

SIP Trunking Seminar Introduction to SIP Trunking

Anne L Coulombe

Global Solutions Management - SIP



Agenda

- What is SIP Trunking?
- Why SIP Trunking?
- What is Avaya's CM SIP Trunking solution?



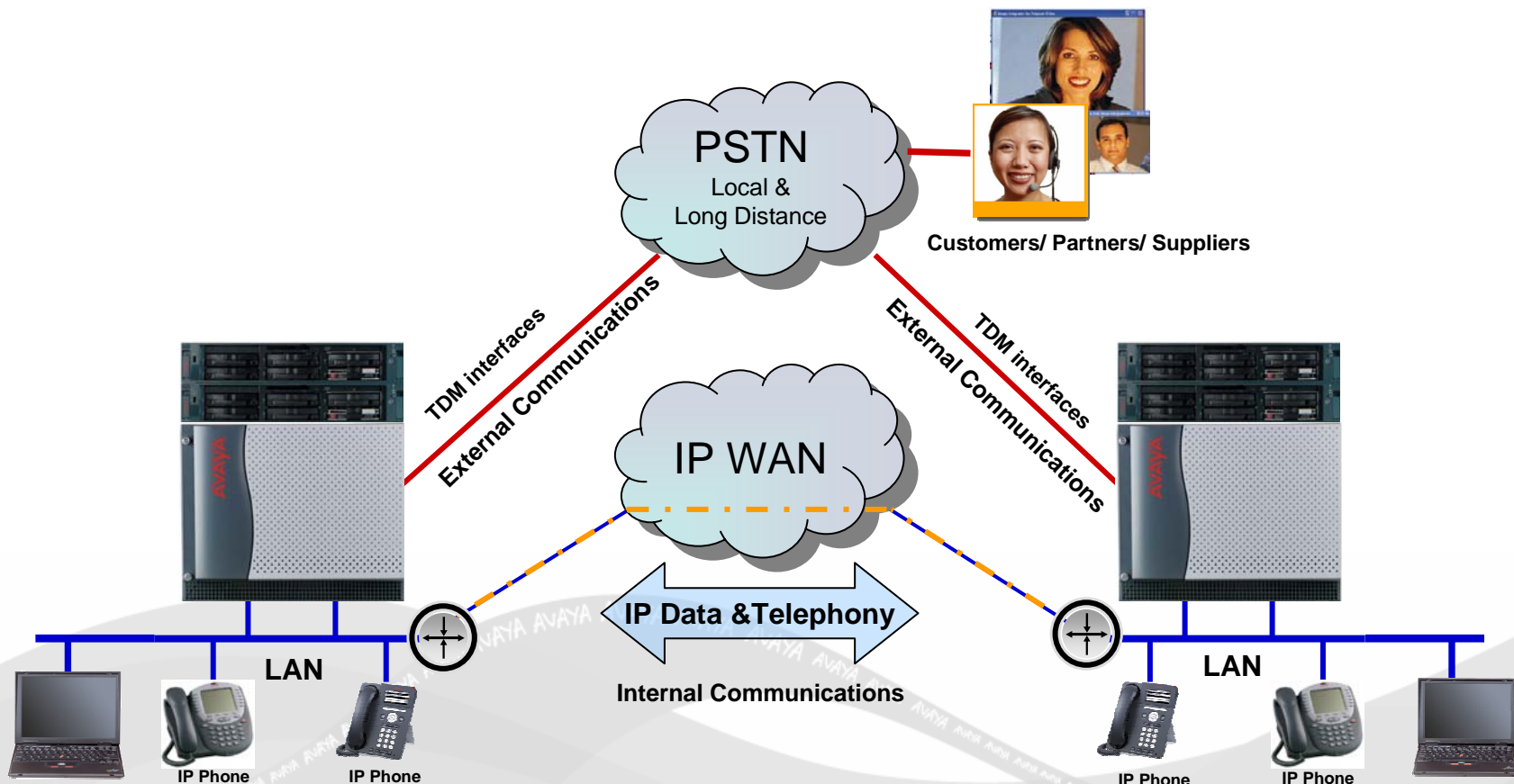
Agenda

- What is SIP Trunking?
 - IP trunking terminated by a Service Provider
- Why SIP Trunking?
- What is Avaya's CM SIP Trunking solution?

Why SIP Trunking?

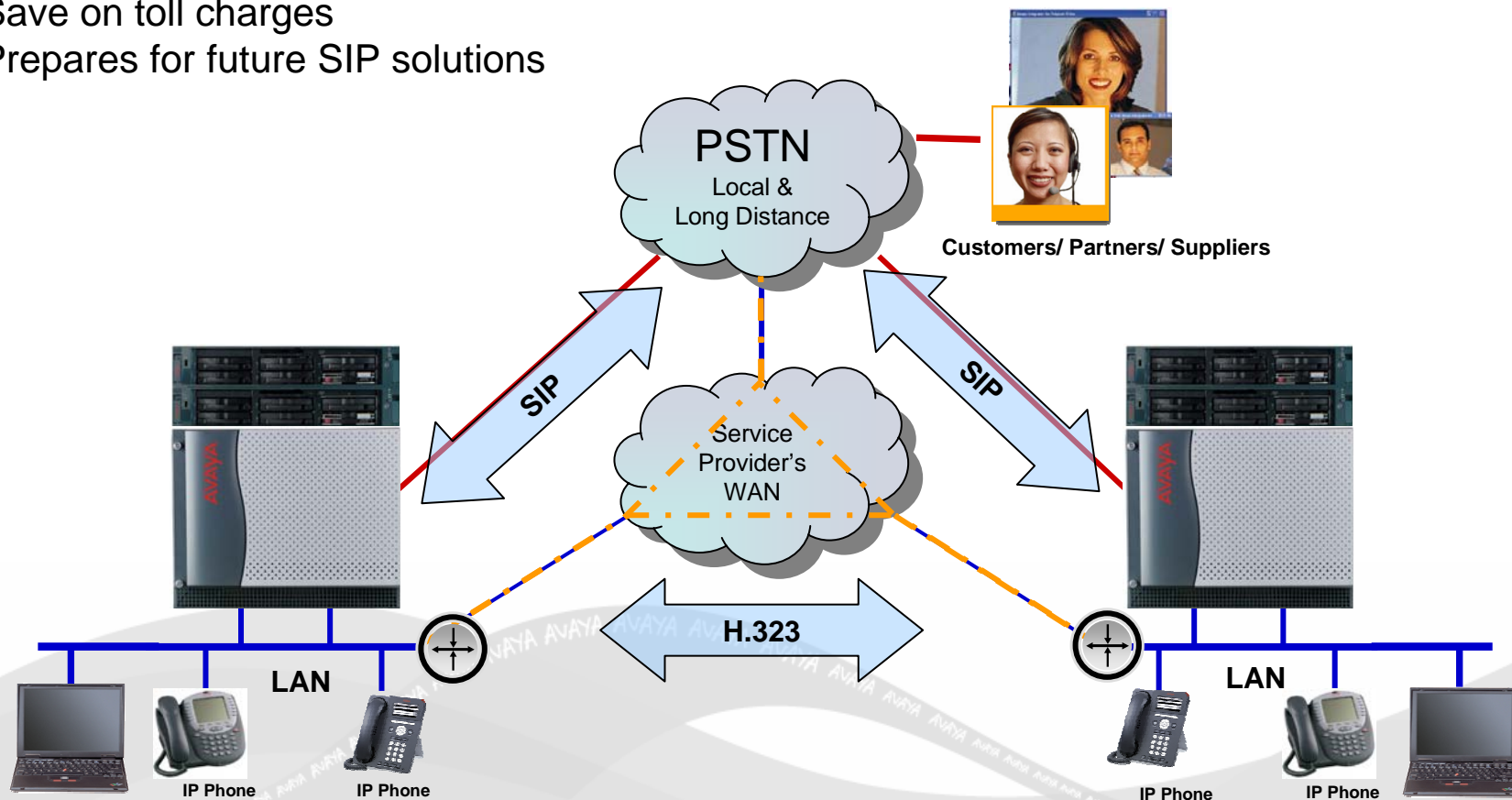
Limitation & Challenges of Private IP (H.323) Trunking

- Private IP (H.323) trunks are limited to VoIP communications between internal systems/sites
- Separate TDM interfaces are required for external communication (partners/suppliers/customers)
- Extra cost, extra hardware, extra complexity



SIP Trunking A Single Pipe to the Cloud

- Single IP link for voice/Multimedia/Data
- Optimize use of WAN access by consolidating voice and data services
- Eliminate PSTN interfaces for long-distance and local access (carrier provides the gateways)
- Assign local telephone numbers to any 'virtual location,' independent of physical location
- Save on toll charges
- Prepares for future SIP solutions



What is a SIP Trunk?

Shorthand Definition



A SIP Trunk is a single conduit pipeline for multimedia elements (voice, video and data)

A SIP Trunk is primarily a concurrent call that is routed over the IP backbone of a carrier using VoIP technology

SIP Trunks are commonly used in conjunction with an IP-PBX and are thought of as replacements for traditional circuits such as PRI, T1, or analog circuits

SIP Trunk Benefits

Equipment Room Benefits

- Reduce **HARDWARE** components
- Reduce **FOOTPRINT** requirements
- Reduce **POWER** consumption
- Reduce **MAINTENANCE** charges

Network Benefits

- **ELIMINATE** recurring E1/DS1 facility charges
- **OPTIMIZE** use of WAN access by consolidating voice and data services
- **SIMPLIFY** and reduce voice communications expenses by leveraging a single nationwide rate for all long distance usage (dependent on SP offering)
- **PORTABILITY** - Assign local telephone numbers to any 'virtual location,' independent of physical location (dependent on SP offering)

Agenda

- What is SIP Trunking?
- Why SIP Trunking?
- What is Avaya's CM SIP Trunking solution?

Reduce/Eliminate Enterprise Hardware - Example

Configuration	G650 MGs	Port Slots	Port Cards	Savings (List)
150 Agents – 225 Trunks Contact Center				
TDM Agents E1 Trunks	2	15	7 24-port DCP digital line circuit packs 8 E1 interface circuit packs	-
TDM Agents SIP Trunks				\$25K
IP Agents SIP Trunks				\$49K
<div style="border: 2px solid red; padding: 10px; background-color: red; color: yellow; text-align: center;"> <p><u>Benefits of SIP Trunking</u></p> <p><i>Reduce HARDWARE components</i></p> <p><i>Reduce FOOTPRINT requirements</i></p> <p><i>Reduce POWER consumption</i></p> <p><i>Reduce MAINTENANCE charges</i></p> </div>				
TDM Agents E1 Trunks				-
TDM Agents SIP Trunks	13	147	125 24-port DCP digital line circuit packs 11 CLAN circuit packs 11 IP Media Resource 320 circuit packs	\$474K
IP Agents SIP Trunks	2	15	13 CLAN circuit packs 2 IP Media Resource 320 circuit packs	\$1.2M

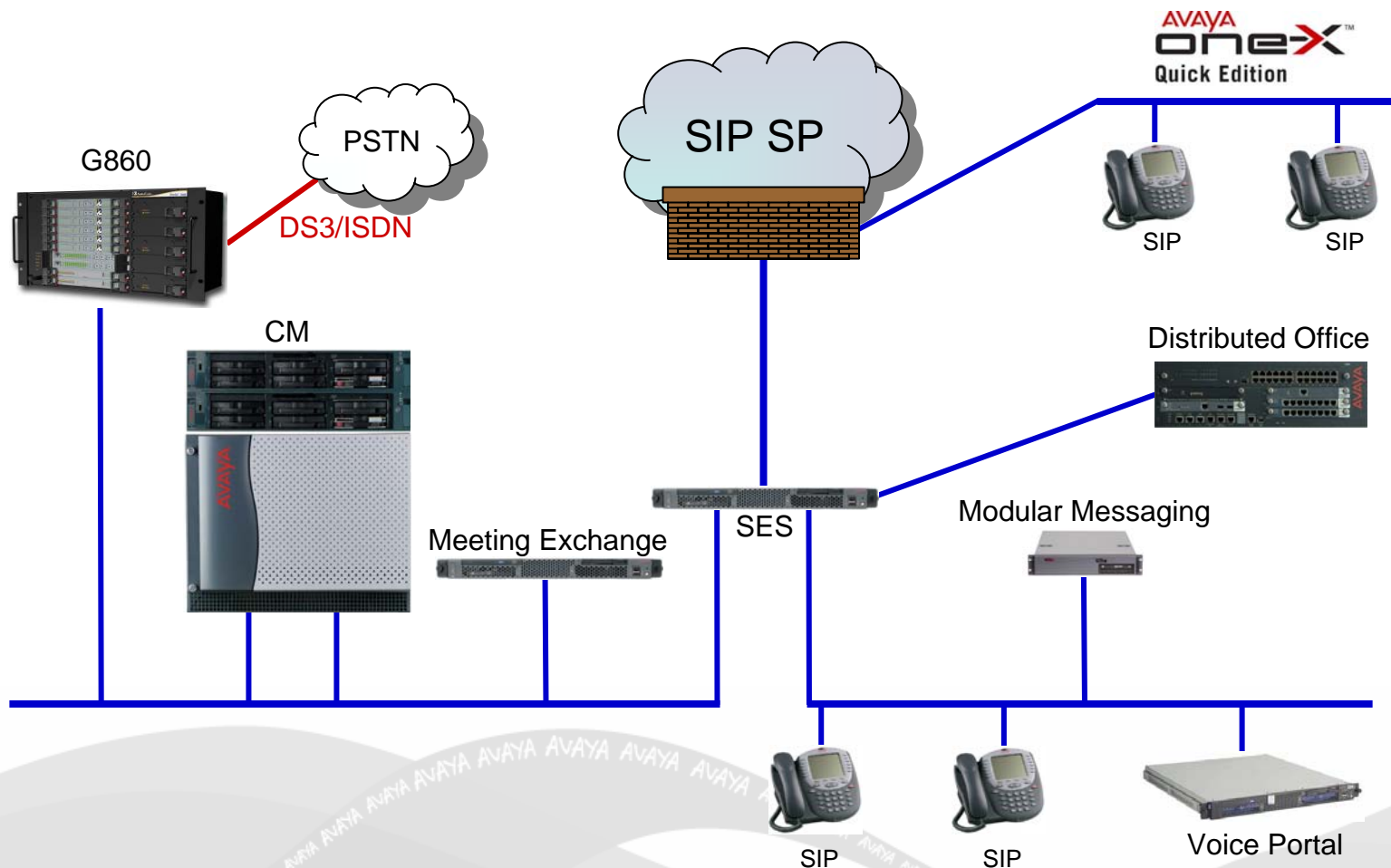
Network Benefits

- Eliminate recurring E1/DS1 facility charges
- Optimize use of WAN access by consolidating voice and data services
- Simplify and reduce voice communications expenses by leveraging a single nationwide rate for all long distance usage (dependent on SP offering)
- Assign local telephone numbers to any ‘virtual location,’ independent of physical location (dependent on SP offering)

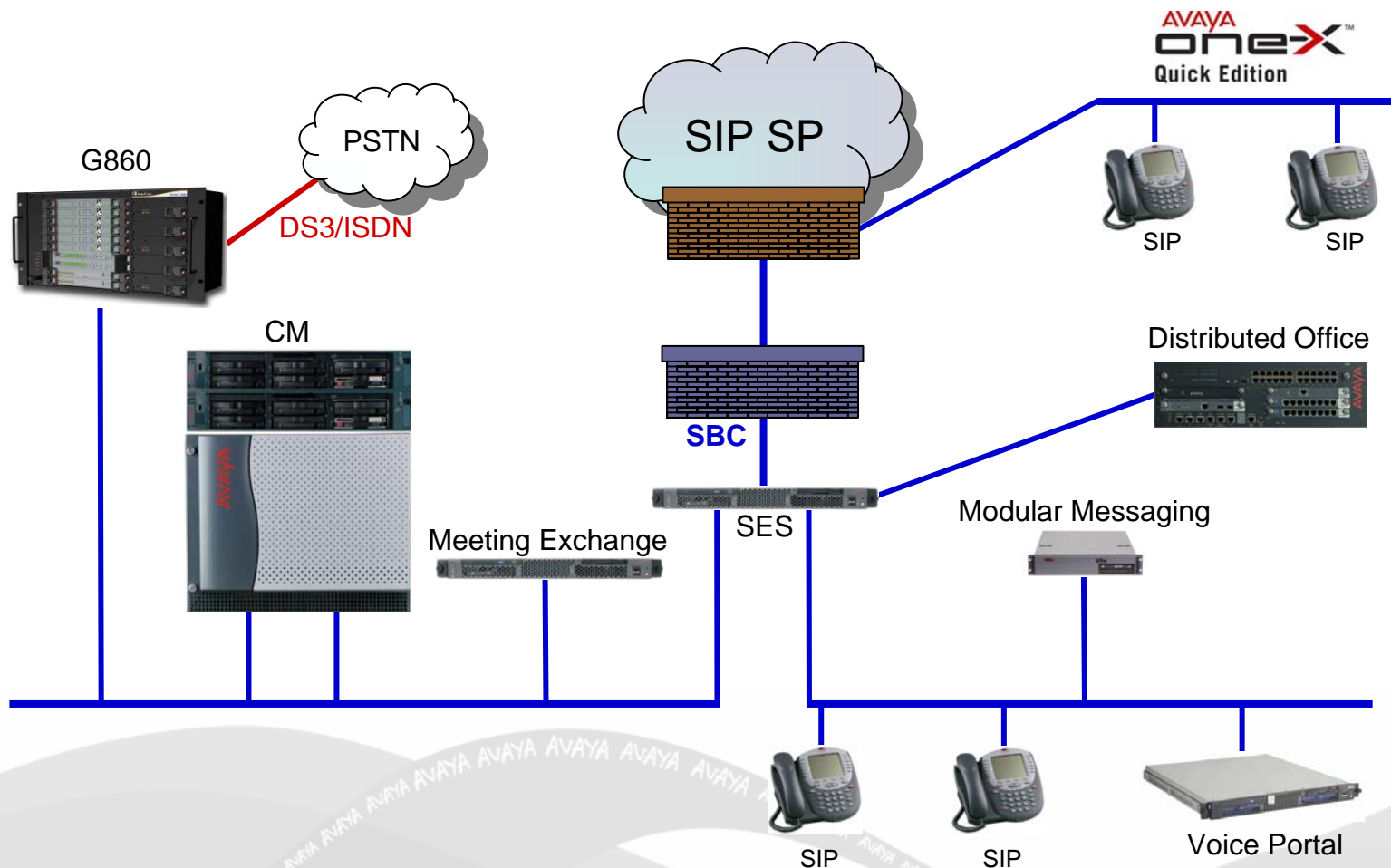
Agenda

- What is SIP Trunking?
- Why SIP Trunking?
- What is Avaya's CM SIP Trunking solution?

Avaya CM SIP Trunking Solution SIP Enablement Services (SES)



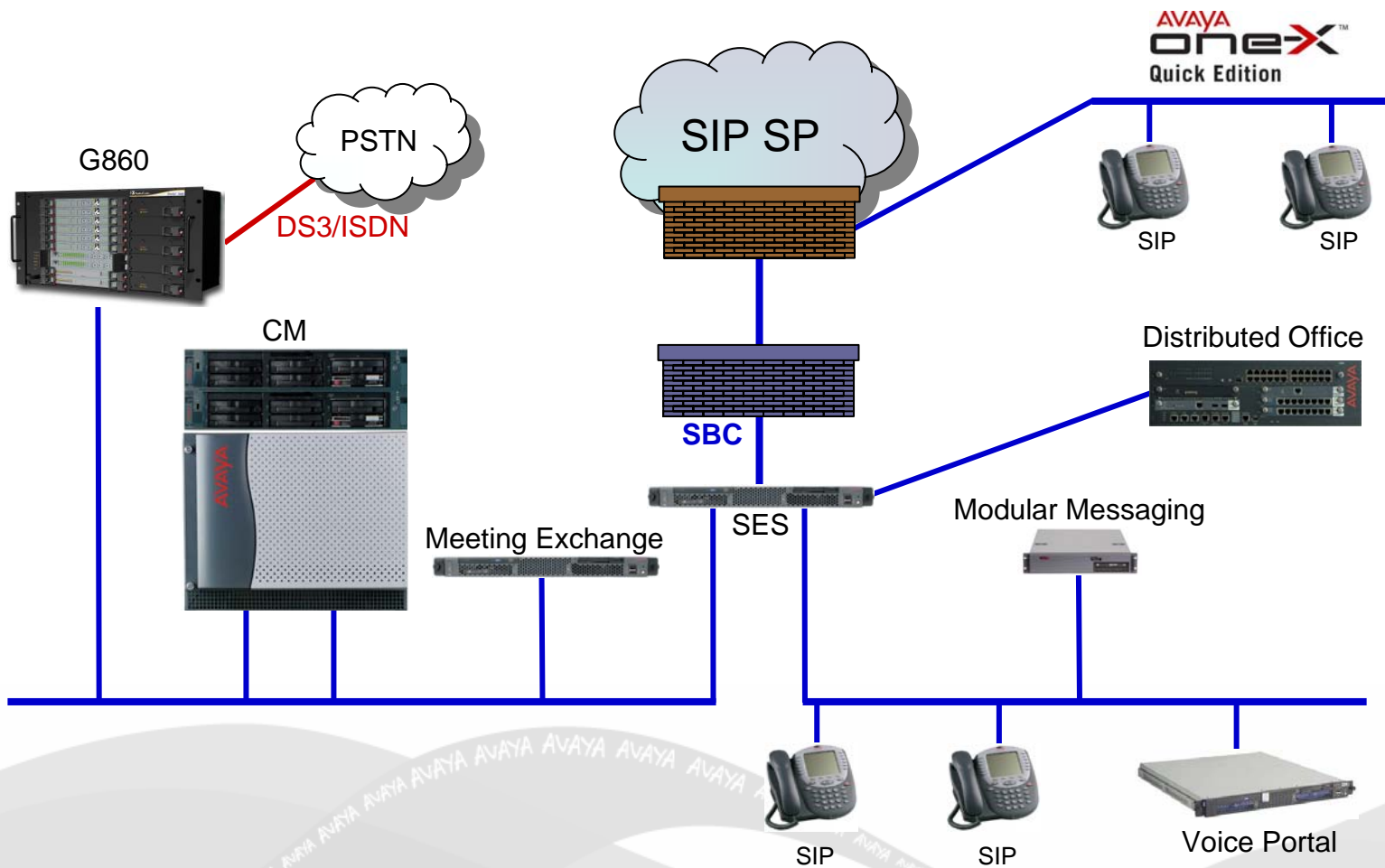
Avaya CM SIP Trunking Solution Session Border Controller (SBC)



Session Border Controller

- IP signaling (includes interworking)
- NAT firewall/NAT traversal
- Selective media routing
- Call admission control
- Denial of Service protection
- CDR generation
- VoIP firewall
- QoS measurements

Avaya CM SIP Trunking Solution CM 4.0 Direct Connect

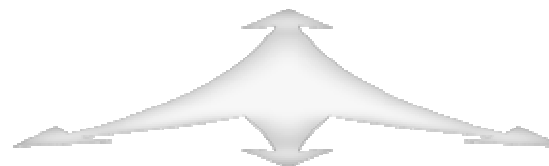


Co-Resident SES, Reduces Costs, Servers With Communication Manager 5.0 on S8300C Server

- Now includes embedded SES server
 - Complete all-in-one SIP, H.323, and TDM telephony solution
 - Reduces cost and footprint
- Available with either CM Standard or Enterprise Edition
 - Ideal for single site solutions
 - To 100 users
- Scale with SIP networking between S8300-based remote offices
- Leverages centralized SIP-based applications
 - Modular Messaging
 - Meeting Exchange



S8300



G350



G250



G450

Who is Providing SIP Trunks?

- Hundreds of SIP Services Providers
- Avaya DevConnect compliance testing “required”
 - Assured interoperability
 - Support by Avaya Global Services
 - Expedite troubleshooting via established contacts

IP PBX/Service Provider Interoperability

● SIPConnect recommendation

- The PBX **MAY** register a contact address against one or more SIP URIs with the Service Provider's SIPApplication Server
- SIP Application Servers **MUST** be prepared to accept (but **MUST NOT** require) registrations for any valid URI that the Service Provider has assigned to an Enterprise

Direct SIP Trunking Between Communication Manager Servers

- Alerting name and number display
- Connected party name and number display
- Diverted reason code display (call forward, coverage, call pickup)
- Automatic callback
- Distinctive ringing (external, internal, priority)

Avaya Intelligent Communication Vision

Optimize your business
by embedding communications
into the fabric of business
processes

**Communications
Enabled Business
Processes**



Optimize your people
wherever they are,
across devices and interfaces

**Unified
Communications**



**Contact
Centers**



**Optimize your customer
relationships** globally across all
points of contact



IP Telephony

Optimize the connections of
your people, customers and
processes

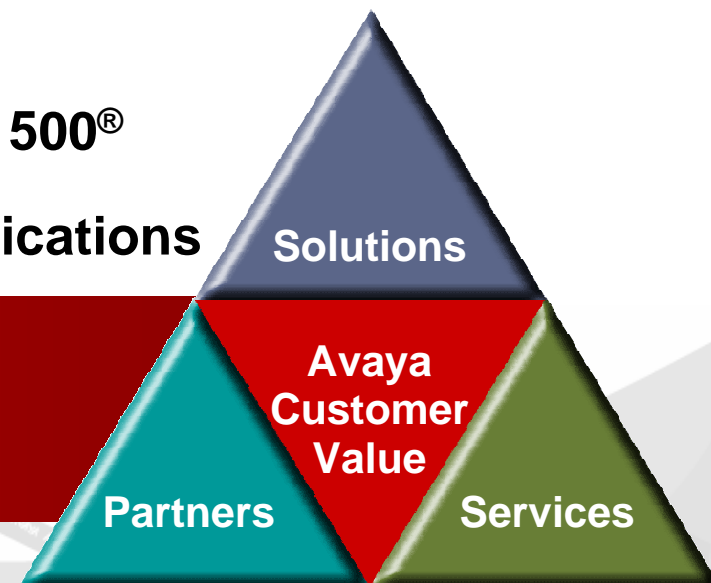
AVAYA AVAYA AVAYA AVAYA AVAYA AVAYA AVAYA

***A strategic, business-focused, approach to communication
delivering competitive advantage today***

Avaya, a Global Leader in Business Communications Applications

- 100 years of experience and innovation in our DNA from AT&T to Lucent Technologies
- 18,634 employees in 54 countries
- 2,500 Business Partners
- 6,000+ *Developer Connection* Partners & Global Alliance Partners
- 1 million+ customers -- 90% of FORTUNE 500®
- 4,180+ Avaya Labs patents or patent applications

*...customer path,
pace and choice*





INTELLIGENT COMMUNICATIONS

Thank You!

Anne L Coulombe
coulombe@avaya.com

