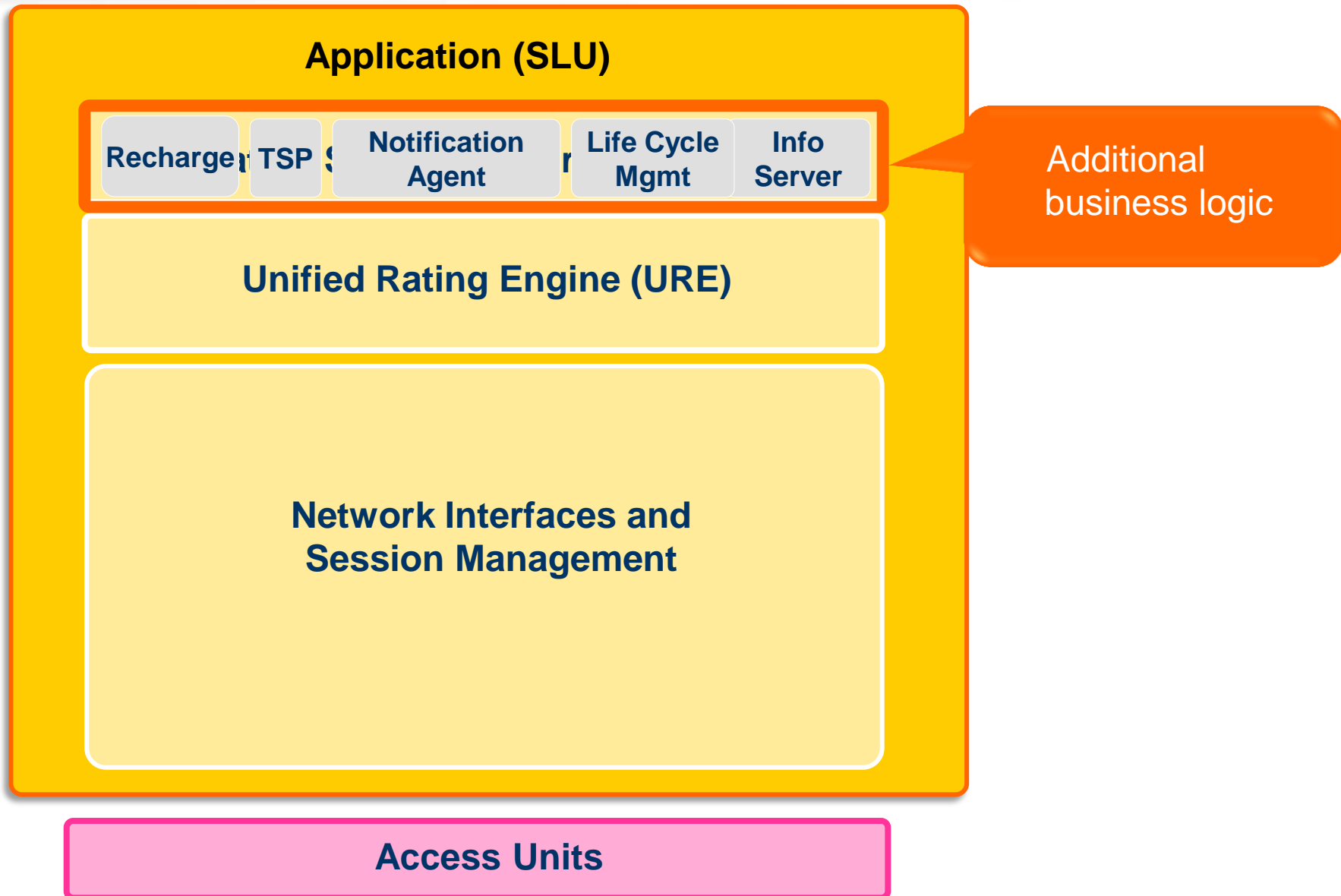
Where We Are



Unified Rating Engine (URE)



Rating Server Support Processes



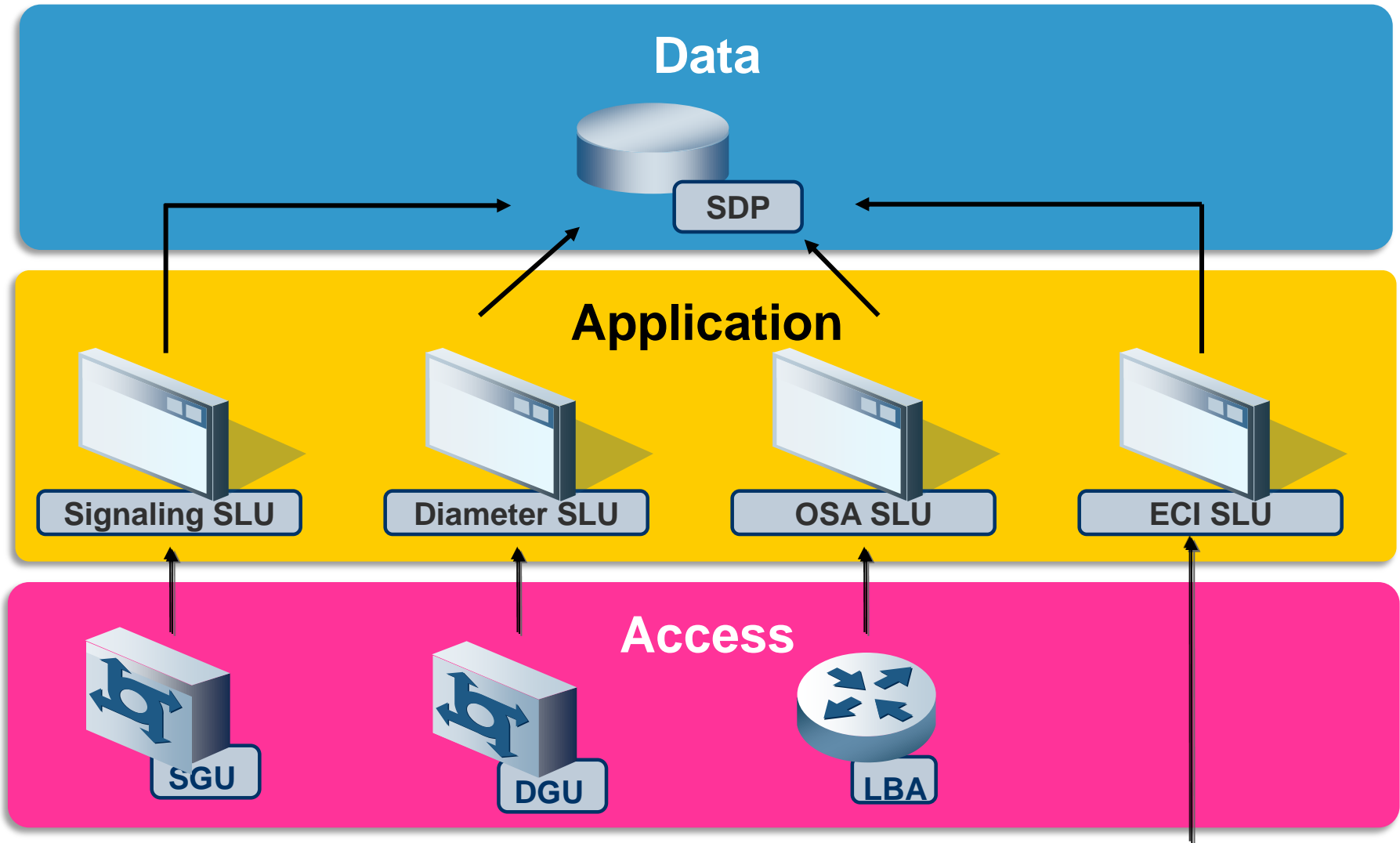
Review Questions

1. Which of the following statements is NOT true regarding the SLU?
 - a. The SLU is the brain of the system, implementing the actual rating and charging logic.
 - b. The SLU identifies the user, the activity, and the payment type
 - c. The same SLU is used for all protocol types.
 - d. The SLU queries and updates the Rating database

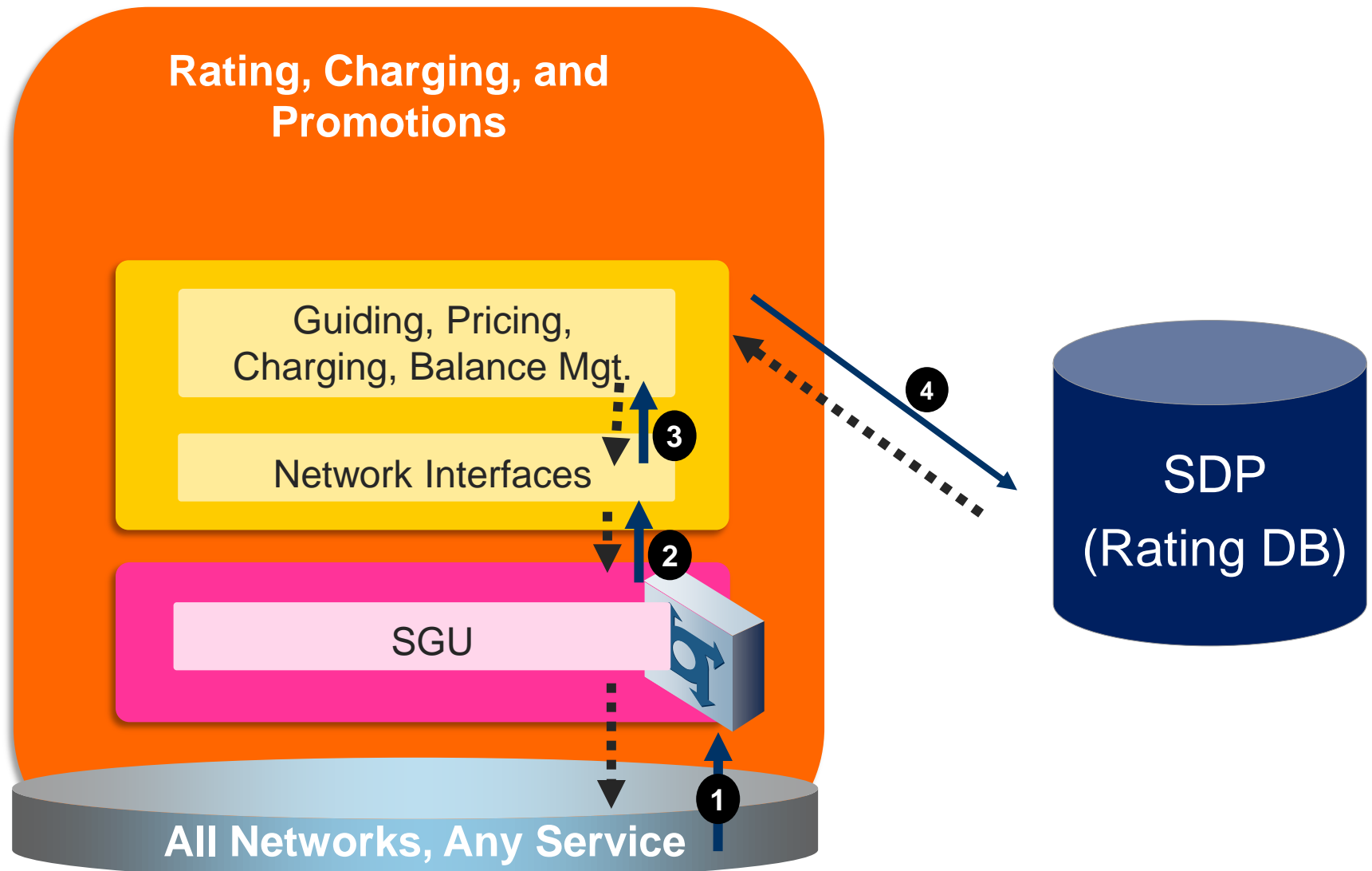
2. What is name of the SLU part that connects and communicates with the Access layer units such as the SGU and DGU?
 - a. Service Logic Function (SLF)
 - b. Intelligent Periphery Function (IPF)
 - c. Unified Rating Engine (URE)
 - d. Rating Server Support Processes

The Data Layer

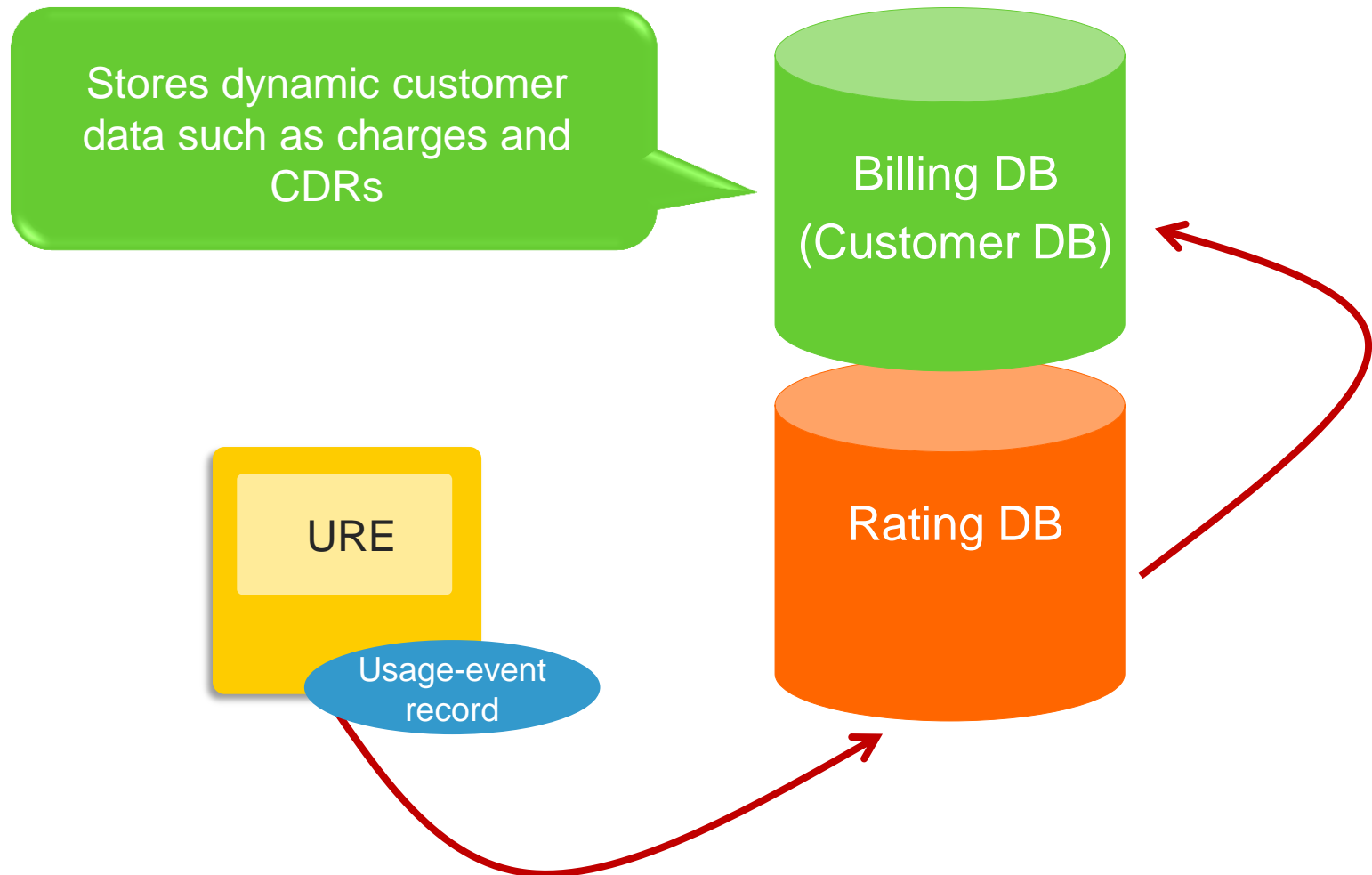
Stores all information that is required for rating operations



Basic Real-Time Prepaid Flow



Rating DB and Billing DB



Summary

This lesson has covered:

- Online process components:
 - Access Layer
 - Application Layer
 - Data Layer
- Basic online prepaid flow