



INTELLIGENT COMMUNICATIONS

# Avaya Aura™ Application Sequencing

## *Industry Analyst Briefing Series*

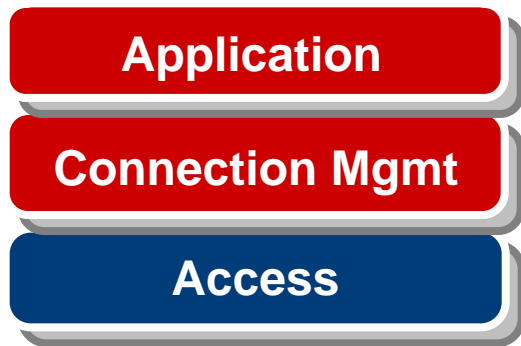
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November 19, 2009

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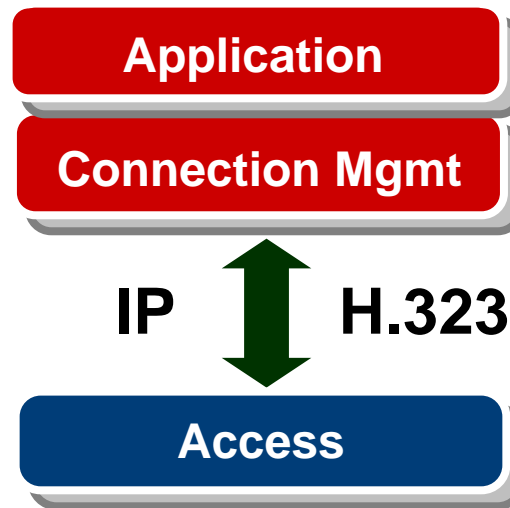
# IP Multimedia Subsystems (IMS)

## *Past*



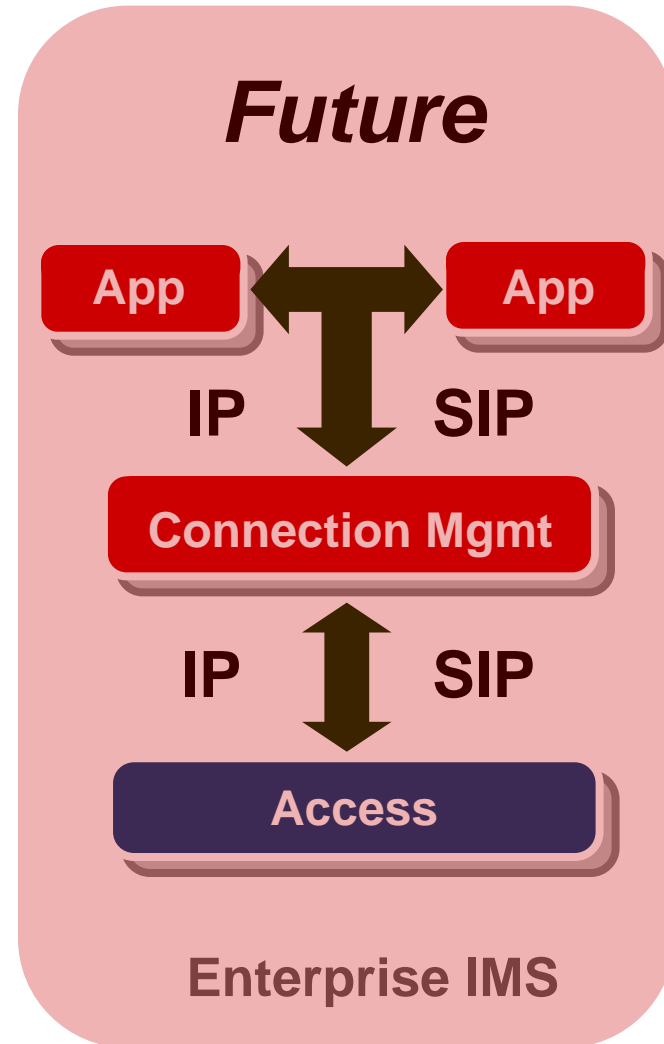
Legacy TDM

## *Present*



IP Telephony

## *Future*

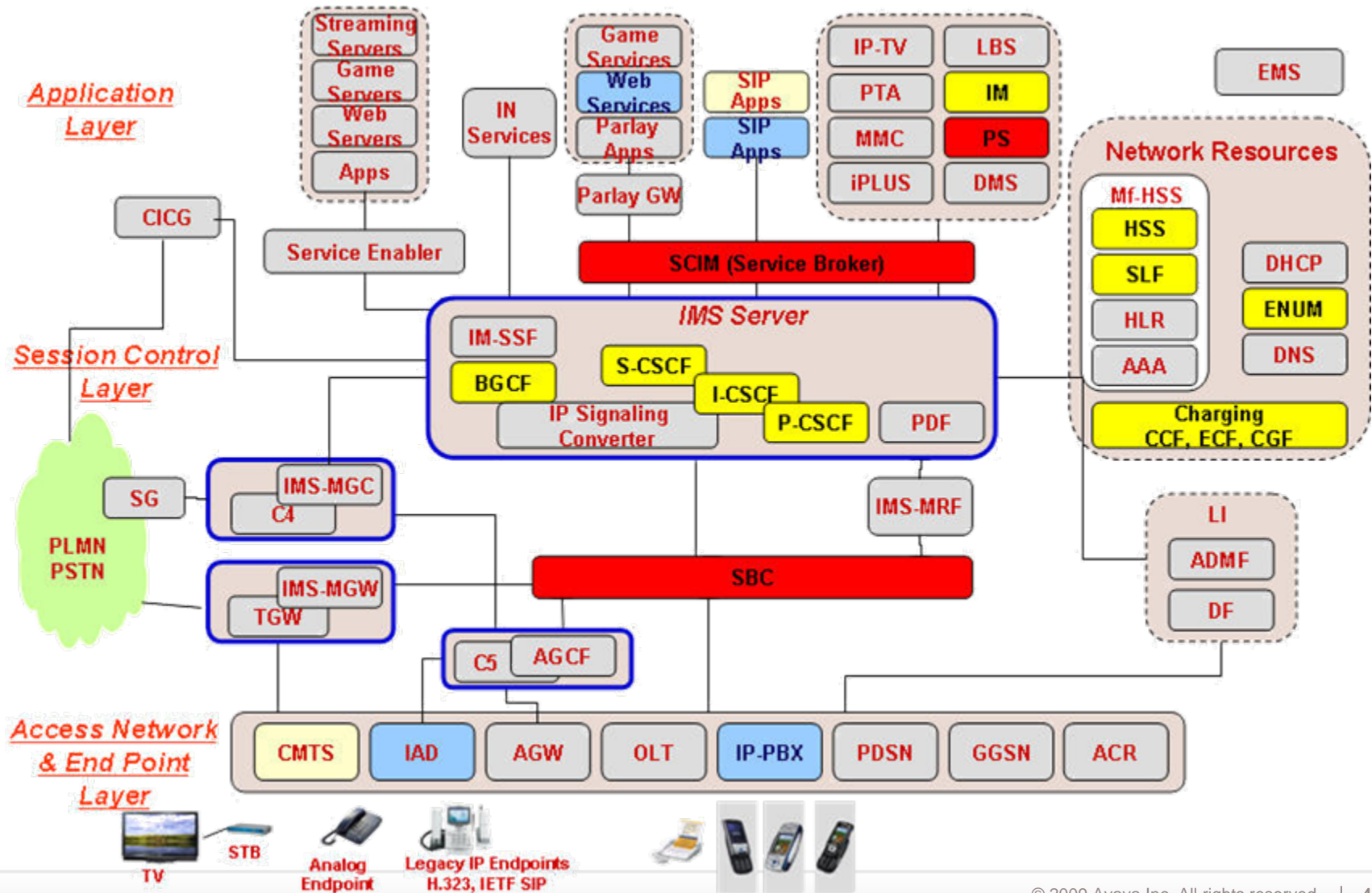


Enterprise IMS

# IP Multimedia Subsystems (IMS)

- ▶ IMS Standard was originally defined in 1999; IP Multimedia Subsystems (IMS) – 3GPP Standard
- ▶ IMS was intended to facilitate Service Providers in combining their wireline and wireless operations
- ▶ IMS is being used by Service Providers to implement the Quad-Play (e.g. combine their broadband, cable, wireless, and wireline operations)
- ▶ IMS allows Service Providers to give their subscribers a very feature rich experience independent of current location and device(s)
- ▶ Benefits
  - Layered Architecture
  - Decoupling of Users from their Devices
  - Loose Coupling of Users from their Services
  - Proven Scalability & Reliability
  - Multi-Vendor Support

# IP Multimedia Subsystems (IMS)

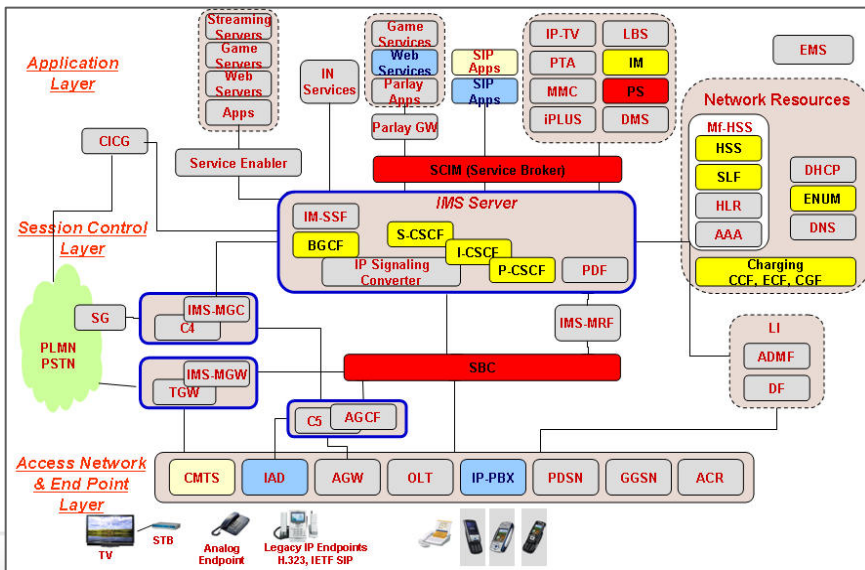


# IP Multimedia Subsystems (IMS) : IMS vs. E-IMS

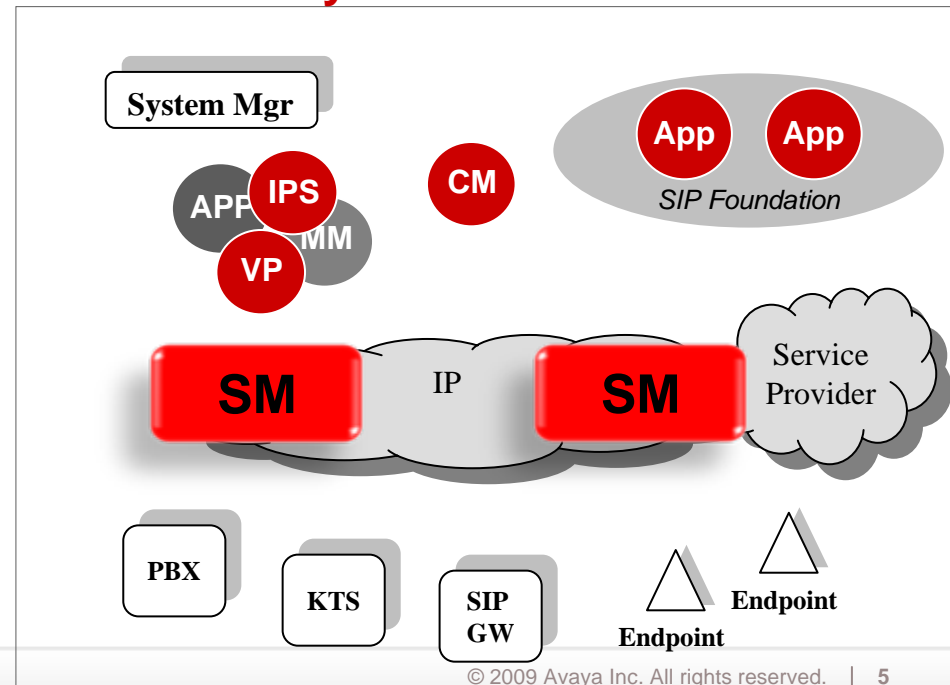
- ▶ Take proven IMS principles and appropriate SIP standards from IMS without compromising functionality, scalability, or reliability
- ▶ Three tier architecture, decouples users & access points from applications



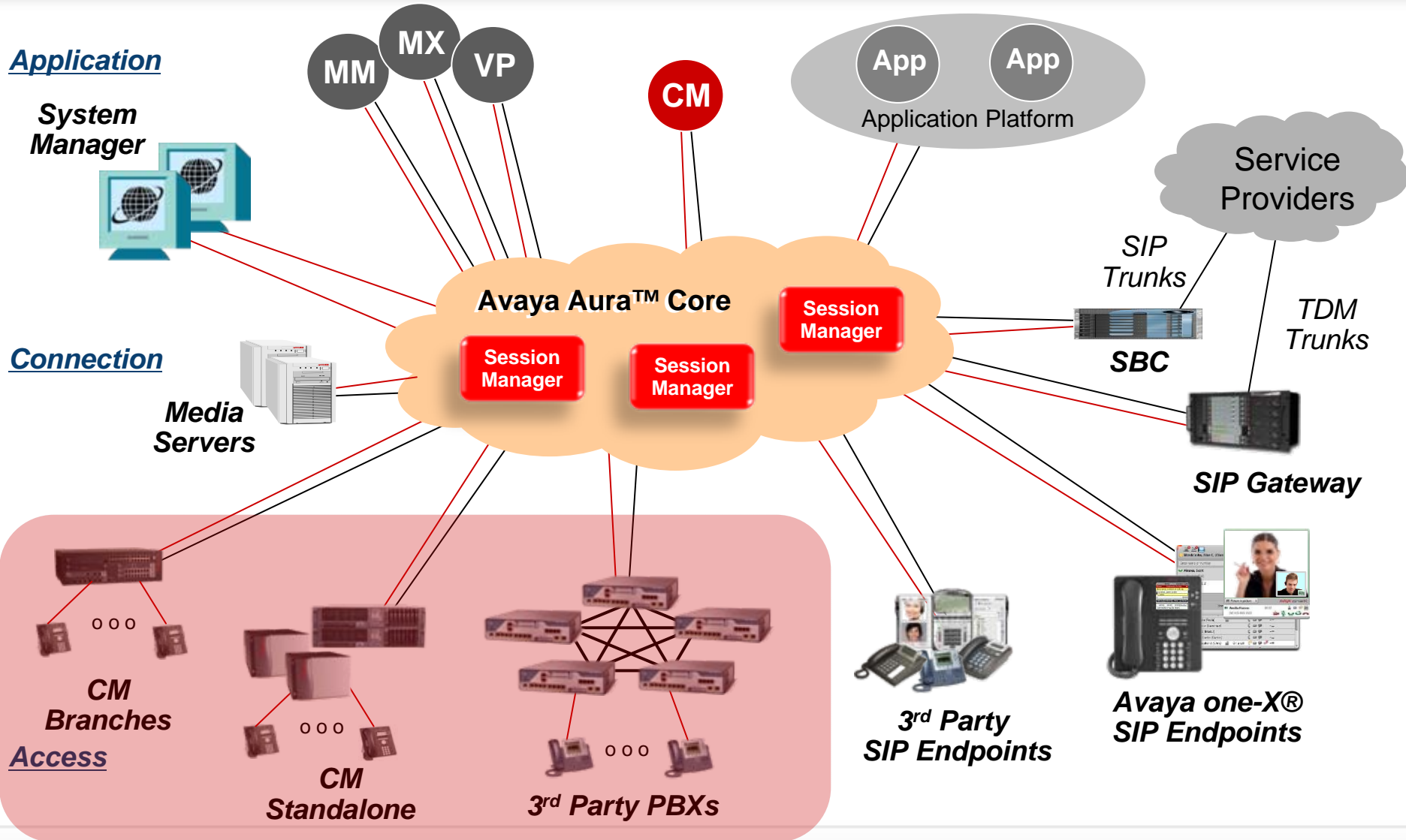
## IMS defined by 3GPP



## Avaya E-IMS Architecture

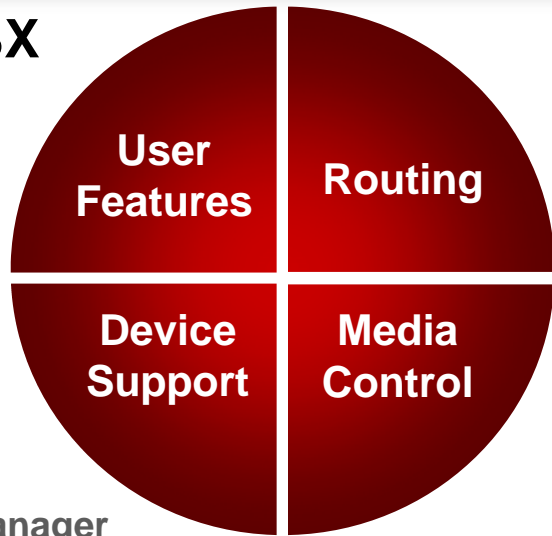


# Defining an "Access Element PBX"

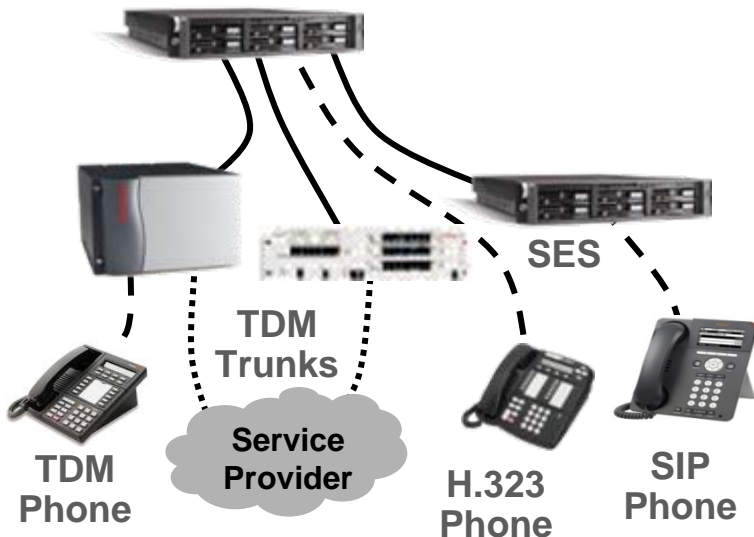


# Defining an “Access Element PBX”

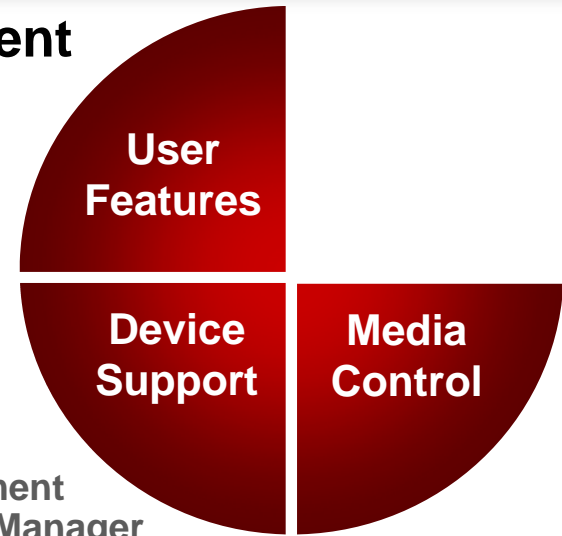
## Traditional PBX



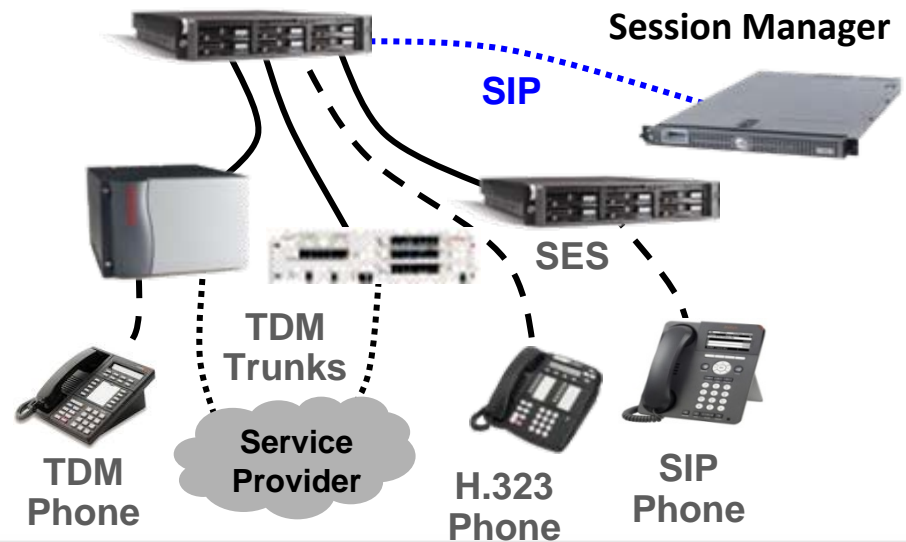
Traditional Communication Manager



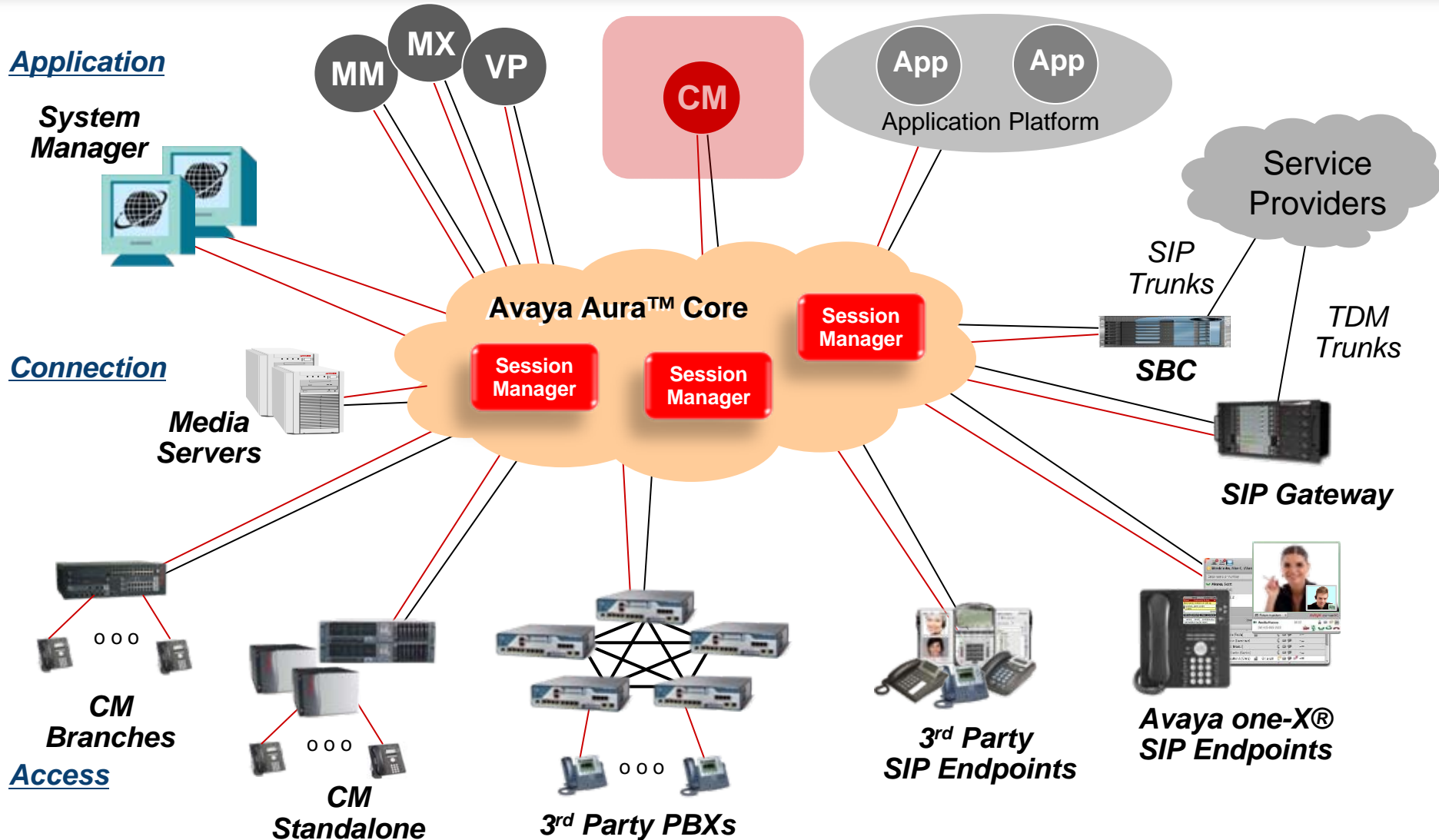
## Access Element PBX



Access Element Communication Manager

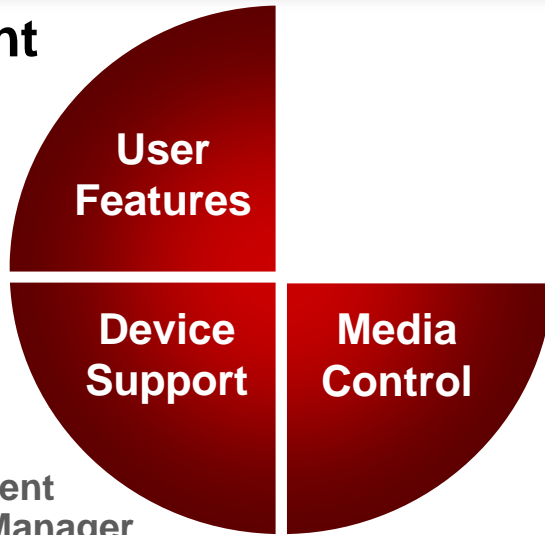


# Defining "CM as a Feature Server"

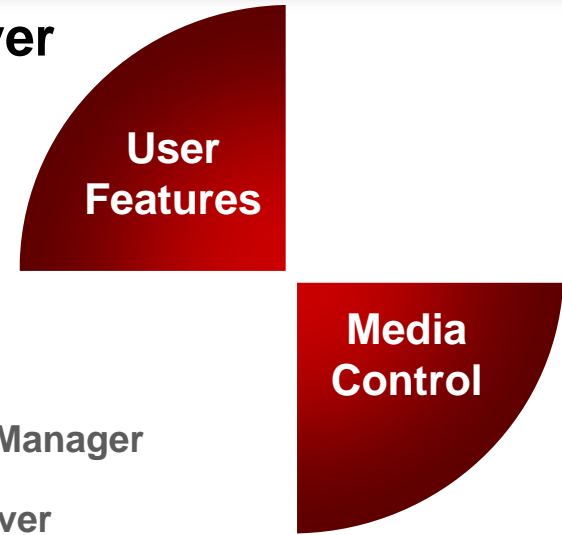


# Defining "CM as a Feature Server"

## Access Element PBX

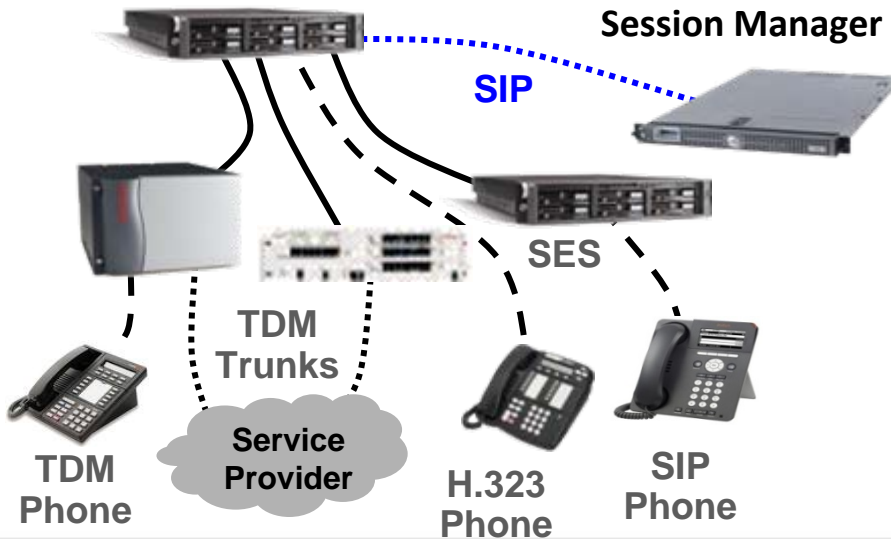


## Feature Server

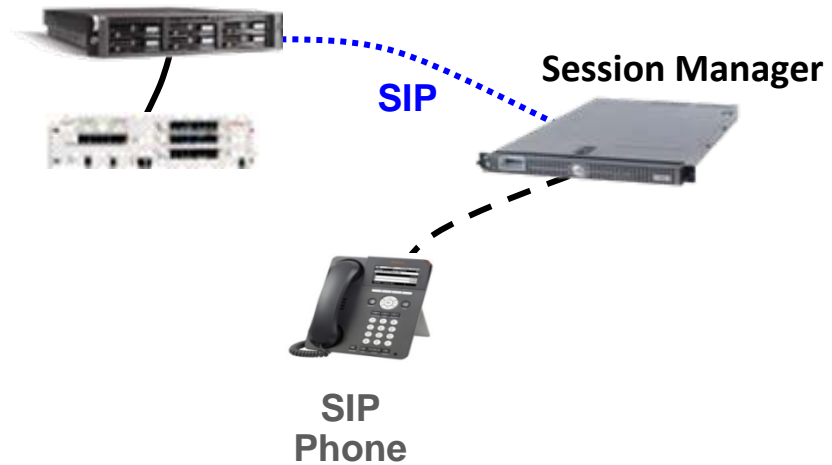


### Access Element Communication Manager

### Session Manager



### Communication Manager as a Feature Server

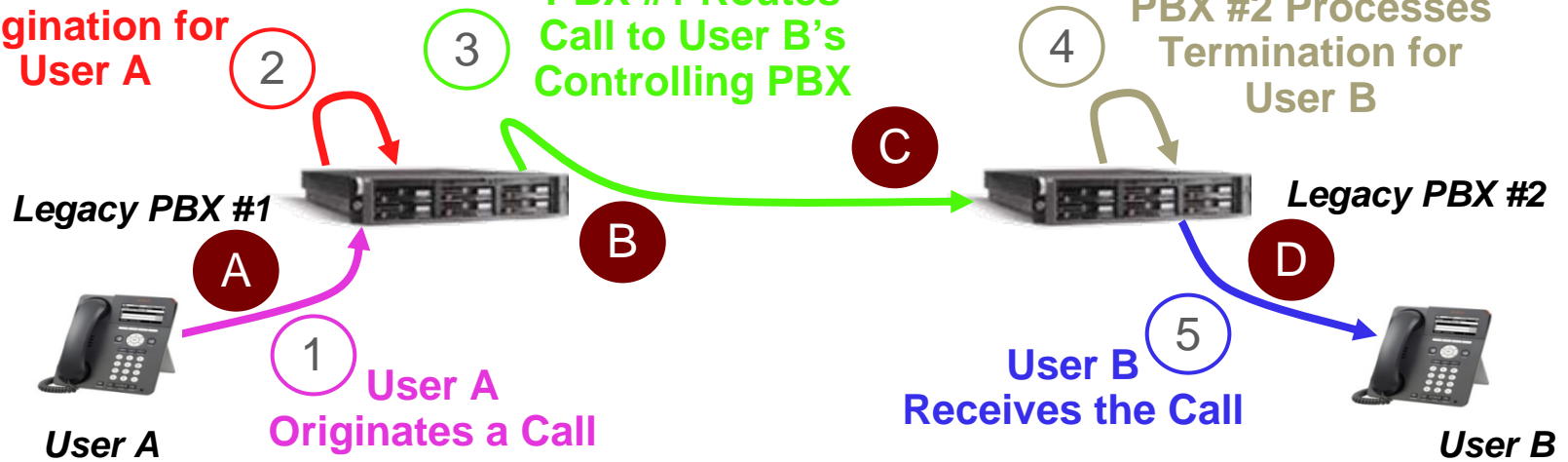


# Defining “CM as a Feature Server” : The Half-Call Model

**PBX #1 Processes  
Origination for  
User A**

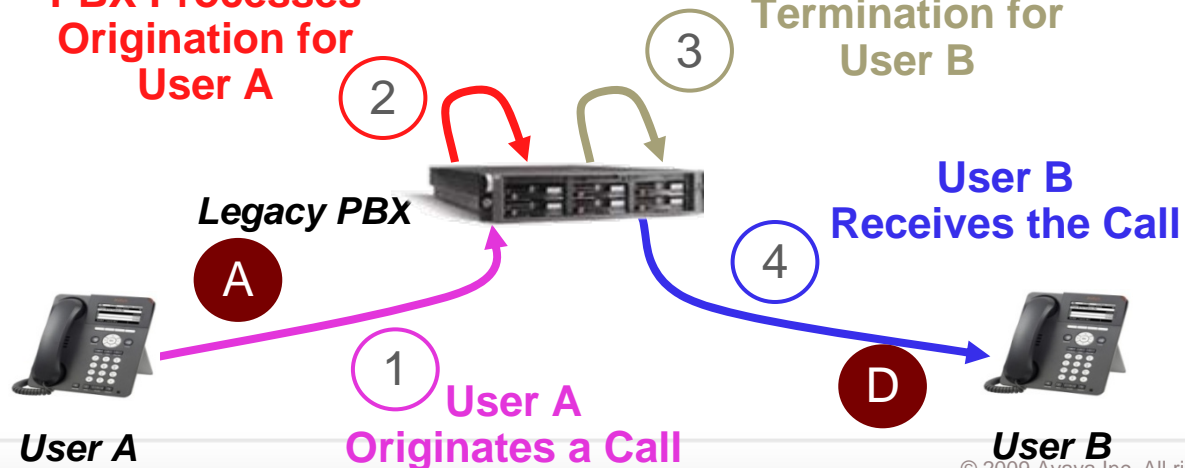
**PBX #1 Routes  
Call to User B's  
Controlling PBX**

**PBX #2 Processes  
Termination for  
User B**

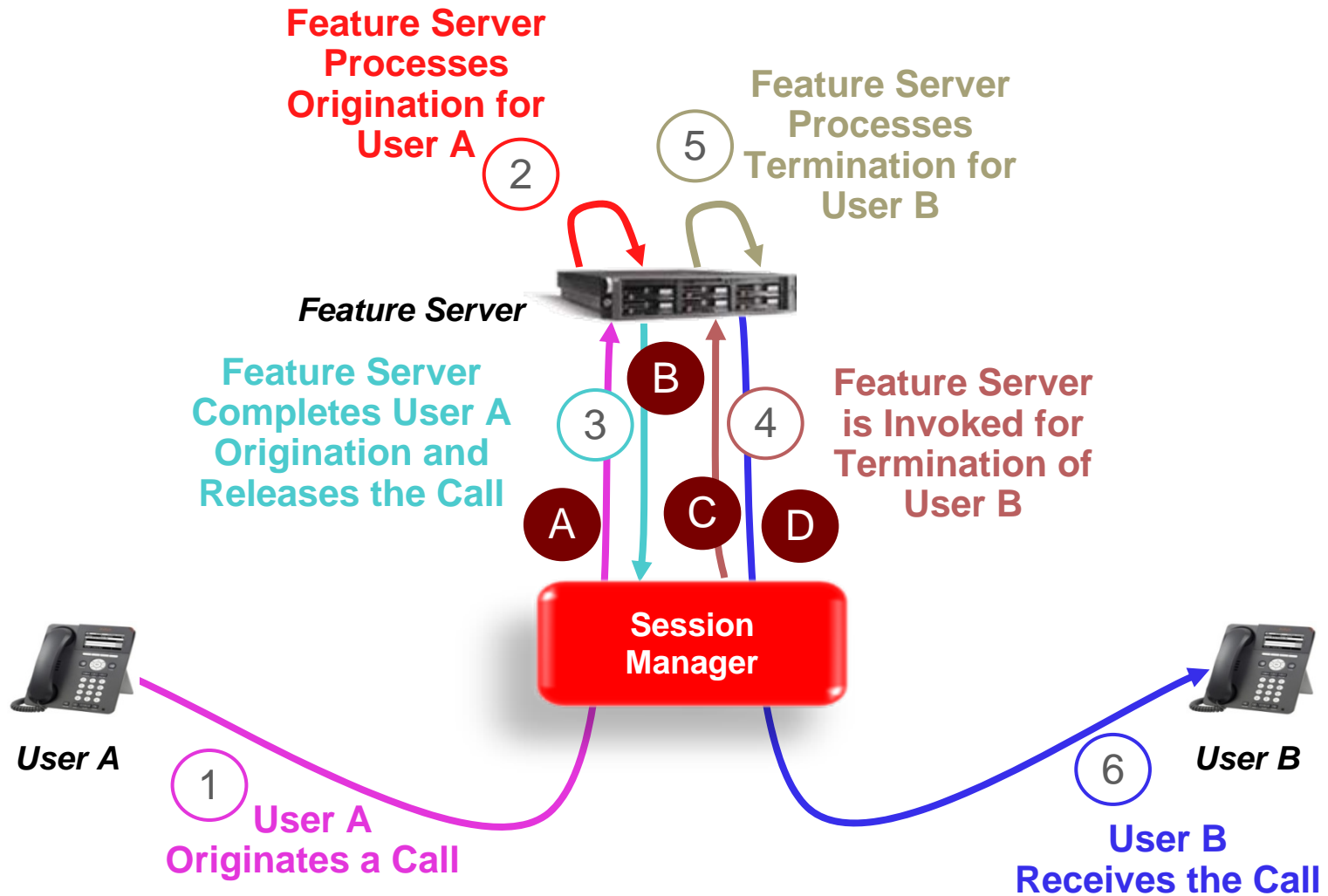


**PBX Processes  
Origination for  
User A**

**PBX Processes  
Termination for  
User B**



# Defining “CM as a Feature Server” : The Half-Call Model



# Defining “Sequenced Applications” : SIP-ISC (IMS Service Control)

## Without SIP-ISC,

**INVITE**  
**ReqURI: userA@avaya.com**  
**PAI: userB@avaya.com**

*By convention, the PBX will invoke Termination Processing for User A (the ReqURI:)*



## With SIP-ISC,

**INVITE**  
**ReqURI: userA@avaya.com**  
**PAI: userB@avaya.com**  
**Route: ..... <IMS TAG>**

*With the IMS TAG information, the Feature Server will either invoke Termination Processing for User A (the ReqURI:) OR invoke Origination Processing for User B (the PAI:)*



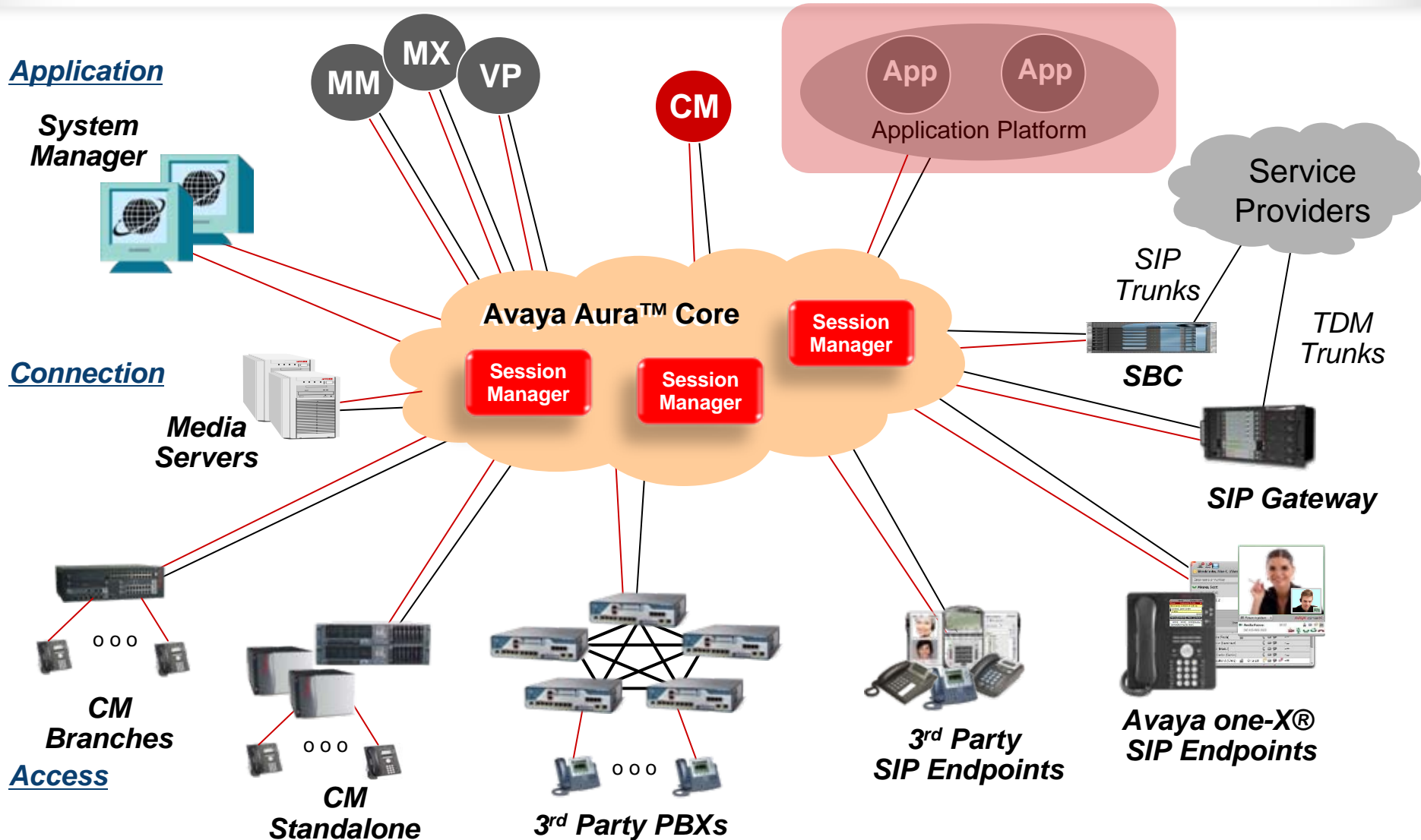
*In addition, the Feature Server can use these IMS TAGs to inform the network what processing was completed (origination or termination)*

# Defining “Sequenced Applications”

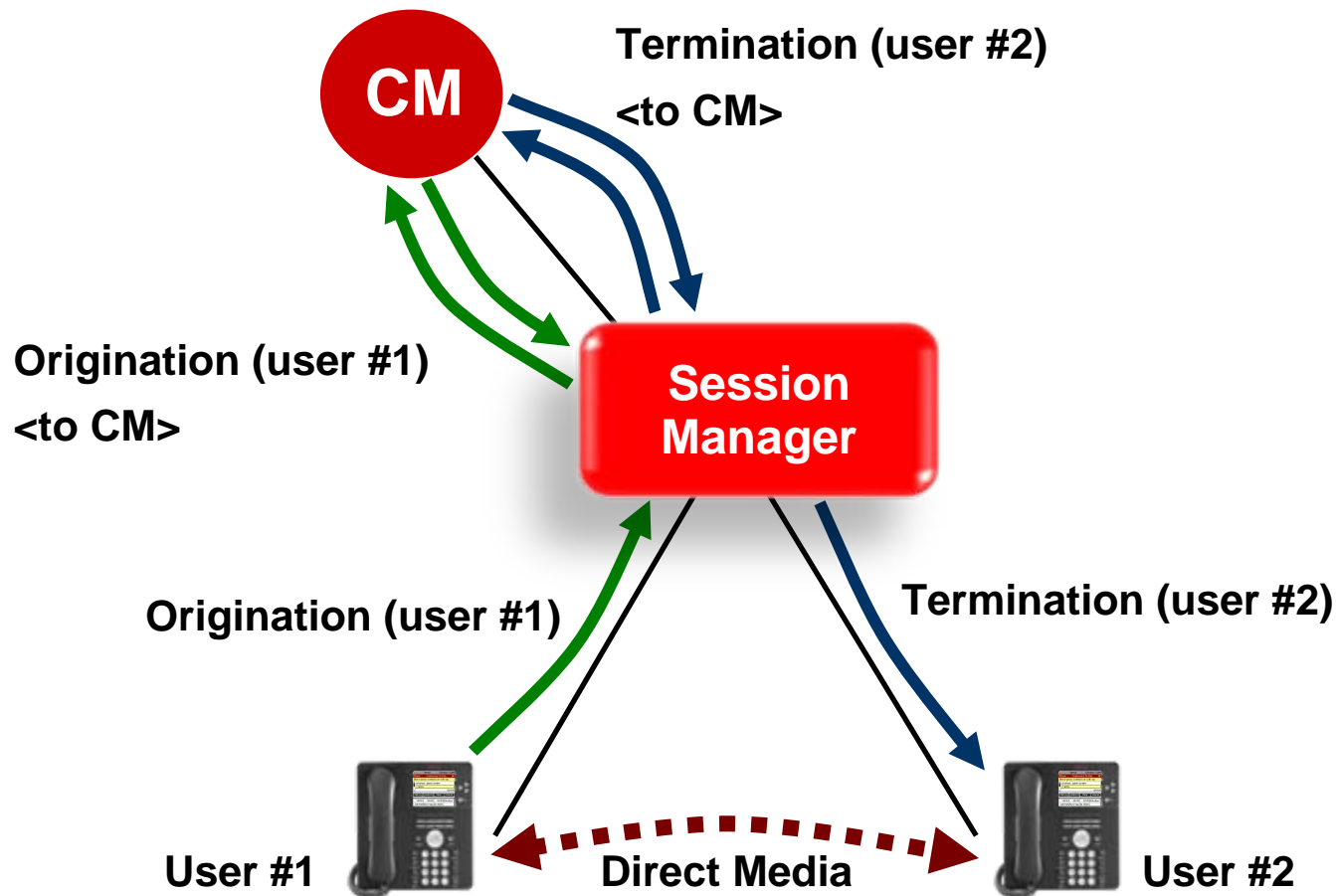
**AVAYA**

INTELLIGENT COMMUNICATIONS

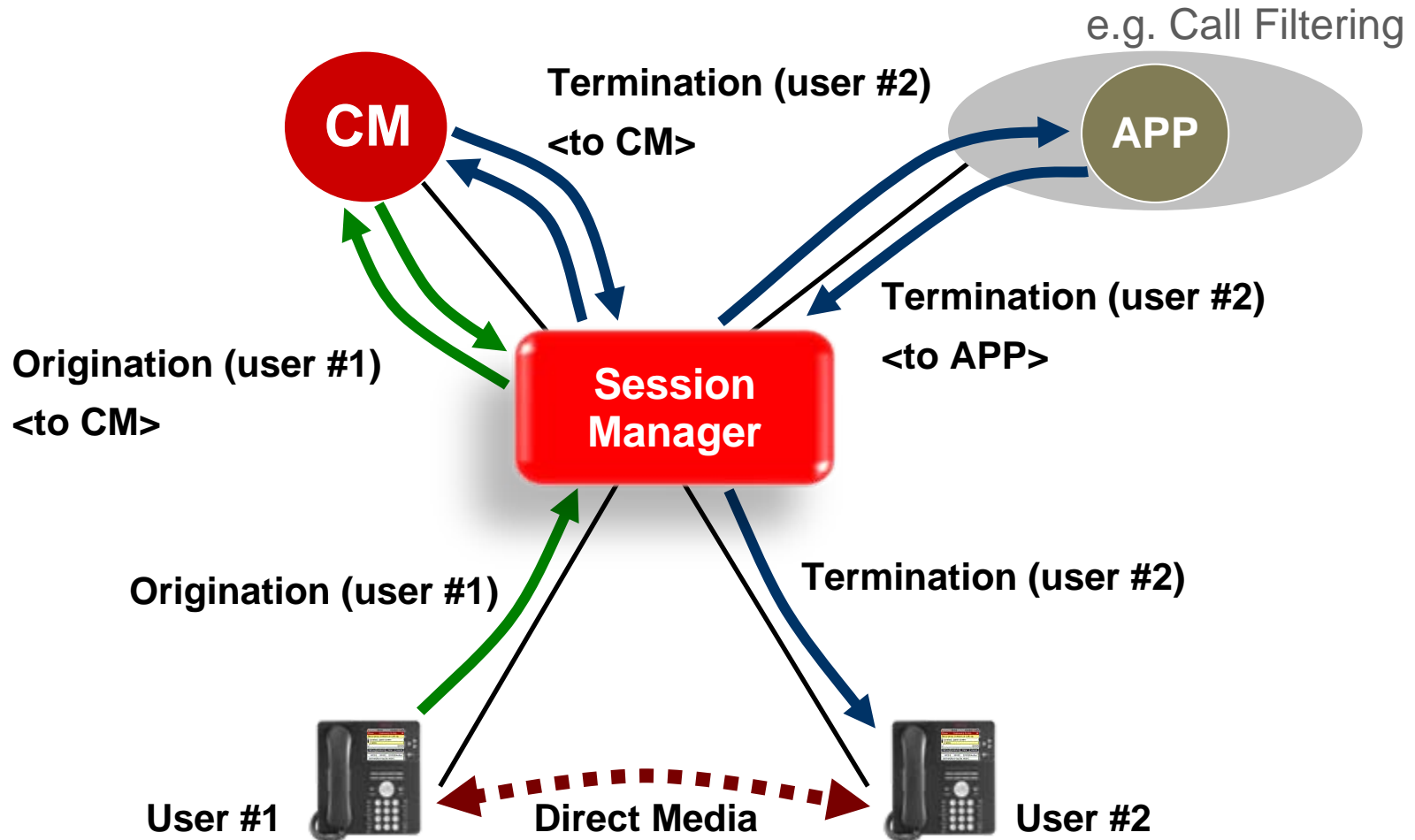
Powered by Initial Filter Criteria, an IMS capability. Sequenced Applications are new services that can be added to a Communication Core, independent of other services, affecting session origination and session termination.



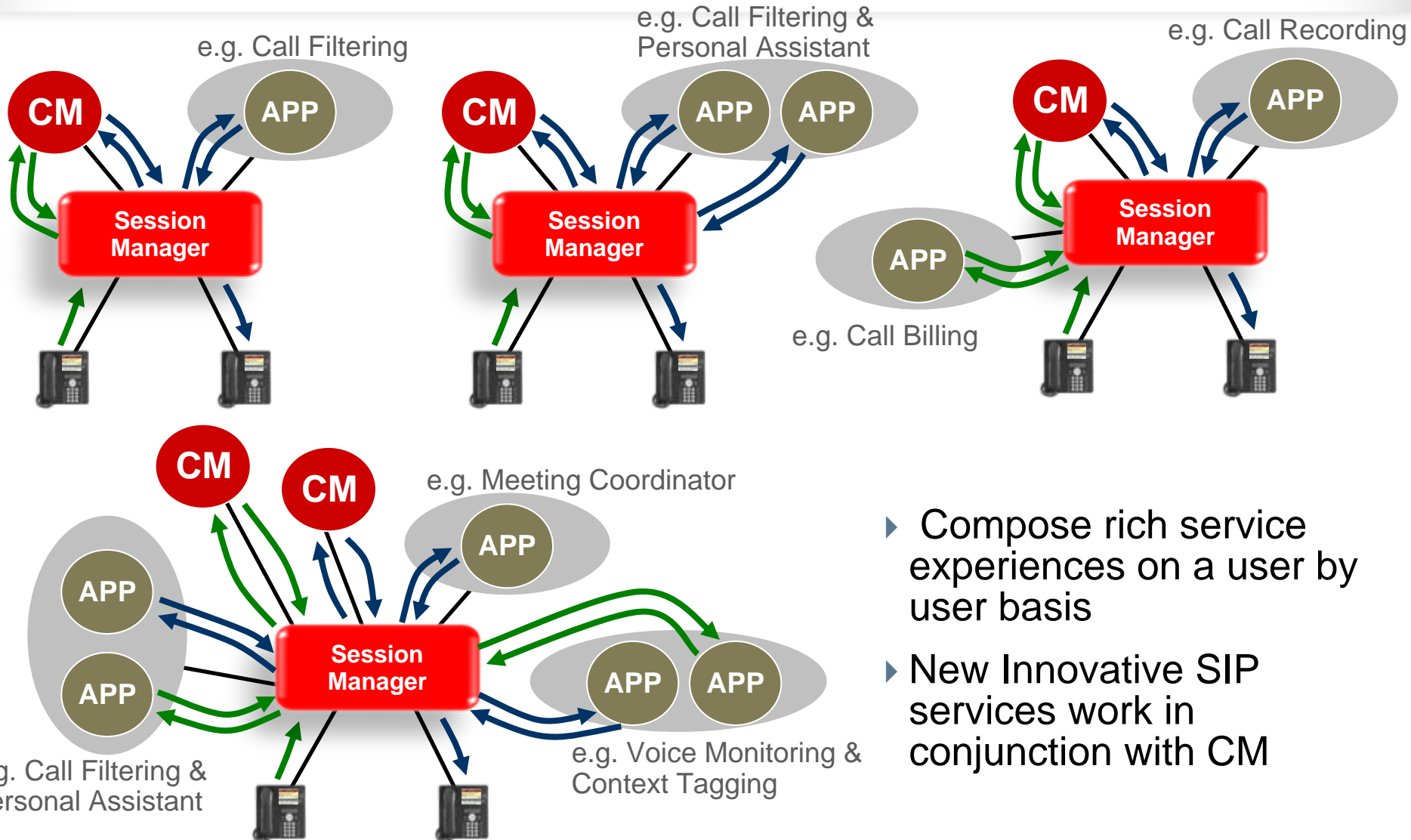
# Avaya Aura™ – Sequenced Applications



# Avaya Aura™ – Sequenced Applications



# Avaya Aura™ – Sequenced Applications



- ▶ Compose rich service experiences on a user by user basis
- ▶ New Innovative SIP services work in conjunction with CM

# Avaya Aura™ – Sequenced Applications

