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Mobile Experience Matters

I3 Forum

Simha Sadasiva

Senior Director of Engineering
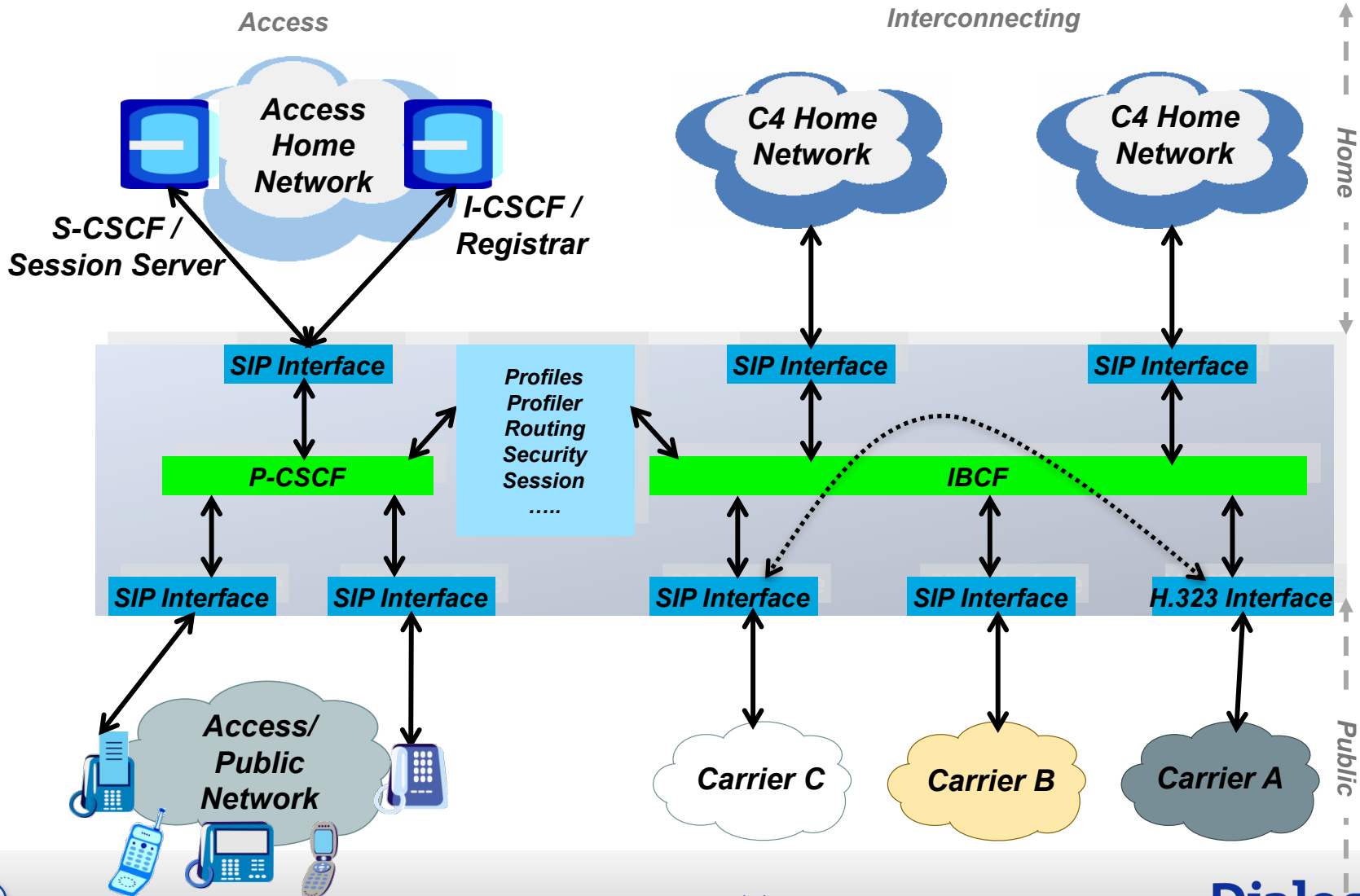
Dialogic Interconnection Solution

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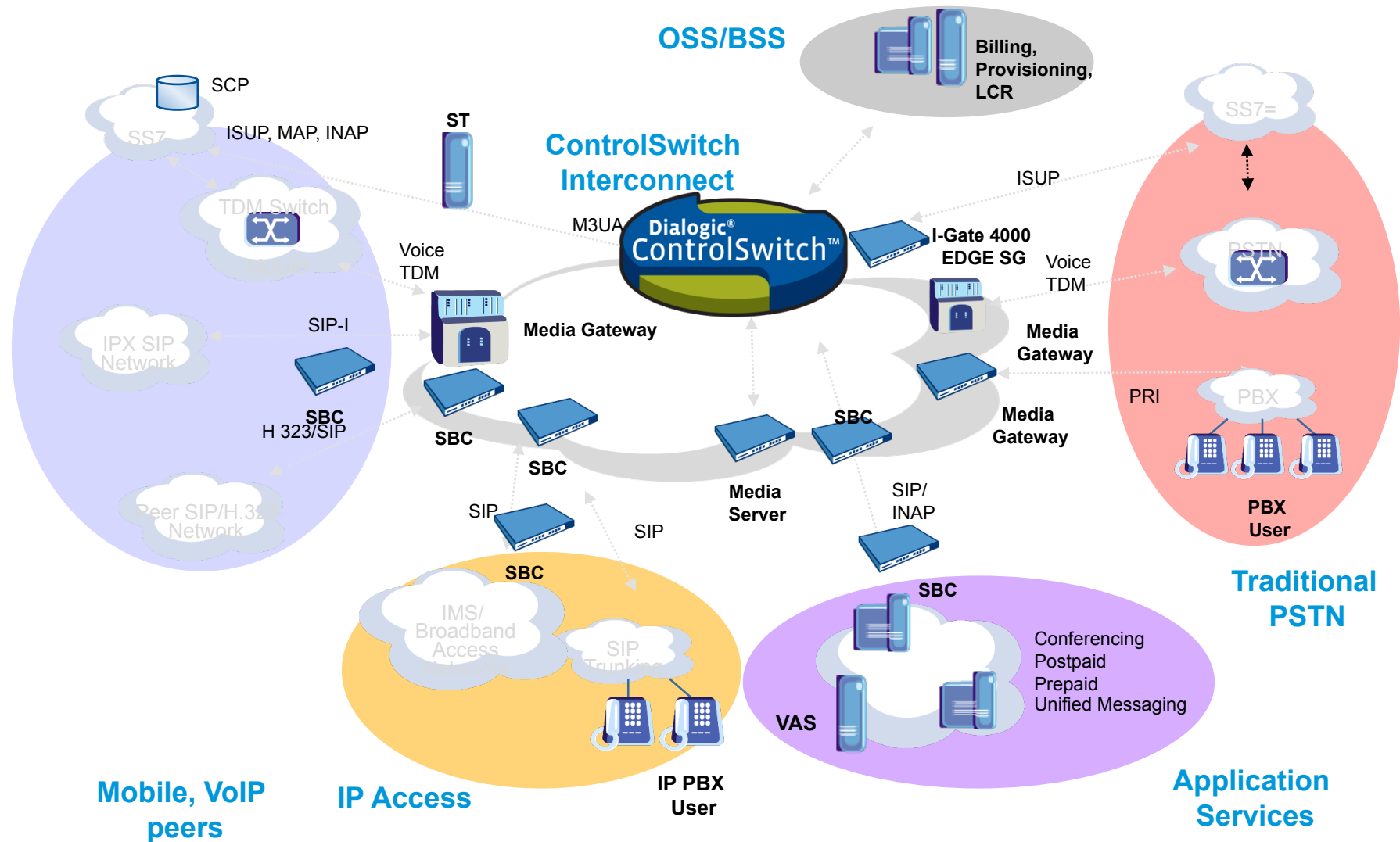
Session Border Controllers

SBC-B2BUA
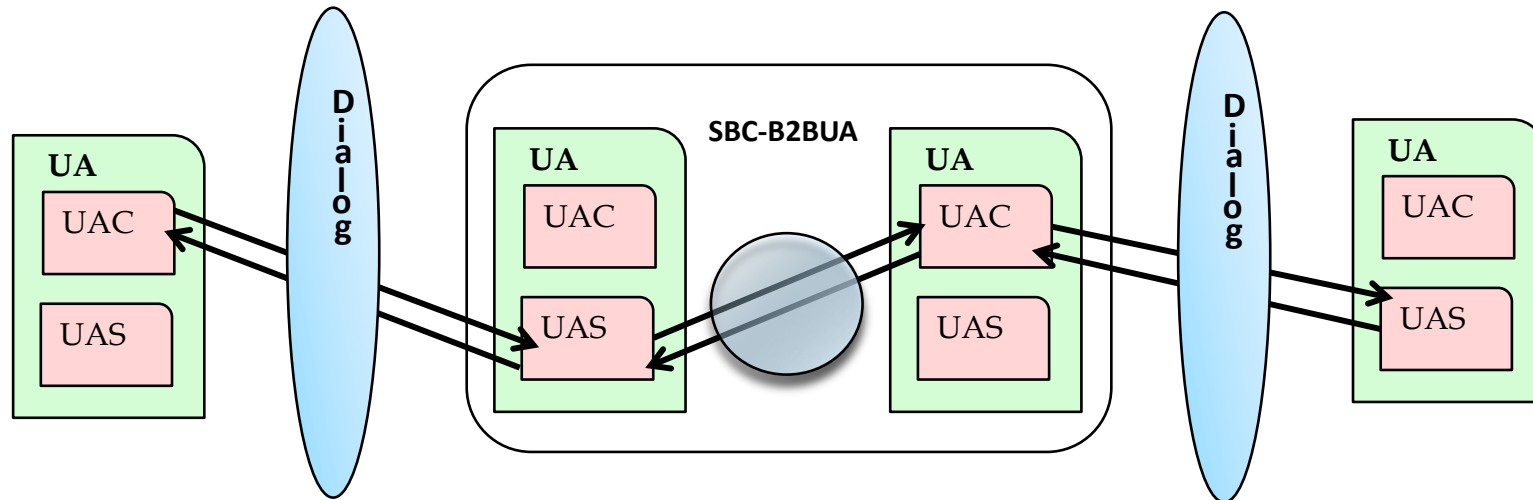
SBC Functions:

- ▸ Security
- ▸ Interworking (H.323, IWF, SIP-I, SIP)
- ▸ Inter-Operability (multi-vendor support)
- ▸ IP-IP Switch
  - • Policy Engine
  - • Routing
  - • Billing

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Session Border Controllers – Connecting Core & Peers

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Security Goals

▶ **Security Goals**

- ▶ Protect VoIP elements and infrastructure

- ▶ Ensure quality service availability

- ▶ Prevent theft of bandwidth & service

- ▶ Provide authentication, integrity and confidentiality

- ▶ Fraud detection, Lawful Interception, spam, etc.

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Security Threats

- **Denial of Service**
  - Flooding with packets or messages to cause resource exhaustion
  - Malicious packets or messages to cause crashes
  - Session teardown, session black holing
- **Theft**
  - Service theft
  - Bandwidth theft
  - Business information (network topology)
- **Eavesdropping**
  - Unauthorized traffic capture
  - Session hijacking, alteration
- **QoS abuse**
  - Misusing/over using bandwidth
  - QoS degradation
- **Others**
  - Billing Fraud
  - Unauthorized access
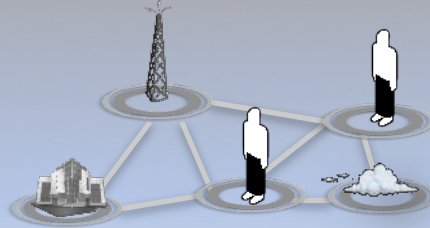 - impersonation

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Dialogic® BorderNet™ Session Border Controllers

TRANSFORM

Solves real world challenges in transforming networks to all-IP and delivering multimedia services

CONNECT

Connects wired and wireless service provider and enterprise networks cost effectively and without compromising on QoS

SECURE

Secures networks and customers to maintain a high level of user experience

| Business Services		Access	Peering
BorderNet 500 ESBC	BorderNet 2020 IMG	BorderNet 3000 SBC	BorderNet 4000 SBC

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Highest Performance SBC in 1 RU

- Purpose Built SBC with the best of breed architecture
- One platform scales up (32Ks) and down (250s) @ 600 CAPS
- Rapid Deployment and Management through friendly Web UI
- Wireshark based integrated Tracing
- Flexible & GUI driven Header manipulation Profiler
- Patent Pending & Unique Secure Transparency

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Secure Transparency

- A forward looking view:
  - know the entire SIP message and its characteristics
  - Trust Levels of the peers
  - Operators' policies for deciding transparency
  - Hide SIP protocol nuances from Operators
  - SIP message Requests & Responses securely transparent

A Secure Transparent SBC

SIP Message

T-B2BUA

UA
UAC
UAS

UA
UAC
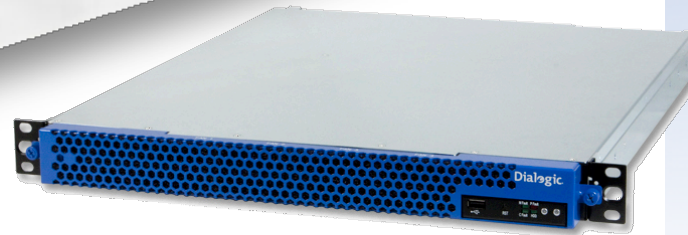UAS

SIP Message

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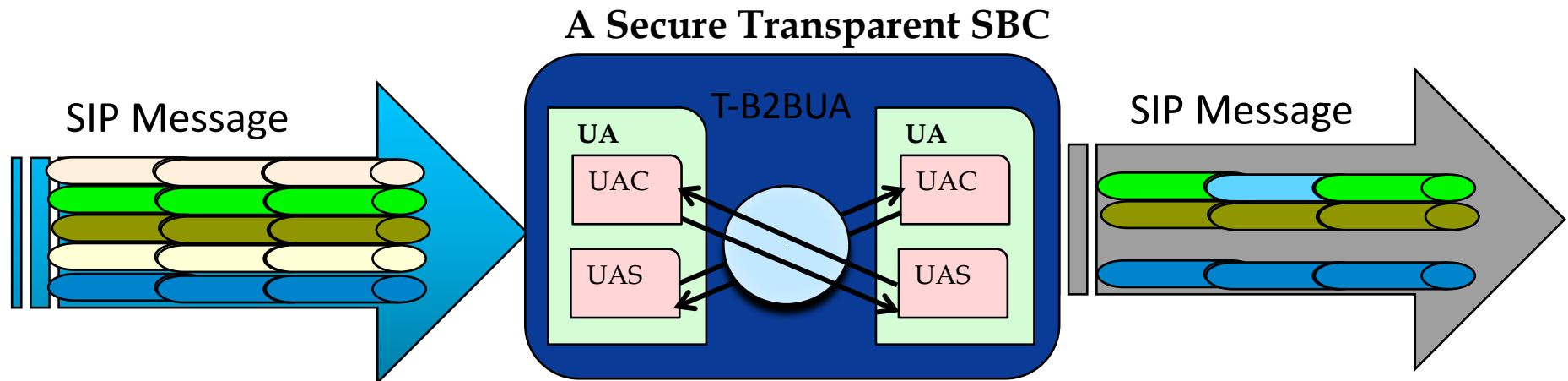
Beyond Border Functions
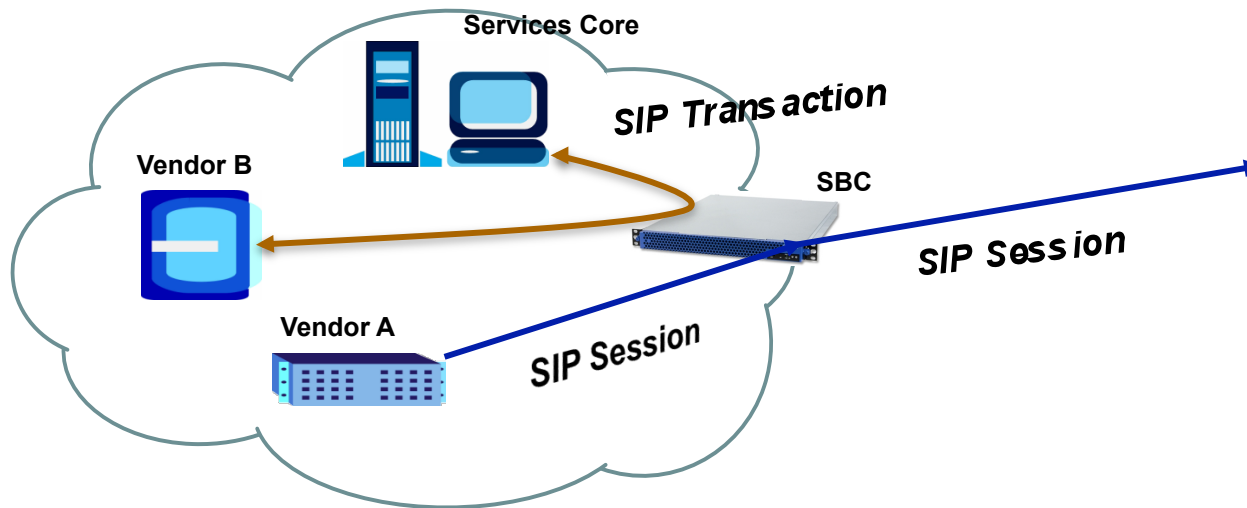
- SIP Session via SBC between a Core and Peer Entity
- Transaction Services do not require SBCs but message transformations are satisfied by the SBCs' Interworking/Protocol Fixing logic
  - Here the SBC is not a border function but a point of normalization and content manipulation

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Miercom Performance Verified Award

Miercom Awards Performance Verified Certification to the Dialogic® BorderNet™ 4000 Session Border Controller

BorderNet 4000 SBC

"The Dialogic BorderNet 4000 SBC delivered impressive performance and proved impervious to attempts to compromise its performance with attack traffic."

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