



PreSales Training

Team Engagement - Unified Communications

Online preparation materials

- APDS Workshop Seminars
 - Presentations and video tracks
 - Exam-oriented
 - <https://sales.avaya.com/en/general/apds-workshop-seminars>
- Project Fastfood
 - Partner tools (GRT, PLDS, GPPC...)
 - Design tools (ASD, OneSource)
 - Design & architecture approaches
 - <https://sales.avaya.com/en/general/project-fastfood>
- Avaya Learning preparation track
 - About 40+ hours of training
 - <https://www.avaya-learning.com/lms/#/training/learning-maps/31>

Portfolio in short: Team Engagement solutions

- Aura Core

- Communication Manager
 - Gateways / Avaya Aura Media Server
- Session Manager
 - Avaya Aura Device Services
- System Manager
 - Solution Deployment Manager
- Presence Services
 - Multimedia Messaging

- Messaging

- Avaya Aura Messaging
- IX Messaging (OfficeLinx)

- Conferencing & Collaboration

- Avaya Equinox Conferencing
 - Covered in a separate workshop

- Application Integration

- Application Enablement Server
- Agile Communication Environment
- Breeze Platform

- Platform

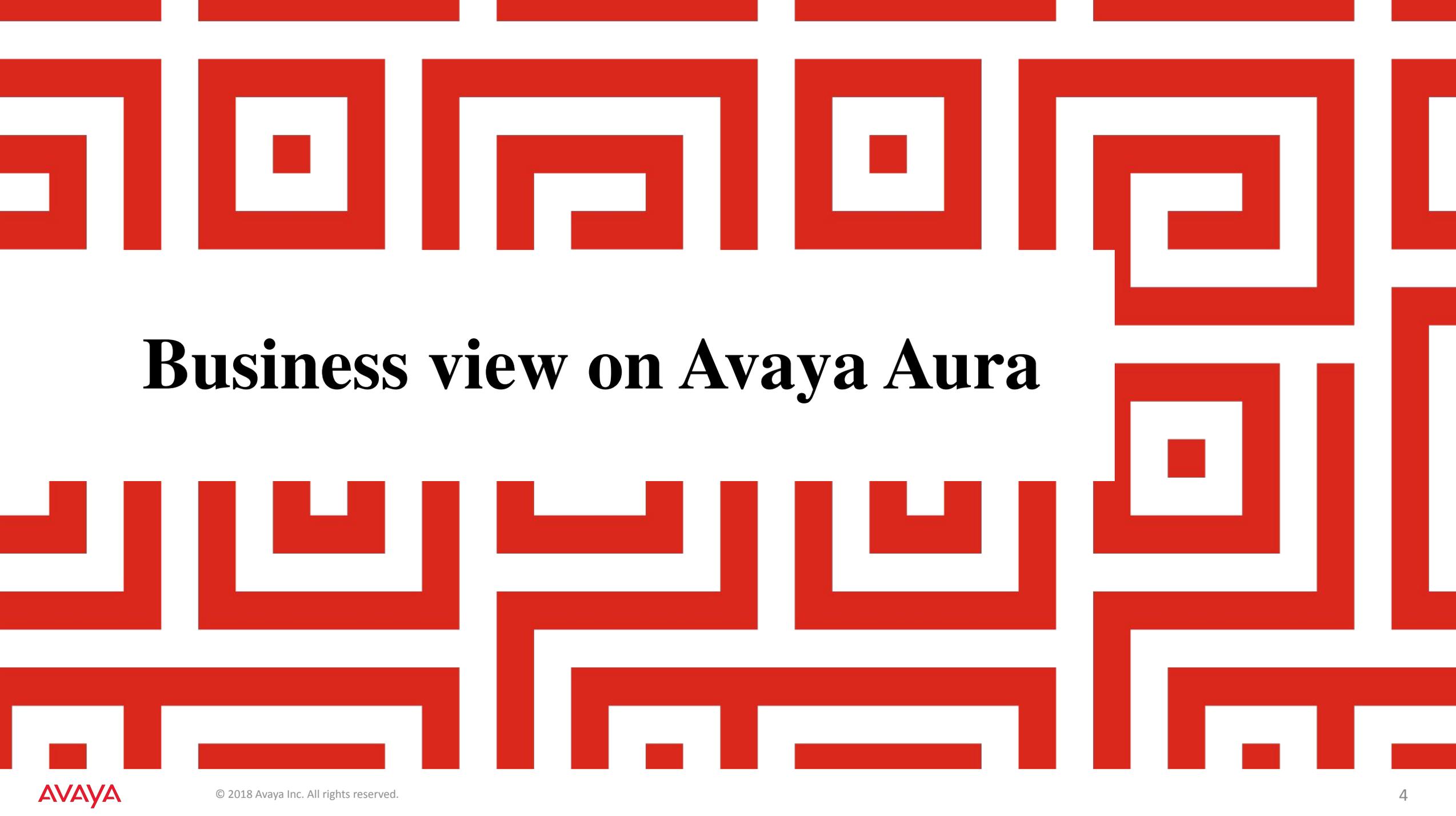
- Standalone servers
 - Avaya Collaboration Platform
- Vmware environment
 - customer provided hardware
- Cloud solution
- ACP 4200 (Pod Fx)

- UC Terminals & Clients

- Hardware Deskphones
- Equinox Client
- one-X Communicator
- VDI Communicator

- Small & Medium Business

- IP Office 500
- IP Office Server Edition
- IP Office Select Edition
 - Covered in a separate workshop
- IP Office Branch

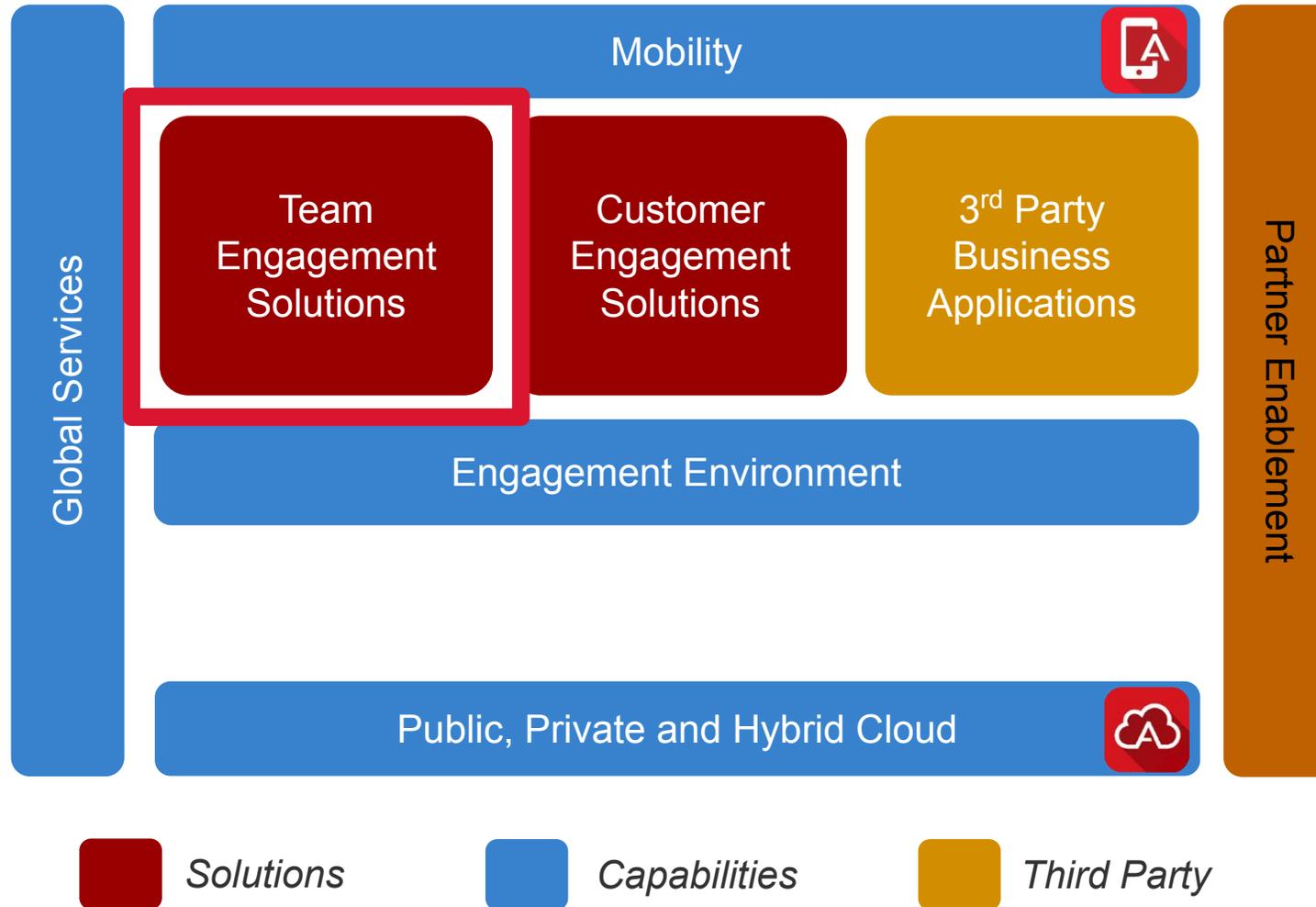


Business view on Avaya Aura

Unified Communications Market Trends

- The quality, intuitiveness and effectiveness of the overall user experience across all devices has increased importance.
 - All devices are expected to integrate to all UC apps
- Expectations of how UC solutions leverage mobility continue to escalate.
 - Mobile device is a passed milestone – we need a synchronized shared content between desktop and mobile
 - Interest to mobile collaboration and video communication is constantly increasing
- Enterprises wish to avoid "closed gardens" and vendor lock-in.
 - Intercompany B2B, business-to-partner (B2P) and business-to-consumer (B2C) federation is required by market.
 - There is increasing interest in integration of communications and collaboration functionality with business processes and applications.
- Successful UC solutions must be attractive to a broad and diverse audience.

Avaya Solutions Framework



Team Engagement solutions

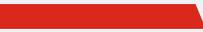
- Team Engagement solution areas:
 - Growth Enablement
 - Worker and Team Productivity
 - Communications Optimization
- Communications Optimization Solutions
 - Build for the Future
 - Centralize and Simplify
 - Reduce the Total Cost of Ownership
 - Virtualization minimize required hardware costs
 - Subscription, Cloud and other options to save budget
 - Vendor interoperability – reuse the environment & avoid extra conversion points
 - Optimize Application Deployments
- Market Differentiators
 - People-centric innovation
 - Multi-vendor interoperability
 - Open, integrated, feature-rich solution portfolio
 - Highly scalable and reliable with low TCO
 - Secure – Linux OS, superior SBC

Application development on UC market

- Application customer's communications experience must
 - Fit into the daily work process
 - Comply with the workflow defined by
 - Line of Business leaders
 - The user himself
- Avaya applications
 - offers full depth and breadth of real-time communications functionality
 - are flexible and open
- Avaya has on an premise and a cloud based offer for application development and deployment
- In the era of digital transformation Avaya Breeze provides customers' high-touch, personal business interactions with
 - Context aware, historical experience
 - Multi-channel development environment



Avaya Aura



What does the customer recognize first?

A phone

Economy class: J129 IP PHONE

ESSENTIAL

Lines	One line, supports two concurrent calls
Display	2.3" monochrome, 128 x 32 pixel
Available Colors	Cobalt Black
Wall Mountable	Yes
Power	PoE Class 1, 802.3az
Ethernet	Dual Port RJ45 10/100
Bluetooth®	None
Wi-Fi®	Optional – J100 Wireless Module
Audio	Wired Handset, Speakerphone
Headset Connectors	None
Button Module	None
Other Connectivity	None
S/W Support	Aura (SIP-AST), IPO (SIP), Open SIP
Avaya Aura® features	Limited
IP Office™ features	Limited



Somehow better: J139 IP PHONE

ESSENTIAL

Lines	Multiple line phone with four red/green feature indicators
Display	2.8" color, 320 x 240 pixel
Available Colors	Cobalt Black
Wall Mountable	Yes
Power	PoE Class 1, 802.3az, optional 5v AC-DC
Ethernet	Dual Port RJ45 10/100/1000
Bluetooth®	None
Wi-Fi®	None
Audio	Wired Handset, Speakerphone, Headset
Headset Connectors	RJ9 with integrated Electronic HookSwitch
Button Module	None
Other Connectivity	None
S/W Support	Aura (SIP-AST), IPO (SIP), Open SIP
Avaya Aura® features	Limited
IP Office™ features	Limited



Best in Grayscale: J169 IP PHONE

ESSENTIAL

Lines	Multiple line phone with eight red/green feature indicators
Display	3.5" grayscale, 320 x 240 pixel
Available Colors	Cobalt Black, White
Wall Mountable	Yes
Power	PoE Class 1, 802.3az, optional 5v AC-DC
Ethernet	Dual Port RJ45 10/100/1000
Bluetooth®	None
Wi-Fi®	None
Audio	Wired Handset, Speakerphone, Headset
Headset Connectors	RJ9 with integrated Electronic HookSwitch
Button Module	Optional 3 JBM24/JEM24
Other Connectivity	None
S/W Support	Aura (SIP-AST, H.323), IPO (SIP/H.323), Open SIP
Avaya Aura® features	Full
IP Office™ features	Full



Best in Color: J179 IP PHONE

ESSENTIAL

Lines	Multiple line phone with eight red/green feature indicators
Display	3.5" color, 320 x 240 pixel
Available Colors	Cobalt Black with Gray faceplate, White
Wall Mountable	Yes
Power	PoE Class 1-2, 802.3az, optional 5v AC-DC
Ethernet	Dual Port RJ45 10/100/1000
Bluetooth®	Optional – J100 Wireless Module – only with SIP software
Wi-Fi®	Optional – J100 Wireless Module – only with SIP software
Audio	Wired Handset, Speakerphone, Headset
Headset Connectors	RJ9 with integrated Electronic HookSwitch
Button Module	Optional 3 JBM24/JEM24
Other Connectivity	None
S/W Support	Aura (SIP-AST,H.323), IPO (SIP/H.323), Open SIP
Avaya Aura® features	Full
IP Office™ features	Full



J100-SERIES

J179 with custom bezels



- Customer orders J169/J179 without faceplate.
- Customer orders required quantity of custom faceplates. This kicks off a design process which results in the manufacturing of the custom faceplate.
- Custom faceplate is affixed to the J169/J179 by partner as a billable service.

Code	Description	APL	MPG
700514757	J169 GLOBAL W/O FACEPLATE	370	3P
700514758	J179 GLOBAL W/O FACEPLATE	455	3P
700514759	J169/J179 CUSTOM FACEPLATE - QTY 15	240	1Z
700514774	J169/J179 CUSTOM FACEPLATE - QTY 100	900	1Z
700514775	J169/J179 CUSTOM FACEPLATE - QTY 1000	7500	1Z

BUTTON MODULES

J100 Button Module (JBM24)

Grayscale display
with 24 red/green buttons

Suitable for **J169** and
useable on **J179**

Up to **3 button modules**
supported.

End of Sale as of June 2019



J100 Expansion Module (JEM24)

Supported on both **J169** and **J179**.

Color display on J179,
Grayscale display on J169,
with 24 red/green buttons.

Up to **3 button modules** supported.



J100/K100 WIRELESS MODULE

**Wireless LAN
(J129/J159*/J179)
Requires J100 2.0
or later software**

** J159 requires 4.0.3.0 SW*

**Bluetooth® (J179)
Requires J100 4.0.0
or later software.
Requires IP Office
11.0 FP4.**

- 802.11 a/b/g/n/ac
- Multiple SSID
- Enterprise-grade security:
 - WEP, WPA-PSK, WPA-Enterprise, WPA2-PSK, WPA2-Enterprise, WMM, EAP-FAST, PEAP-MSCHAPv2
- Manual wired <-> wireless failover, manual SSID <-> SSID failover 
- Status shows on phone screen top line when WLAN is in use.
- Bluetooth® Version 4.2 
- Supports Handsfree profile and Headset profile.
- Up to seven headsets can be paired
- Bluetooth® power class 2 (10 meter range)
- Status icon shows on phone screen top line when Bluetooth® is enabled.



J100 Series – Portfolio View

J129



J139



J169



J179



J159



JEM24



Call Appearances	1	Varies	Varies	Varies	Varies	N/A
Color Options	Cobalt Black	Cobalt Black	Cobalt Black, White	Cobalt Black with Gray Faceplate, White	Cobalt Black	Cobalt Black with Gray Faceplate
Display	Monochrome, 2.3", 128 x 32 pixel	Color, 2.8", 320 x 240 pixel	Grayscale, 3.5", 320 x 240 pixel	Color, 3.5", 320 x 240 pixel	Grayscale, 2 x 2.8"	Color/Grayscale, 1 x 4.3"
Green/Red Call Indicators	0	4	8	8	4 + 6	24
Softkeys	3	4	4	4	4	N/A
Ethernet Switch	Dual 10/100	Dual 10/100/1000	Dual 10/100/1000	Dual 10/100/1000	Dual 10/100/1000	N/A
WiFi	Optional Module	No	No	Optional Module	Optional Module	N/A
Wired Handset	Yes	Yes	Yes	Yes	Yes	N/A
Wired Headset	No	Yes	Yes	Yes	Yes	N/A
Bluetooth Headset	No	No	No	Optional Module	N/A	N/A
Expansion Module Capable	No	No	Yes (3)	Yes (3)	N/A	N/A
Other Connectivity	No	No	No	No	USB	No
Optional DC Power	No	Yes	Yes	Yes	Yes	N/A
Supported Platforms	Aura (SIP - limited features), IPO (SIP - limited features), OpenSIP	Aura (SIP - limited features), IP Office (SIP limited features), OpenSIP	Aura (SIP, H.323), CC Elite (SIP, H.323), IP Office (SIP, H.323), OpenSIP	Aura (SIP, H.323), CC Elite (SIP, H.323), IP Office (SIP, H.323), OpenSIP	Aura (SIP, H.323), CC Elite (SIP, H.323), IP Office (SIP, H.323), OpenSIP	Aura (SIP, H.323), CC Elite (SIP, H.323), IP Office (SIP, H.323), OpenSIP
User Customization	Limited	Limited	Full	Full	Full	N/A
List Price (\$US)	\$125 (MPG 3P) 3PCC - \$65 (MPG 7P)	\$220 (MPG 3P) 3PCC - \$95 (MGP 7P)	\$370 (MPG 3P) 3PCC - \$129 (MGP 7P)	\$455 (MPG 3P) 3PCC - \$189 (MPG 7P)		\$295 (MPG 3P)
General Availability	December 2016	July 2018	April 2018	April 2018	Oct 2019	December 2018

Simply the Best: Vantage K165 / K175

Android	8 Oreo
Display	8", 720x1280 capacitive touch
S/W	Aura, IPO, Open SIP, Avaya Breeze™ Client SDK
Handset	Modular, wired or wireless
Power	PoE Class 3
Ethernet	2 * RJ45 Ethernet
Bluetooth®	Bluetooth® 4.2 LE embedded
Wi-Fi®	802.11a/b/g/n, 802.11ac, Hotspot
USB Port	Type C
Sound	Full duplex speakerphone
Headset port	3.5 mm, RJ9

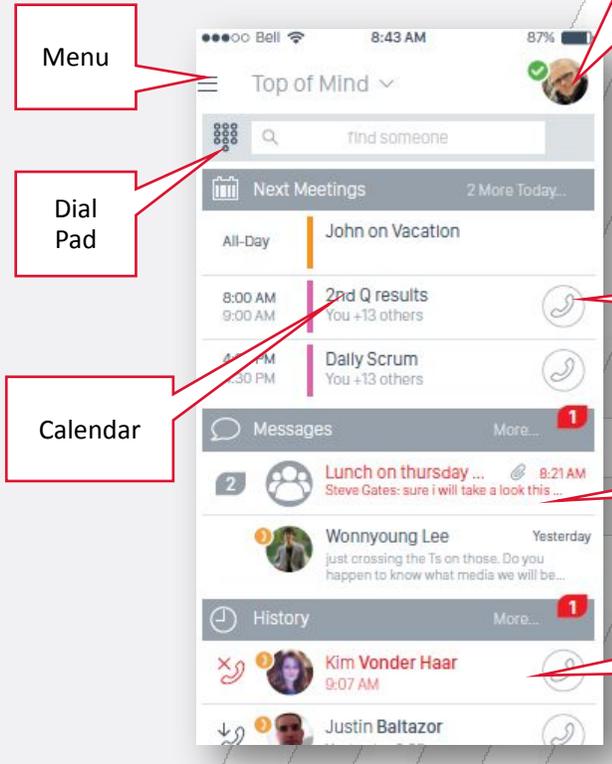
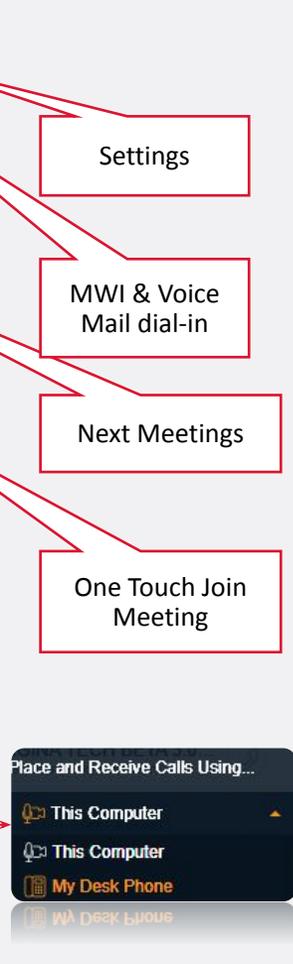
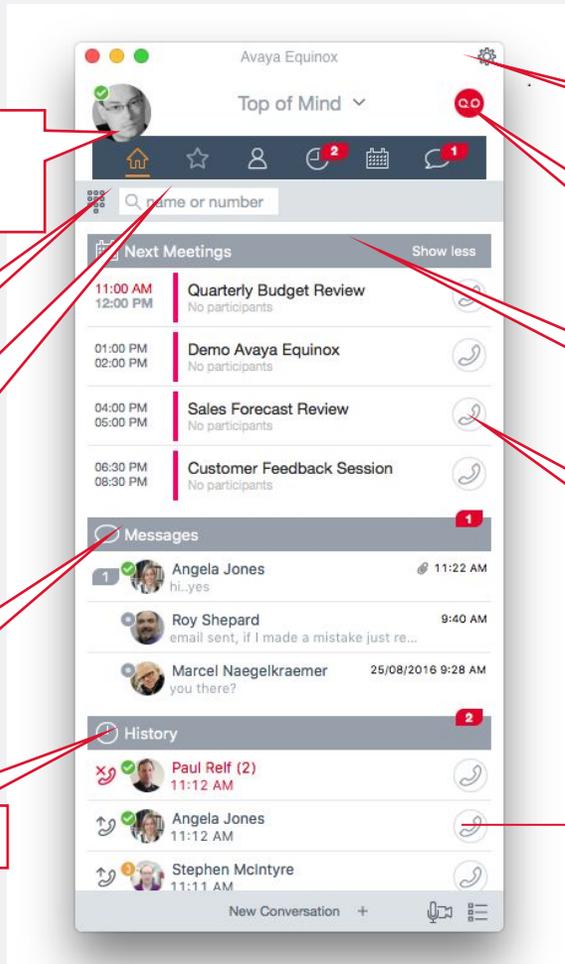
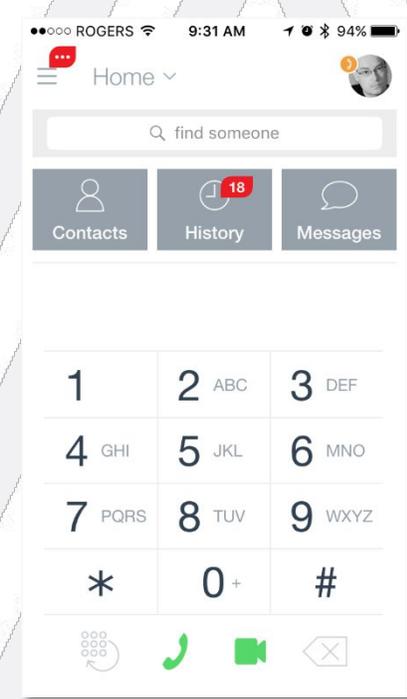


Vantage with Buttons: K155

Android	8 Oreo
Display	5", 720x1280 capacitive touch
S/W	Aura, IPO, Avaya Breeze™ Client SDK
Handset	Modular, wired or wireless
Power	PoE Class 3
Ethernet	2 * RJ45 Ethernet
Bluetooth®	Bluetooth® 4.2 LE (optional)
Wi-Fi®	802.11a/b/g/n, 802.11ac, Hotspot
USB Port	Type A
Sound	Full duplex speakerphone
Headset port	3.5 mm, RJ9



Software phone - Equinox Client



Presence and Incoming Call Management

Settings

Presence and Call Management

Dial Pad

MWI & Voice Mail dial-in

Menu

Search by Name or Enter Number to Dial

Next Meetings

Dial Pad

One Touch Join Meeting

Instant Messages

One Touch Join Meeting

Calendar

Instant Messages

Call History

Call History and Visual Voice Mail

J159 IP PHONE

Lines	Multiple line phone with four main display and six (x 4 pages) secondary display red/green feature indicators
Display	Two 2.8" color, 320 x 240 pixel displays
Available Colors	Cobalt Black
Wall Mountable	Yes
Power	PoE Class 1-2, 802.3az, optional 5v AC-DC
Ethernet	Dual Port RJ45 10/100/1000
Bluetooth®	None
Wi-Fi®	Optional – J100 Wireless Module – only with SIP software
Audio	Wired Handset, Speakerphone, Headset
Headset Connectors	RJ9 with integrated Electronic HookSwitch
Button Module	None
Other Connectivity	USB
S/W Support	Aura (SIP-AST,H.323), IPO (SIP/H.323), Open SIP
Avaya Aura® features	Full
IP Office™ features	Full

TO BE AVAILABLE LATER



H200 Hospitality series

H229



H239



!! Faceplate !!

H249



 1 SIP Line	 1 programmable key	 Wall-mount
 PoE	 Indicator light	 Call transfer

 1 SIP Line	 6 Programmable Key	 1 USB Charging Port
 PoE	 Indicator Light	 Call Transfer

 1 SIP Line	 6 Programmable Key	 1 USB Charging Port
 PoE	 Indicator Light	 Call Transfer

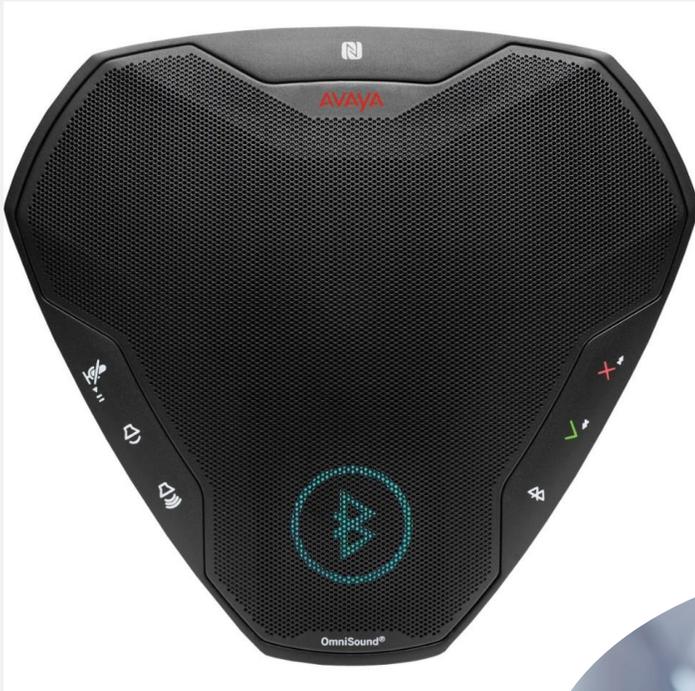
3.5 Inch (480x320) Color

B100 series for Conference rooms

- Common features
 - Display 128*64, SD card recording, Phonebook
 - External microphones option
- **B149** - Basic analog model
- **B159** - Enhanced analog model
 - External phone (DECT, Mobile) and USB connectivity
 - Loudspeaker system and wireless headset connectivity
- **B169** - DECT/GAP terminal
 - 5200 mAH battery – up to a week standby
 - Kensington lock
- **B179** - SIP
 - Loudspeaker system and wireless headset connectivity
 - Web-interface to set up and phonebook management
- **B189** - H.323 based on 96x1 firmware
 - Gigabit Ethernet, PoE Class 3, 7-12 W
 - 5" color touch screen 800*480
 - Compatible with Aura/ACM only
 - No IP Office or CS1000 compatibility



Avaya B109 IP Conference Phone



Used in the huddle room or as your **personal speakerphone**



USB and Bluetooth connectivity: Connect to laptop, deskphone, collaboration computer, mobile phone...



Wireless - 12 hour talk time



LCD screen



Headset for privacy



NFC for easy connection



Just Phones



FDM



H.323



SIP



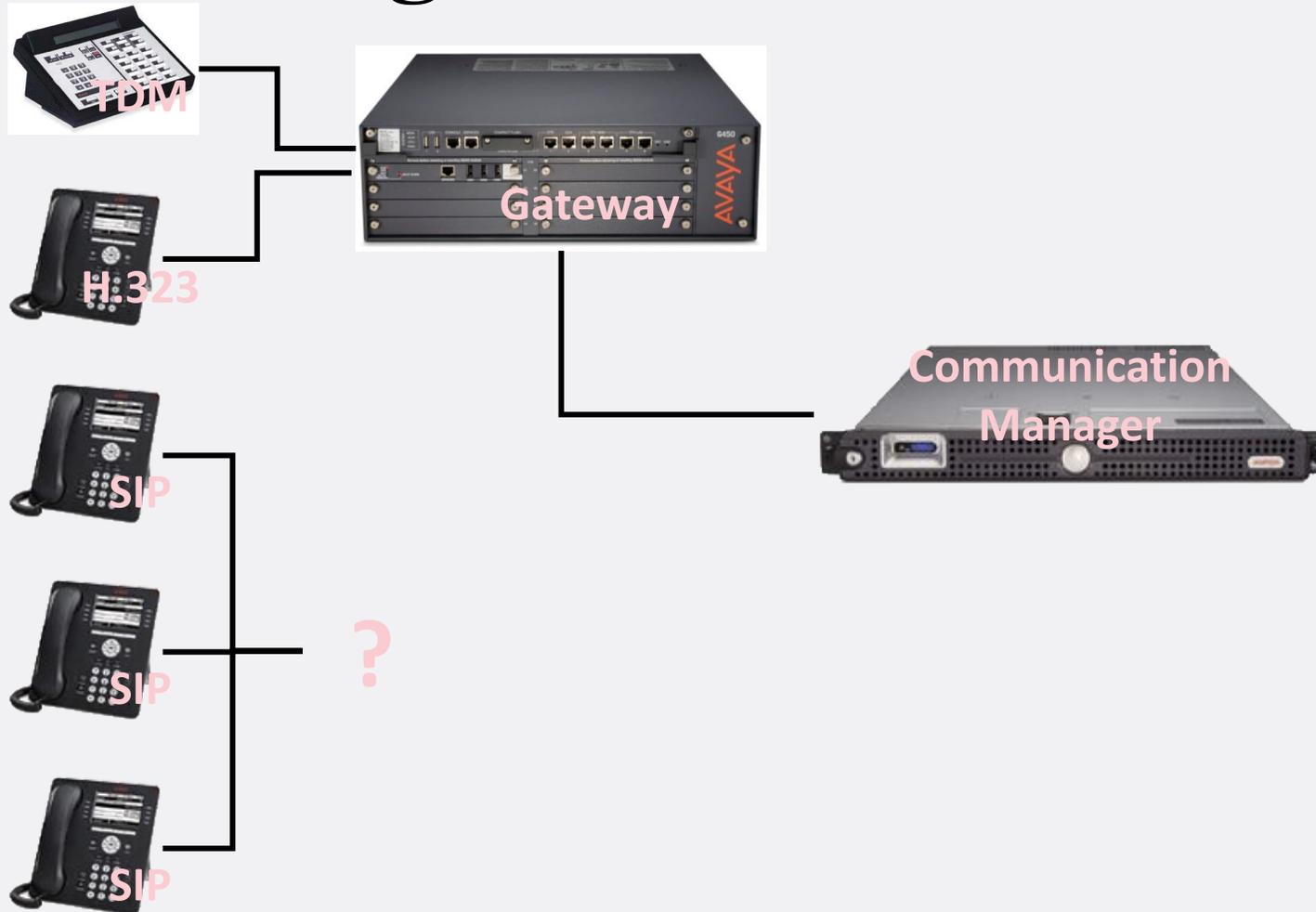
SIP



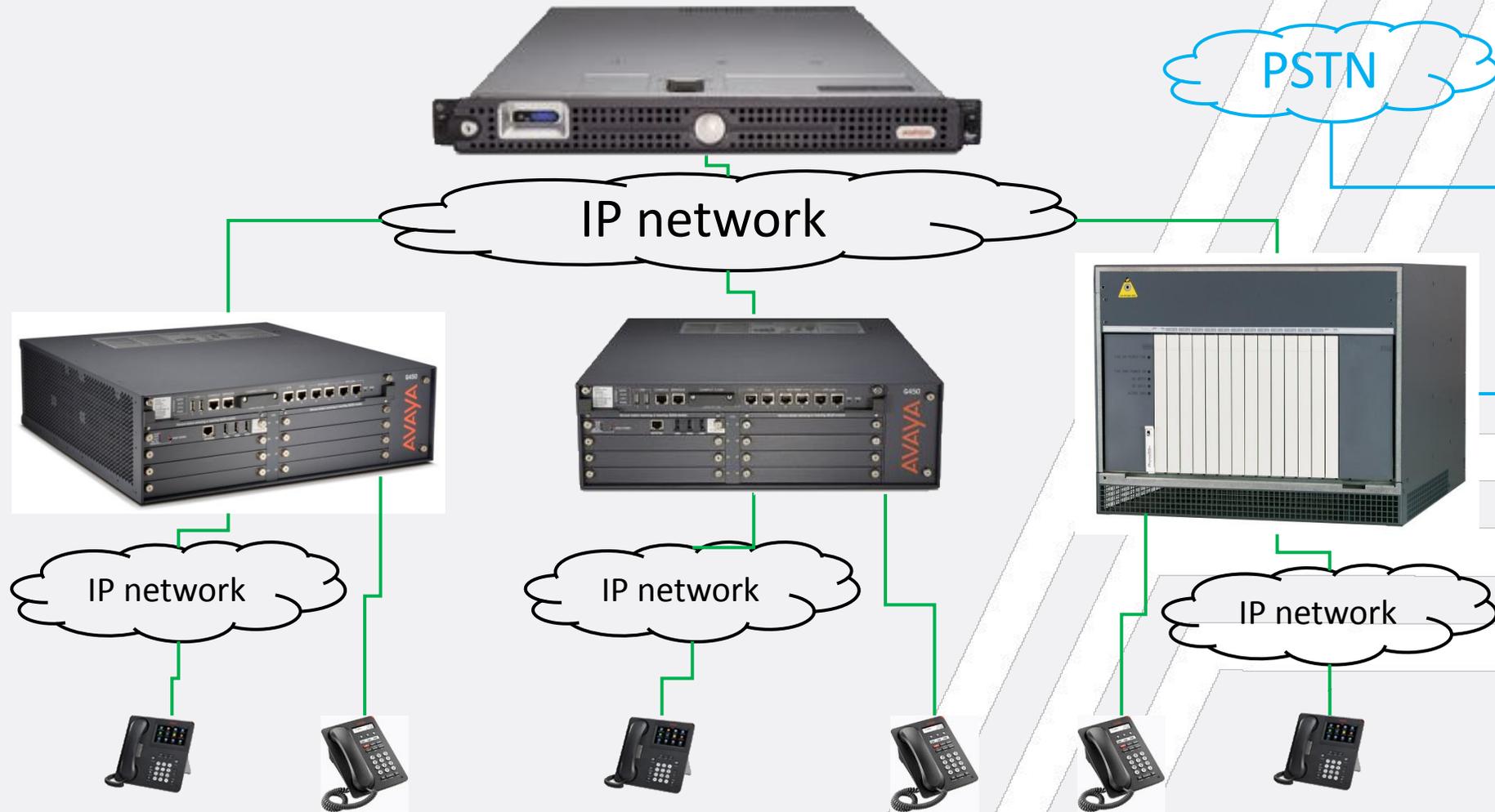
SIP



Enabling Phones: Communication Manager



Communication Manager



Gateways

- Port Network: G650 gateway[s] - EOS
 - 19", 8 U, 14 TN-type slots
 - TDM bus: 242 simultaneous conversations
 - Dual PSU & 48VDC options
 - Up to 5 gateways on one PN (shared TDM bus)
 - Must be adjacent in a rack, on top of each other
 - Standard for high TDM capacity solutions
- H.248: G450 gateway
 - 19", 3U, 8 MM-type slots
 - Replaceable supervisor card
 - 4 DSP slots – up to 320 VoIP channels
 - Replaceable coolers and PSUs
 - Dual PSU option
 - Hot-pluggable – all except supervisor
 - Up to 8 E1, 192 TDM or 450 IP subscribers
- H.248: G430 modular gateway
 - 1.5U 3-slot base unit
 - + 1.5U 2-slot EM200 extender
 - Up to two extenders, hot-swappable
 - Total: up to 4.5U, 7 MM-type slots
 - Up to 150 IP subscribers
 - 20 VoIP channels, 1 extra DSP slot (up to 100 total)



TN type cards

- Subscriber and trunk cards
 - **TN2214 / TN2224** – 24 digital (DCP) subscriber ports
 - **TN793** – 24 analog (REN=3) subscriber ports
 - **TN556** – 12 subscriber ports (24 phones) ISDN BRI S/T
 - **TN2198** – 12 subscriber ports ISDN BRI U (ANSI)
 - **TN2185** – 8 trunk ports ISDN BRI S/T
 - **TN2464** – universal E1/T1 connection CAS/ISDN
 - **TN747** – 8 analog CO trunk ports
 - **TN760** – 4 E&M trunk ports
 - **TN763** – 4 600Ω audio ports with control closure contacts
- Control and utility cards
 - **TN2312AP** – IP Server Interface
 - TN8412AP – SIPI (cut-down IPSI for S8400)
 - **TN799** – Control LAN card for IP connections
 - **TN2302AP** – old-style codec (32 compressed / 64 uncompressed channels)
 - **TN2602AP** – IP Media Resource codec (320 channels)
 - **TN744** – 8-channel tone detector/generator
 - **TN771** – packet bus control card
 - **TN2501** – voice announcement card (33 ports, 1 hour storage)

MM type cards

- Actual voice modules
 - **MM710** – 1 E1/T1 connector (R2 & ISDN PRI)
 - **MM711** – 8 FXS/FXO (programmed per port)
 - **MM712** – 8 DCP subscriber ports
 - **MM714** – 4 CO + 4 A ports
 - **MM716** – 24 FXS ports (telco connector)
 - **MM717** – 24 DCP ports (telco connector)
 - **MM720** – 8 ISDN BRI trunk ports
 - **MM722** – 2 ISDN BRI trunk ports
- Outdated modules
 - Voice modules
 - **MM760** – VoIP codec (64/32), G700 only, one per chassis
 - Data modules
 - **MM340** T1/E1 data [fractional]
 - **MM342** USP (V.35/X.21) – trunk side only
 - HDMM modules for G350 only
 - **MM312** – 24 DCP slots
 - **MM314** – 24 PoE Ethernet (225W, 802.3af) + 1 Fast Ethernet
 - **MM316** – 40 PoE Ethernet (450W, 802.3af) + 1 Fast Ethernet

Communication Manager capacity options

- **Branch (S8300)**
 - Up to 1000 subscribers
 - Up to 250 H.248 gateways
 - MM-type card, must be installed in G450/G430 gateway
- **Simplex (S8500 / S8510 / S8800)**
 - Up to 2400 subscribers, 64 PNs, 250 H.248 gateways
 - Medium capacity systems without server duplication
 - Standalone server
- **Duplex (S8700 / S8710 / S8720 / S8730 / 2 * S8800)**
 - Up to 36000 subscribers, 64 PNs, 250 H.248 gateways
 - High capacity and reliability solutions
 - Dual servers with hot reserve, active/standby mode
- All options utilize up to 16 digits dial plan
- **Session Manager, for comparison**
 - Up to 25 000 subscribers per SM instance
 - Up to 28 SM instances & 250 000 subscribers (350K devices) per SM cluster
 - Up to 500 Branch SMs (1000 subs/S8300E or 5000 subs/CSR2) per SM cluster

ACM Network topology

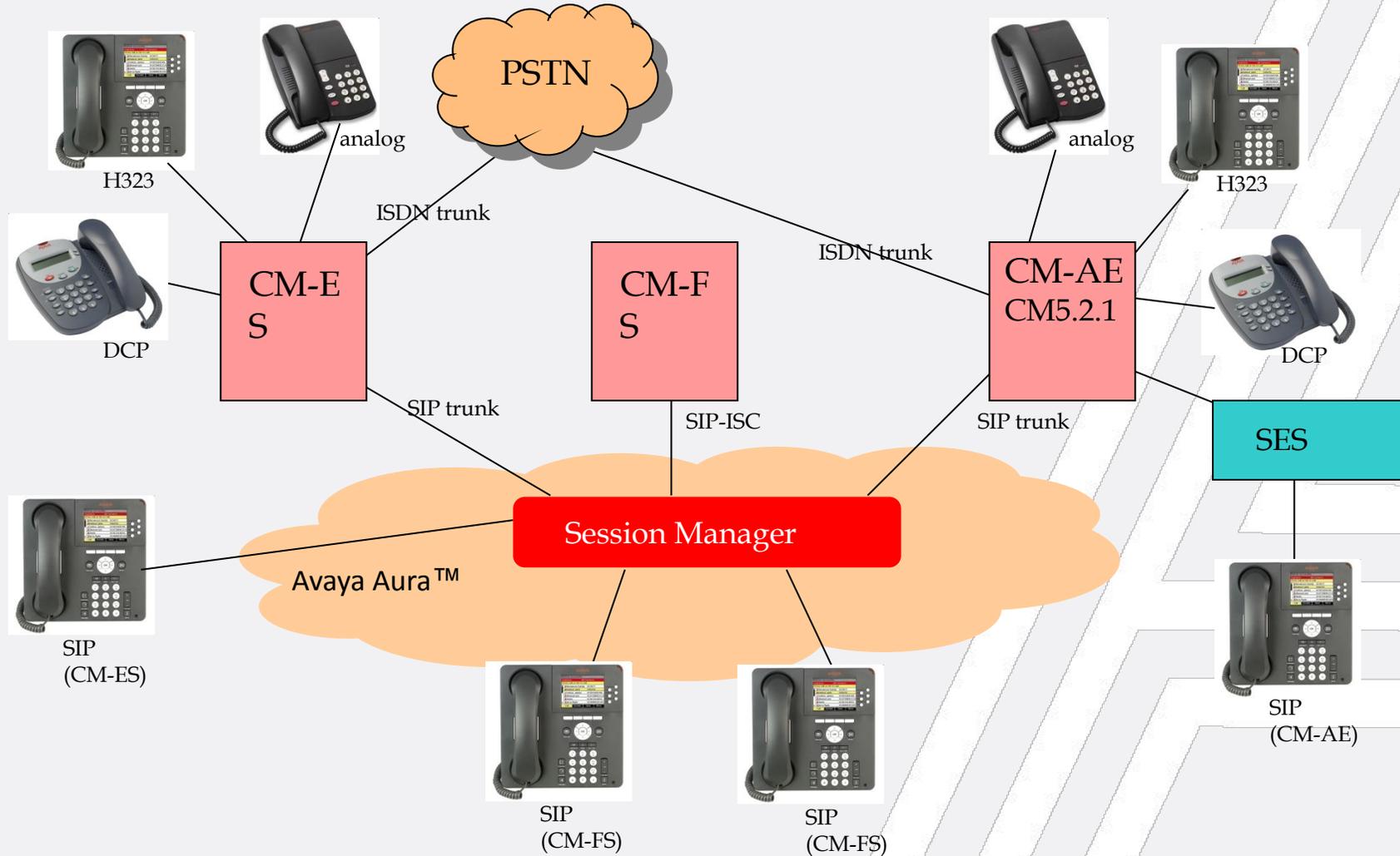
- Communication Manager Distributed Network structure
 - Network connectivity
 - «Traditional»:
 - G650 IPSI card connects to server
 - H.248 / H.323 register on G650's C-Lan
 - Processor Ethernet: H.248 / H.323 register directly on server
 - Mixed connectivity supported
 - Network regions
 - up to 2000 network regions (starting Aura 6.2FP3)
 - **Core** Network Regions contain gateways, codecs and maybe subscribers
 - **Stub** Network Regions contain subscribers only
 - Network Region Groups (starting Aura 7.1)

Communication Manager roles

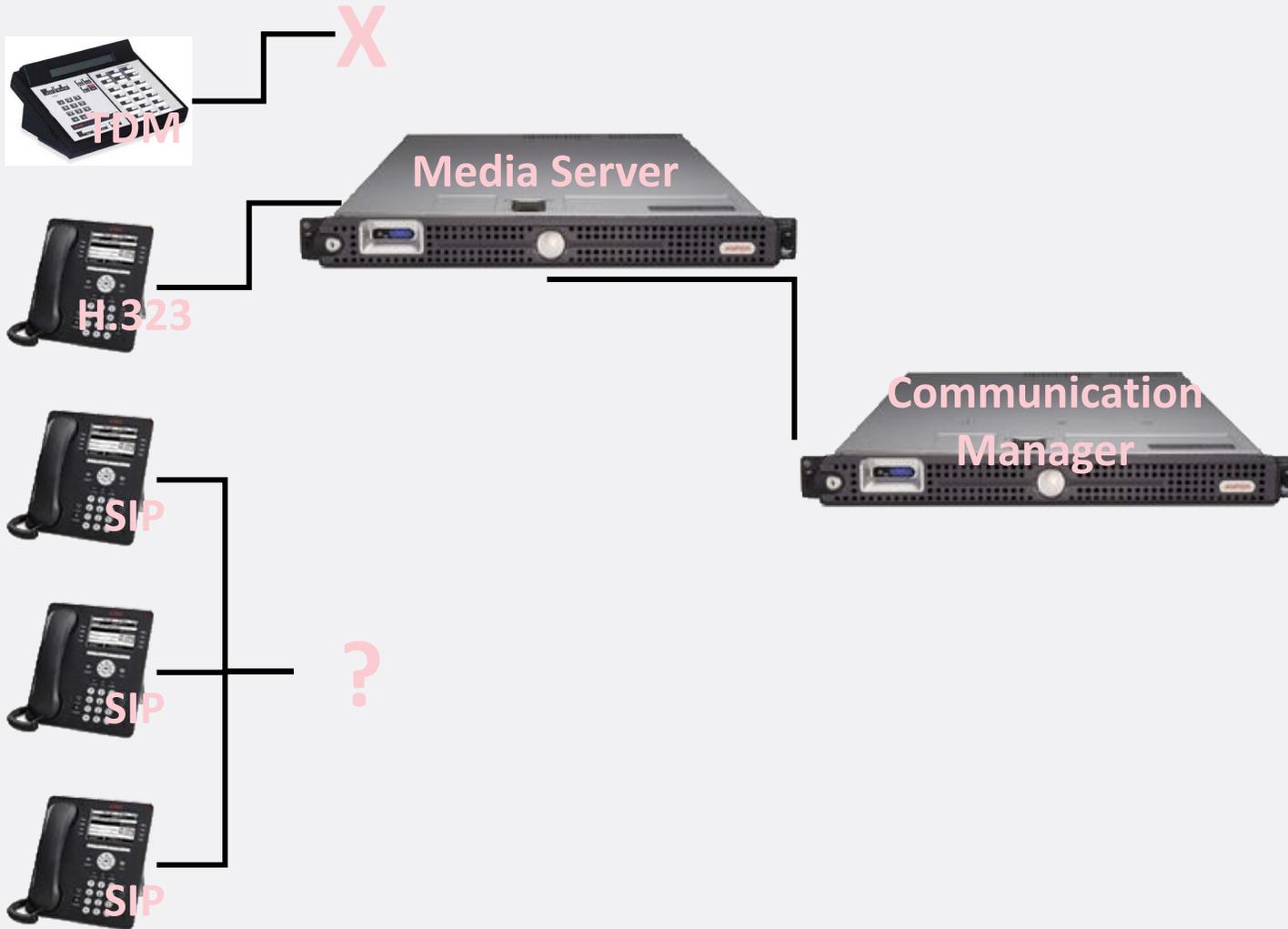
ACM has non-SIP subscribers?
- NO => **Feature Server**
ACM is R6 or newer?
- YES => **Evolution Server**
- NO => **Access Element**

- Three possible roles ACM can play
 - Feature Server
 - half-call mode
 - SIP only
 - SIP devices registration supported by a Session Manager
 - SM use CM-FS as a sequenced application for features provisioning
 - Routing is done by SM
 - Evolution Server
 - full-call mode
 - All gateways and endpoints
 - SIP subscribers register on SM, but are served by ACM
 - SM partially functions as SES (partial device support)
 - Access Element
 - standard ACM R5 or below
 - SM is used as a default route, and that's it

Integration structure



In case of IP Only connections



Avaya Aura Media Server

- Smaller footprint, high channel density
- Virtualized replacement for existing G650/G450 GWs
- Centrally deployed unlimited voice announcements
- Reduced costs for call recording
- Additional codecs (G.722 for ad-hoc conferencing)
- No T.38 (Fax-over-IP)

From



x13

- 13 G450 Gateways, 4160 channels:
39U of rack space

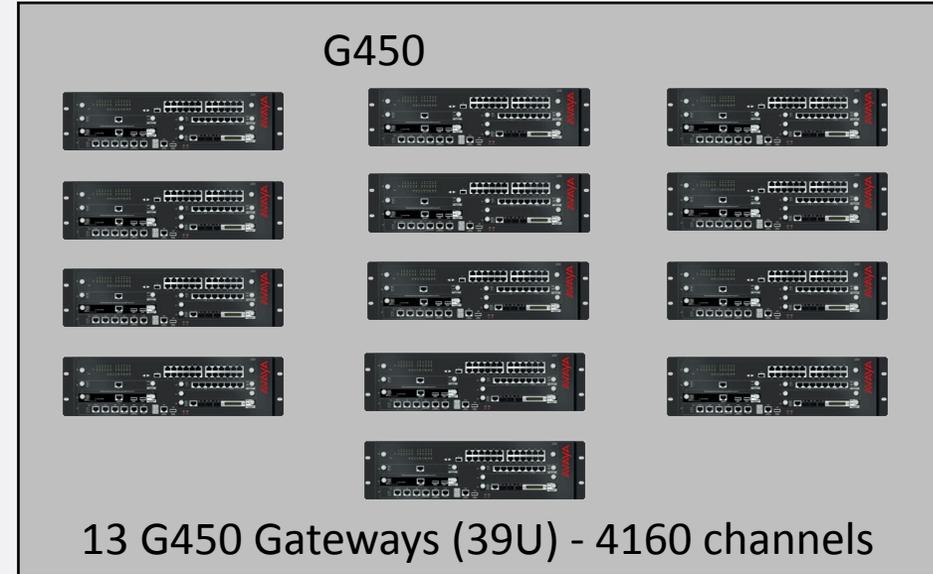
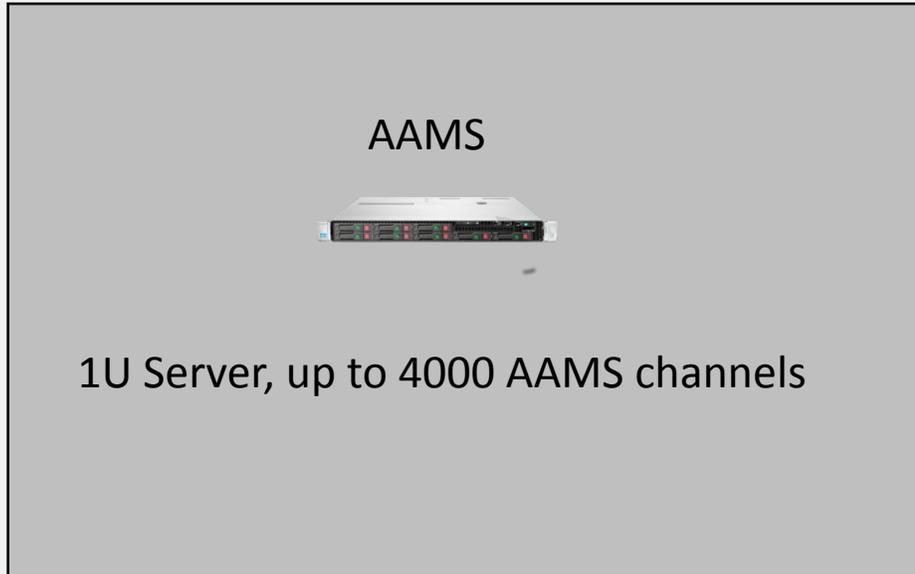
**MASSIVE
FOOTPRINT
REDUCTION**

To



- 1 Server (dedicated) up to 4000 AAMS
channels: 1 or 2U of rack space

Avaya Aura Media Server



- 4 A single CM may contain:
 - Up to 250 AAMS
 - Up to 64 PN (G650)
 - Up to 250 G4x0 gateways
- 4 Any combinations (common pool)
- 4 AAMS licensing: 1 license per instance + 1 license per channel used
- 4 AAMS channel limits
 - Large CM – 40,000 media channels
 - Medium CM – 12,000 media channels
 - Small CM – 5,000 media channels

AAMS vs. Media Gateway

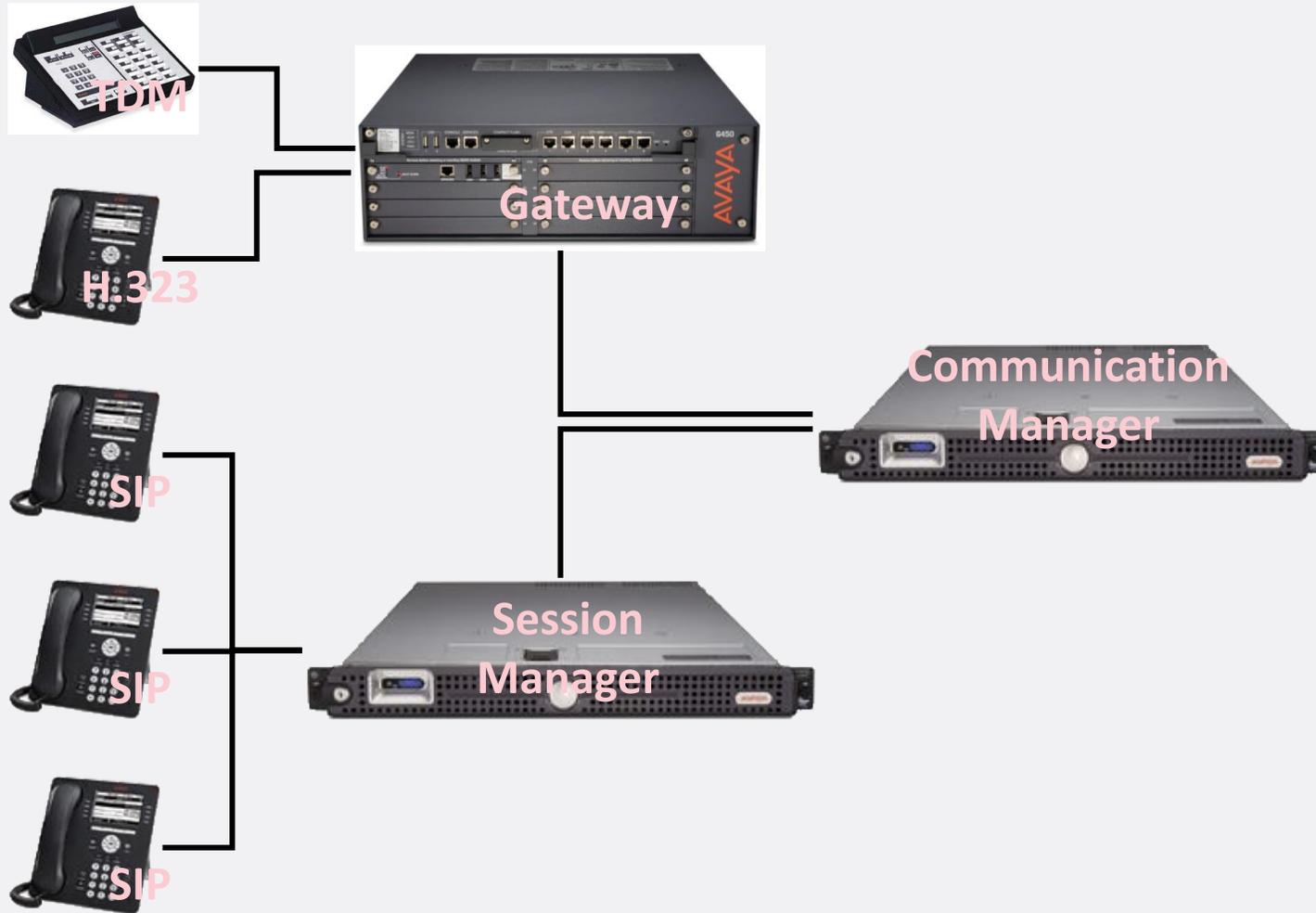
Avaya Aura Media Server

- Virtualized software
- Unlimited Announcements (limit by Channels licensed)
- No TDM support
- No T.38 support
- G.722 ad-hoc conferencing
- Max 4000 DSP channels
- Shareable between CMs

G-series Media Gateway

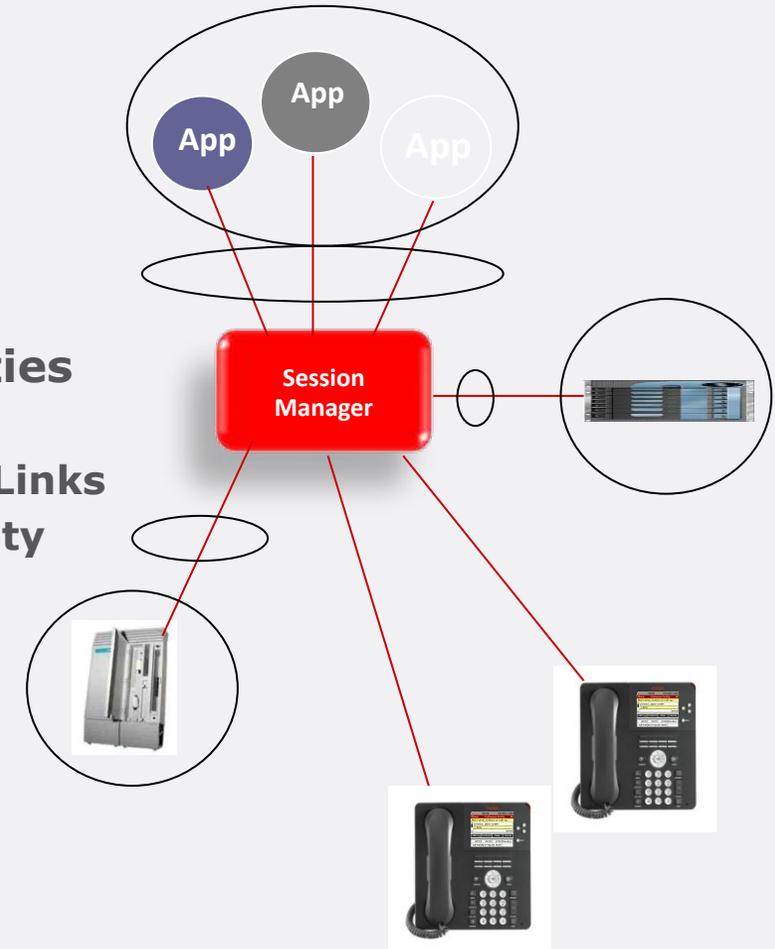
- Hardware
- Announcement time/channels HW limited
- TDM modules
- T.38 support
- No G.722 in ad-hoc conferencing
- Max 320 DSP channels
- Can work with one CM only

Adding SIP: Session Manager



Session Manager basics

- Session Manager routes **SIP only**
- Session Manager connects to:
 - Phones
 - PBX systems
 - Session Border Controllers (SBCs)
 - Applications
- All systems & devices connected to SM are referred to as **SIP Entities**
 - Up to 25000 SIP entities per SM
 - SIP trunks between SM and SIP Entities are referred to as **SIP Entity Links**
 - Any processing starts with identifying SIP entity as a **trusted SIP entity**
- SM is a router. Telephony features are provided by Applications.
 - Most common Application is ACM
 - Messaging, Experience Portal, other Aura apps
 - 3rd party and DevConnect
- SM require System Manager to install & run

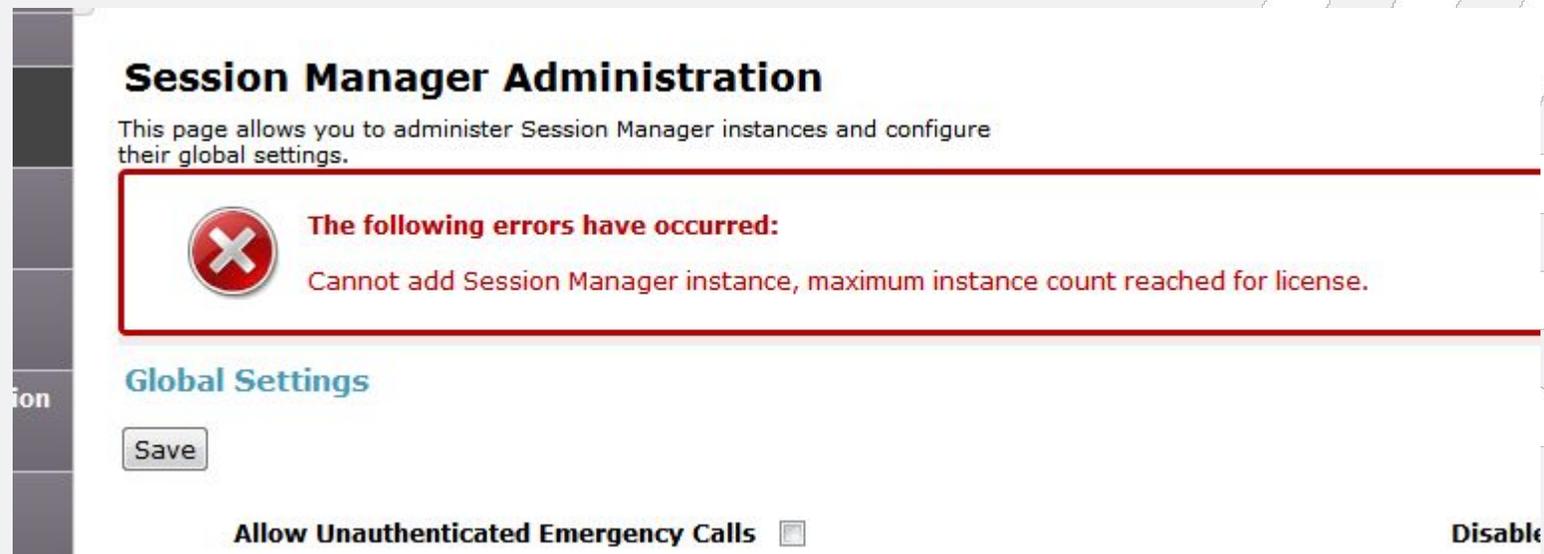


Session Manager features

- SIP high-volume multi-domain router with Application Sequencing
- Multi-vendor compatibility and routing across a multi-vendor environment
 - Adaptation Modules – SIP format convertors – ensure compatibility
 - Aura Session Manager software modules
 - Transparently modify SIP To/From headers on the fly
 - Normalization of the heterogeneous network
 - Due to different SIP dialects on different vendors' solutions
 - SIP transport for non-SIP calls (transparent signaling)
 - Unified centralized dial plan integration
 - with minimum impact on underlying dial plans
 - Tail end hop off (TEHO)
 - SIP application interoperability
- Flexible topology with centralized administration & control
- Load Balancing, HA & Geo Redundancy support
- Admission control
- Application Sequencing - sequence of the Feature Provider apps
 - Full call model: both sides of the call are served at once
 - Half call model: called and calling sides are served independently
 - Sequenced Apps are invoked by SM and can be Breeze apps / snap-ins

Session Manager licensing

- Sessions-based licensing was in place with R6
 - Pooled licenses for actually utilized connections
- Session Manager 7 and up available as session-unlimited
 - One license per instance
 - Sessions limited by VM resources
- SMGR control SM instances quantity



Session Manager Administration

This page allows you to administer Session Manager instances and configure their global settings.

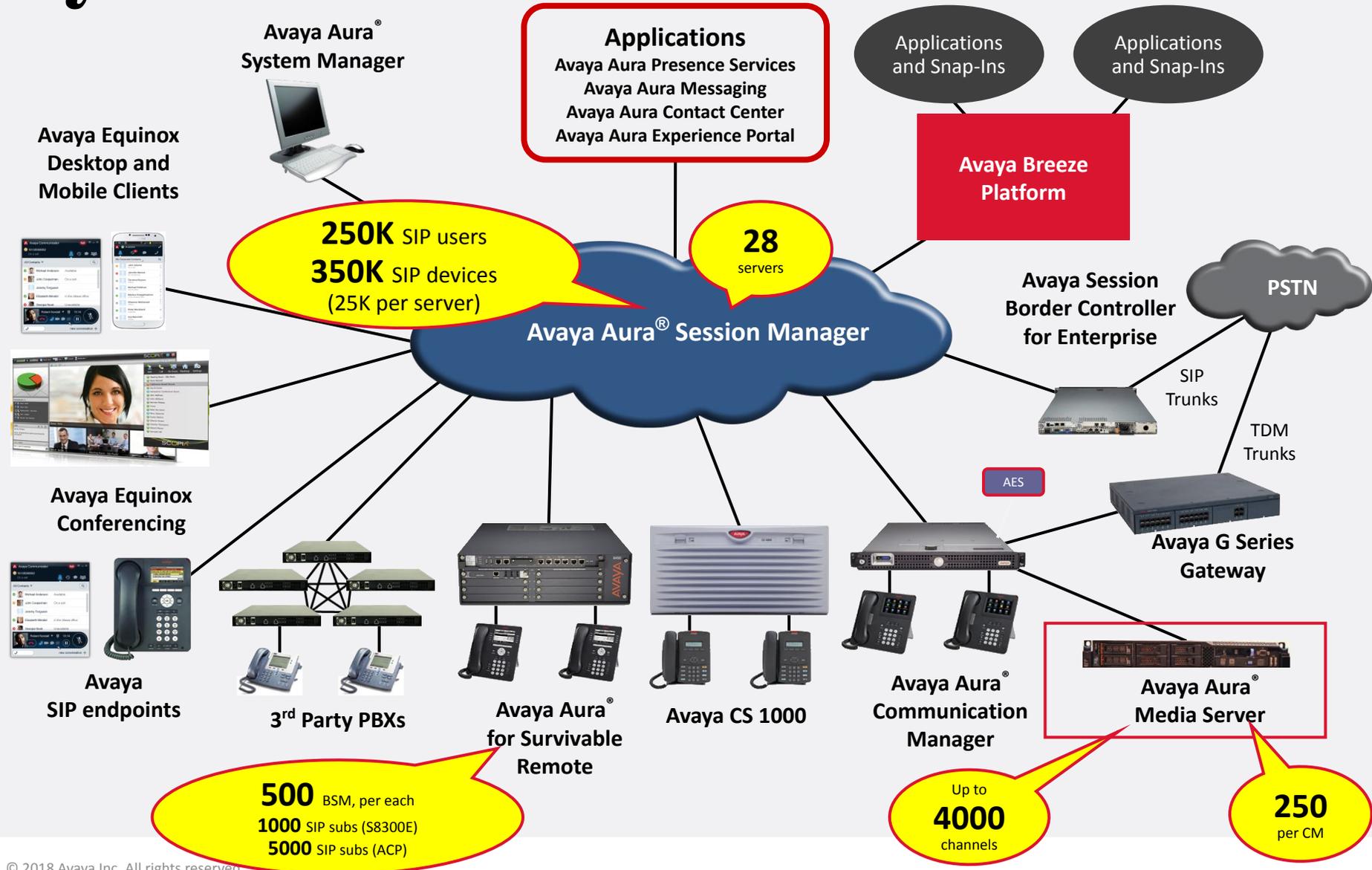
 **The following errors have occurred:**
Cannot add Session Manager instance, maximum instance count reached for license.

Global Settings

Save

Allow Unauthenticated Emergency Calls Disable

Avaya Aura Architecture



Exam[ple] question

You are working on a design for a customer who has **11,000 SIP users**, and you are assuming that the users will have **2 devices registered at a time**. There is a requirement for **redundancy**. Which minimum configuration will satisfy the requirements?

- 1 Session Manager
- 2 Session Managers
- 3 Session Managers
- 4 Session Managers

Exam[ple] question

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- 1 Session Manager
- **2 Session Managers**
- 3 Session Managers
- 4 Session Managers

Avaya Aura Device Services

- AADS allows the Equinox user on any platform
 - Log in with a single corporate login
 - Auto connect to all services
 - Voice, Video, Chat, Presence, Conferencing, Contact Search
 - Auto load configuration for all those services
 - Up to a virtual conf room access number
 - Search and find contact information
 - Aggregated from several LDAP sources
 - Get client update notifications
 - For desktop platforms Windows & Mac
- If the user has several Equinox clients
 - Setups will be in sync transparently for the user
- Requires Session Manager R7.0.1.2 or later

What's inside AADS feature sets

- Services
 - Contact Service
 - Works with PPM, Exchange, enterprise directory contacts
 - Photo and contact fields
 - Corporate databases only
 - No sync for local contact
 - Consolidates contact data from multiple sources
 - Enterprise Sign-on
 - Corporate / Windows ID
 - Dynamic Configuration Service
 - Autoconfigures app or Vantage terminal
 - Unified login
 - Group/platform/subscriber dependent configuration data
 - Minimizing manual configuration entry
 - Web Deployment Service
 - Update framework for desktop Equinox clients
- Deployment
 - Separate VM / OVA
 - Licensed as Session Manager entitlement
 - Requires both System and Session Manager to function

Aura / ACM Survivability

- Servers that be
 - LSP & ESS survivable servers
 - LSP allows registration of H.248 / H.323 entities
 - ESS also support IPSIs/G650
 - Keep translation data up to date automatically
 - Can be locally updated, but with no “save translation” option
 - IP Office-based Branch (B5800)
 - Preadministered, serve as a branch switch
 - G430 / G450 Standard Local Survivability
 - Basic telephony features based on gateway internal resources
 - 150 (G430) / 250 (G450) subscribers
- Rainy Day Scenario: fill the Net with Survivable Servers
 - LSP & ESS survivable servers
 - Cold switched, part of the connections are lost
 - Direct IP-to-IP (shuffled) calls survive
 - Calls preserved by H.248 (G430 / G450) gateways are kept
 - Cold return to Sunny Day
 - Fallback scenario: manually, by timeout or by schedule

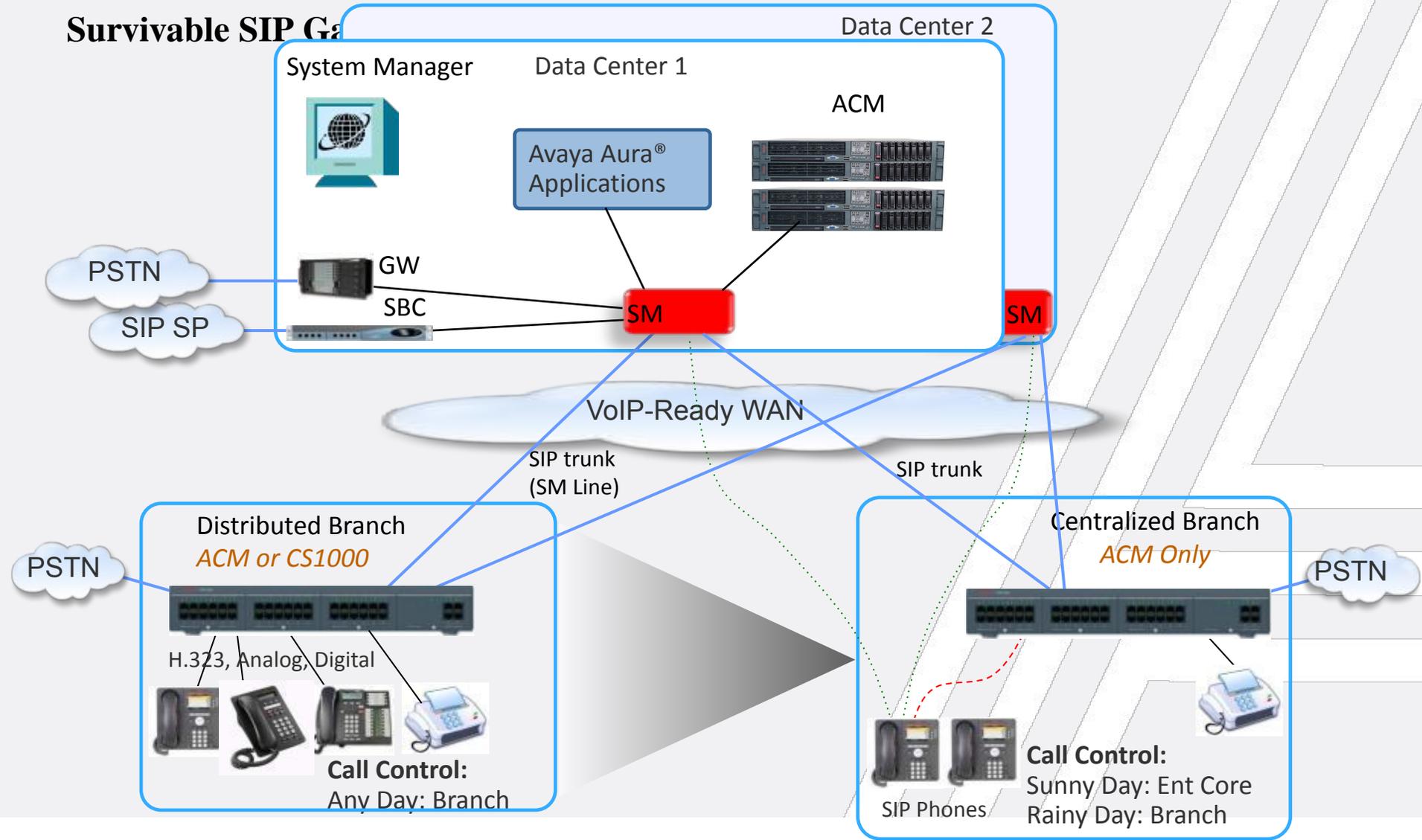
Avaya Survivable Core / Remote

- ESS/LSP replacement in a SIP-centric environment
 - Provide reserve for CM-FS and CM-ES, full ACM features support
 - Survivable Core – up to 63 servers or server pairs
 - Controller for H.248 and G650 gateways
 - Can be simplex or duplex (same or lower than the Core) as ESS
 - Survivable Remote – up to 250 servers
 - Controller for H.248 gateways and H.323 phones
 - Simplex or embedded as LSP
- SIP helps tracks the SC/R activity
 - SIP OPTION heartbeat – from SM
 - [B]SM polls SC/R if core ACM contact is lost
 - Gateways and subscribers reconnects as usual
 - Backward reconnection according to Media GW Recovery rules
- Branch Session Manager VM – SIP reconnection point
 - Sometimes called a Survivable Remote Session Manager
 - Controls branch SIP phones and trunks at a rainy day
 - SC/R serves as a controller for BSM in Rainy Day scenario

Branch solution: B5800 / IPO

Branch

Survivable SIP Gateway



IPO Branch capabilities

- Trunk capacity
 - CO (up to 16), T1/E1 PRI (up to 8) , BRI, SIP (up to 128)
- Subscriber capacity
 - Up to 384 subscribers
 - Up to 2000 Branch per system
- Voice Compression Module
 - Up to 148 channels
- Conferencing
 - 128 ports, up to 64 in a single conference
 - Conferences are limited by channels' qty
- System Manager administrable
 - View/edit both System and Security configurations
 - Simplified centralized users administration
 - Templates for user records management

Exam[ple] question

You are working with a customer that has **4,000 employees in 4 locations. Singapore houses the main data center and Sidney houses the backup data center.** They have **branch locations in Los Angeles and Denver.** They are asking for geographic redundancy for telephony functionality. They want local survivability at their branch locations for telephony functionality. Which three configurations will meet their requirement for telephony redundancy and survivability? (Choose three.)

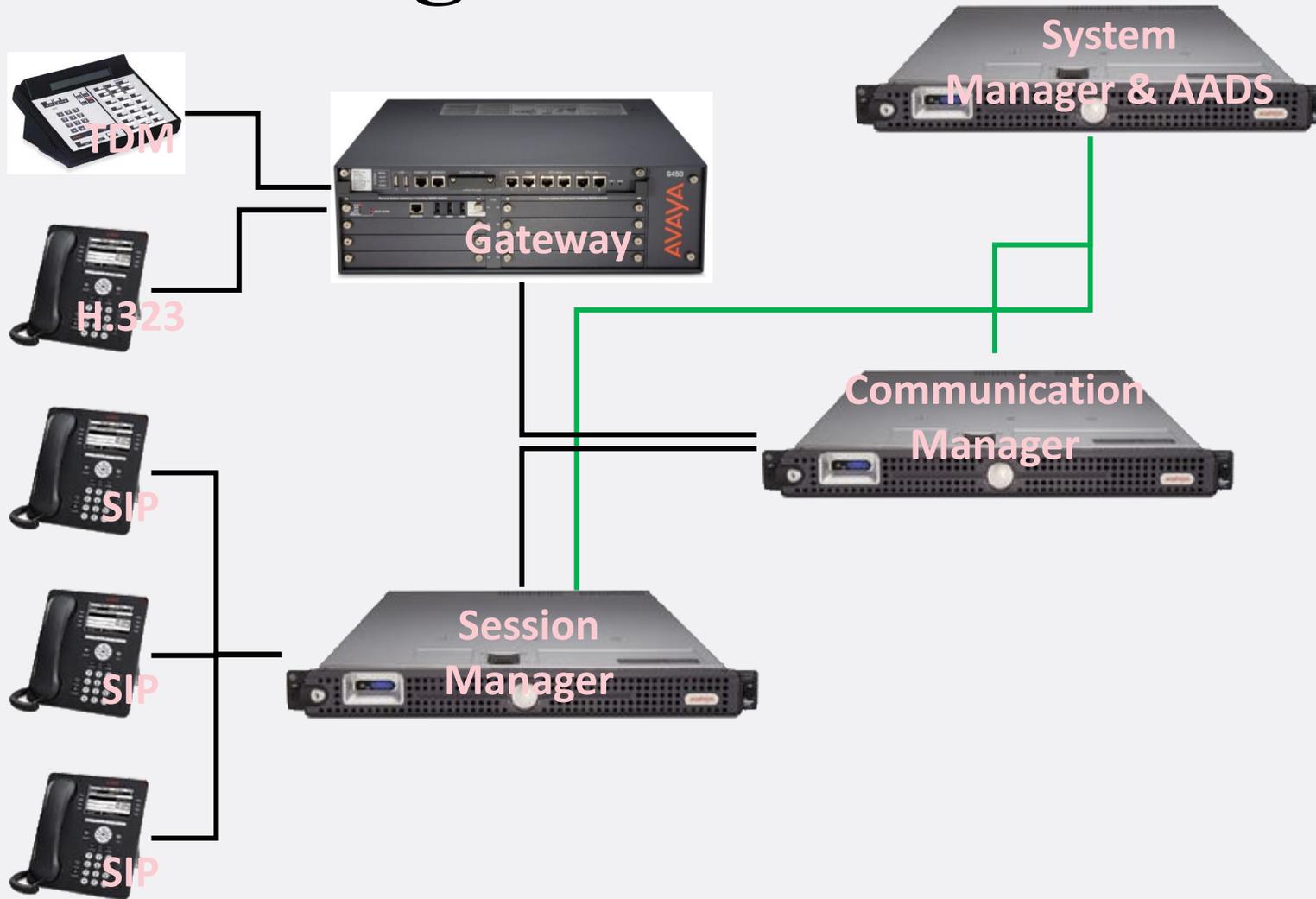
- Survivable remote CM instances deployed in Los Angeles and Denver
- One duplex pair of CM servers deployed as the active CM instance in Singapore
- One duplex pair CM servers deployed as a survivable Core in Los Angeles
- Survivable remote CM instances deployed in Singapore and Sydney
- One duplex pair CM servers deployed as a survivable Core in Sydney
- One duplex pair of CM servers deployed as the active CM instance in Denver

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- One duplex pair CM servers deployed as a survivable Core in Los Angeles
- Survivable remote CM instances deployed in Singapore and Sydney
- **One duplex pair CM servers deployed as a survivable Core in Sydney**
- One duplex pair of CM servers deployed as the active CM instance in Denver

Getting Aura under control

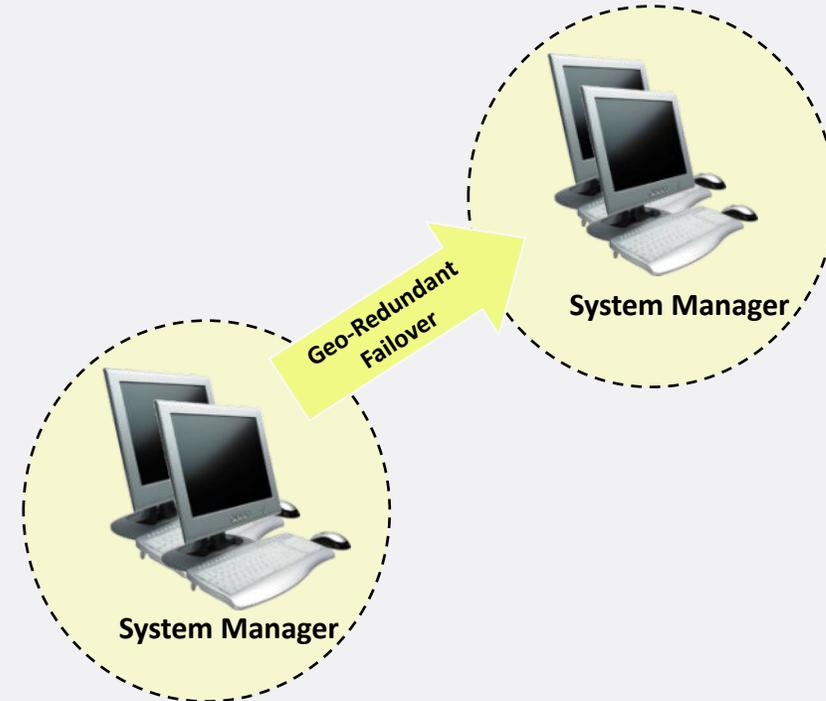


System Manager

- System Manager - centralized administration of the solution
 - provisioning, maintenance, and troubleshooting
 - mandatory component
- Delivers capabilities that
 - Provide single management and programming interface
 - Enable user data to be entered once and shared
 - LDAP bidirectional sync with Active Directory, Novell eDirectory, SunOne, IBM Domino and OpenLDAP
 - Integrate with the enterprise IT infrastructure
 - Uses Simple Certificate Enrollment Protocol trust management
 - Administer authentication, authorization, registration, and a central dial plan
 - Granular RBAC and OpenSSO support
 - Manage logging and SAL alarming (using SNMP / NMS)
 - Enable central licensing using WebLM
 - Manage Software Updates via Software Update Manager
 - Support Virtualization and Geographic Redundancy

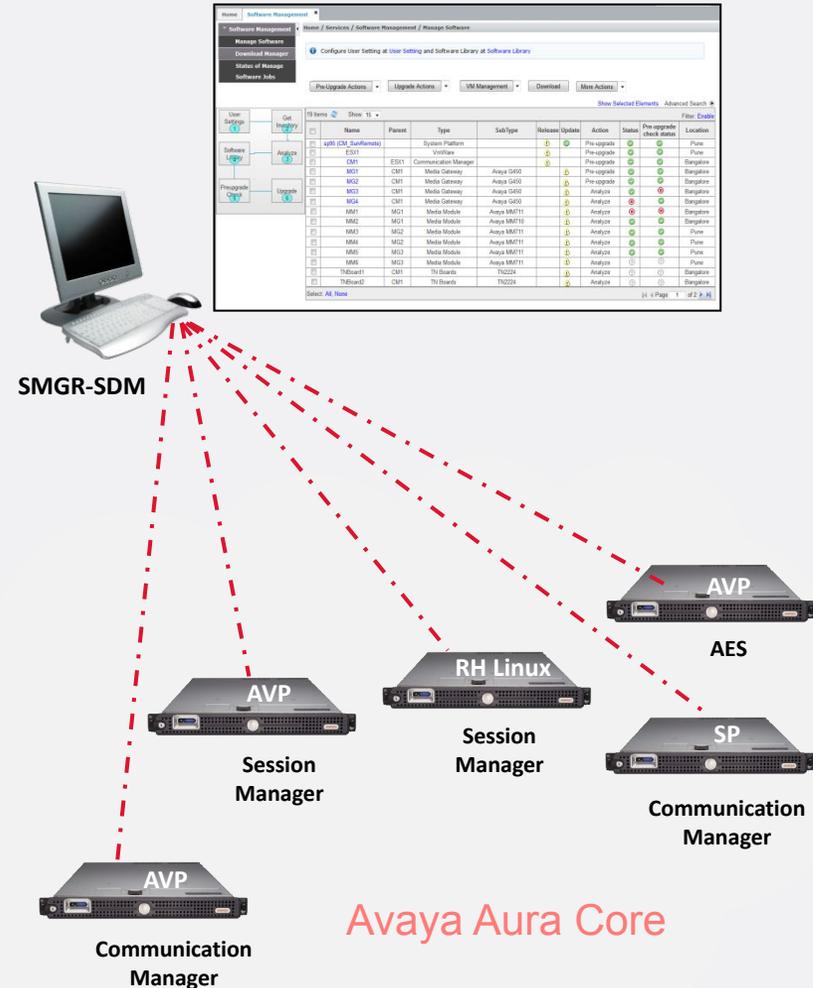
SMGR Geo-Redundancy

- Supported on SM/SMGR R6.3 and later
- System Manager configuration
 - Two identical Avaya-provided servers with same software version
 - Two servers reach on network
 - 1.544 Mbps min recommended
 - WAN split will activate both servers
 - Clocks synchronized
- No identified capacity changes
- Not supported for
 - hybrid half-virtual configurations
 - MES



Aura R7 Solution Deployment Manager (SDM)

- 4 Solution Deployment Manager (SDM) – System Manager (SMGR) service, allows to install & control new Aura applications and set up updates
- 4 SMGR-SDM – integration of tools
 - SMGR Software Management,
 - Avaya Virtual Appliance Manager (AVAM)
 - old System Platform tools (migrated)
- 4 SMGR with embedded SDM – main Avaya Aura control tool.



Name	Parent	Type	Sub-Type	Release	Update	Action	Status	Pre-Upgrade Check Status	Location
sys01_CM_SysElements		System Platform				Pre-Upgrade			Pune
CM1	ES01	Communication Manager				Pre-Upgrade			Bangalore
MG1	CM1	Media Gateway	Auraya G450			Pre-Upgrade			Bangalore
MG2	CM1	Media Gateway	Auraya G450			Pre-Upgrade			Bangalore
MG3	CM1	Media Gateway	Auraya G450			Analyze			Bangalore
MG4	CM1	Media Gateway	Auraya G450			Analyze			Bangalore
MG1	MG1	Media Module	Auraya MM710			Analyze			Bangalore
MG2	MG1	Media Module	Auraya MM710			Analyze			Pune
MG3	MG2	Media Module	Auraya MM710			Analyze			Pune
MG4	MG2	Media Module	Auraya MM710			Analyze			Pune
MG5	MG3	Media Module	Auraya MM710			Analyze			Pune
MG6	MG3	Media Module	Auraya MM710			Analyze			Bangalore
TR02001	CM1	Tx Boards	TR2224			Analyze			Bangalore
TR02002	CM1	Tx Boards	TR2224			Analyze			Bangalore

SDM Upgrade: make your life easier

Was

Fully manual
Don't use the Force, Luke!

Standing by... by... by...
Press Next and bring your coffee

Errare humanum est
Manual bug tracking



Looooooooooooooooong
Manual and boring
Error-friendly

Is

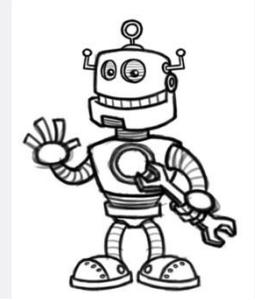
Press a button
Get result

SDM works – human decides
Runs in background

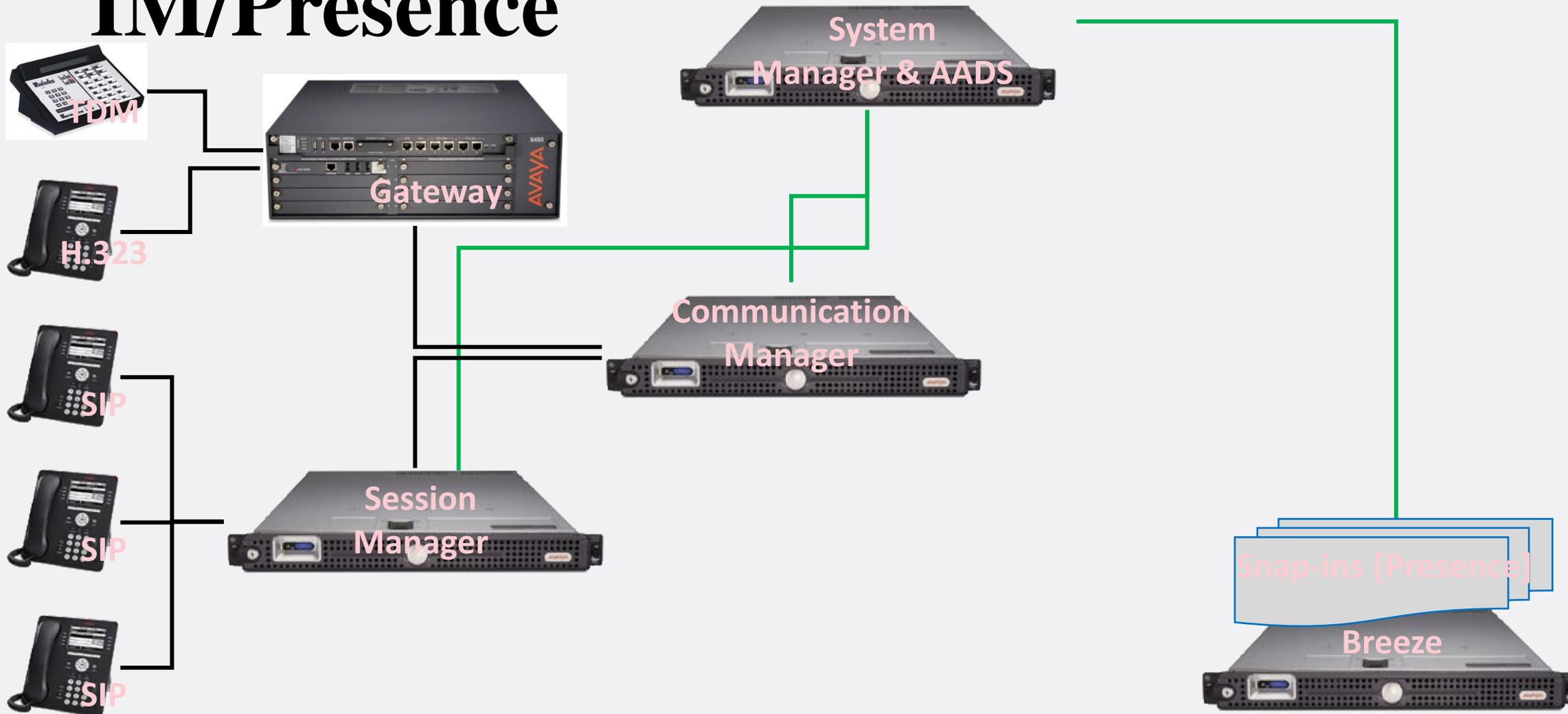
Protect from possible errors
Pre-checking prerequisites

Fast

Automated
Error-proof



Breeze App Platform and IM/Presence

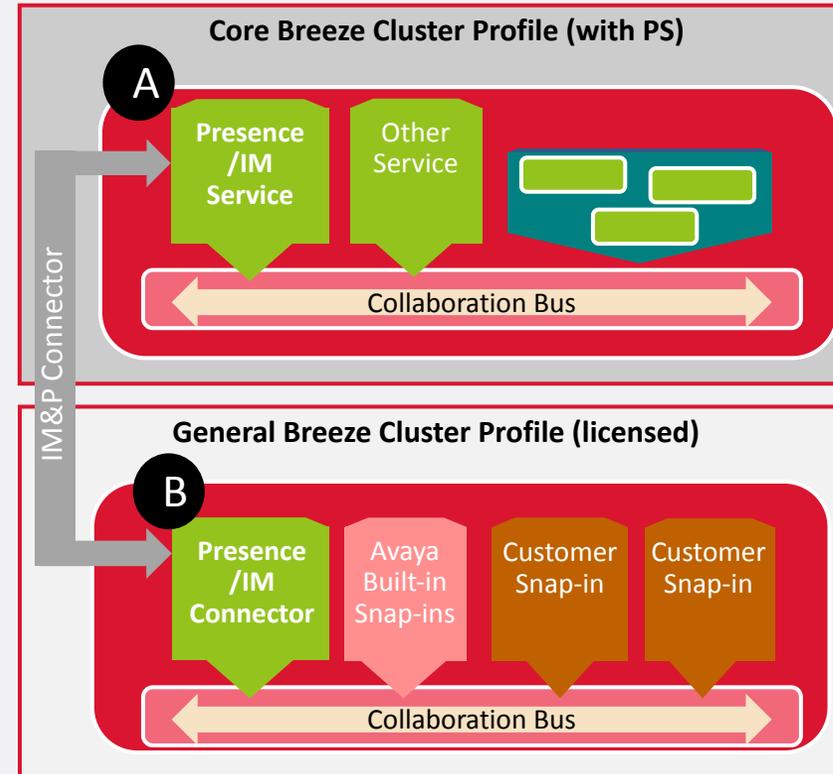


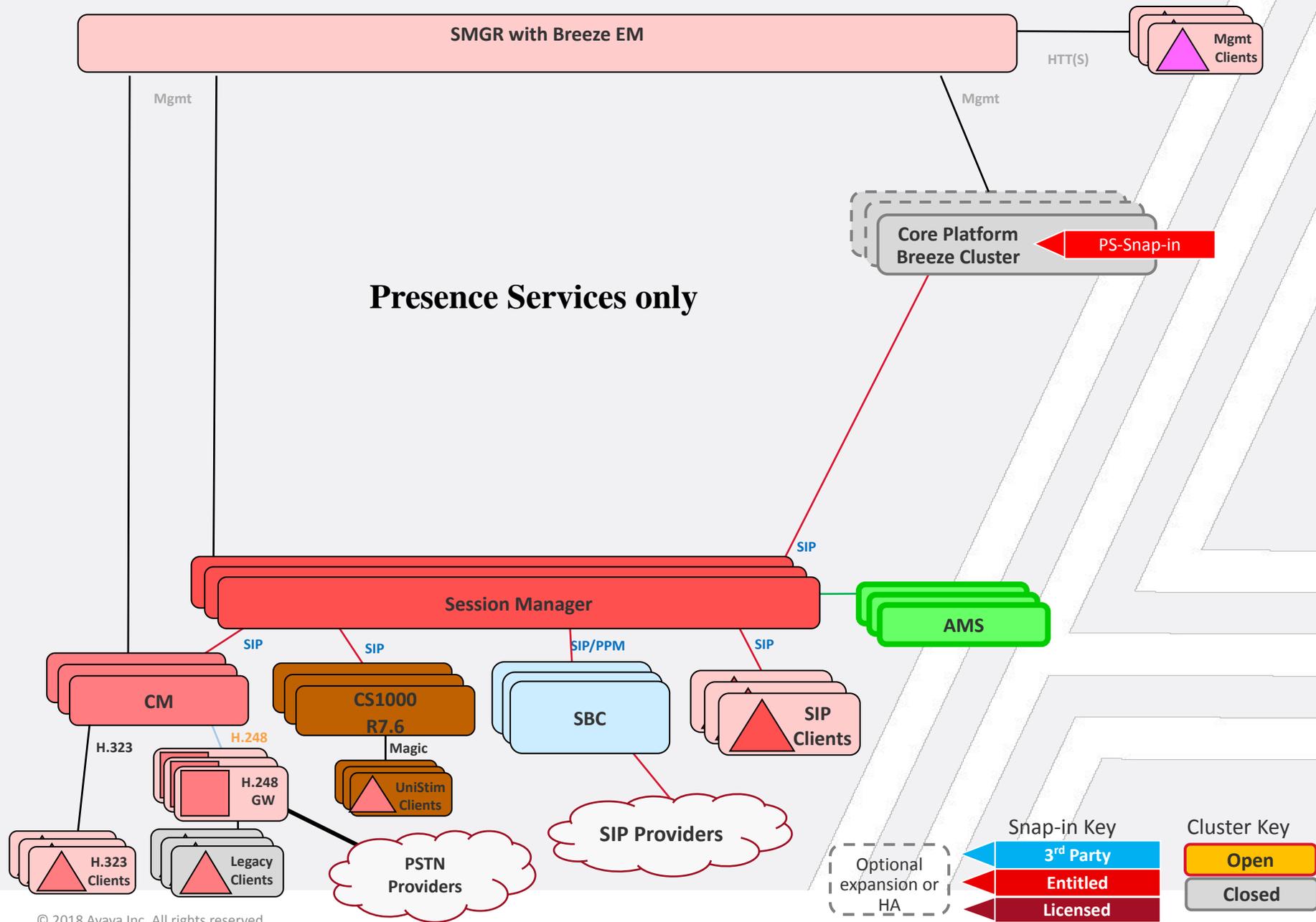
Presence Services features

- Collects, aggregates, and organizes presence information
- Provide the instant messaging function
- Creates a single user's (not multiple identities) presence view across all devices
 - Provides user's availability, status, preferred mode of communication, and even user location.
 - Federates presence information from multiple in-domain and foreign sources
 - Aggregate presence information according to policies and rules
- Disseminates detailed presence information to other applications
 - Uses server to server updates to minimize network load
- Aura Core component
 - Avaya Breeze snap-in for dedicated Core Breeze cluster
 - Using N+1 scheme for HA design
 - Administered by System Manager (SMGR mandatory to set up and run PS)
 - Can handle 16000 users per server (with 150 buddies per user)
 - Support load balancing, 8-server cluster can support up to 125 000 users
- Compatible with all Avaya presence-enabled H.323, SIP or Mobile clients
 - Can interwork with MS OCS R2 / MS Lync (case by case, design approval required)
 - Support SIP/SIMPLE and XMPP
 - Can import MS Exchange Calendar status data

Presence Services on Breeze (R7+)

- Better scaling and reliability with Presence Services Breeze platform delivery (HA и Geo Redundancy). Presence Service is installed on a dedicated **closed** Breeze instance.
- Snapping-in IM and Presence Connector into a **general purpose** Breeze instance / cluster allows third-party developers to directly connect to and utilize the PS/IM services via Presence & IM related APIs
- Rapid development support with the stable scalable environment renders lesser implementation time for PS/IM based business critical applications





Avaya Multimedia Messaging

Making IM & Presence more effective for business



4 IM across mobiles and desktop

- Send text or media to any Avaya UC client
- Access messages from any Avaya UC client

4 Rich user experience

- Utilize device capabilities to exchange text, **audio**, **video**, **pictures**, files
- **Single view of all open conversations** allow users to manage them effectively
- **Push-button escalation** from IM to call
- **Persistent conversations** – across clients & login/logout events

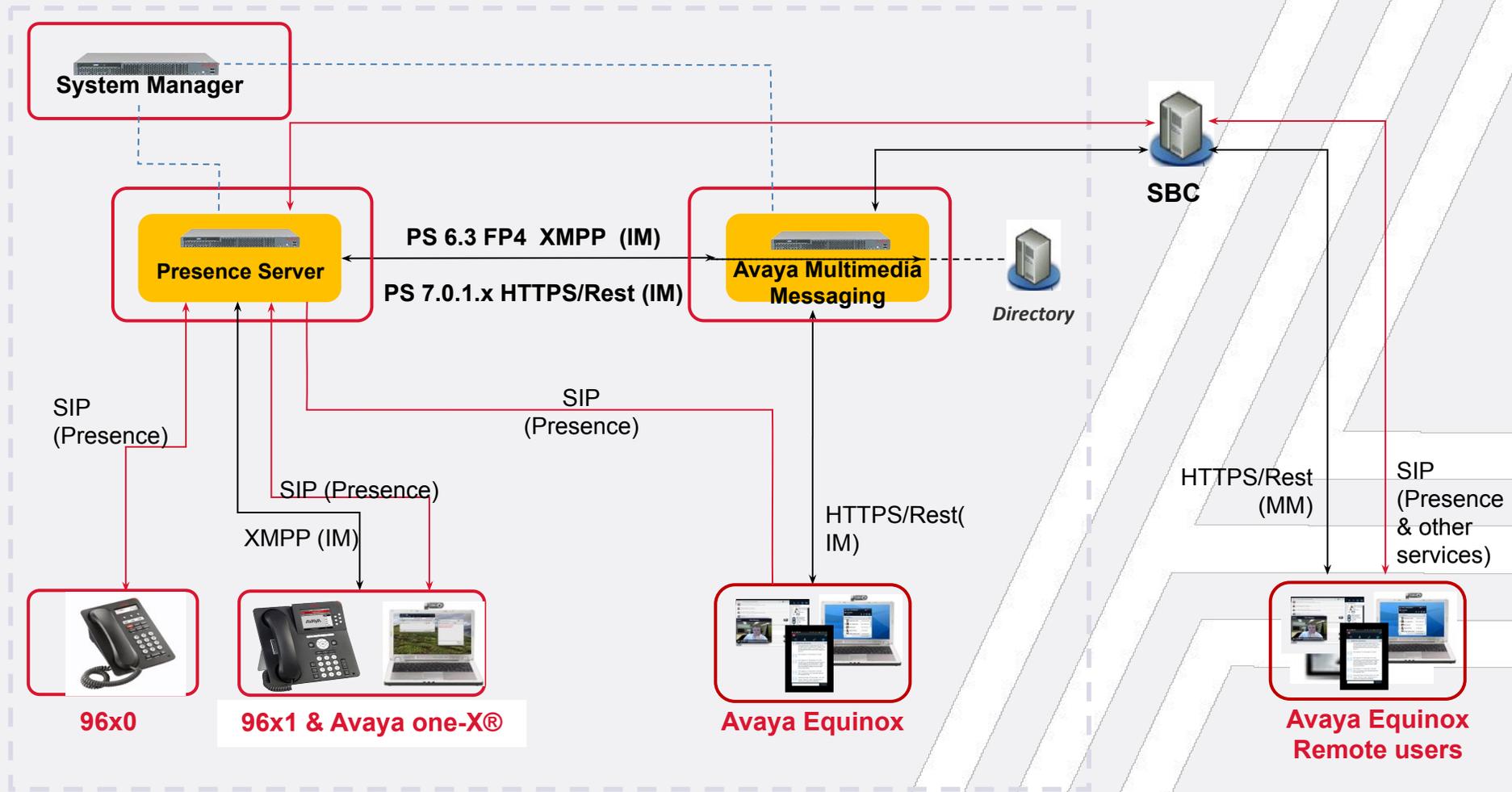
4 More efficient team interactions

- Individual or group IM; initiate & leave at will
- Send to offline users
- Subject-based conversations

4 Enterprise-class solution

- **Secure** message delivery; **scalability**
- Seamless integration with Aura **Presence**
- **Interoperability** across Avaya endpoints

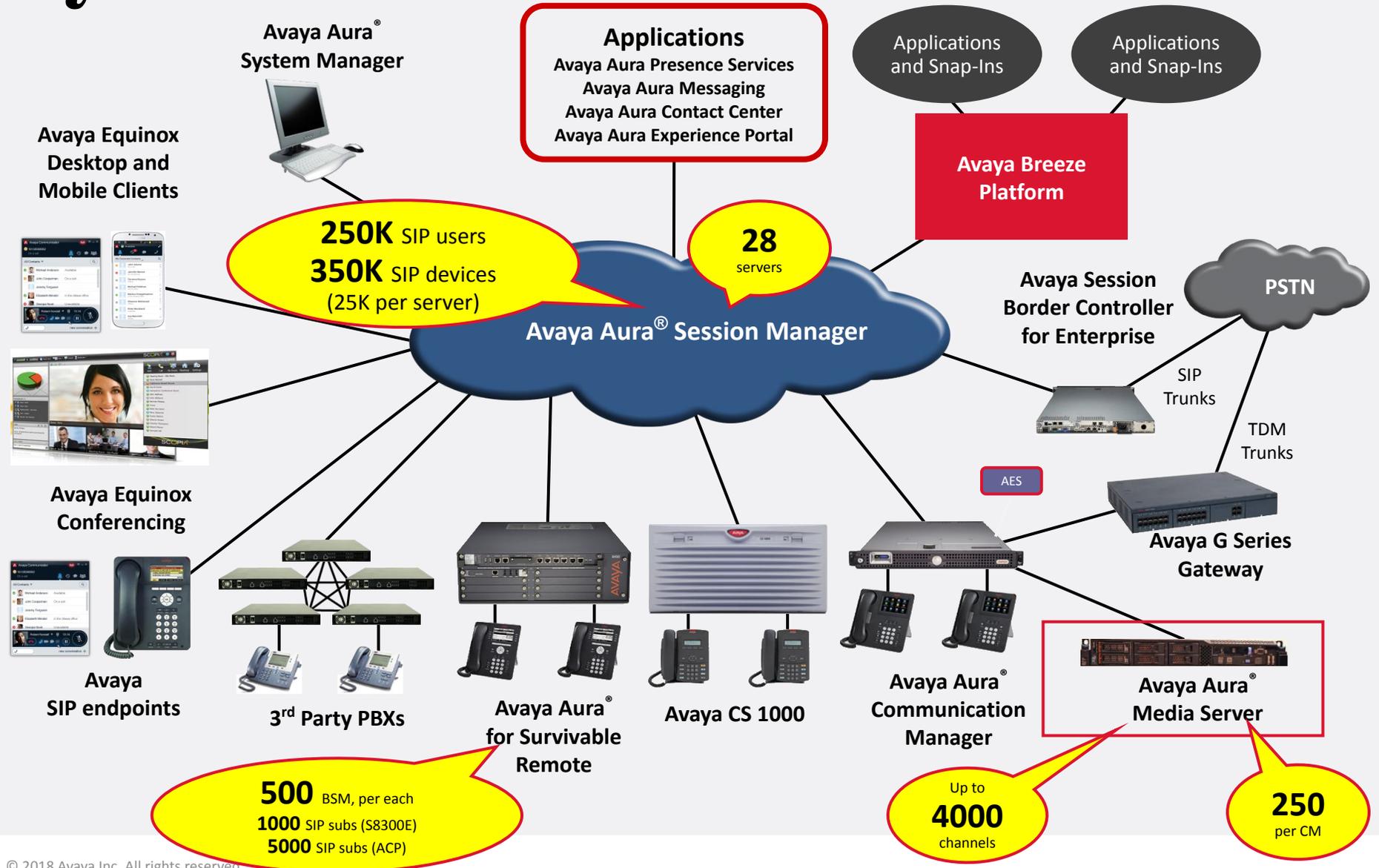
Multimedia Messaging & Presence Services



AMM Design considerations

- Capacities
 - Single-server
 - Up to 5000 users per server
 - Clustered
 - Up to 6 servers on a single LAN
 - 25K users per HA cluster (N+1)
 - HA cluster can't be less than 3 servers (1+1 not supported)
 - 30K users per SA cluster
 - Multi-site / Multi Cluster
 - Up to 9 clusters per AMM system
- Licenses
 - Basic:
 - Can attach existing file on desktop client
 - Can't attach anything on mobile client
 - Enhanced:
 - Can paste/attach clipboard contents desktop client
 - Can attach any type of content (voice/photo/video/file) on any client
 - Can directly record in-app photo/voice/video attach on any client
 - Any licensed user can read/receive any type of message

Avaya Aura Architecture



Avaya Aura Licenses

- Propose the right mix for the customer

Basic user, Common areas, Back office personnel			Sales, Field personnel, Exec's	Exec's, Project leaders, Dept. Mgrs.
<p>Analog: Telephony</p> <ul style="list-style-type: none"> • Basic Analog User • Common Areas: <ul style="list-style-type: none"> • Lobby, Manufacturing Floor, etc. • Vertical Markets: <ul style="list-style-type: none"> • Hospitality, Healthcare, Education • One User / License / Device • Analog Devices 	<p>Basic IPT: IP Telephony</p> <ul style="list-style-type: none"> • Basic Telephony User • Common Areas: <ul style="list-style-type: none"> • Lobby, Manufacturing Floor, etc. • Vertical Markets: <ul style="list-style-type: none"> • Hospitality, Healthcare, Education • One User / License / Device • Supported Devices: <ul style="list-style-type: none"> • 1603, 1603SE_i (H.323), E129 SIP, J129 SIP, IPO ATA 	<p>Enhanced IPT: IP Telephony w/Security & Survivability</p> <ul style="list-style-type: none"> • Basic Telephony User • Common Areas: <ul style="list-style-type: none"> • Lobby, Manufacturing Floor, etc. • Vertical Markets: <ul style="list-style-type: none"> • Hospitality, Healthcare, Education • Security: SRTP, TLS, Encrypted SRTCP, Certificates • Redundancy/Resiliency • One User / License / Device • Supported Devices: <ul style="list-style-type: none"> • 9601 SIP, J129 SIP 	<p>Core Suite: Mobile</p> <ul style="list-style-type: none"> • Mobile / Desktop User • Equinox Client: Windows, Mac, iOS, Android • P2P Video • Multimedia Persistent Messaging: <ul style="list-style-type: none"> • Send & Receive Text, Receive Multimedia • Basic Unified Messaging: Call Answering, Voice Messaging • SBCE for Secure Remote Access • Supports ANY Avaya Device • Supports 10 Devices 	<p>Power Suite: Collaboration</p> <ul style="list-style-type: none"> • All Capabilities of Core Suite • HD Audio, Video and Web Conferencing Meeting Host / Owner • Enhanced Multimedia Persistent Messaging: <ul style="list-style-type: none"> • Send & Receive Multimedia • Mainstream Unified Messaging: Call Answering, Voice Messaging Reach Me, Notify Me, Fax, Speech-based Features
<ul style="list-style-type: none"> • No Device Substitutions, as new devices come to market they are assessed for applicability relative to IPT License Use Cases • Device must be ordered at time of License • System must still have 20% of the Licenses as Suites 			<ul style="list-style-type: none"> • End-to-end user experience, Common UX from desktop to mobile – Single Identity • Avaya Communicator for Microsoft Lync integration • Comms enabled, context aware apps 	

License Entitlements

- Included
- Choice
- ✳ Aura 8 offer
- ⬠ CMM (EoS) for New Will continue to be available at CMM R7 level for Upgrades, Uplift and Adds (Existing entitlements remain in place on upgrade)

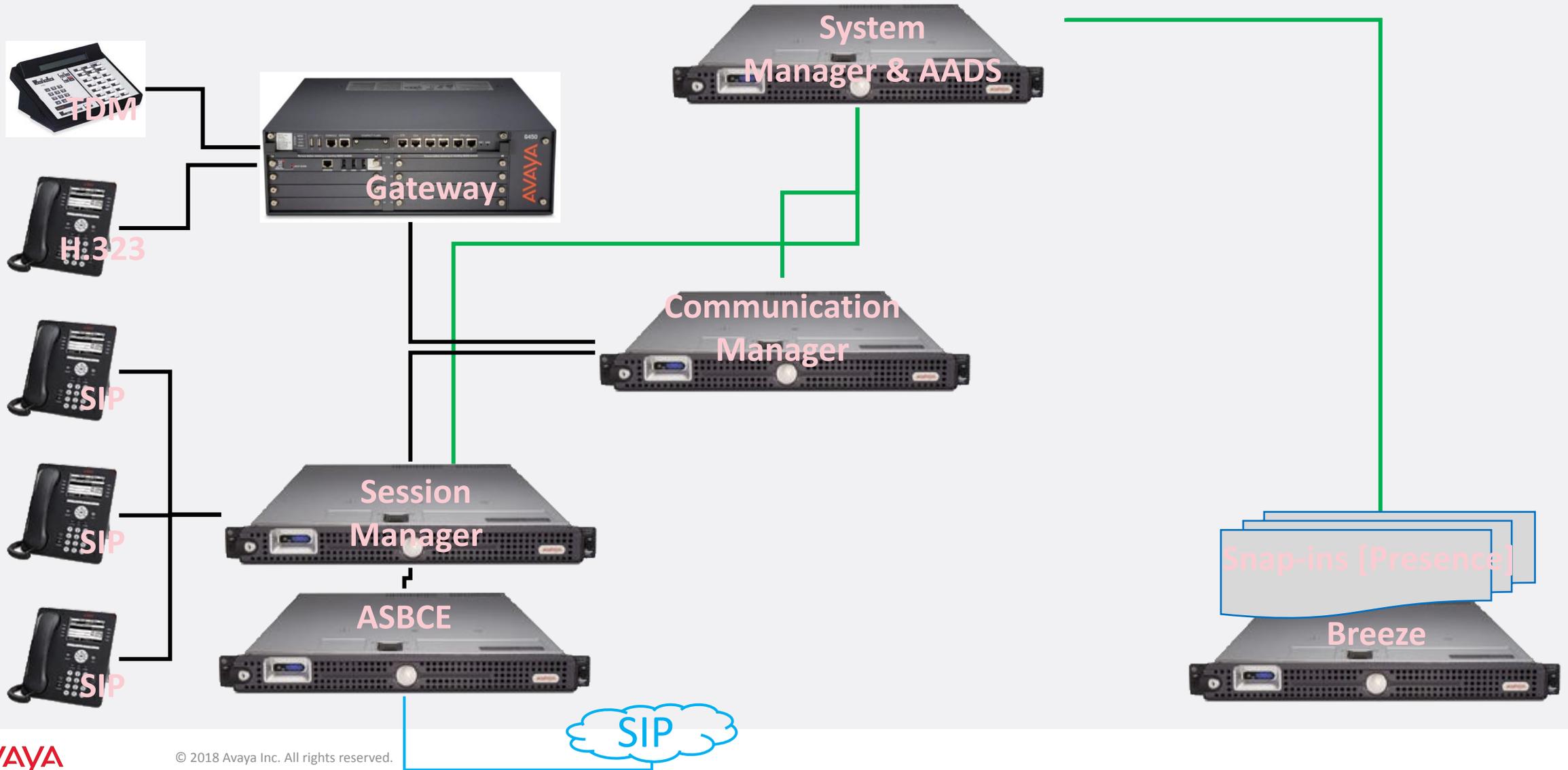
License / Entitlement	Analog	Basic IPT	Enhanced IPT	Foundation UA landing point for SE EE and Foundation	Core Suite	Power Suite
Avaya Aura CM, System Manager, Session Manager, IM/Presence, Survivability, CM-Messaging	Just Avaya Aura CM		●	⬠	●	●
Equinox for Desktop				●	●	●
Avaya Communicator for Microsoft Lync				●	●	●
Desktop P2P Video (1xVideo)				●	●	●
Equinox for Mobile devices, EC500, 1X Mobile SIP, 1X CES Equinox for Web					●	●
Breeze™ User Breeze™ System for Presence Closed Instance (1)					●	●
SBCE Remote Access (with HA) SBCE SIP Trunking Session (with HA)					● 7:1 ● 7:1	● 7:1
Avaya Messaging (UM)				A la carte AAM or OL + a la carte priced SA	● Basic AAM or Officelinx	● Mainstream AAM or Officelinx
Avaya Multimedia Messaging (IM)					● Basic @ R7 @ Aura 8 Enhanced	● Enhanced

Suite Licenses w/1 (Foundation, Mobility and Collaboration) systems can be extended using Core/Power licenses

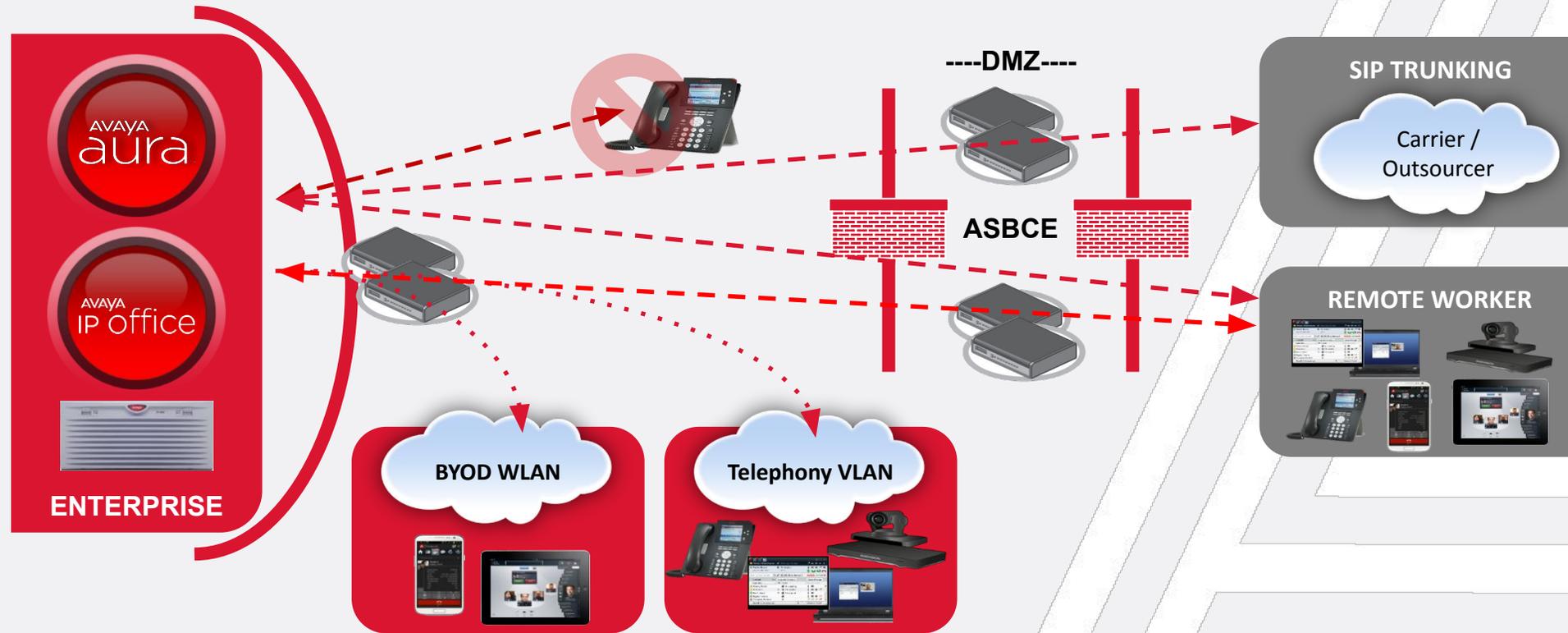
The background of the slide is a repeating pattern of red geometric shapes on a white background. The shapes are composed of thick red lines forming squares and rectangles, some with smaller squares inside them, creating a maze-like or labyrinthine effect. The pattern is consistent across the entire slide.

Session Border Controller

SIP Border Control



Session Border Controller for Enterprise



COMPREHENSIVE SECURITY

- Threat Protection, Privacy, Policy Enforcement, Access Control
- Protection from Toll Fraud, DoS, DDoS, MitM...
- Full featured VPN'less Remote worker

ASBCE Components

ONE SOFTWARE PRODUCT



LICENSED FEATURE GROUPS

STANDARD SERVICE

- Per session license
- Secure SIP Trunking

ADVANCED SERVICE

- Per session license
- Remote Worker, Media repl., Encryption

CES SERVICE

- Per session license
- More secure CES use

TRANSCODING SERVICE

- Per session license
- Targeted CODEC needs

VIDEO SERVICE

- Per session license
- Supports Scopia Video SIP clients, BCFP

PLATFORM OPTIONS

HP DL360G9



Dell R630



HP DL360G9



Dell R330



Portwell CAD-0230



VMware
virtualization

CSRIII Hi-Capacity Hardware

- One server for SA
- Three servers for HA
 - 2* SBC + EMS
- Accelerator optional

CSRIII Dell & HP; Single CPU

- One server for SA
- Three servers for HA
 - 2* SBC + EMS
- Accelerator optional

Portwell

- Low end
- SA Only

Virtualized offer

- VMware-based
 - customer licensing required
- Both SA and HA supported
 - 3 VMs for HA
 - Mix allowed – virtual EMS and HW SBCs

ASBCE Feature Groups

STANDARD SERVICES – SECURE SIP TRUNKING

- EMS: simplicity of implementation and administration
- Advanced UC Security: Toll Fraud, Call Walking, etc.
- Deep Packet Inspection (SIP and Media)
- DoS/DDoS (flood, resource hang/open transaction, crash/fuzz)
- ACL/White/Black listing
- SIP Normalization – SIP trunk integration module STIM
- Call Admission Control
- DTMF manipulation
- NAT
- RFC 5853 Compliant
- VLAN Routing
- Media Anchor Release
- Multi Tenancy (EMS Management included)
- Load Balancing
- Multiple Interface Support
- Multiple Subnet support
- Geo-Redundancy
- New High Capacity options
- New IPv6 (dual stack) support
- New EMS HA (active-active)
- New ENUM routing support

ADVANCED SERVICES

- Remote Worker: validate and securely support remote/mobile users for Avaya Aura UC services
 - VPN-less; Supports both near and far end NAT
 - Supports Avaya hard and soft clients per solution-tested compatibility matrix
 - New SIP OneX Agent Support in CCaaS
- Encryption Services
 - SIP TLS ↔ TCP, UDP
 - sRTP ↔ RTP
- Media replication
 - Media Forking to recording devices; SIPREC
 - UCID generation
- Support for STUN/TURN – WebRTC support

TRANSCODING SERVICE

CODEC manipulation for a subset of traffic

CES SERVICE

Inspection of CES registrations for enhanced security

VIDEO SERVICES – SCOPIA SIP CLIENTS

Supports Scopia SIP XT clients

- As Remote Workers to the Enterprise
- As part of an Equinox conferencing solution
- Supports BFCP (Border Flow Control Protocol), FECC

ASBCE 7.1 – Session Capacities

	Server Type	Non-Encrypted Sessions (STANDARD)	Encrypted Sessions (ADVANCED)	Remote Worker Registrations	SIPEC with SIP Trunking (ADVANCED)	Scopia / Equinox Video Sessions	Trans-coded Sessions
HIGH CAPACITY	Dell R630 w/ Accelerator	20,000	10,000	20,000 Registrations	6,000 replicated sessions	800	NA
	HP DL 360 G9 w/ Accelerator	20,000	10,000	20,000 Registrations	6,000 replicated sessions	800	NA
	Dell R630 Hi-Cap	14,000	4,000	10,000 Registrations	6,000 replicated sessions	800	1,000
	HP DL 360 G9 Hi-Cap	14,000	4,000	10,000 Registrations	6,000 replicated sessions	800	1,000
MID-RANGE	Dell R330 (Mid-Range)	6,000	1,800	5,000 Registrations	3,000 replicated sessions	200	300
	HP DL 360 G9 (Mid-Range)	6,000	1,800	5,000 Registrations	3,000 replicated sessions	200	300
SMALL	Portwell (CAD 0208 & 0230)	500	250	500 Registrations	NA	NA	NA
VIRTUAL	VMWare	2,500	1,800	5,000 Registrations	1,000 replicated sessions	200	100

VMWare unencrypted sessions capacity is 2000 when trans-coding capacity is in use
 Licensed per simultaneous sessions, estimate 1 session per 7 users in a non-CC environment
 In HA setups EMS can be installed on a same or separate instance with SBCs
 Dynamic Licensing – common license pool for several instances

ASBCE R8 capacities are higher – check offer definition document

Designing Capacity

- Customer have 10000 subscribers
 - 4000 of them are Remote Users
 - Telecommuters, wandering sales, etc.
 - Sometimes given as “x% are Mobile at any time”
- Have Remote Workers / Mobiles □ “Encrypted” capacity
- 10000 “normal” trunk users
 - SIP trunks required: $10000 / 7 = 1429$ Standard licenses
- 4000 Mobile Users at any time, licensed 1:1
 - 4000 Standard & 4000 Advanced licenses
- $4000 + 1429 = 5429$ simultaneous sessions
 - 2 Hi-cap or 4 Mid-Range ASBCE servers

Exam[ple] question

You are in the process of sizing an ASBCE for a customer location. They are using a **seven user per SIP session model** for sizing the solution. There are **5000 users** at the location. They expect **40% of the users to be mobile at any given time**. Following best practice, how many Standard and Advanced Sessions will be needed to satisfy the customers' requirements?

- 2000 Standard Sessions with 2714 Advanced Sessions
- 2000 Standard Sessions with 1286 Advanced Sessions
- 2714 Standard Sessions with 2000 Advanced Sessions
- 714 Standard Sessions with 2000 Advanced Sessions

Exam[ple] question

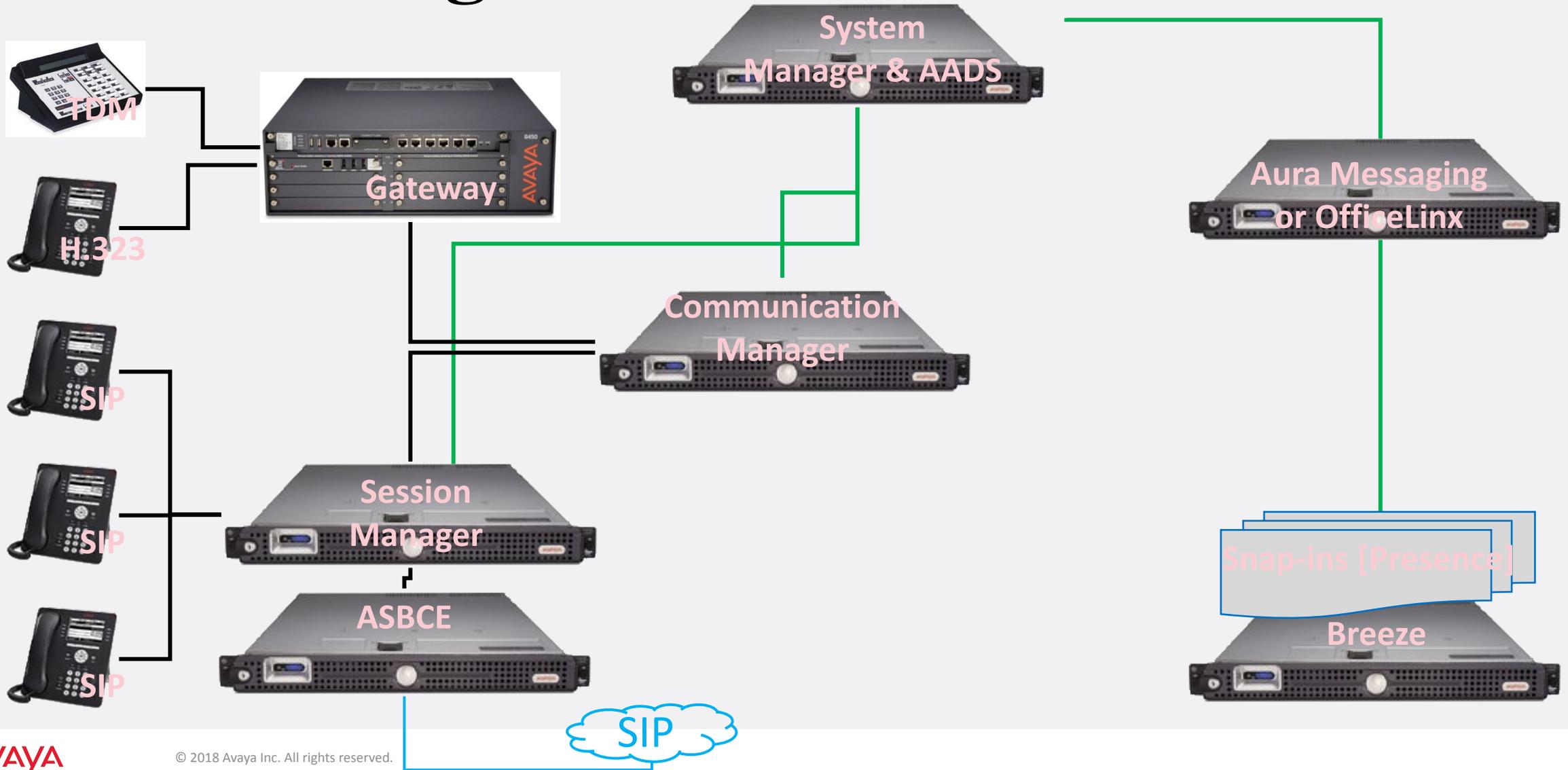
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- 2000 Standard Sessions with 2714 Advanced Sessions
- 2000 Standard Sessions with 1286 Advanced Sessions
- **2714 Standard Sessions with 2000 Advanced Sessions**
- 714 Standard Sessions with 2000 Advanced Sessions



Voicemail

Answering Machine on steroids



Voice mail solutions

- Ancient: Intuity Audix, Definity Audix, Modular Messaging
- Expired: CMM. Expiring: AAM.
- Actual: IX Messaging AKA OfficeLinx

- CMM: Communication Manager Messaging
 - Derived from embedded voicemail solution IA770
 - Co-res in Simplex/Branch or standalone VM for Duplex
 - CMM-FM (Federal Market) also shipped as appliance
 - 1000 mailboxes / 24 ports Co-Res Branch
 - 6000 mailboxes / 210 ports Standalone

Avaya Aura Messaging architecture

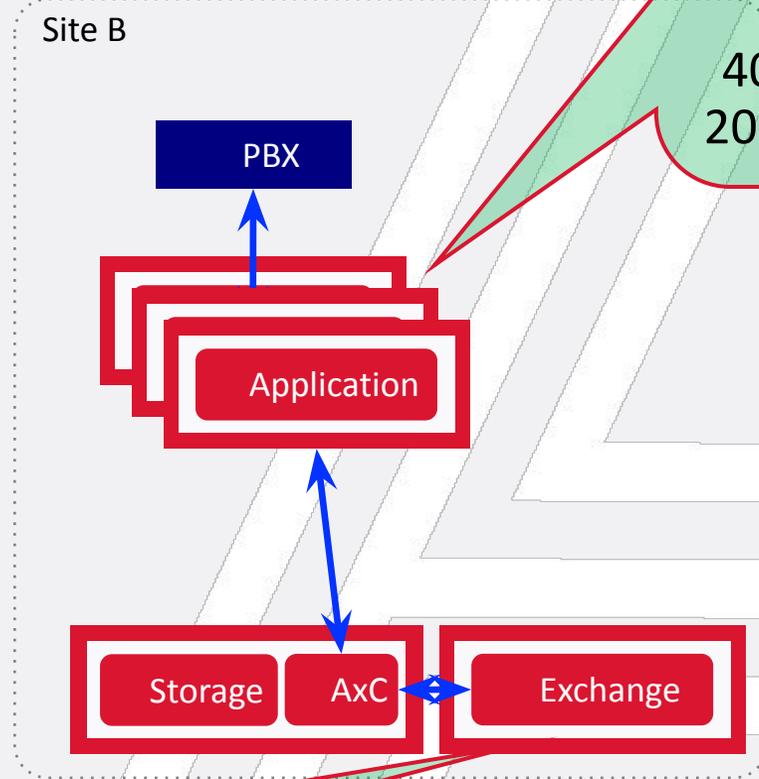
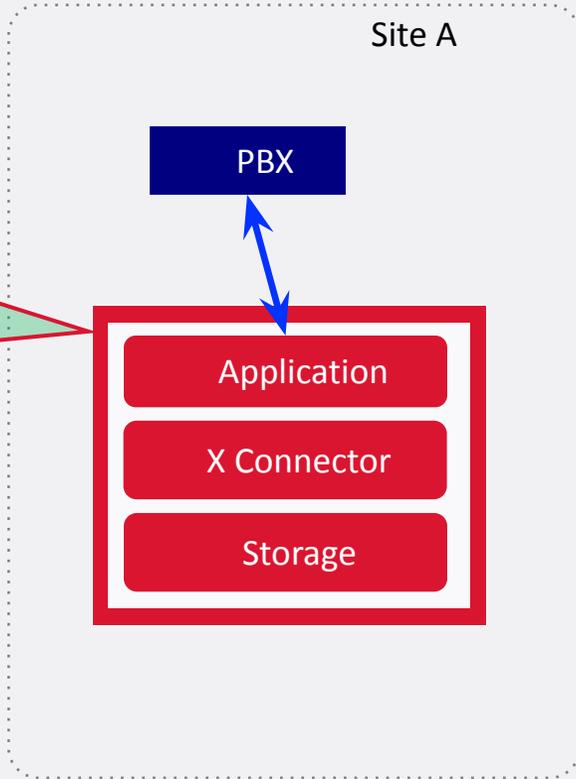
- Current release AAM R7 and there will be no more
 - Virtualized, Linux-based
- Two main components
 - Application: SIP-connected call processing server
 - Up to 100 ports per server, max 300 ports per cluster, clusterable N+1 up to 3 active + 1 backup server
 - Storage: messagebox storage server
 - Avaya message store – up to 40000 mailboxes
 - Exchange – up to 20000 mailboxes
 - Single server solution App+Storage available
 - Up to 6000 mailboxes, in case of multi-server upgrade – can be reused as Application or Storage
- Supports Cyrillic and other G13 languages
- Embedded Fax service
- Licensed per user:
 - Basic license
 - basic voicemail + web portal for self-setup
 - Mainstream license = Basic license +
 - Fax
 - IMAP / Web / VisualVM (via CES) message access
 - Reach Me / Notify Me

Avaya Aura Messaging

- Single Server

- Front/Back-End

IMAP,
Reach Me,
Notify Me,
...
Single VM
6000
Mbox max

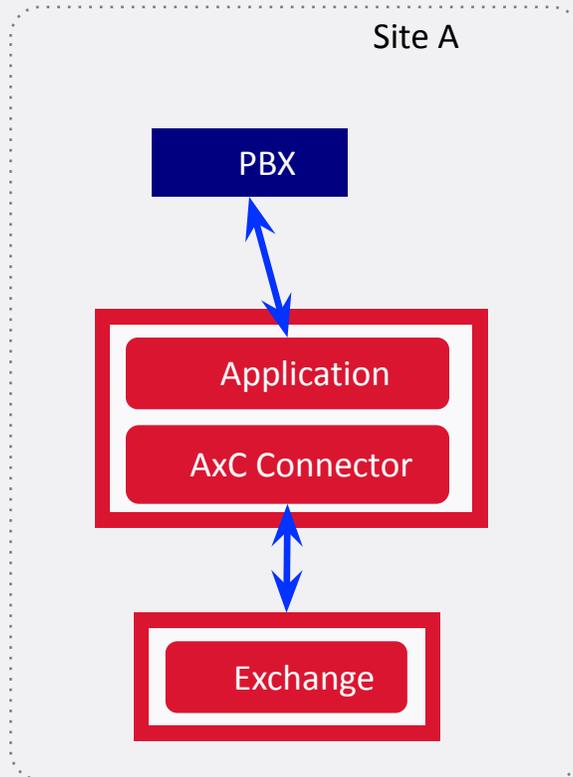


100 ports per server,
300 ports per 3+1 cluster
...
40000 mboxes
20000 Exchange

... MS Exchange up to 2013

Exchange-only storage (example)

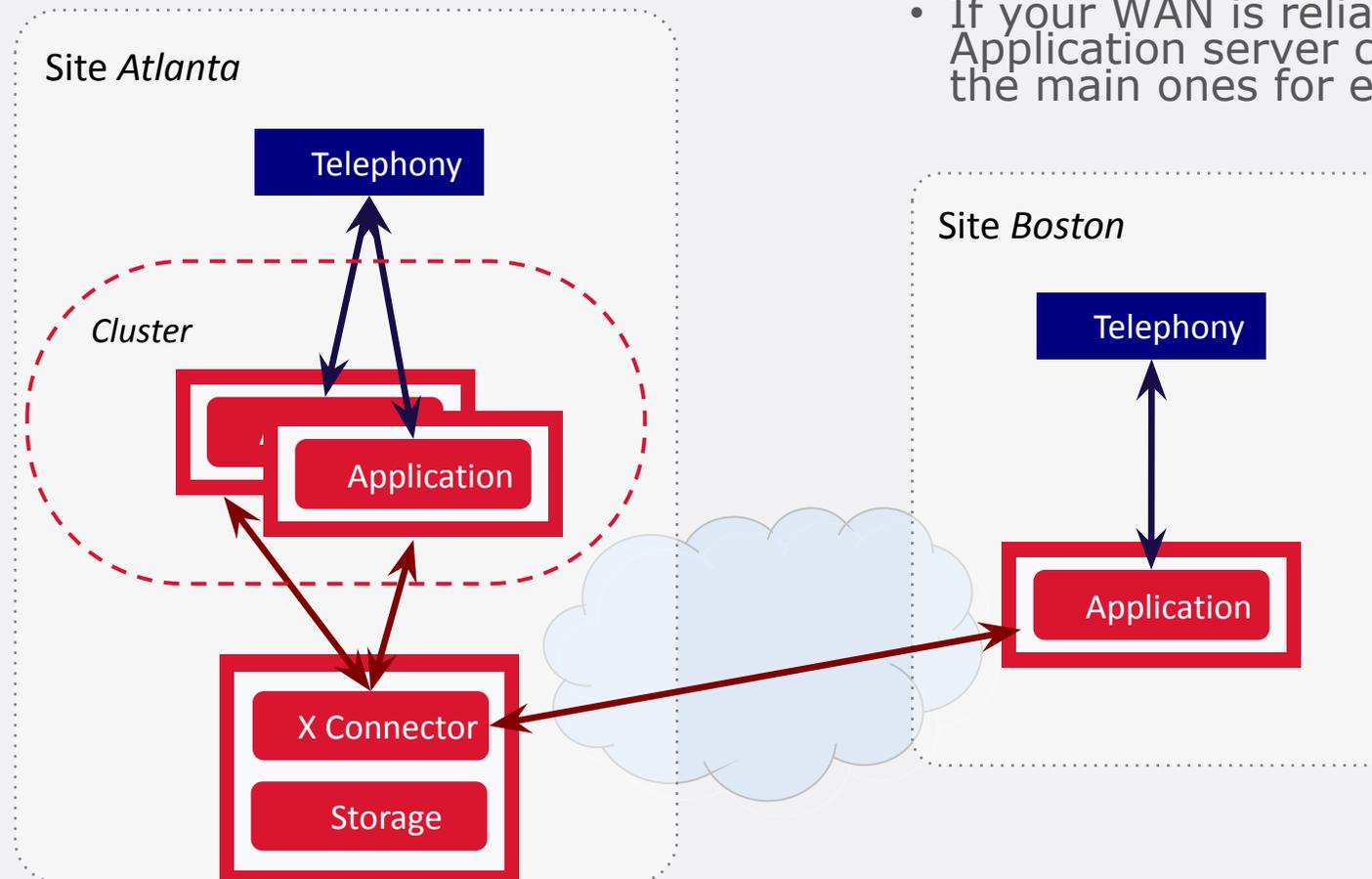
- MS Exchange enabled site



- Site with MS Exchange storage only
- Single Application server
 - AxC Connector as the message delivery agent
 - AxC Connector coresident on Application server
 - No Storage component
- Cluster of servers
 - Same as above with a separate AxC instance

Front-End / Back-End Configuration

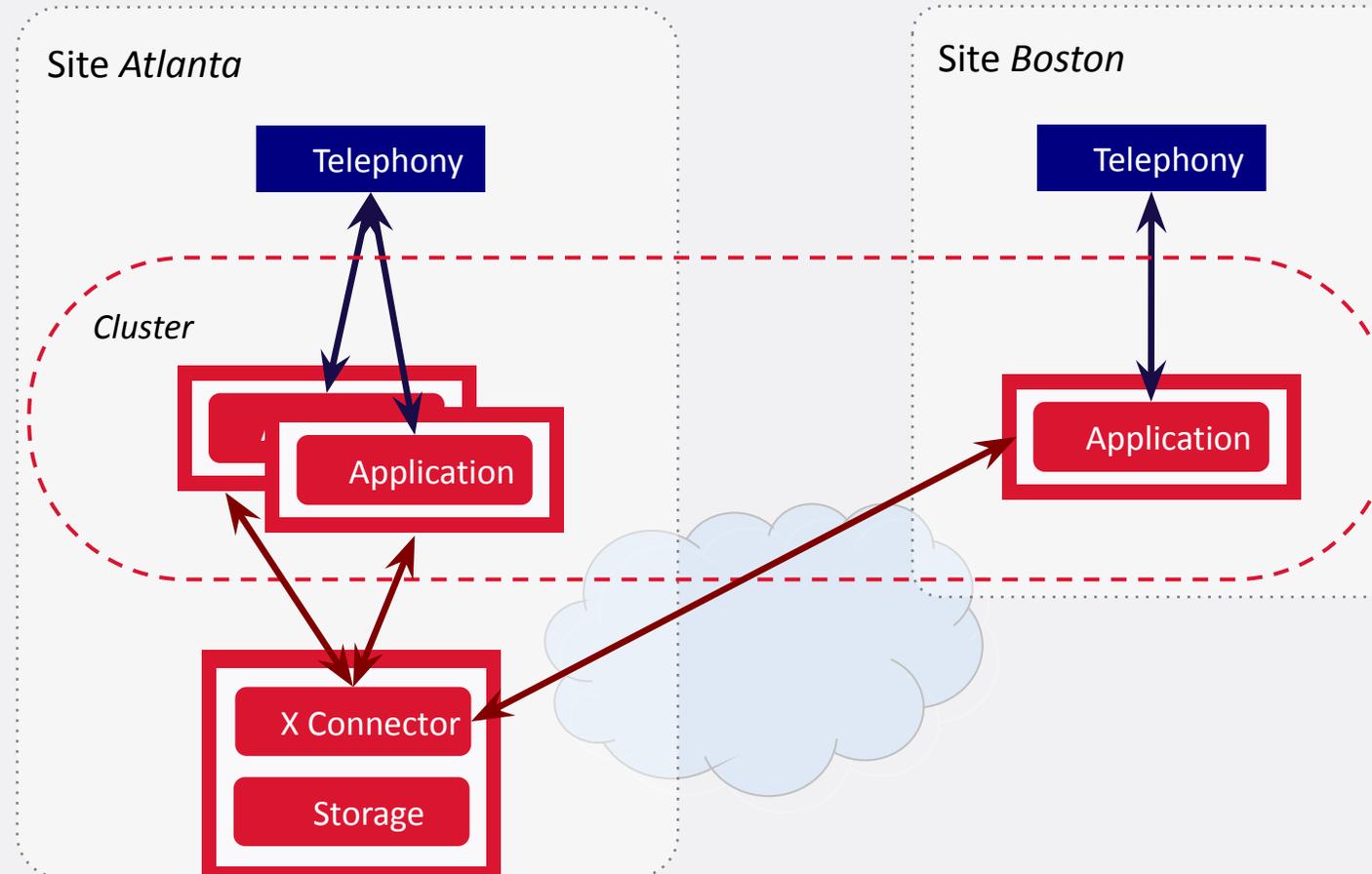
Multisite



- If your WAN is reliable and fast, remote Application server can be clustered with the main ones for even higher reliability

Front-End / Back-End Configuration

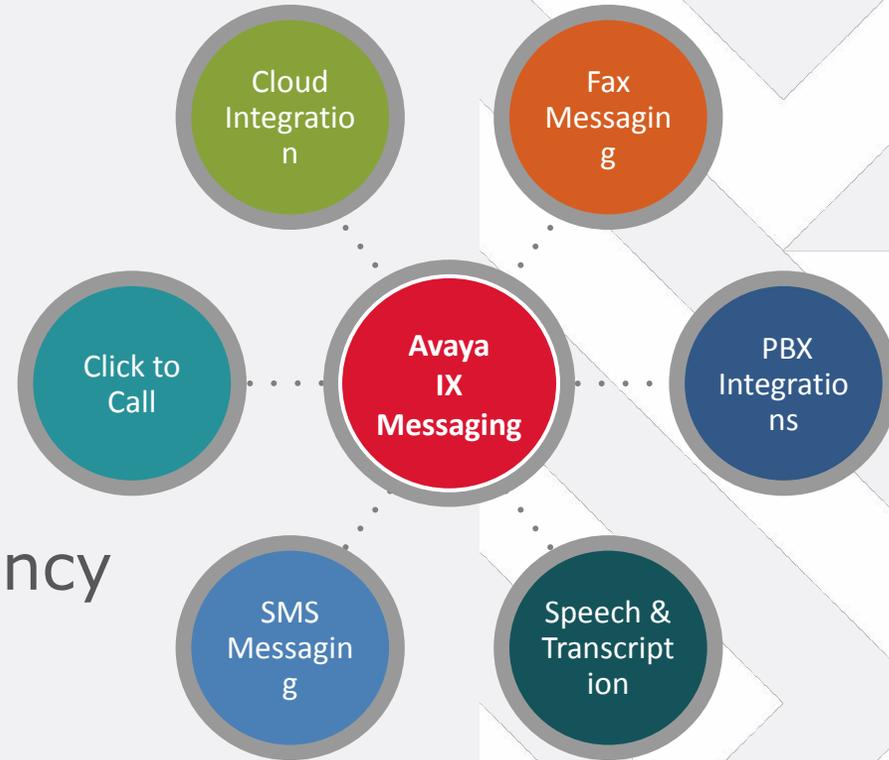
Multisite



- ... like this way

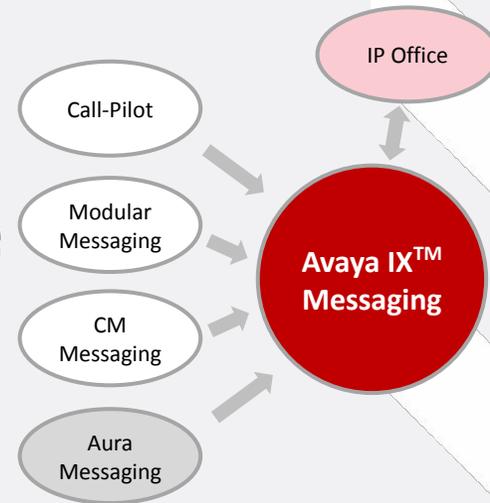
IX Messaging AKA OfficeLinx

- Traditional Voicemail
- Unified Messaging
- Extensive Collaboration
- Greater Feature Flexibility
- Increased Scaling
- Voicemail & UM HA Resiliency
- Geo-Redundancy



Why?

- Unified simplified offer
- Migration support
- Aura, IP Office, here, there, anywhere
- Avaya Aura Messaging – R.I.P.



End of Sale Notice

Notification Date: 10-April-2019
Effective Date: 9-Dec-2019
Subject: End of Sale – Avaya Aura Messaging
Theatre/Region: Global

Revision History

Revision Date	Reason for change
10-Apr-2019	Original version for publication.

Summary

Effective **December 9, 2019**, Avaya will no longer sell (make commercially available) new Avaya Aura Messaging systems deployed on turnkey physical server, AVP, Customer-provided VM's, or Software only downloads across all releases up to and including all Release 7.x

This change is a result of Avaya's messaging strategy to be condensed to one messaging platform offer across all market segments.

Discontinued Order Codes and Migration Strategy

MATCODE	TYPE	DESCRIPTION
700512619	Media	MESSAGING R7.0 STANDARD CAPACITY DVD
700512620	Media	MESSAGING R7.0 HIGH CAPACITY DVD
700512621	Media	MESSAGING R7.0 VIRTUAL APPLICATION DVD
244925	Software License	MESSAGING ONE X SEAT TRACKING ROYALTY LIC:CU

ANNOUNCED	EOS <u>NEW</u>	EOS <u>ADDS</u>	End of SW Support	End of HW Support
April 10 2019	December 9 2019	December 9 2020	December 9 2021	December 9 2023

IX Messaging features - 1

Features User Type	OFFICELINX		AAM		CMM	Call-Pilot
	Basic	Mainstream	Basic	Mainstream		
Web config. Access (Mailbox Administration)	•	•	•	•	•	•
All clients - Phone, email, PC Mobile, Web						
Access to Contacts		•				
Access to Availability filters		•				
Access to Find Me		•				
Access to Assign calls		•				
Access to Locations Calendars	•	•				
Phone specific						
Enhanced Call Control		•				
Find Me (Sequential)		•	•	•		
Find Me (Broadcast)		•				
Follow Me (One number per location)	•	•				
Speech Commands		Optional				•
Speech access to public contacts	Optional	Optional		•		
Speech access to private contacts	Optional	Optional				
Remote Notification (Email, SMS, Voice call)		•	•	•		•
Message Forwarding	•	•	•	•	•	•
Distribution Lists	•	•	•	•	•	•
iLink Pro Desktop options		•				
Screen POPS		•				
PIM integration		•				
Instant messaging		•				
Presence management		•				
Access to visual directory & buddy list		•				
Desktop Dialing with IP dialer		•				
Call Log window		•				•
Desktop SMS (ability to send to SMS)		•				
Synchronized contacts		•				
Synchronized calendar		•				

IX Messaging features - 2

Features User Type	OFFICELINX		AAM		CMM	Call-Pilot
	Basic	Mainstream	Basic	Mainstream		
Inbox Access						
Web client						
Administration	•	•	•	•		•
Access to Voicemail Inbox	•	•	•	•		•
Access to Fax messages	•	•	•	•		•
Phone Access						
Access to VM from Phone	•	•	•	•	•	•
Access to fax messages from phone	•	•			•	•
Synchronization mode						
Groupware Forms		•		•		
Sync voice messages to users' email inbox		•				
Contacts		•				
Outbound Desktop Faxing Capabilities (ODFC)		•		•		•
Use eMail to send Fax		•				
Other Features						
Transcription		•		•		
Send URL (WebLink)		•				
Collaboration						
Presence		•				
Instant messaging		•				
Click-to-call		•				
Voice communication		•				
Geo-location sharing		•				
Screen pops and call logging		•				
Call control		•				

IX Messaging features - 3

Features User Type	OFFICELINX		AAM		CMM	Call-Pilot
	Basic	Mainstream	Basic	Mainstream		
Unified Messaging with Voicemail						
Auto-attendant	•	•	•	•	•	•
IVR Trees/Voice Menus/Caller applications		•	•	•		•
Message Synchronization (MWI)		•	•	•		•
Call History		•				
Voicemail to contact resolution		•				
Integration with contacts for dialing and replies		•				
Visual Voicemail			•	•		
Fax						
Fax message access from the inbox	•	•	•	•	•	•
Fax messaging		•			•	•
Fax on demand		•			•	•
Application Integration						
Google Apps		•				
Salesforce CRM		•				
Jive		•				
WebEx		•				
Office 365		•				
Avaya Aura Contact Center integration (Meridian IVR and ACCESS caller applications) with M1/CS1000		•				•
Clients						
iLink Mobile (iOS and Android)		•				
iLink Desktop (Windows and Mac)		•				
Outlook messaging toolbar / add-in				•		
Desktop UM client for Outlook, Lotus, Groupwise		Outlook only				•
Web Access - messages, manage greetings, user settings		•	•	•		•

IX Messaging features - 4

Features User Type	OFFICELINX		AAM		CMM	Call-Pilot
	Basic	Mainstream	Basic	Mainstream		
Add-on Applications						
eFax		Optional				
IVR connector		Optional				
Speech-to-text transcription		Optional				
Text-to-speech		Optional			•	
Automatic speech recognition		Optional				
Aura Messaging Specific Features						
Interoperability with Avaya Messages Networking			•	•		
Communication Manager Messaging (CMM) Specific Features						
Original Intuity Audix TUI					•	
Interoperability with Avaya Message Networking					•	
Call-Pilot (CP) Specific Features						
Support Lotus Notes (up to 7.0)						
Novell Groupwise (up to 6.5)						•
M1/MCDN networking features E.g. Network Message Services (NMS) and Enhanced Names Across Network (NAN)						•
Interoperability with Avaya Message Networking						•

IX Messaging capacities

Feature	Rel 10.7 SP1
Company Directory	80,000 mailbox entries
Users (Single Voice Node)	4800 Basic users of which 1600 can be Mainstream users
Users (Distributed Nodes)	80,000 Basic users of which 20,000 can be Mainstream users
Voice Channels	120 voice ports per voicemail node 2400 max voice ports across distributed voicemail nodes
Fax Channels	60 Fax ports (SR140) per voicemail node
Speech TTS/ASR	64 ports per voicemail node
Number of Tenants	99 Companies per solution
Dialogic Media Gateways	8 Analog channels per gateway (Max 15 GWs) 24 & 30 T1/E1 ports (Single/Dual/Quad port options)

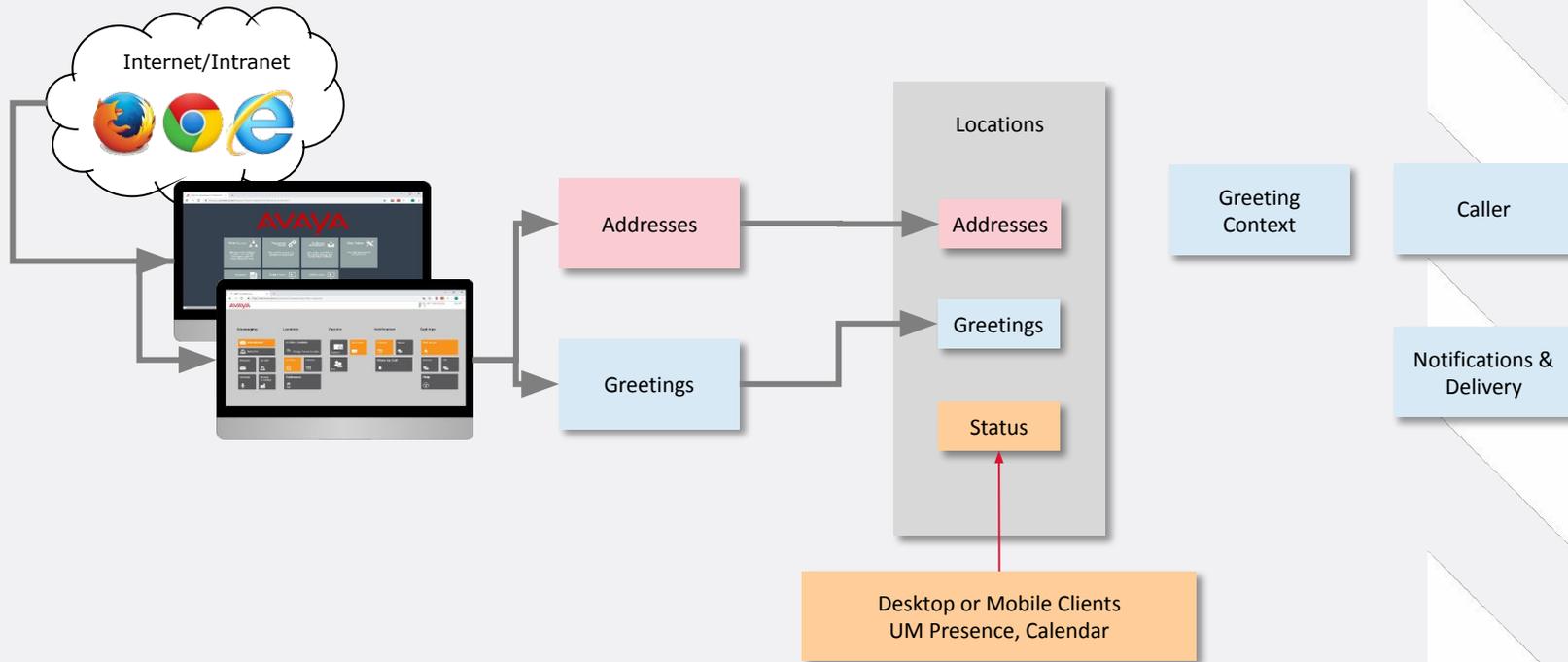
AAM vs OL* Specs – 1

	Avaya Aura Messaging 7.1	Avaya Officelinx 10.8
Scalability-ports	<ul style="list-style-type: none"> • Up to 300 ports • Up to 4 App server nodes per system 	<ul style="list-style-type: none"> • Up to 2,400 ports on HA system • Up to 20 Voice nodes per system
Scalability-users	<ul style="list-style-type: none"> • 6,200 UM users single-server • 40K UM local users per cluster • 100K remote users 	<ul style="list-style-type: none"> • 4,800 users single-server • 20K UM users (distributed servers) • 80K VM users (distributed servers)
Resiliency	<ul style="list-style-type: none"> • Local caching at App server (when message store unavailable) • 3rd party redundancy for storage (optional) • Geographic disbursement of servers 	<ul style="list-style-type: none"> • Both Voicemail and UM High Availability • Native Redundancy with add-on License for UM HA • Geographic disbursement of servers
Store Flexibility	<ul style="list-style-type: none"> • Per-User Store Flexibility • Avaya or Exchange 2007/2010/2013 	<ul style="list-style-type: none"> • Synchronized Storage across all Voicemail nodes • Consolidated Database server replication
OS / Security	<ul style="list-style-type: none"> • Linux OS • Lower TCO from security updates 	<ul style="list-style-type: none"> • Windows Server 2008, 2008 R2, 2012, 2016 • Customer manages windows security updates
Virtualization	<ul style="list-style-type: none"> • VMware ESXi 5.1, 5.5, 6.0, 6.5 	<ul style="list-style-type: none"> • VMware VSphere 4.x, 5.0, and 5.1, 5.5, 6.0, 6.5, 6.7 • Microsoft Hyper-V Server 2012
Localization	<ul style="list-style-type: none"> • Capped at 21 languages 	<ul style="list-style-type: none"> • Currently 19 languages and growing
Connectivity	<ul style="list-style-type: none"> • SIP (Avaya); Others via GW • Concurrent multi-switch integration via Session Manager 	<ul style="list-style-type: none"> • SIP, T1, E1, QSIG, SMDI via gateways • Concurrent multiple switch integration without Session Manager • PBX agnostic, supports dozens of vendor switches
Speech-to-Text	<ul style="list-style-type: none"> • Optional via 3rd-party • Suitable for behind-firewall deployment 	<ul style="list-style-type: none"> • Optional via 3rd-party • Secure cloud-based service • Secure behind the firewall on premise based

AAM vs OL Specs – 2

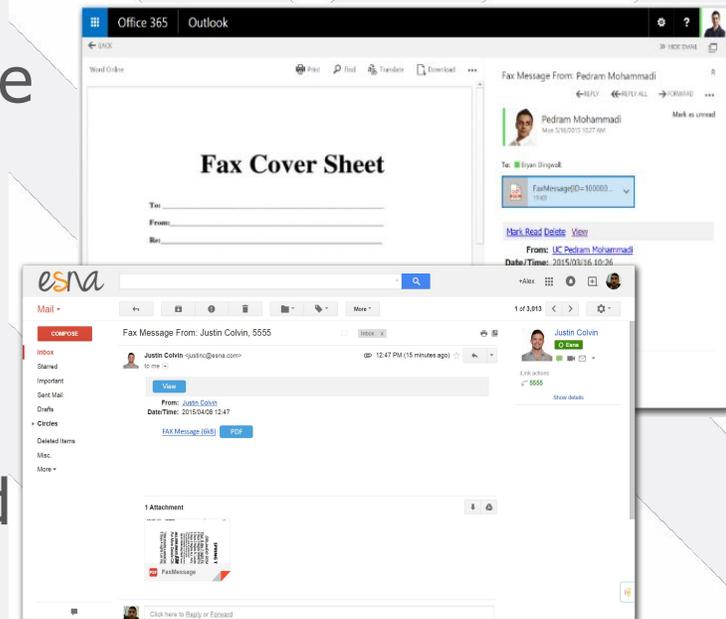
	Avaya Aura Messaging 7.1	Avaya Officelinx 10.8
Multi-tenant	• No	• Yes
Hospitality	• No	• Yes
Message access	<ul style="list-style-type: none"> • TUI-Aria, Audix, CallPilot (mimic legacy) • Voice commands (English, French) • E-mail (toolbar, clientless) • Browser 	<ul style="list-style-type: none"> • TUI-Extensive and customizable (Audix, Call-Pilot, CMM, AAM) • Voice commands; multi-lingual • E-mail (client) • Browser
Email integration	<ul style="list-style-type: none"> • Exchange 2007, 2010, 2013 • Lotus Notes (via IMAP) 	<ul style="list-style-type: none"> • Exchange 2007, 2010, 2013, 2016, O365 (via IMAP, or EWS) • Google Mail (via IMAP or Gmail API) • Zimbra & IBM Lotus Notes 6.5, 7.0, 8.0, 8.5 • GroupWise 6.5/SP2, 7.0, 8.0
Migration from Legacy	<ul style="list-style-type: none"> • Avaya ProServices - Octel 250/350 • ProVision – Audix, CMM, Intuity, MM • CP 4.0, 5.0, 5.1 to AAM 6.3 and later 	<ul style="list-style-type: none"> • ProVision 19.1 – Audix, Intuity, MM, CMM, AAM • CallPilot 4.0, 5.0, 5.1 to OL 10.1 and later • Tools for simple mass-population of users • CallPilot voice services replacement for AACC
Administration	<ul style="list-style-type: none"> • Web based • System Manager integration • Control Manager integration 	<ul style="list-style-type: none"> • Web based • System Manager integration (requires SM 7.0.0.1 and later)
Support Network	• Extensive (Direct and Partner)	• Substantial/Growing (Direct and Partner)
Licensing	<ul style="list-style-type: none"> • Voice mail (Basic) • Unified Messaging (Mainstream) • Suites (Core and Power) with uplift • Perpetual or Subscription 	<ul style="list-style-type: none"> • Voice mail (Basic) • Unified Messaging (Mainstream) • Suites (Core and Power) with uplift • Perpetual or Subscription

IXM Functional Summary



Fax support

- Exchange, O365, Google apps
- Fax send/receive by email
<phonenumber@VPIM.<yourURL>.com or by use of a web client
- Based on Microsoft fax service
 - SR140 is mandatory for fax processing
 - Don't forget port licensing for SR140
- Basic license users – can receive fax and forward to email
- Mainstream license users – can send, receive and forward fax messages

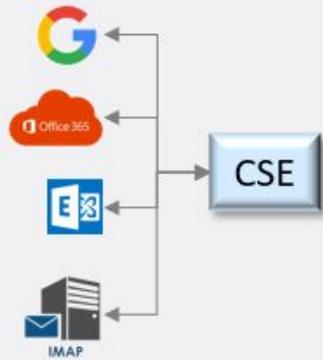


Migration scenarios

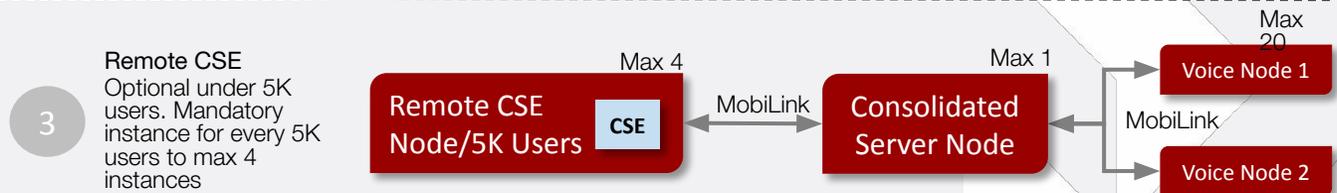
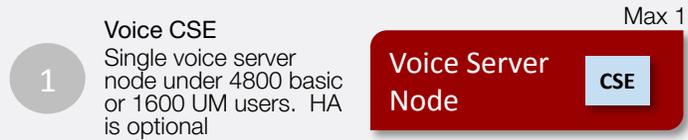
1. Legacy Call Pilot migration while retaining CS1K and AACC as a stepping stone (SIP GW)
2. Migration from Avaya Legacy MM, CMM or AAM while retaining older CM Release (CM6/7)
3. Avaya Aura Release 8 with new entitlement for IX Messaging (Entitlement)
4. Migration from 3rd Party messaging such as MSUM (Special Offer)
5. IP Office customer requires faxing or cloud app integration (R11.04)
6. ESNA Officelinx customer upgrading to current Avaya Officelinx release (SA/UA)
7. Avaya Officelinx customer upgrading from R10.6 to R10.7 (WebLM)
8. Uplift to Unified messaging – Exchange (Premise UM) / Cloud eMail (Cloud UM)
9. Voicemail replacement to higher level of security and encryption (JITC)
10. Avaya Aura or Multi-vendor PBX Stand-Alone to High Availability setup



Architecture overview



■ Application
■ Service



Content Sync Engine Server Architecture



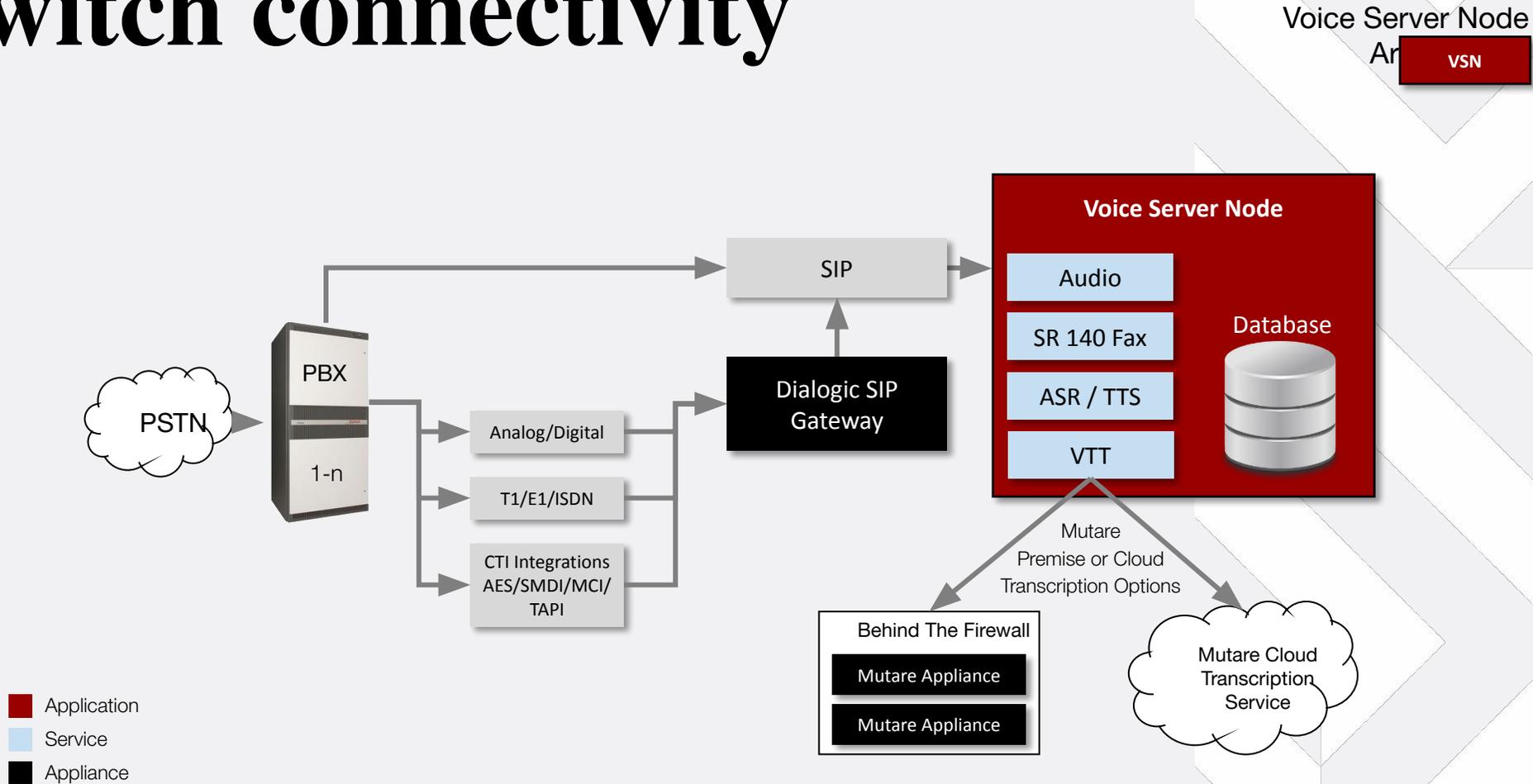
Solution components



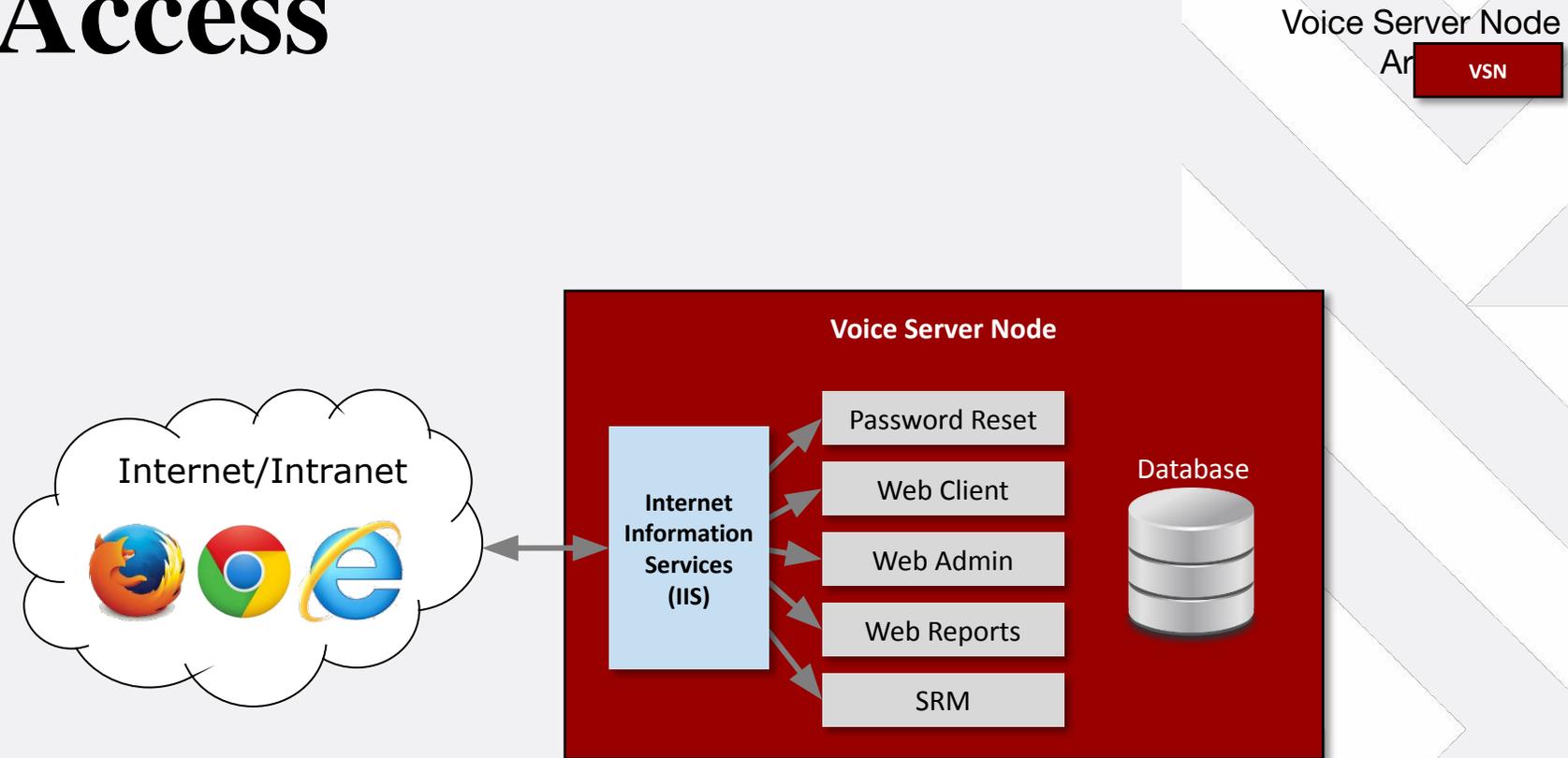
Licensing*	Applications (SW)	Appliances (HW)
Users Basic & Mainstream users, Uplifts, J1TC, and Subscription	VSN Voice Server Node Main application supporting multiple instances up to 20	Dialogic SIP Gateway for non-SIP PBX interconnecting with Officelinx
Speech Subscriptions for Voice to Text Transcription, Text to Speech, Auto Speech Recognition	CS Consolidated Server Provides <u>Voice HA</u> as it synchronizes data across each voice server node	Mutare Premise based “behind the firewall” transcription services option
Ports Incremental voice ports, Fax ports, G.729 Codec ports	CSE Remote Content Sync Engine Provides Unified Messaging synchronization with email inboxes	Avaya Avaya Converged Platform 130 Series or 4200 Series turnkey virtualized solution
HA Carbonite Availability	CA Carbonite Availability Replicates the Consolidated Server providing <u>UM HA</u>	DIY Customer provided virtualized or non-virtualized server appliances

- **Customer is responsible for MS Windows licensing.**
- Customer is responsible for Vmware licensing except when coupled with Avaya Converge Platform
- On-prem, Avaya DC (OneCloud) or AWS deployment is possible

Switch connectivity

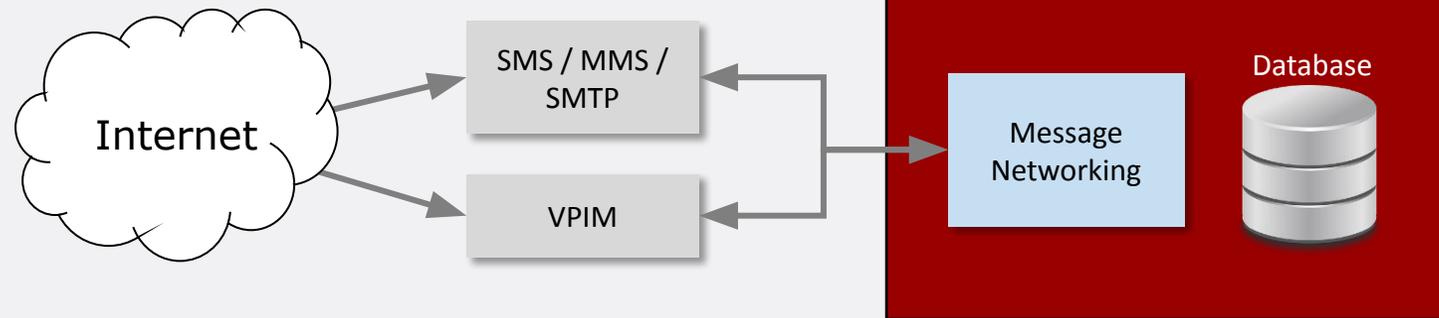


Web Access



- Application
- Service

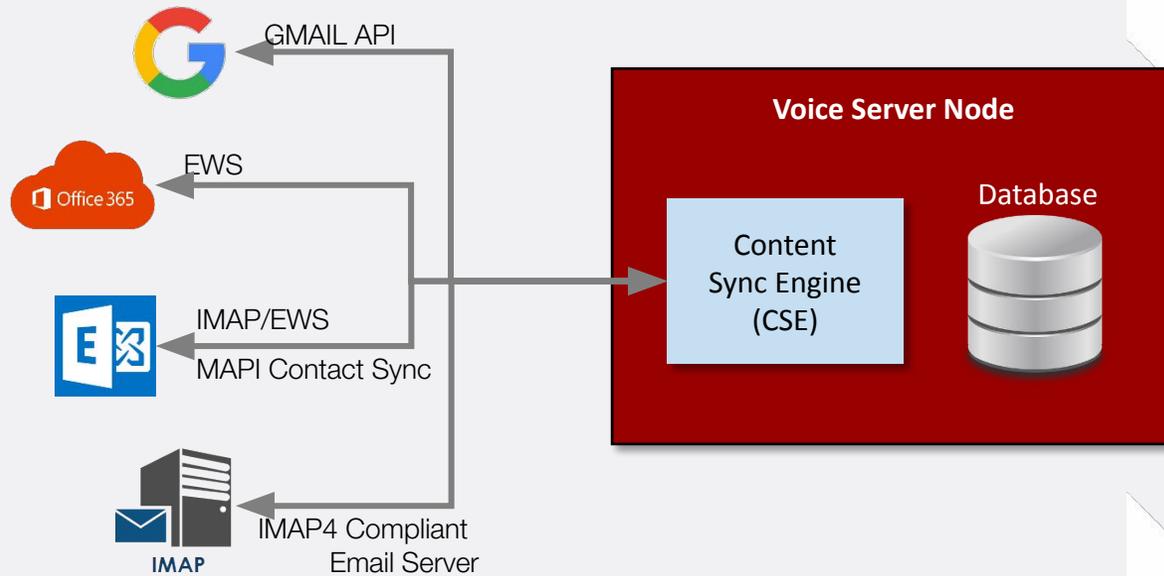
Message Networking



- Application
- Service

Voice Server Node
Ar **VSN**

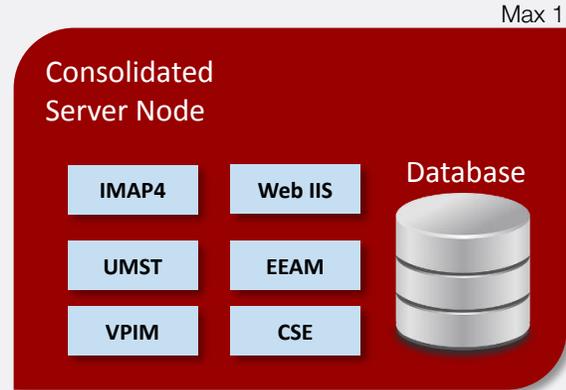
Unified Messaging



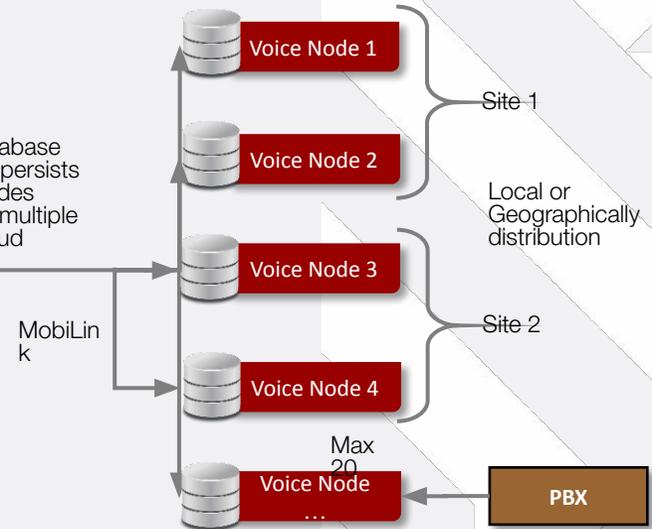
- Application
- Service

Voice Server Node
Ar **VSN**

Voice High Availability



With secure Mobilink, database real-time synchronization persists across all voice server nodes either localized or across multiple sites, data centers, or cloud centers



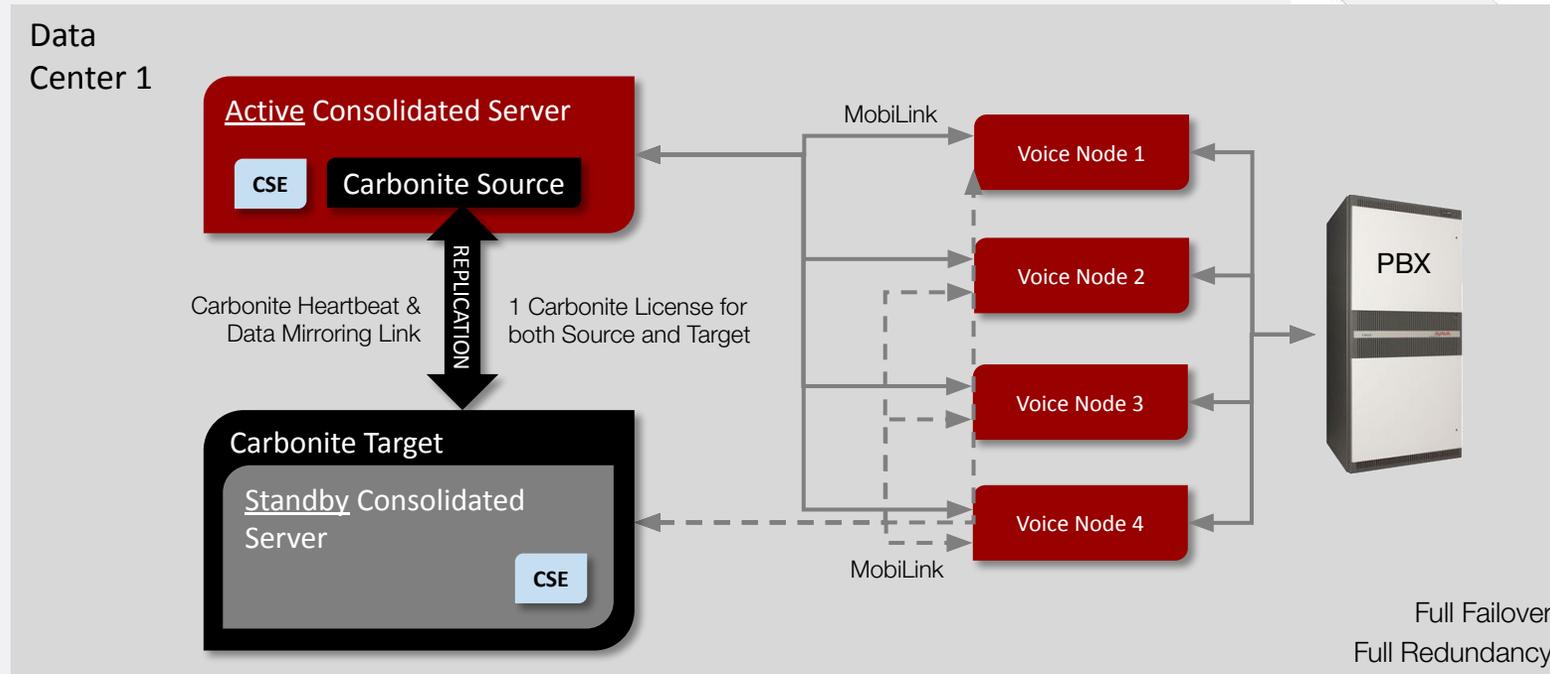
Consolidated Server Architecture

- Application
- Service

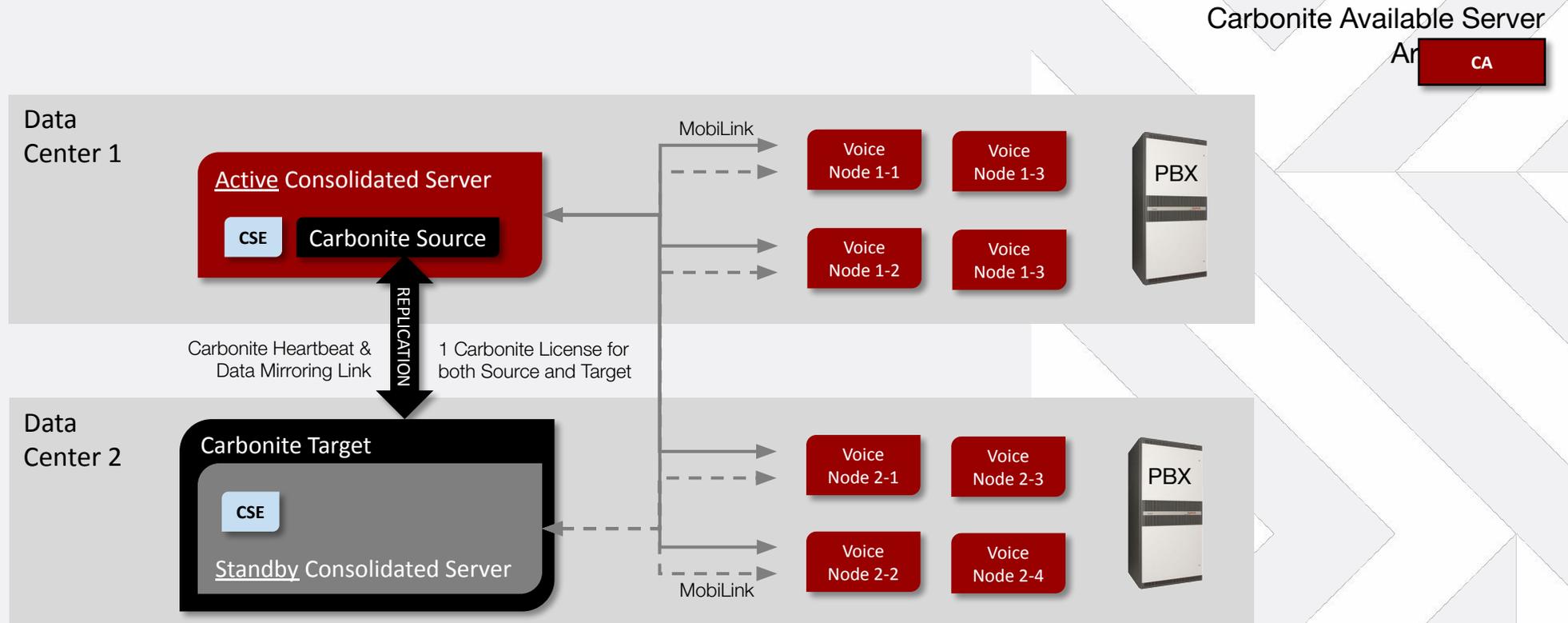
UM High Availability (Local)

Carbonite Available Server

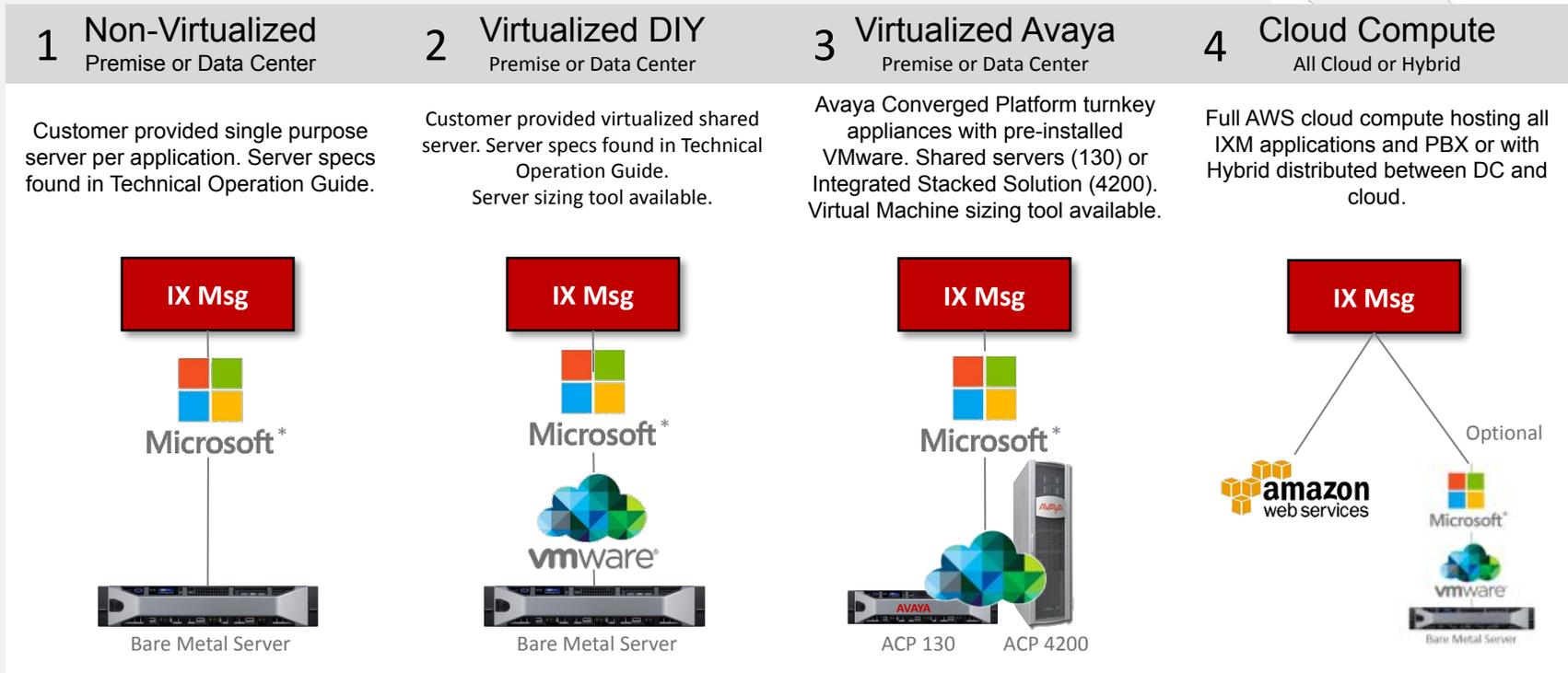
Ar CA



UM High Availability (GEO)



Deployment



* Customer is responsible for MS Windows licensing

Architecture cheat card

Virtualized Environment or Windows Appliance

Option

Stand Alone

Virtual Machine or Windows Appliance



Voice Server Node

Description

- **Voice Server Node (1)**
- Provides 120 voice ports (40:1 User/Port Ratio)
- 4800 Basic Users or 1600 Mainstream (UM) Users*
- Content Sync to Inbox service included for Mainstream Users

High Availability (Minimum)



Voice Server Node



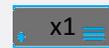
Consolidated Server

- Voice Server Node (Min 2)
- **Consolidated Server (Max 1 Node)**
- Provides Content Sync up to 5K UM users & WebAccess
- Provides Voicemail High Availability

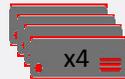
High Availability (Maximum)



Voice Server Node



Consolidated Server



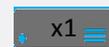
Content Sync Engine (CSE)

- Voice Server Nodes (Max 20)
- Consolidated Server (1 Node)
- **Content Sync Engine (Min 1 / Max 4)**
- Provides dedicated Content Sync Engine Services
- One instance for every 5000 UM users up to 20K

Geo-Redundancy or Disaster Recovery



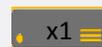
Voice Server Node



Consolidated Server (CS)



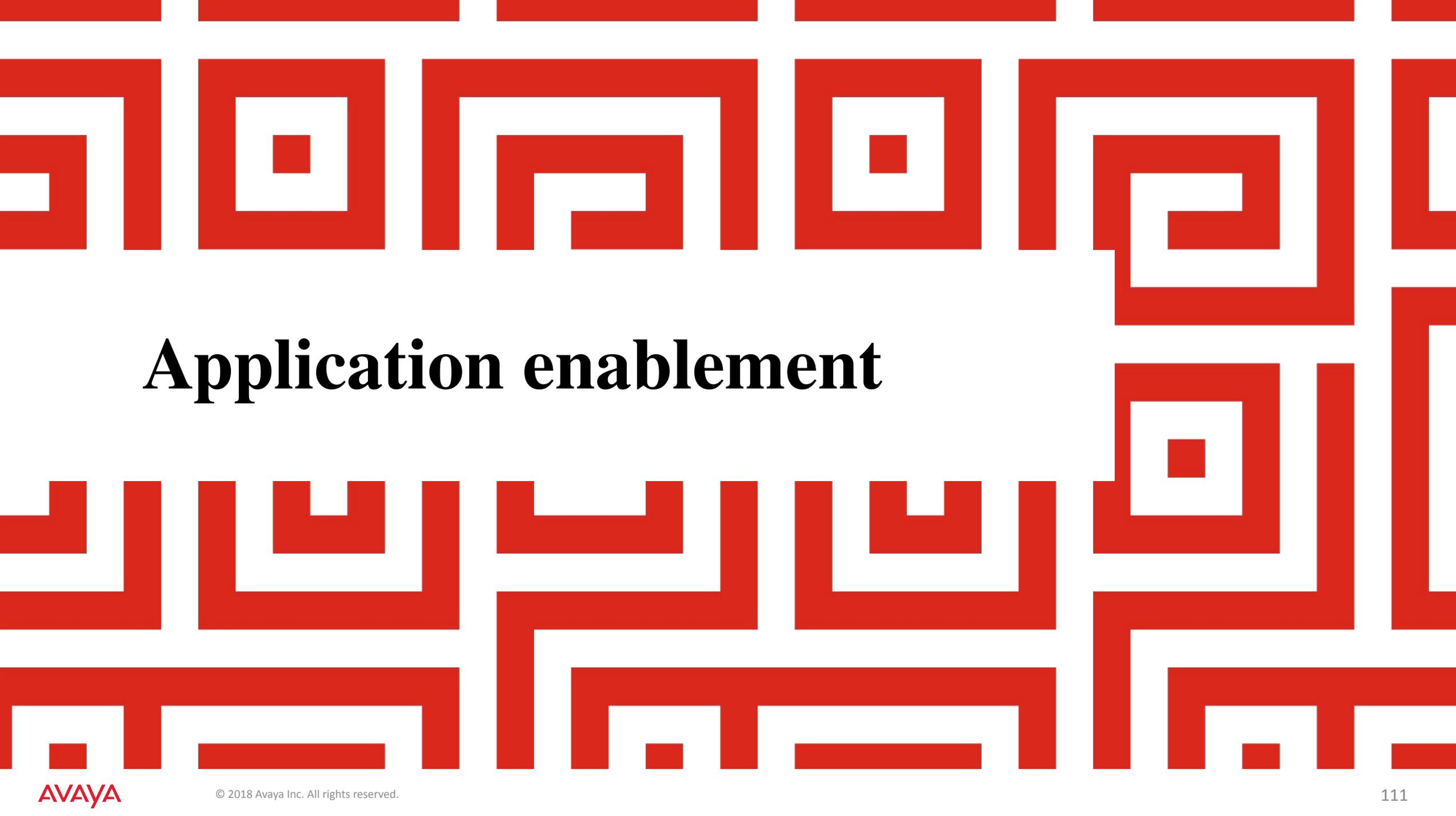
Content Sync Engine (CSE)



Standby CS

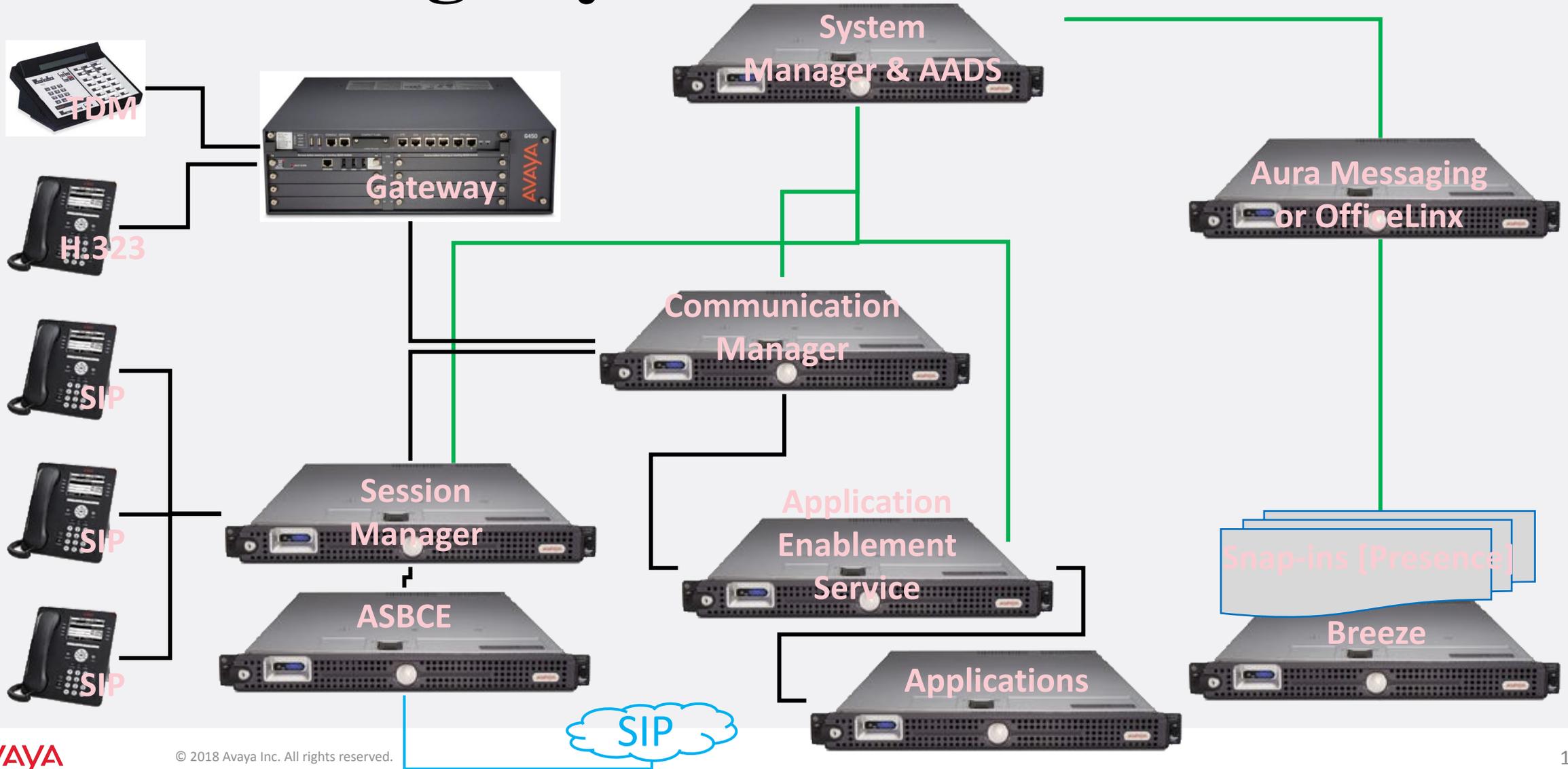
- Voice Server Nodes (Max 20)
- Consolidated Server (1 Node)
- Content Sync Engine (Min 1 / Max 4)
- **Standby Consolidated Server w/Carbonite (formally Doubletake)**
- Provides Voicemail and UM High Availability

*Port Calculation Note: 1 Basic License = 1 User & 1 Mainstream License = 3 Basic Users

The background of the slide is a repeating pattern of red geometric shapes on a white background. The shapes are composed of thick red lines forming squares and rectangles, some with smaller squares inside them, creating a maze-like or labyrinthine effect. The pattern is consistent across the entire slide.

Application enablement

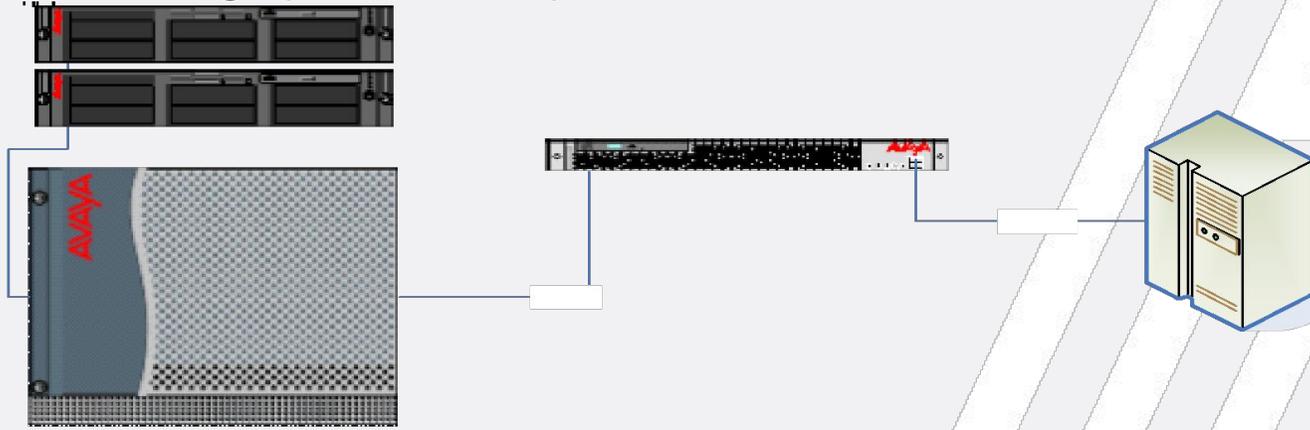
Extending beyond feature set

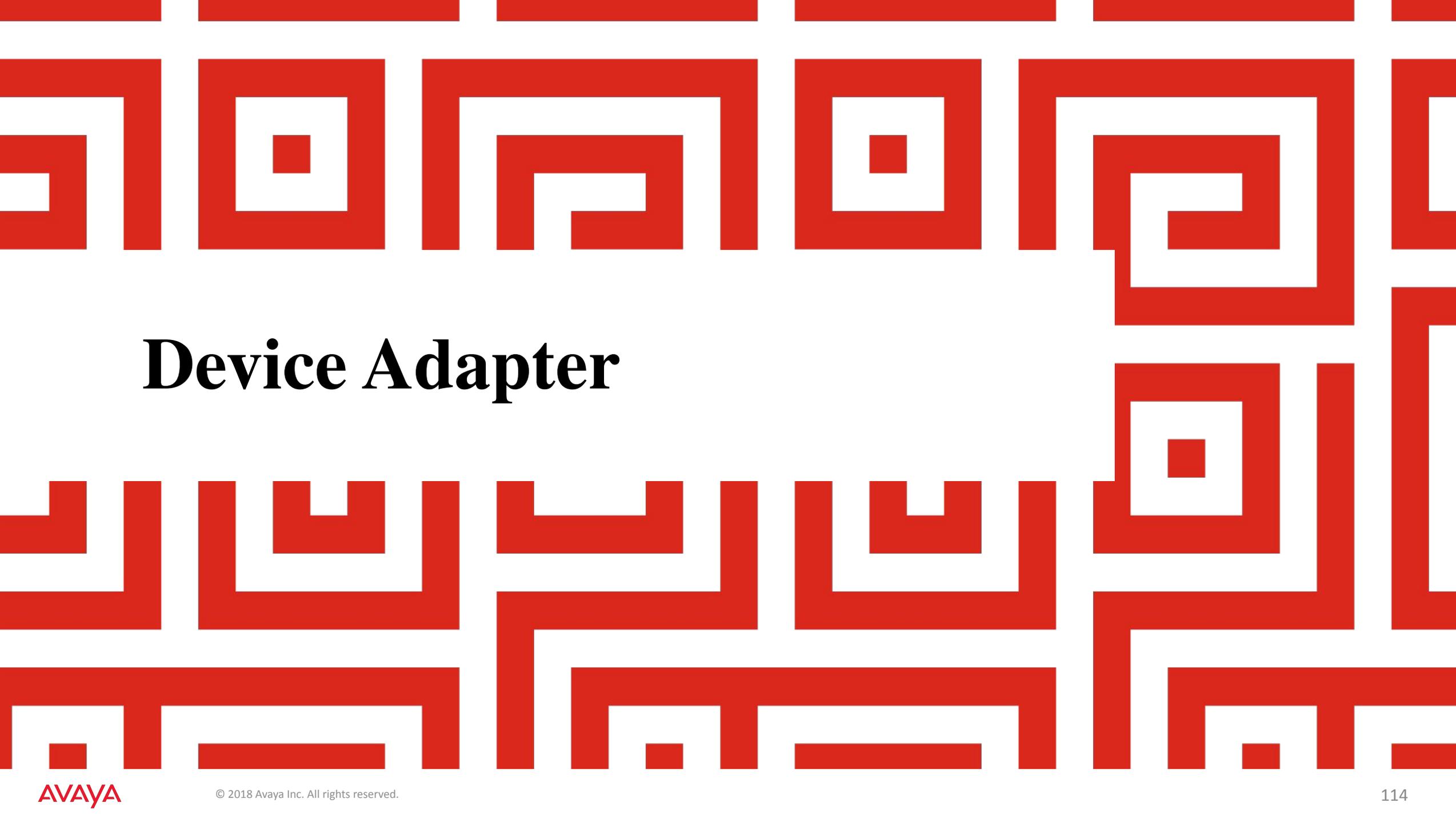


Let the App be the Boss

- Client requests something strange – not resolved by regular setup
 - “Strange” is provided by external application
- Switch and application does not understand each other
 - You’ll need a Translator
- Who/what can do that translator job?
 - Application Enablement Server
 - Speaks TSAPI, JTAPI, DMCC, DLG, ASAI...

Communication Manager (Evolution Server)



The background of the slide is a repeating pattern of red geometric shapes on a white background. The shapes are stylized, resembling a combination of squares and rectangles with various internal cutouts and offsets, creating a complex, maze-like visual effect.

Device Adapter

Device Adapter Snap-in

- Software enables CS1000 customers to re-use Unistim (IP) phones on Avaya Aura[®]
- Deployed as a Snap-in on Breeze
- Allows Unistim phones to register on Session Manager via Device Adapter Snap-in
- Provides transparency for top CS1000 features (including MADN) while moving to Avaya Aura
- Enables full access to Avaya Aura and Equinox capabilities including twinning of CS1000 phone with an Avaya Equinox[®] soft client
- **Not applicable to contact center implementations**



Multiple Appearance Directory Number (MADN)

MADN: A phone number that appears on two or more phones

- Available on Device Adapted sets and Aura CM sets, such as 96x1 or Equinox client. Group may include mixed phone types.

Features Single/Multiple Call Appearance style:

- **SCA** covers only one CA, as in Aura CM
- **MCA** covers any call arrived to extension, as in CS1000

Use Cases:

- Several phones ring when a number is dialed
- Visual indicator when a line is in use—receptionist can see someone is busy before transfer
- Multiple phones in a room have the same number—large lab
- Calls ring in multiple places—faculty member has a lab and office
- Multiple phone numbers appear on one phone
 - Assistant has director's extension on phone
 - Receptionist controls many other people's lines





Mobile-X like User experience on EC500

- EC500 mobile users can invoke enterprise features on an active call by dialing the feature access code without putting the ongoing call on hold.
- Provides the current CS1000 feature experience
- Available to all Communication Manager users
- But Remember: Migrating customers can reuse existing phones via the Device Adapter Snap-in AND twin with Avaya Equinox for a true UC experience.

Important Considerations

Telephone Support in Release 8

- Unistim IP Phones

Not Supported in Release 8

- Contact Center Telephones
- Analog Terminal Adapter
- SIP DECT Telephones
- Attendant Consoles
- Digital Phones – added in R8.0.1
- Analog Phones – added in R8.0.1

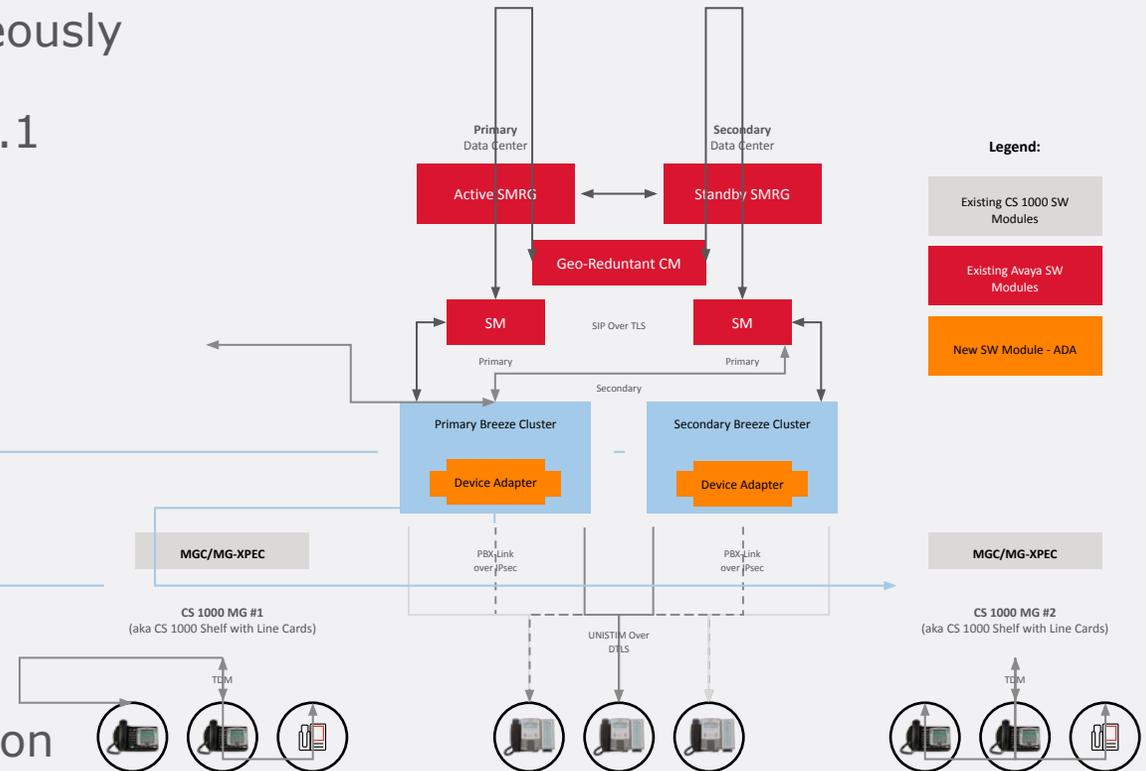
CS1000 Features not Part of the Adaptation

- Contact Center/ACD
- DSN/Federal
- Virtual Office
- Hospitality
- Set Relocation
- Group Call
- No Hold Conference
- Dial Intercom Group

Note – In most cases Communication Manager has similar capabilities

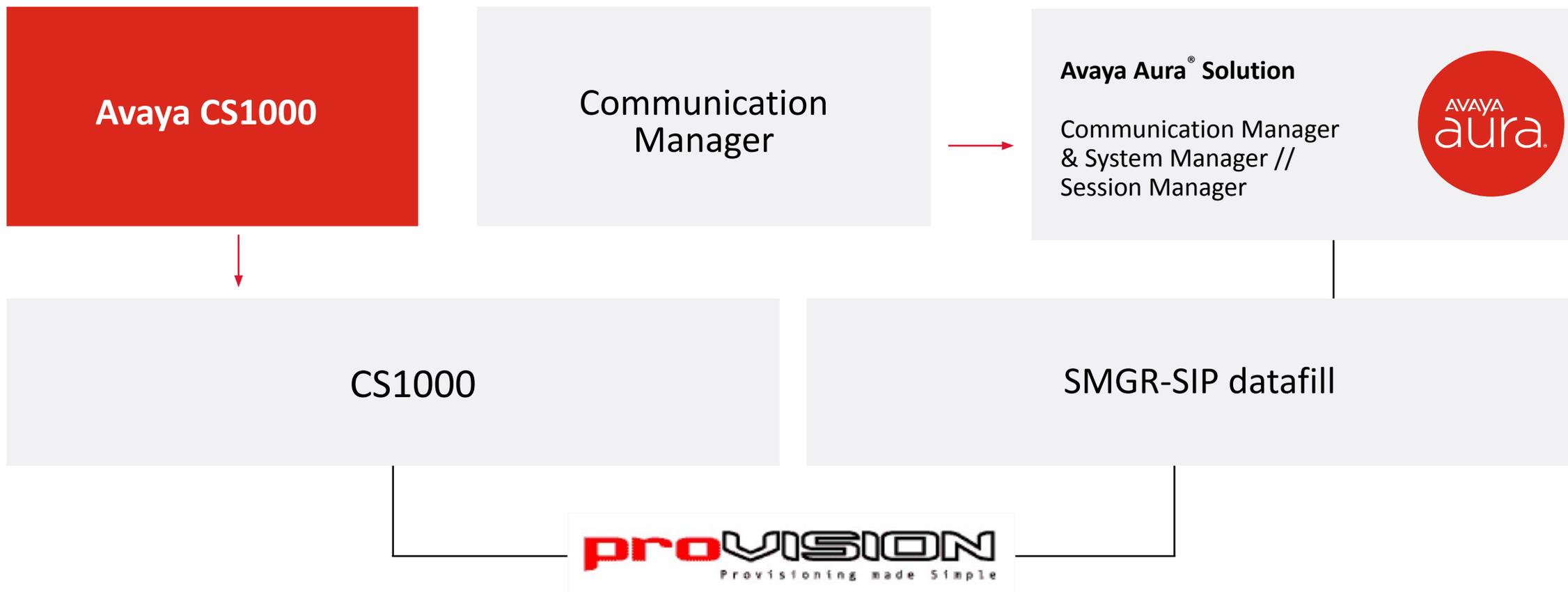
Avaya Device Adapter Digital and Analog

- Single ADA supports all device types simultaneously (8.0.1)
- Digital and Analog Set Support added with 8.0.1
 - 2006, 2008, 2216, 2616,
 - 3110, 3310, 3820,
 - 3901, 3902, 3903, 3904, 3905
- No Trunks are Migrated and Fax and Modem is NOT supported
- Equivalent Unistim ADA Feature Set (depends on Device Type)
- Requires Media Gateway Cards or MG-XPECs
- Signaling Link is secured by IPsec
- MG downloads new MGC Software from ADA
- Provision Tool supports Media Gateway Migration
- New Management Element in SMGR for MG Administration



Provision CS1000 Migration Software

For Avaya Aura®



Exam[ple] question

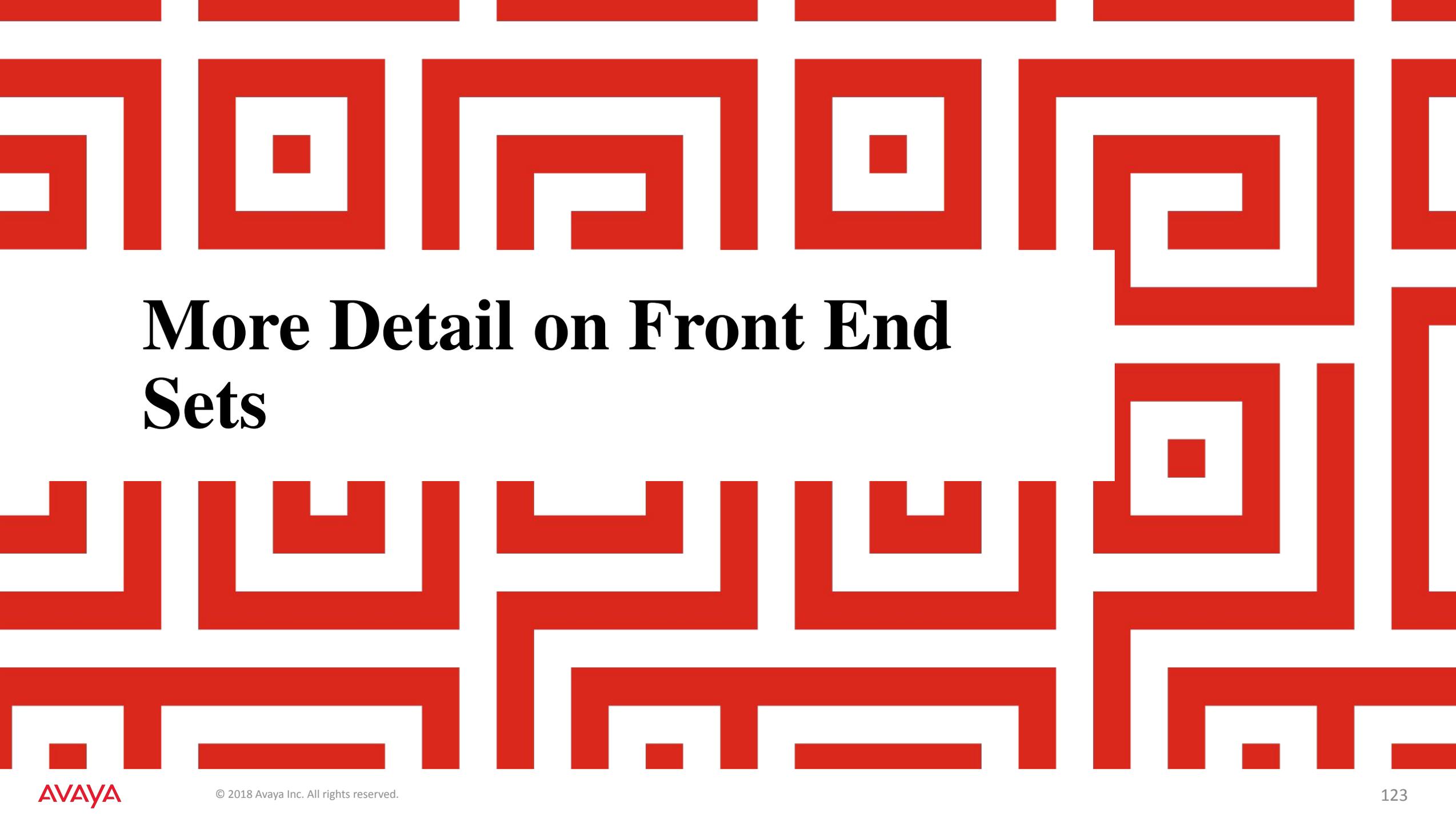
With Avaya Aura® **8.0**, which two CS1000 Endpoints are supported for migration to Avaya Aura®? (Choose two.)

- 9640
- 1120
- 1140E
- 3280
- I2033

Exam[ple] question

With Avaya Aura® **8.0**, which two CS1000 Endpoints are supported for migration to Avaya Aura®? (Choose two.)

- 9640
- **1120**
- **1140E**
- 3280
- I2033



More Detail on Front End Sets

96x1 series IP Phones



	9601 SIP	9608G	9611G	9621G	9641GS
Display	4line mono	8line grayscale	3.5" color	4.3" color	5" color
Keys	2 Led, 3 Feat	8 LED, 4 Feat	8 LED, 4 Feat	Touch screen	Touch screen
Port	10/100	Gb	Gb	Gb	Gb
Power	PoE class 1	PoE class 1	PoE class 1	PoE class 2	PoE class 2
Wideband	No	Yes	Yes	Yes	Yes
Profile	Walk Up	Everyday, Navigator	Everyday	Essential	Essential, Agent USB support
Ext modules	No	3	3	No	3, +Bluetooth
Headset port, full duplex speakerphone, Ethernet switch – all models					

1600 Value Edition



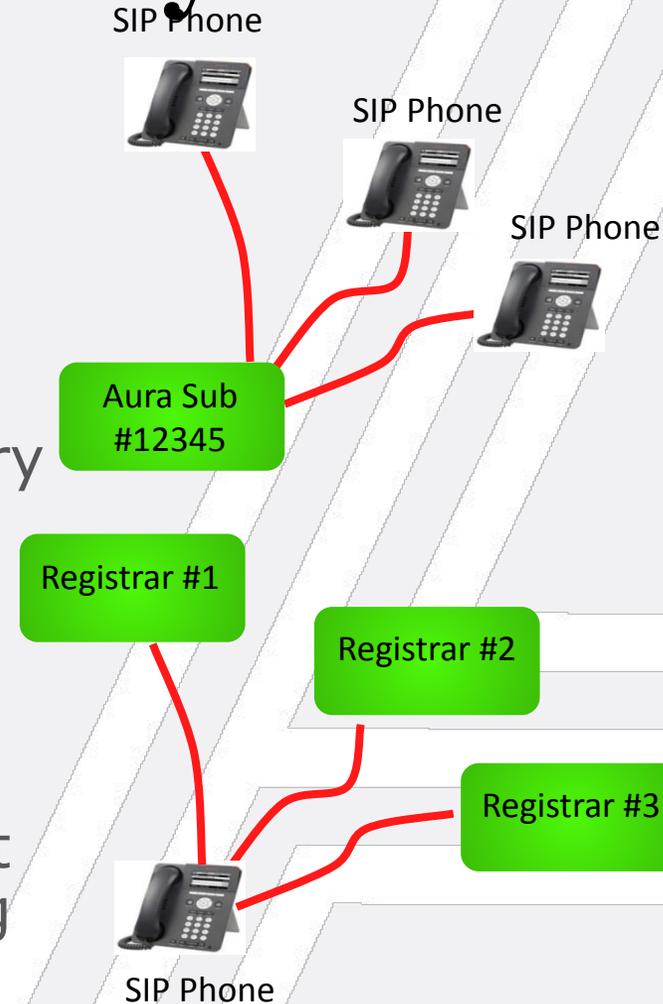
- 1603, 1608, 1616 phones
 - 1616 support up to three 32-key extender consoles
 - 16CC – contact center mod 1616
- Economy series
- Traditional interface
 - Hardware keys with paper note sheets and red/green LED indication
 - Traditional text display

1616 with three extenders – 112 keys!



MDA and SIP Survivability

- Multiple Device Access
 - One subscriber, multiple devices
 - 10 max, limit administrable
 - Aura 6.3 or newer core required
 - SM, SMGR, ACM is a minimum
 - Presence supported, but not mandatory
- RFC 5626 – Multiple Registrar support
 - One SIP terminal, multiple Registrars
 - Simultaneous connect/register
 - Lost connect to first one – use next
 - No extra time lost on re-registering



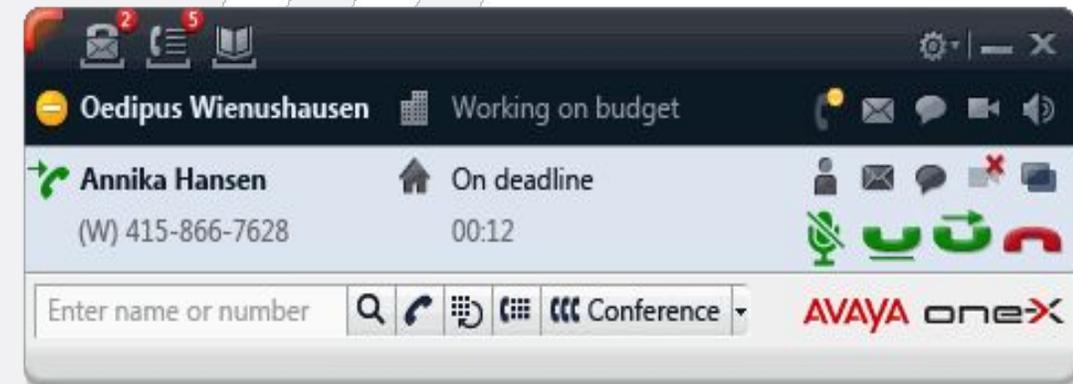
H175 desktop video terminal

- H175 SIP Video Phone
 - SIP only, no H.323 planned
 - FullHD 1080p30
 - Detachable camera
 - 7" touchscreen, external HDMI
 - DECT handset, USB, BT/WiFi
 - Aura SIP endpoint
 - 96x1 feature parity
 - Exchange integration
 - Calendar / Contacts
 - Cyrillic support



one-X Communicator

- Rich UC client for desktop or laptop, SIP or H.323.
 - Supported on 32/64-bit Windows (XP, Vista, 7, 2003/2008 Server)
 - Supported on Mac
- Setup Option 1: Standalone client
 - Desktop integration with an easy-to-use interface
 - Basic telephony with ad hoc conferencing
 - Contact management
 - IM/Presence (with Presence Services)
 - Click-to-dial from Internet browsers
 - Wipe-to-dial (clipboard dialing) from an application
 - Optional video
- Setup Option 2: UC Client with one-X CES
 - Audio Conferencing Control (with AAC)
 - Contact management (with LDAP server)
 - Visual Voicemail (with AAM)
 - Synchronized call logs / call history
 - Video Presence



One-X Communicator for Mac

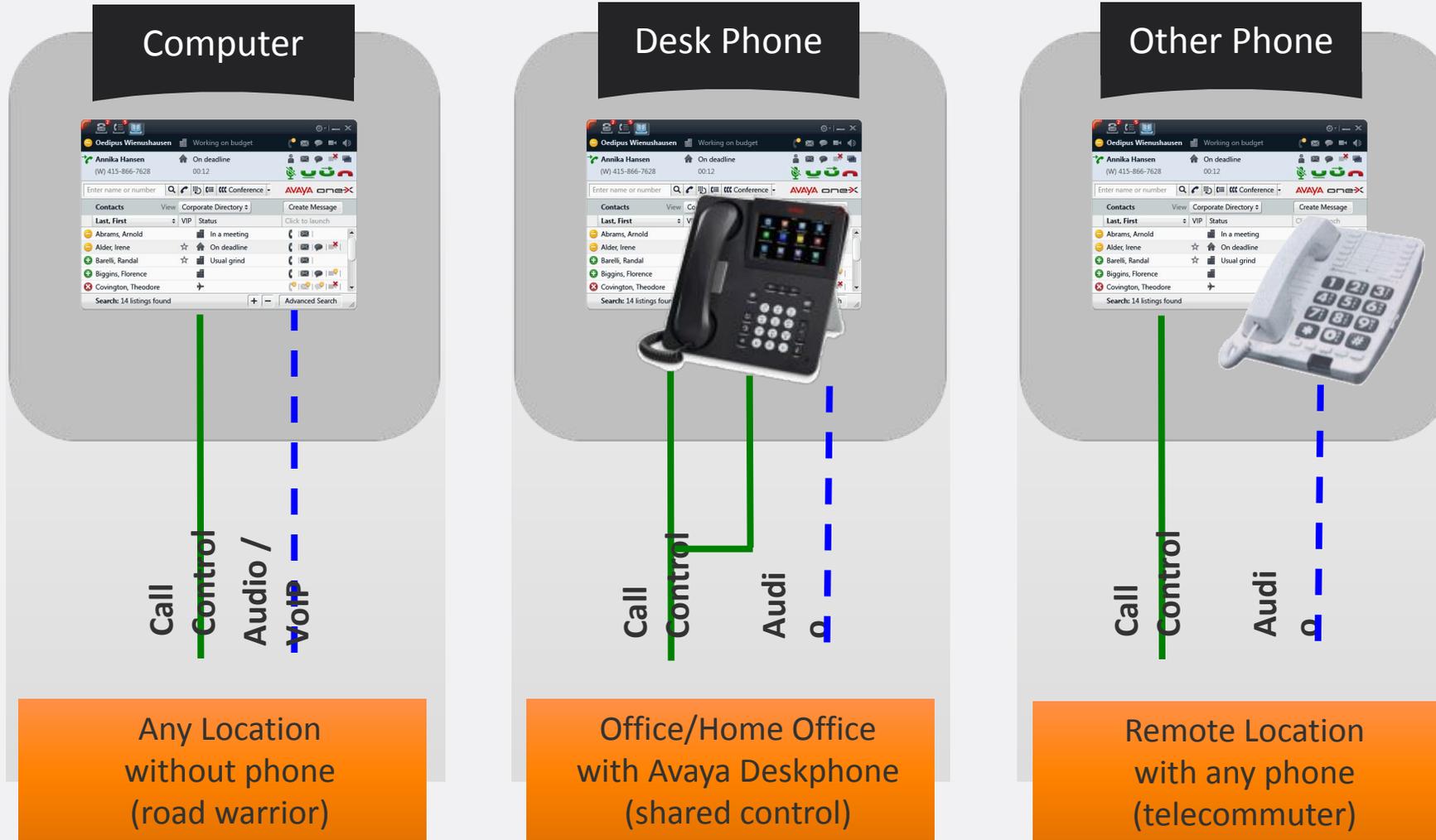
Incoming call

Video Call

Feature Menu Access

Context sensitive call options

Avaya Communicators - Operation Modes



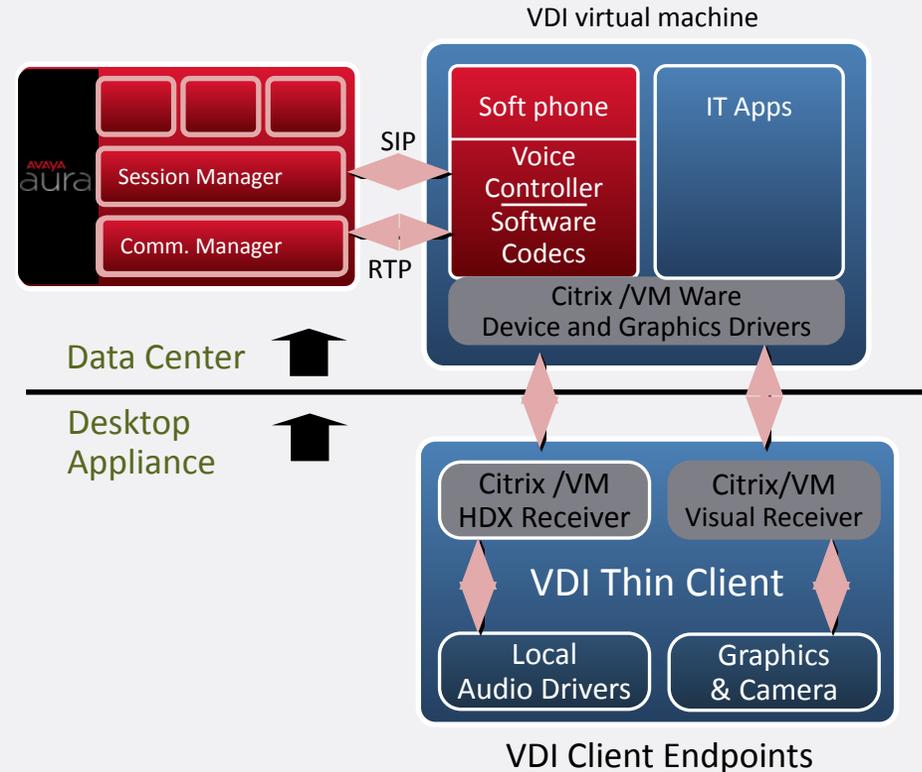
Avaya Virtual Desktop Infrastructure (VDI)

- **The need**
 - **virtual desktop solutions**
 - 4 Greater efficiency, flexibility, security
 - 4 Simplified administration and lower cost
- **The barriers**
 - 4 Scalability, security
 - 4 Poor quality voice and video
- **The solution - Avaya VDI Communicator**
 - 4 Supports full UC functions
 - 4 With Aura Core, Presence and CES
 - 4 Separates processing-intensive RT media from non-RT information
 - assures QoS and offloads the server, enabling greater scale and call quality
 - 4 Open architecture supports multiple vendors and protocols
 - 4 working with Citrix, VMWare, HP, Wyse, ...
 - 4 Call control via end-point interface with or without server connectivity



Virtual Machine is a Bottleneck

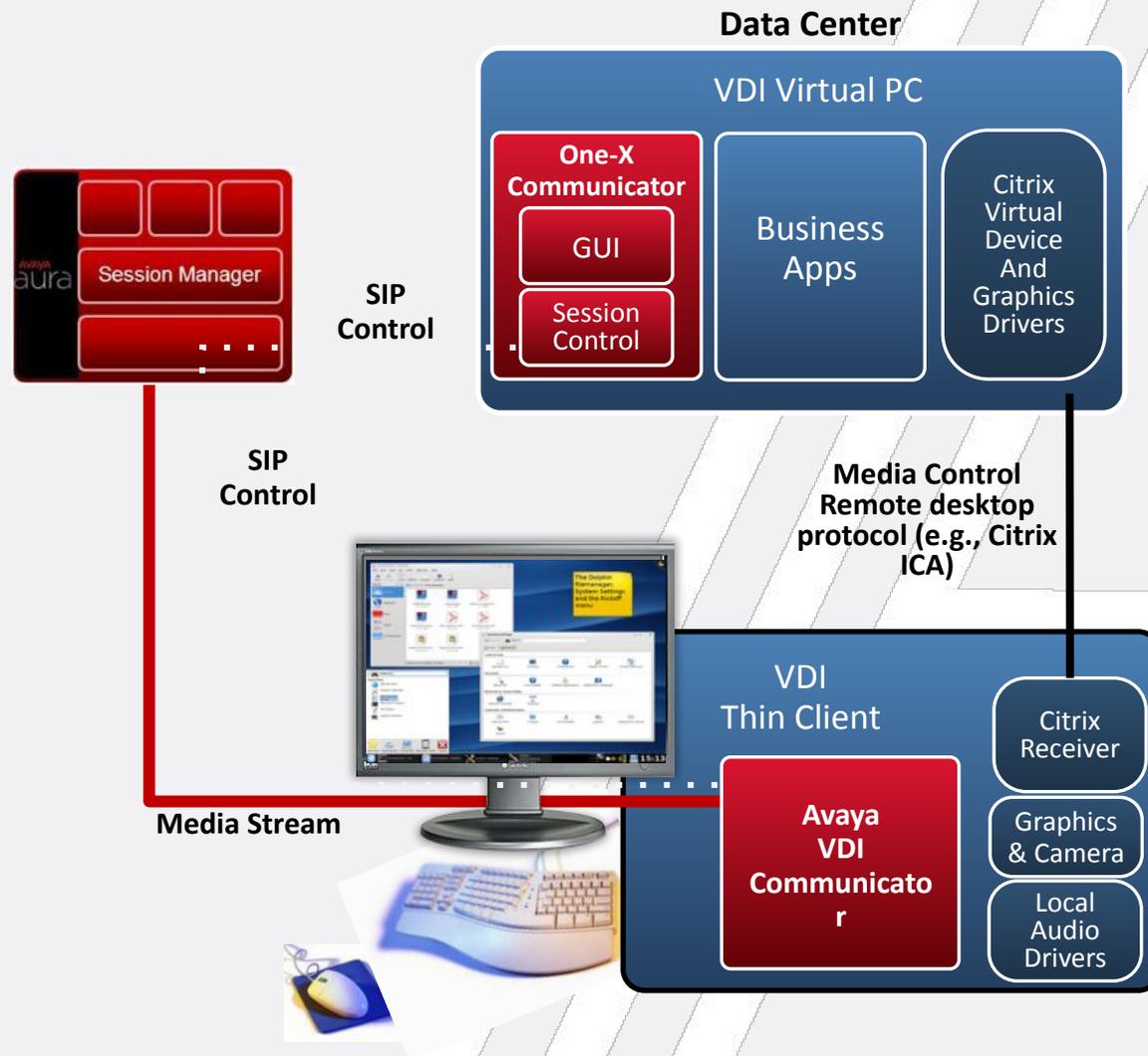
- Voice audio quality suffers
 - Lack of VM real-time processing ability
 - RT traffic not differentiated
- Scale is reduced
 - Up to 50% for audio
 - Up to 10x for video
 - high bandwidth & processing requirements



Voice and video flow through virtual machine servers

Avaya VDI Features

- Survivability
 - Basic voice can be provided with no datacenter access
- Security
 - communications secured by TLS
 - ASBCE compatible
- Scalability
 - Virtual PC is not loaded with media processing
- Voice quality
 - Media direct to client
 - End-to-end QoS
- Flexibility
 - Software-only solution
 - Separated from HW
- Multimodal collaboration
 - Multiple features including voice, conferencing, messaging, IM/presence etc.



Avaya VDI Communicator survivability

Everyday scenario



- 4 Avaya ACA for Lync and Collaboration Services running on virtual PC in the data center accessed via thin client

Loss of connectivity or VM machine down



- 4 Avaya VDI Communicator session-down UI on a thin client

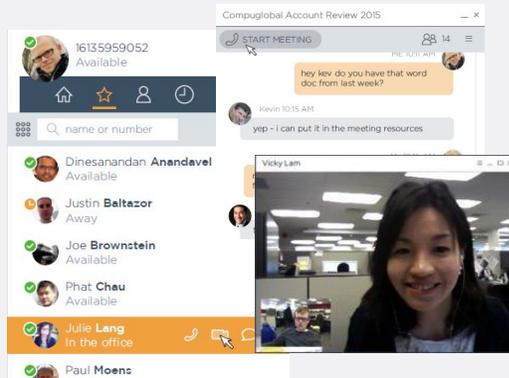
- ✓ Problem with the virtual machine
- ✓ Problem in the data center
- ✓ Problem with the network between data center and thin client

Client Enablement Services

- Unified UC provider for one-X Mobile / Communicator and Avaya Communicator
 - Long time ago Communicator utilized one-X Portal
 - CES cannot be installed on same ACM with one-X Portal
 - Contain CES Handset Server (in DMZ) and CES Core Server (in corp network)
 - Can co-resident inside corp network, if DMZ has Reverse Proxy or ASBCE R7+
- Provides for soft clients
 - Persistent call log and contact directory
 - Call log is persistent – tracked even is no client is online
 - Visual Messaging / Conferencing
 - Global presence
- Up to 4000 users (2000 simultaneous)
- Customer-provided server as listed or better:
 - Dual quad-core 2.4 GHz or better CPU
 - 24 GB RAM, 4 x 146 GB hard drive
 - 100Mbps/1 GB network card
 - RHEL

• No VMware support !!!

Avaya Equinox for Desktop and Mobile

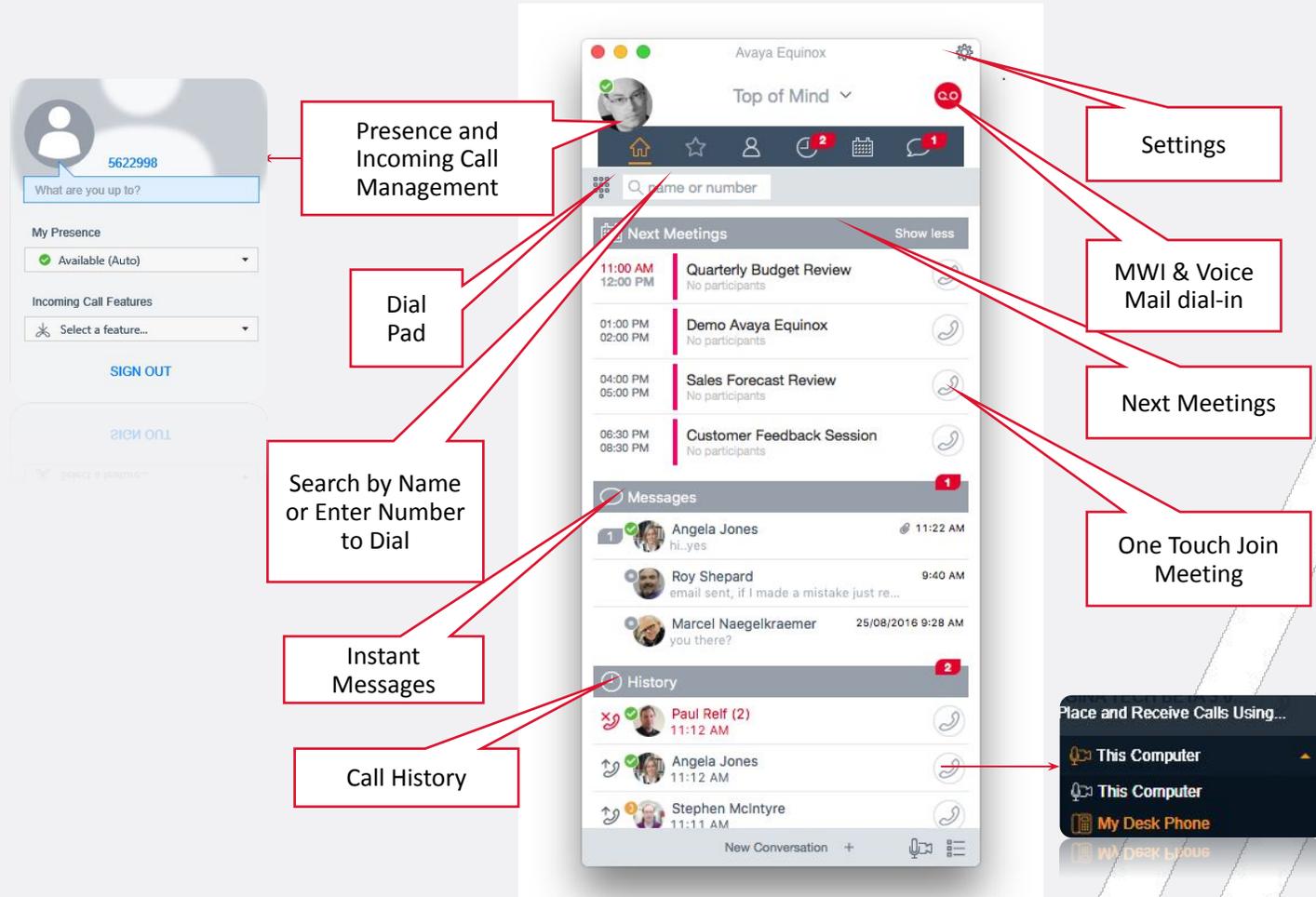


- Enterprise voice
- Video everywhere
- Persistent Multimedia Messaging

- Feature rich in-meeting experience
- Integrated recording
- Contextual controls

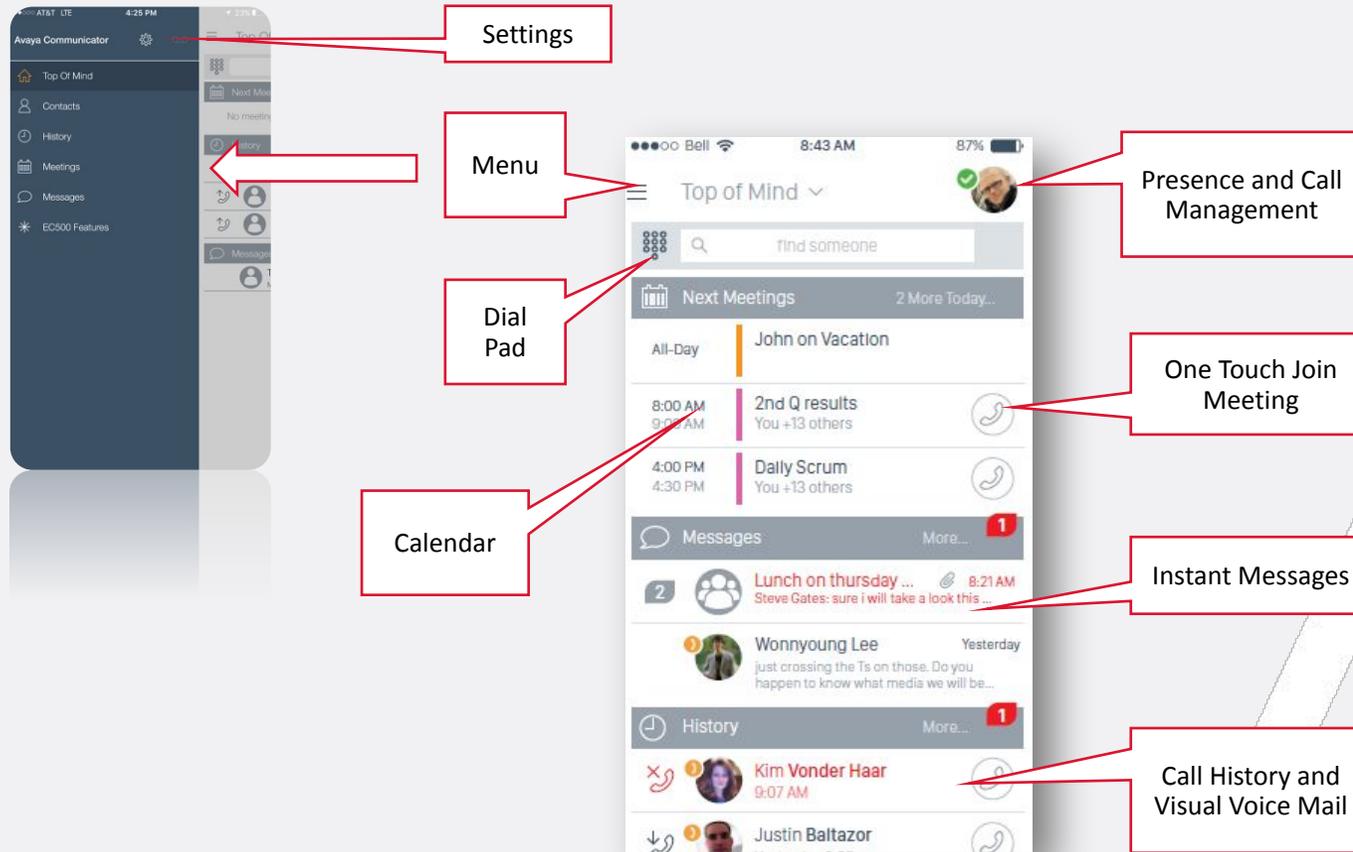
- Mobile first design keeping the mobile work-force productive

Avaya Equinox for Desktop



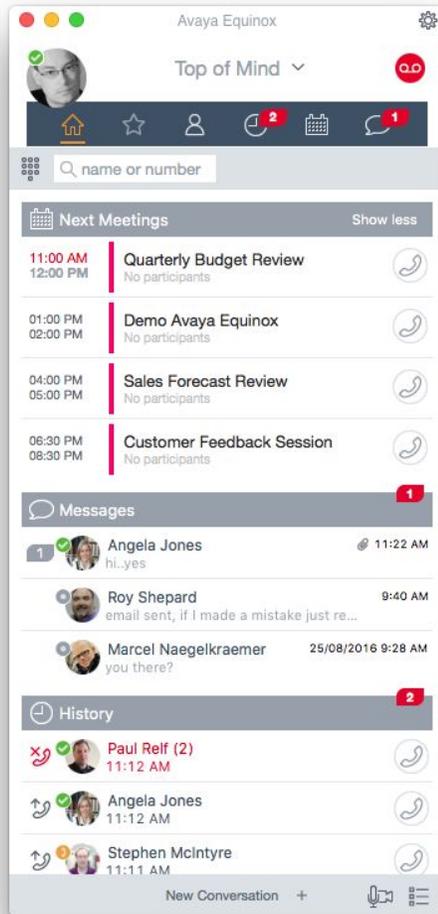
- Specific to Desktop:
 - Voice Features:
 - Send All Calls
 - Extend Call to Cellular
 - Call Forwarding
 - Directed Call Pickup
 - Busy Indicators
 - Call Park / Unpark
- Automatic desktop application software updates with Avaya Aura Device Services
- Deskphone audio path mode (all platforms) or Telecommuter mode (Windows only)
- LDAP Corp Directory access

Avaya Equinox for Mobile



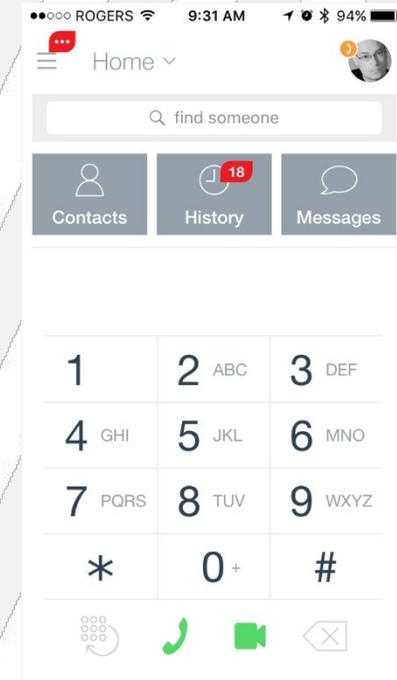
- iOS 9.0+, Android 4.4+
- Specific for Mobile:
 - Point-to-Point Video Calling
 - CES and ActiveSync corp directory access
 - Avaya Aura PPM Contacts for SIP VOIP configuration – contacts are synchronized with other clients and SIP desk phones
 - SIP-based Presence, automatic with no CES fallback
 - Cellular Direct: managed list of phone numbers which will only be dialed over cellular voice
- Can upgrade from iPhone AC 2.1, but not from iPad

Home Screens



- ❑ Mobile first design enabling users to do most things from one simple screen
- ❑ One place to keep you Engaged in the moment
- ❑ Join meetings directly with one touch
- ❑ Stay on top of your Messaging activity
- ❑ Quickly return important missed calls

- ❑ Ideal for users who are not “calendar driven”
- ❑ Easy access to contacts, history & messages with badging
- ❑ Adaptive – supports non-messaging deployments
- ❑ Simple and friendly
- ❑ Dial-pad button throughout the app returns to this home screen



Equinox 3.0 Features

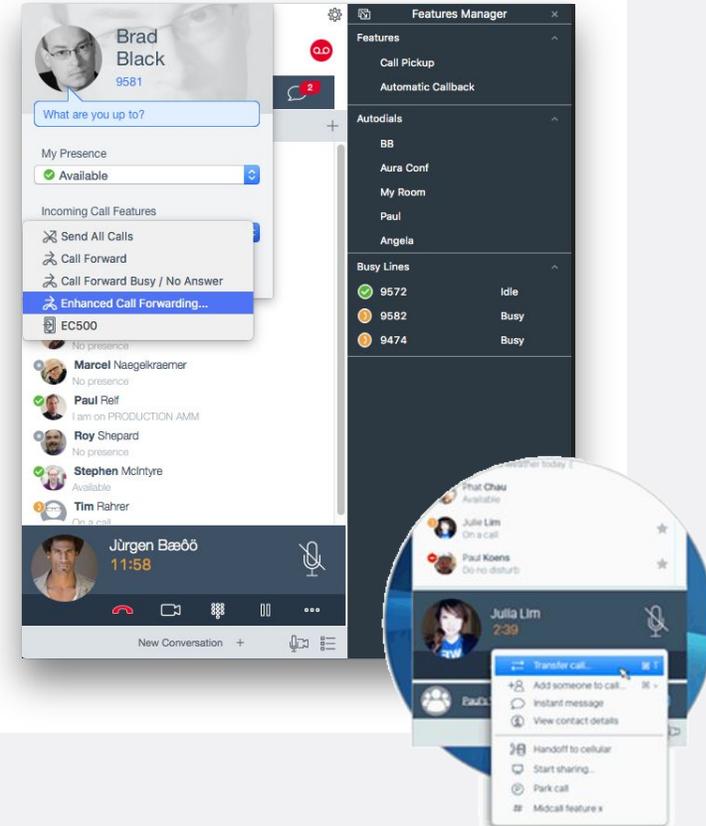
- SIP only, no H.323
- Always On connectivity through VPN-less secure edge
- Call Hand-off across devices and networks
- AMM IM support (no PS/XMPP)
- Desk Phone Integration
 - Multiple Device Access allowing Up to 10 SIP devices registered concurrently
 - H.323 & SIP Dual Registration allowing SIP soft-client deployment for users with H.323 desk phones
 - Shared Control Support providing Phone based audio with Desktop soft client point and click
 - AADS based multiple SM registration
 - Single SM on manual setup

Enterprise Voice

Call History (Locally Generated)
Emergency Call Handling
SM Failover (Simultaneous Registration)
 manual config start with 1 SM
Last number redial
Call Forward All Calls
Call Forward Busy / No Answer
EC500
Send all calls (SAC)
Extend Call
CM Ad-Hoc Conference Support
Deskphone Shared Control (Desktop)
Feature Access Code (FAC) Support
Transfer
Join a call on another device
Join call a held call on another device

Enterprise voice work-flow features

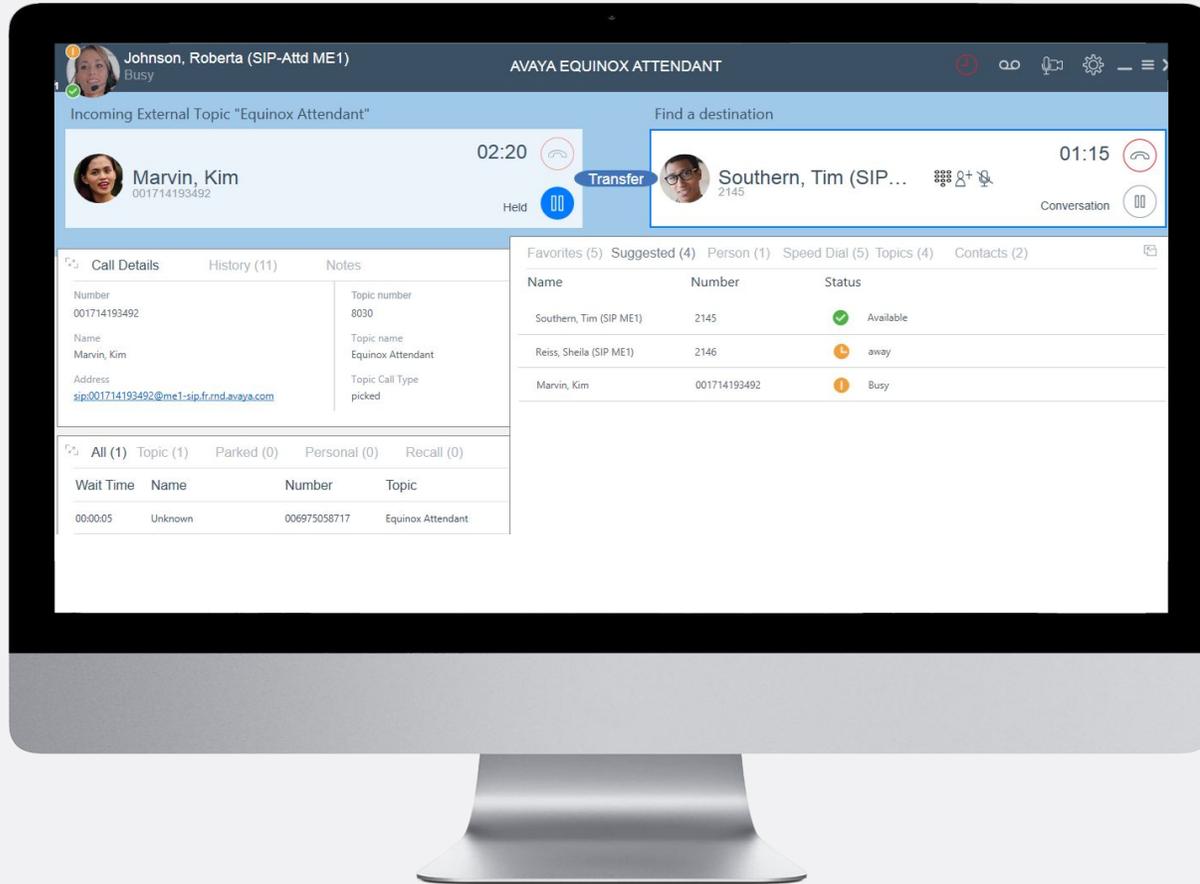
Call Park / Unpark
Call Pickup Alert
Directed & Extended Call Pickup
Enhanced Call Pickup Alerting
Account Codes / Authorization Codes
Automatic Callback (Feature Button)
Automatic Dial Buttons
Busy Line Indicator
Exclusion





Equinox Attendant

Avaya Equinox® Attendant



- Flexibility to centralize attendant functions across a dispersed enterprise
- SIP based for easy integration and complete UC capabilities
- Intelligent assistive features enable expedited call handling and improved caller service
- Clean interface makes responding and acting on calls intuitive and fast in high volume situations
- Supports Avaya Aura on Premises or in the Cloud
- Supports both Computer mode (via headset) and Deskphone mode (using a SIP office phone)

Deploying Avaya Equinox® Attendant

4 User Interface

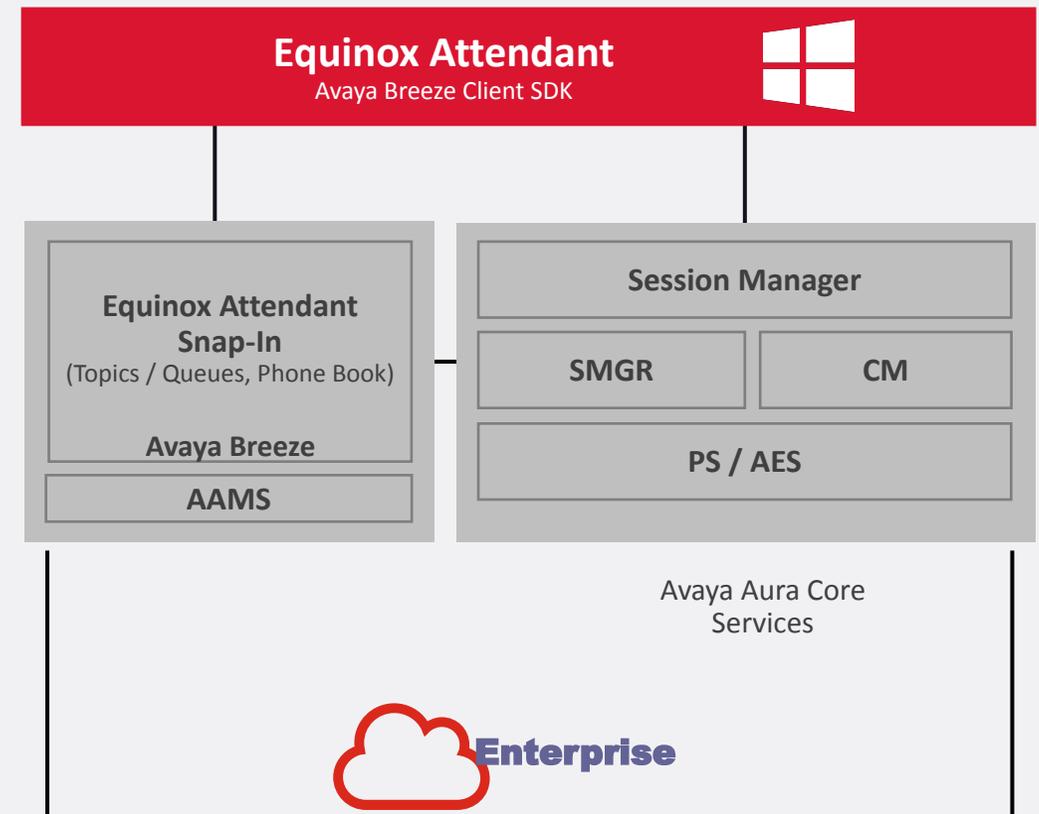
- Windows desktop based and highly intuitive UI optimizing productivity
- Administrator controls keep data secure
- Built using Avaya Breeze Client SDK for flexibility and customization opportunities

4 Avaya Breeze

- Flexible, secure and easily deployable applications platform
- Breeze and AAMS mandatory for installation

4 Avaya Aura SIP

- Full SIP solution for UC deployment and capabilities



Avaya Equinox Attendant user interface

The screenshot displays the Avaya Equinox Attendant user interface. At the top, the operator bar shows the user 'Johnson, Roberta (SIP-Attd ME1)' with a 'Busy' status. The main interface is divided into several sections:

- Caller Information Window:** Displays the caller's name 'Marvin, Kim' and number '001714193492'.
- Transfer Target Window:** Shows the transfer target 'Southern, Tim (SIP... 2145)' with a 'Conversation' status.
- Call Details Window:** Provides details for the current call, including the number '001714193492', name 'Marvin, Kim', and address 'sip:001714193492@me1-sip.fr.md.avaya.com'. It also shows the topic number '8030' and topic name 'Equinox Attendant'.
- Call Preview Window:** Shows a list of calls with columns for 'Wait Time', 'Name', 'Number', and 'Topic'. The current call is listed with a wait time of '00:00:05', name 'Unknown', number '006975058717', and topic 'Equinox Attendant'.
- Directory Window:** Displays a directory of contacts with columns for 'Name', 'Number', and 'Status'. The contacts listed are: 'Southern, Tim (SIP ME1)' (2145, Available), 'Reiss, Sheila (SIP ME1)' (2146, away), and 'Marvin, Kim' (001714193492, Busy).

The interface also includes an 'Operator Bar' at the top right and a 'Transfer' button between the caller and transfer target windows.

Pick A Call, Cherry Picking

- 4 A topic call is displayed in the call preview if
 - The attendant has subscribed to a the topic and is in state busy or
 - The wrap-up time is running or
 - The attendant is on a call
- 4 The attendant can pick a call if he is in state “idle” or “alerting”
 - The alerting call will move to the call preview
- 4 The attendant may pick any call of the list (cherry picking).
 - He is not forced to pick the longest waiting call
 - Up to attendant to choose which call gets a priority service



Calls List	
	Pending
	Pending
	Attending
	Pending
	Pending



Call Detail Window

- Presents contextual information about current / last call based on database look up
 - Call information is retained until next call is presented / made
- Call history for this caller

The screenshot shows the 'Call Details' window with the following information:

Call Details	History (2)	Notes
Number 2146		Topic number 8030
Name Reiss, Sheila		Topic name Equinox Attendant
Address sips:2146@me1-sip.fr.rnd.avaya.com		Topic Call Type distributed

The screenshot shows the 'History (7)' window with the following call log:

Call Details	History (7)	Notes
↑	Reiss, Sheila (SIP ME1) 10/25/2017 11:27 AM	00:06
↑	Reiss, Sheila (SIP ME1) 10/25/2017 11:26 AM	00:05
↓	Reiss, Sheila (SIP ME1) 10/25/2017 11:25 AM	00:31
↓	Reiss, Sheila (SIP ME1) 10/25/2017 11:24 AM	00:12
↑	Reiss, Sheila (SIP ME1) 10/25/2017 11:23 AM	00:10
↑	Reiss, Sheila (SIP ME1) 10/25/2017 11:22 AM	00:04
↑	Reiss, Sheila (SIP ME1) 10/25/2017 11:17 AM	00:05

- Notes created by this or other Attendants including notes for Parked calls

Any attendant user can create a note

The diagram shows the 'Notes' window with the following annotations:

- Time:** Points to the date and time of the note: 2017-03-06 11:21:03.
- Note:** Points to the content of the note: talks german.
- Add Note:** Points to the '+' icon at the bottom left of the notes list.
- Delete Note:** Points to the trash can icon at the end of the note entry.

Additional annotations explain note visibility:

- Public:** every logged in user can see note (points to 'public' notes).
- Private:** only writer can see this note (points to 'private' notes).

Favorites & Suggested Users

Name	Number	Status
Steen, Paul	001714193492	
Reifenberg, Ralf (SIP-Attd ME1)	1105	 On-the-phone
Hemmerich, Tom (SIP ME1)	2103	 Available
Reifenberg, Ralf (SIP ME1)	2105	 Available
Moetzinger, Markus (SIP ME1)	2127	 Available
O'Connor, Barry (SIP ME1)	2135	 Offline
Southern, Tim	2145	
Reiss, Sheila	2146	 Available

Favorites

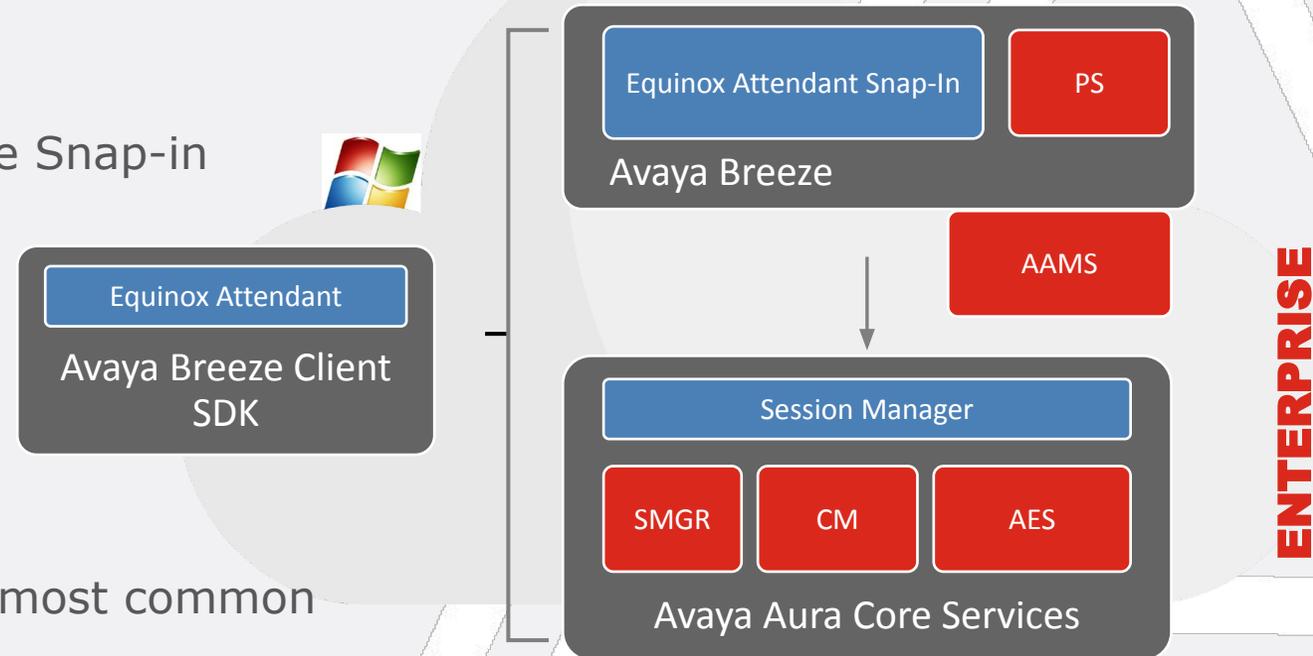
- Dynamically created list based on common transfer target for a given Attendant.
- List is operator specific
- Stored on Breeze-Cluster

Suggested users

- List is dynamically created for a given incoming caller ID
- Provides a list of previous transferees.
- Suggestions are independent of topic and attendant positions
- Applicable within a given Breeze cluster.

Avaya Equinox® Attendant 5.0 summary

- Equinox Attendant 5.0.x
 - Is a Windows SIP Client and a Breeze Snap-in
 - Selection of deployment options
 - Replaces one-X Attendant H323
- Key Features
 - Modern User Interface
 - “Look Ahead” with Presence services
 - Favorites list for quick access to the most common destinations
 - Suggested call routing, based on previous call patterns
 - “Cherry Pick” the most important incoming calls immediately
 - Contextual information that allows the operator to provide a more personal touch

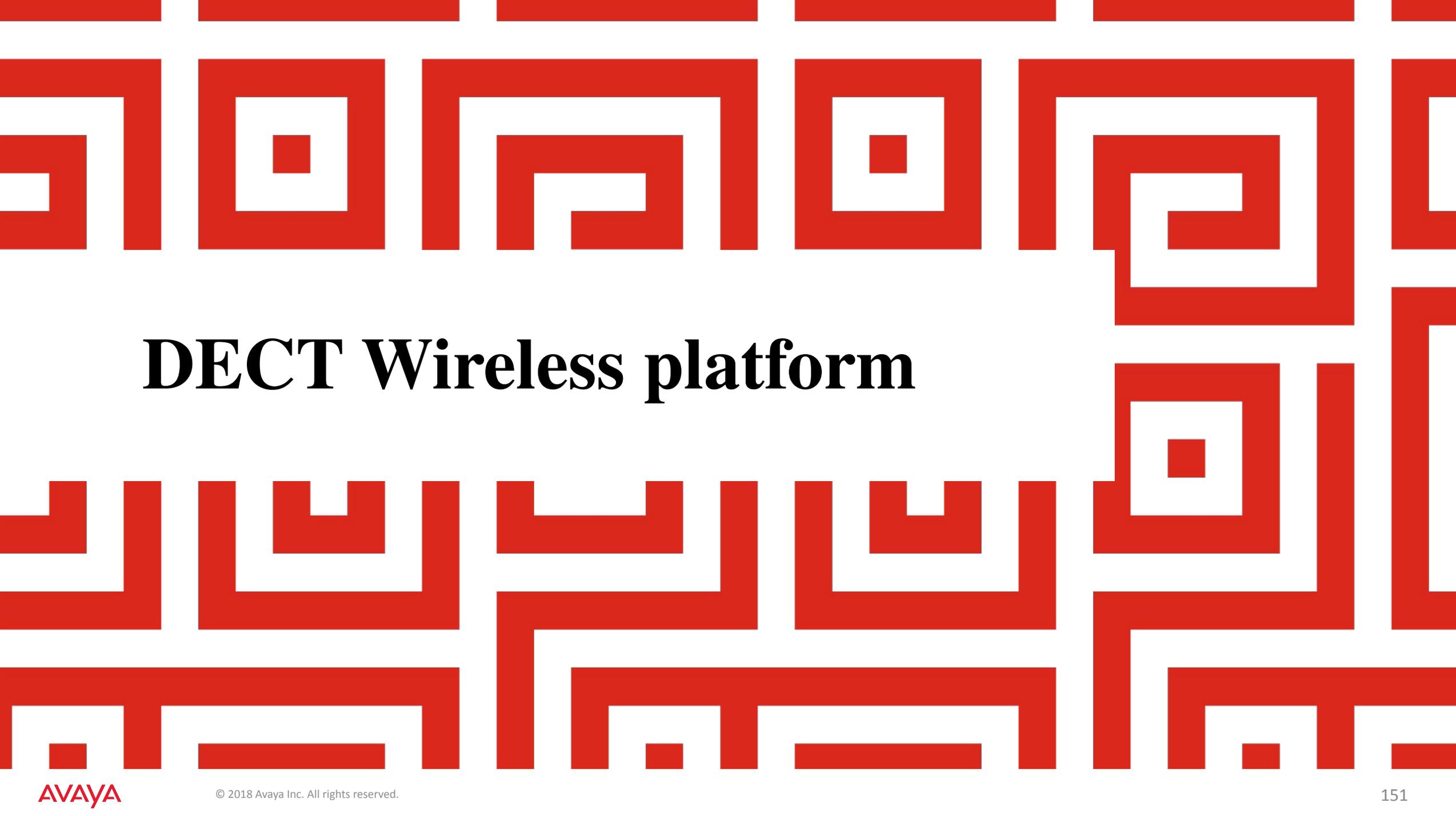


Licensing

Perpetual Material Code	Name	Description
394373	EQUINOX ATTENDANT R5 USER NEW	User license (New). One user license is required per Operator
394379	EQUINOX ATTENDANT R5 SERVER NEW	Server license (New). One server license is required per Snap-In Instance deployed on a Breeze Cluster
394376	EQUINOX ATTENDANT R5 CONNECT TO EXTERNAL DATABASE NEW	Database connection license (New). This is an optional license. Note: one external data source is included for each system.

Notes

- The customer must order 1 Equinox Attd Snap-in per 25 Client / Operators position
- Customer orders up to 5 Server Snap-Ins this would accommodate a fail-over condition 4+1
- Upgrade advantage is mandatory for Equinox Attendant 5
- Pre-requisite is to have a Breeze Cluster (General Purpose or Core Platform) deployed for the Snap-In's
 - One Breeze application platform per Equinox Attendant Server (Snap-in)

The background of the slide is a repeating pattern of red geometric shapes on a white background. The shapes are composed of thick red lines forming squares and rectangles, some with smaller squares inside them, creating a maze-like or circuit-like appearance. The pattern is consistent across the entire slide.

DECT Wireless platform

IP DECT R4

- Ascom-based solution
 - Up to 1000 base stations
 - Up to 2000 subscribers
- Two types of radio bases
 - Internal antenna - 30..200 meters non-directional
 - External antenna – can connect external antennas
 - Out of the box antennas – similar to internal ones
 - Non-directional – 600 meters
 - Directed double – 750 meters
 - Directed single (used in pairs) – up to 1000 meters
 - Narrow beam, control by distance between paired antennas
 - Radio synchronized
 - 12 channels per base
 - 8 channels dedicated to voice, 4 to sync
 - Keep synced with no less than 2 other bases to keep cluster operational

DECT Wireless phones: 37xx SERIES



3730 DECT HANDSET

- **Cost effective**, entry level
- Designed for **UC environments**, executive companion phone.
- **IP40 certified**



3745 DECT HANDSET ✖

- **Ruggedized Handset**
- Designed for **users working in Industrial environments or outdoor environments.**
- Supports **Push to Talk (PTT)**
- **IP65 Certified**



3735 DECT HANDSET ✖

- **Executive Handset**
- Users who need to be always connected -voice & messaging. Supports **Push to Talk (PTT)**
- **Option of Alarm**
- Designed for users who requires to be constantly connected.



3749 DECT HANDSET ✖

- **ATEX handset**
Workers working in **high-risk or dangerous** environments.
- Supports **Push to talk (PTT)**
- **IP65**

Solution elements



Internal antenna base, up to 200 m



Directional dual antenna, Up to 750 m



3730 economy class



3735 office



External antenna base, up to 200 m, able to connect external antennas



Omnidirectional antenna, up to 600 m



3745 Rugged IP65



3749 Man Down, No Move, ATEX / IECEx Gas / Dust

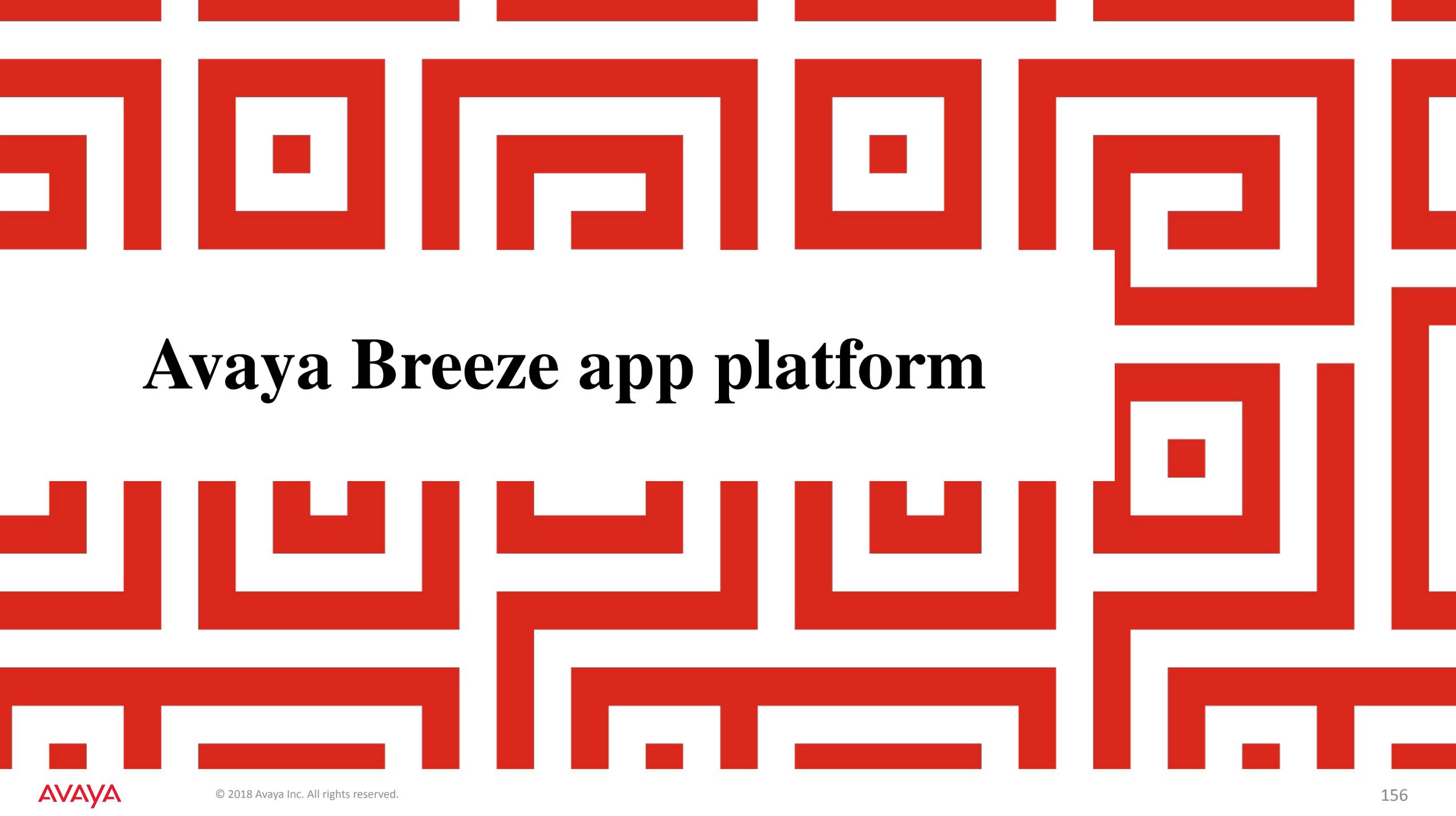


Directional single antenna, use in pairs, up to 1000 m

Inbuilding Wireless Server



- AIWS2 – Linux server
 - Shipped preinstalled
 - Several options including OAP for external systems interworking
- IP DECT R4 AIWS2 allows:
 - Exchange text messages
 - Handset to handset or web portal to handset
 - Update phone firmware and settings
 - Via cradle or over-the-air
 - Relocate ID data between handsets
 - Use extended phoneboks
 - LDAP or IP Office TFTP – external source
 - Up to 500 records via web or 2000 Excel imported
 - Use external OAP messaging protocol
 - Use PTT



Avaya Breeze app platform

Breeze Platform

- A robust, scalable platform to build and deploy collaboration apps
 - Collaboration app developed and run on Breeze is called a **snap-in**
 - Can be directly written in Java or designed with Engagement Designer
 - Avaya-developed snap-ins
 - Engagement Designer - graphical drag and drop tool to create multichannel workflows
 - «Not Everyone is a Java Developer»
 - Real-time speech - monitors both parties of the call and notifies when specific phrases are spoken or not
 - Engagement Assistant - integrates with Outlook Calendar to provide "one number conferencing"
 - WebRTC - enables "click-to-call" for users on any supported browser
 - Call Park and Page - emulates the CS1000 "Park and Page" function with Avaya Aura
 - Context Store – multidimensional historical call context "customer journey" storage DB
 - Work Assignment – next level of context-based EAS engaging the Customer with the best Agent
 - 3rd party developed snap-ins
- Rapid service and application development & deployment
 - Save dev time on Scalability, Management, Provisioning, HA, Security...
 - DevConnect Marketplace and SNAPP Store – one stop shop for snap-ins made by everyone
 - Avaya sells own snap-ins and let other devs to sell theirs for commission
- Vmware-based OVA deployment for customer-provided environment
 - Presence w/Core Breeze can be also deployed on AVP appliance

Exam[ple] question

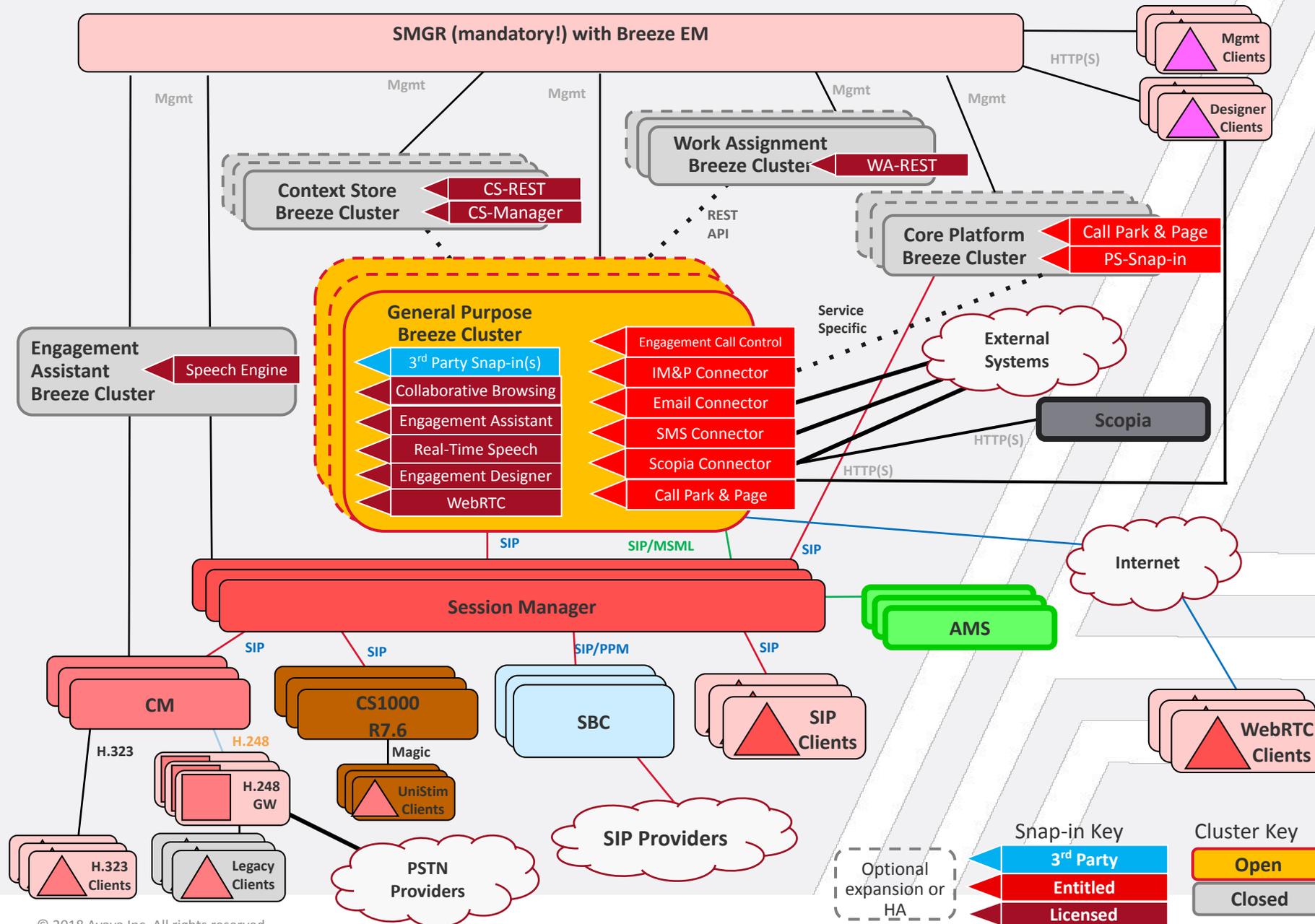
Which statement correctly describes the Avaya Breeze™ Engagement Call Control (ECC) Snap-in?

- ECC is an Avaya Breeze™ entitlement and does not require Application Enablement Services (AES)
- **ECC is an Avaya Breeze™ entitlement and requires Application Enablement Services (AES)**
- ECC is not an Avaya Breeze™ entitlement and requires Application Enablement Services (AES)
- ECC is not an Avaya Breeze™ entitlement and does not require Application Enablement Services (AES)

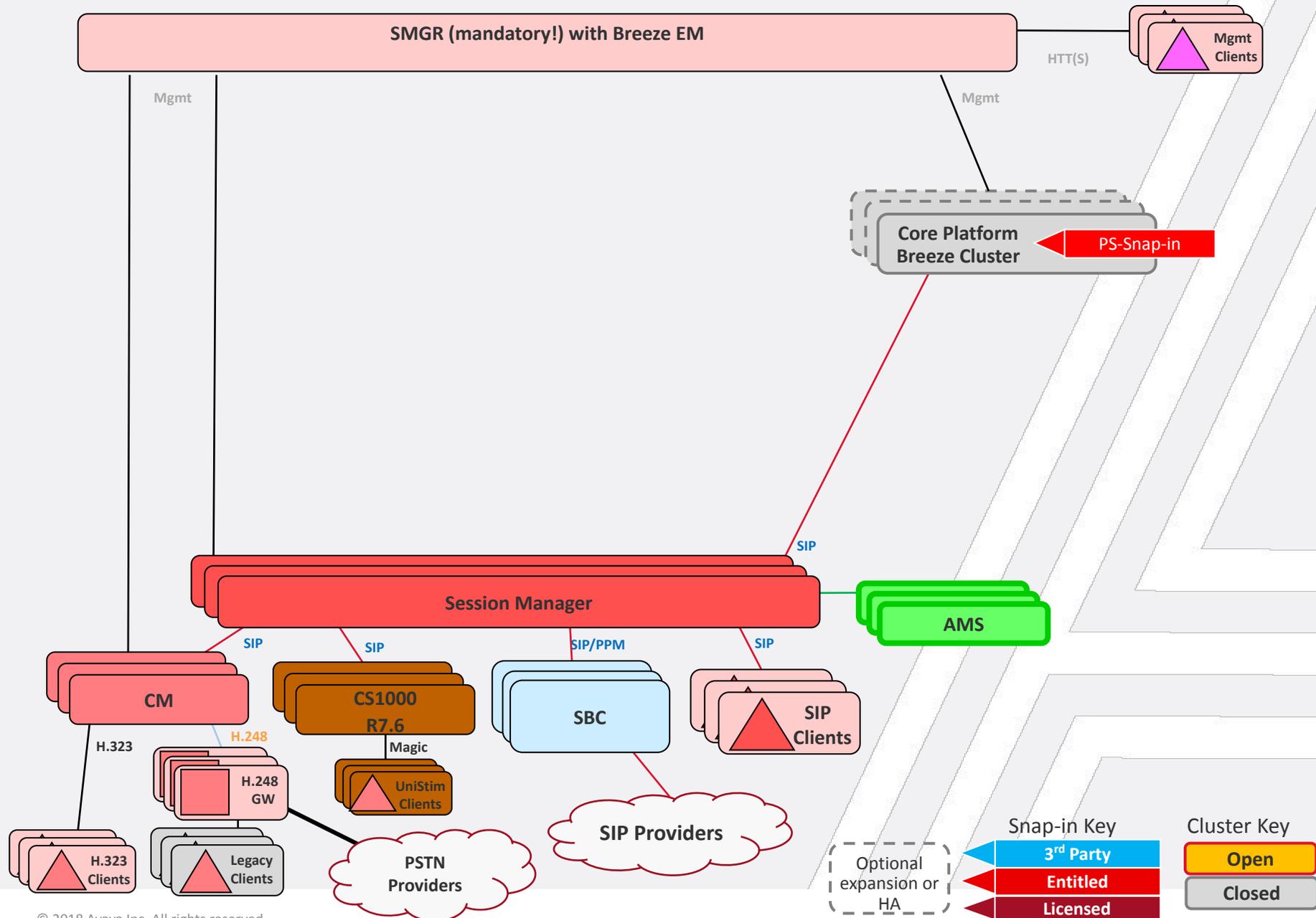
Breeze Inside

- Breeze consists of Clusters that are made of Servers/Nodes
 - Clusters can have different purpose
 - Servers in Cluster are interlinked by cluster-wide Data Grid
 - Data Grid keeps data and provide access to it
 - Data Grid functions as a survivable data storage
 - Clusters can be HA (N+M scheme)
 - Session Manager works as a SIP load balancer
 - In HA setup both Breeze and AAMS (if used) must be HA
 - Clusters can be HA+Geo-Redundant
 - Supported by Presence and Context Store
- Applications that run on Clusters are called Snap-ins
- Some Snap-ins require AAMS functionality
 - AAMS can be used by Breeze or by Aura components
 - Sharing of AAMS between Breeze and ACM (for ex.) is not supported
 - AAMS ASR/TTS require separate Nuance per port license

Breeze Platform



Breeze Core setup for Presence Services only



Breeze Capacities

- Up to 35 Breeze servers in a solution – per System Manager
- Up to 20 Media servers in a solution
 - Not shareable with Communication Manager
- For HA solution both Platform and Media servers must be HA
- Servers can be organized into Clusters
 - 5 Cluster types (see scheme)
 - Max 5 nodes in a cluster (all on one subnet in case of load balancing)
 - Snap-ins in a Cluster use Data Grid that aggregates all servers in a Cluster
- Up to 25 Snap-Ins per cluster, up to 6 snap-ins sequenced per user
- Licensing
 - Named User license - included in Licensing Suite (both Core and Power)
 - One Server/Instance Lic for Presence Core Cluster included per system
 - Breeze server/instance, AAMS server, extra app/res licenses – a la carte
- System Manager 7.0.1+ is mandatory

When you Need a Media Server?

- When a snap-in is designed to use AAMS
 - Real-Time Speech snap-in
 - WebRTC snap-in
- When an app needs to play an announcement
- When an app needs to collect DTMF digits
- When an app needs ASR or TTS
 - This will require extra per port licenses from Nuance
- When an app uses 2-Party Make Call
 - Call-me / Call-you
- When an app uses Sequential Forking
 - Find-me / Follow-me
- When an app uses Flexible Call Leg Control
 - Drop one participant, add another on the same call

Engagement Assistant snap-in

- One number conferencing access with no button clicks
 - Just listen and talk
- Interact using ASR & TTS
- Connects to Outlook calendar
- Two components:
 - The Conference Assistant
 - an easy, seamless way for conference callers to access their calendar and connect to an audio conference using voice means only
 - Seamless Transfer
 - allows to seamlessly transition Scopia/Equinox conferences between desktop and mobile utilizing Plantronics Voyager Legend UC headset

Connector Snap-ins

- Snap-ins for connecting to external service providers
- Email Connector Snap-in
 - SMTP send-only
- SMS Connector Snap-in
 - ClickatellSMS (Text Messaging) send-only
 - Other SMS providers snap-ins available in Snapp Store
- Scopia Connector Snap-in
 - Connects to Scopia/Equinox Management
 - Requires release 8.3+ and a-la carte Conferencing licenses
- Eventing Connector Snap-in
 - Connects to Avaya Breeze Eventing Framework
 - Events, notifications, etc.

WebRTC Snap-in

- Support web-based call services (Click-to-Call)
- Snaps in General Purpose Breeze Cluster
- Requires AAMS to convert RTP to WebRTC stream
- Requires Avaya Aura Web Gateway
 - gateway for clients and apps that use WebRTC signaling and media
- Requires ASBCE in case clients are outside the network
 - STUN/TURN function for browsers without routable IP

Exam[ple] question

An Avaya Aura customer wants to add Click-to-Call to their web site. The customer has:

1. three survivable remote sites supporting SIP endpoints,
2. Presence deployed on Avaya Breeze servers instances in an high availability configuration at their main site and
3. Avaya Aura Conferencing (AAC) servers and Avaya Aura® Media Servers (AAMS) supporting AAC at their main site.

What is needed to integrate Click-to-Call from their website?

- They need to install additional Avaya Breeze Instances and add the WebRTC Snap-in to the new Avaya Breeze instances. They also need to install new AAMS instances.
- They need to add the WebRTC Snap-in to the existing Avaya Breeze instances and utilize the existing AAMS servers.
- They need to install additional Avaya Breeze Instances and add the Smart Caller ID Outbound Snap-in to the new Avaya Breeze instances. No AAMS instances are needed.
- They need to install additional Avaya Breeze Instances and add the WebRTC Snap-in to the new Avaya Breeze instances. No AAMS instances are needed.

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Park'n'Page snap-in

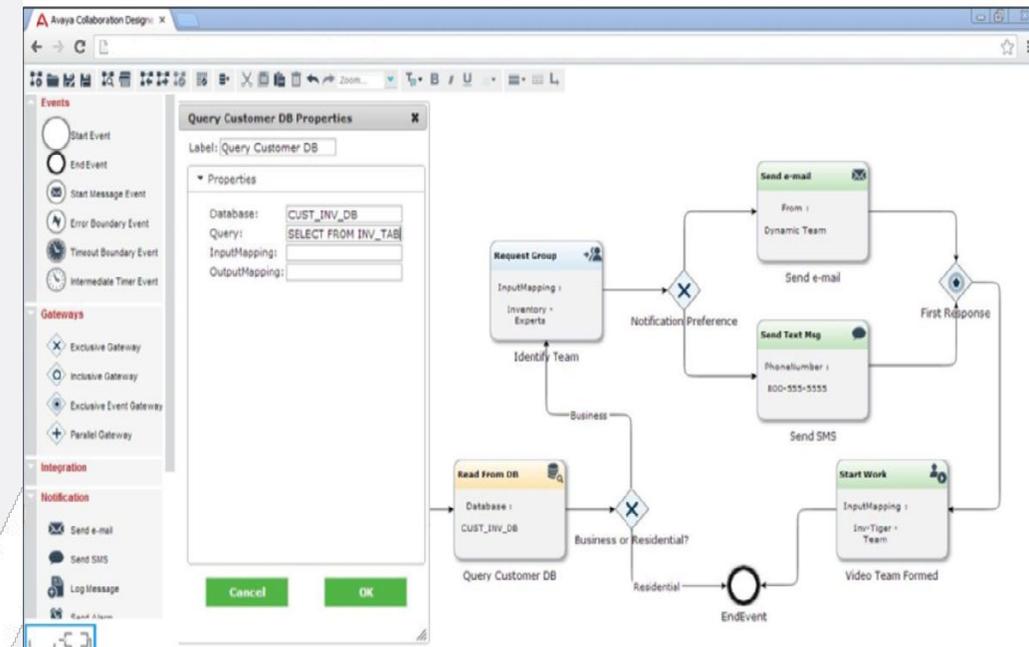
- Adds CS1000 Park'n'Page feature to Red Avaya
- How it works:
 - Sub A calls operator
 - Operator parks call on pooled extension
 - Operator pages Sub B
 - Sub B dials pooled extension and connects to Sub A
- Up to 1000 Call Park Extensions in up to 12 groups
- Network Call Park & Retrieval
 - Sub B and Operator can be on different CMs
- Simplified user retrieval

Breeze SDK

- Java SDK for developing a snap-in
- Available from Devconnect for \$0
- Includes
 - Eclipse IDE Integration
 - Java APIs with Javadocs
 - Call Methods – monitor/modify calls
 - Flexible Leg Control Method (replace call participant, serialize and fork calls)
 - Media Control methods
 - Send Email / Send Text Message methods
 - Create Conference method
 - Data Access methods (incl. external DB access via Java Persistence API)
 - Collaboration Bus methods (async P2P comms)
 - Logging and Alarming methods
 - System status methods
 - Eventing Framework methods
 - Sample Services
 - Whitelisting, HelloWorld, Multi-channel broadcast and dynamic team formation
- Developer Guides, Admin guides, Tutorials (video), FAQs

Engagement Designer

- GUI dev tool for those with no Java expertise
- Workflow Engine – engine event processing snap-in
 - Snaps in General Purpose cluster
- Workflow Definitions – processes to run
- Workflow Instance – created to process triggered WFD
 - Up to 4200 concurrent instances per Engine
- Trigger – “start event” – can be
 - Event administered in Event Catalog
 - Completion event by another WFD
 - Create Process task – “forced start”
 - Action from website or REST client
- Basic offer
 - Bundle of 5 Designer licenses



Breeze Client SDK

- SDK for developing a Client app
 - Multiplatform, desktop/mobile, web
 - Session Manager 7.0.1+ required
 - Breeze is not mandatory, only if needed
 - Unified Collaboration Model (UCM) snap-in
 - Provides CTI control on Avaya endpoints
- Consists of packages, each include
 - SDK libraries
 - Basic dev guides & articles on more advanced concepts
 - API reference
 - Sample application
- Require AAMS and AAWG
- Avaya Aura Web Gateway
 - gateway for clients and apps that use WebRTC signaling and media.
- Licensing
 - No charge on dev phase
 - Activation licenses on deployment
 - Basic lic per Suite Core/Power user, min 50
 - Advanced lic per Oceana agents
- Packages available:
 - Communication Services:
 - voice, video, IM, presence, contact search, conferencing
 - Meeting Management Services
 - schedule and manage meeting schedules.
 - Recording Management Services
 - recording and streaming services
 - Desk phone Services
 - Avaya Vantage device level functionality (hook, MWL)
 - Customer Interaction Services
 - multi-channel (Voice, Video, Chat, SMS and email) agent and supervisor
 - Identity Management Services
 - identity services for users accessing Avaya infrastructure
 - Data Store Services
 - access to Context Store Snap-in services. This is the in-memory database primarily used to track the customer journey.
 - Sharing Services
 - access to Avaya Breeze Co-Browse Snap-in

Exam[ple] WRONG question

With the Avaya Breeze™ Client Software Development Kit (SDK), which statement correctly defines a logical grouping of functionality that can be used independently or in combination?

- Customer Interaction Services **test marks this as correct**
- Packages **this one is correct**
- Meeting Management Services
- Communication Services
- Sharing Services

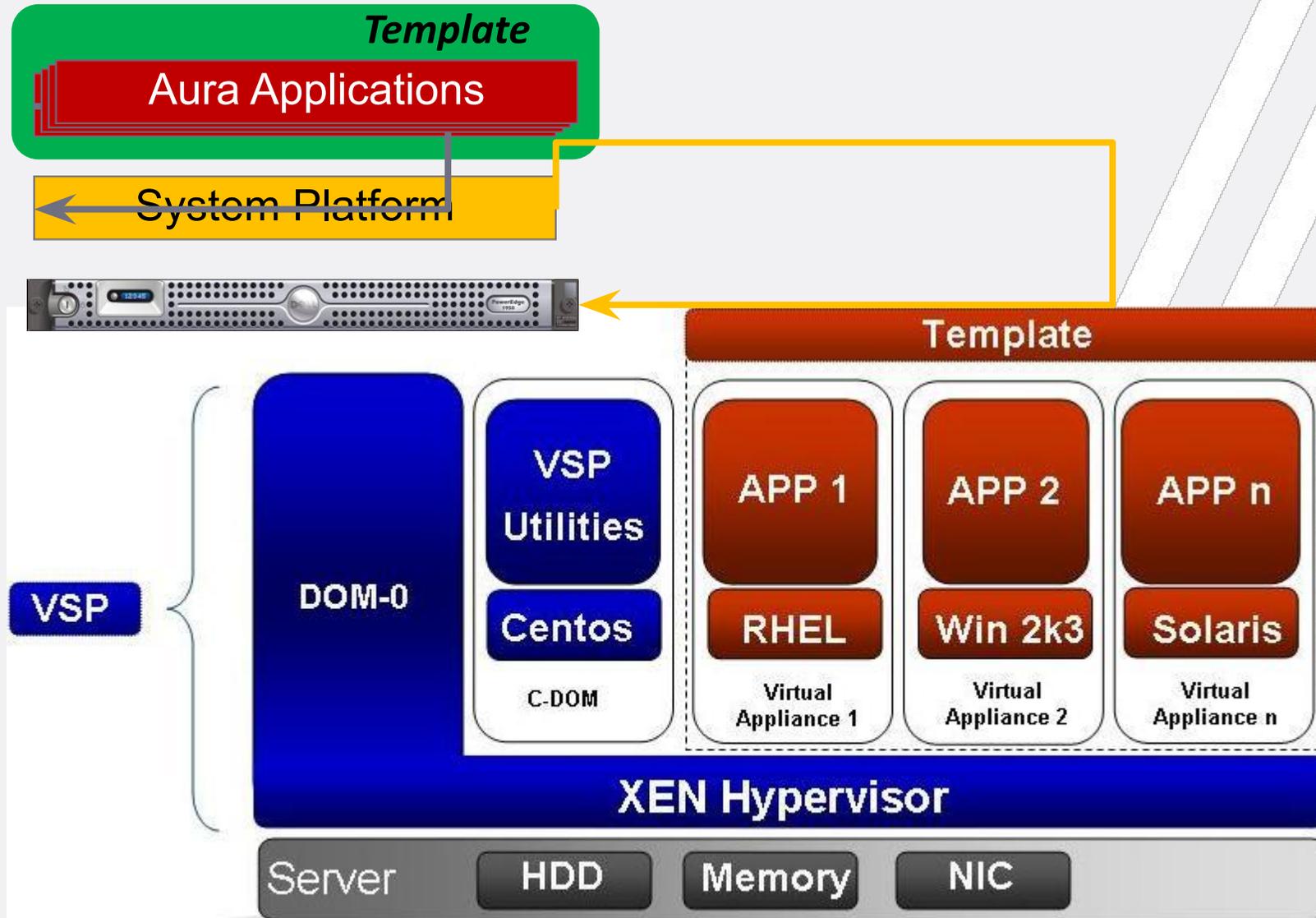
Breeze Trial and Live Collaboratory

- Trial Breeze option
 - 90 calendar days
 - 50 Named users, 1 Platform, 1 Media server licenses
 - Named User count can be extended if required
- Avaya Live Collaboratory
 - Jump start without infrastructure upgrades
 - Aura Core with ASBCE
 - Breeze and wide selection of snap-ins
 - Subscription-based dev/test environment
 - Available to IT customers, BPs, ISVs and System Integrators
 - First 60 days free for qualified accounts
 - \$999 per 90 day extension

The background of the slide is a repeating pattern of red geometric shapes on a white background. The shapes are composed of thick red lines forming squares and rectangles, some with smaller squares inside them, creating a maze-like or labyrinthine effect. The pattern is consistent across the entire slide.

Virtualization and Deployment

System Platform – How it Was in Aura R6



Avaya Aura Deployment Options

Virtualized Environment

Customer Supplied VMware
and Servers



Virtual Appliance

Avaya Supplied Server,
Avaya Supplied VMware (AVP)



AWS

Amazon Supplied VMware
& servers



Pod Fx

Avaya Supplied VMware,
Servers, networking, storage
pre-installed applications



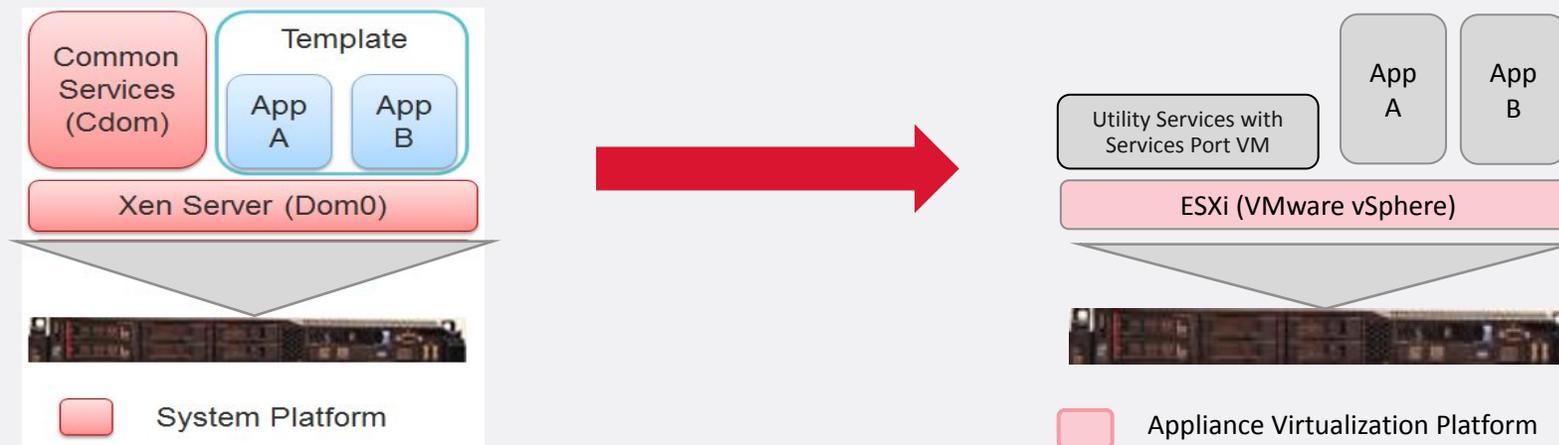
Aura Aura Virtualized Environment

- Based on VMware ESXi 5.5 / 6.0 supporting:
 - vSphere / ESXi – virtualization platform
 - High Availability – equal to «Fast Reboot» Avaya HA level
 - vCenter – centralized VM administration
 - Snapshot – VM backup copy “here and now”
 - vMotion – move the working VM between hosts transparently
 - Storage vMotion - scheduled relocation of SAN storage resources
- Virtualized apps in OVA format
 - Downloadable via PLDS
 - Does not require additional payment
 - Does not incur additional capacity limitations
 - VE solution capacity is same as standalone
- AAVE includes all major Aura solutions
 - ACM (simplex/duplex), SM, PS, SMGR, ACE, AES, AAC8, CMM, AAM, ASBCE...
 - Supporting components: Utility server, Standalone WebLM, SAL
 - **Client Enablement Services** is NOT virtualized
- AAVE Flexible Footprint
 - Resource requirements depend on service capacity
 - Can reduce overall vCPU/mem/disk requirements to make the whole setup less expensive

Appliance-model virtualization

DEF: «Appliance» means Avaya provides server HW, hypervisor (VMware) and applications.

- System Platform hypervisor is replaced by VMware-based Appliance Virtualization Platform (AVP)



Avaya Aura [®] 6.x C System Platform	Avaya Aura [®] 7 / 8
Xen Hypervisor	VMware hypervisor
Common Services (CDOM)	Solution Deployment Manager (part of System Manager) or other System Manager components support CDOM features

Appliance Virtualization Platform (AVP)

- Basics
 - Based on OEM VMware version
 - AVP is controlled by System Manager
 - vCenter not supported
- Templates are replaced by application sets
 - Any set of apps can be installed on server
 - given that server resource is sufficient
 - Configuration tools help combine the HW and applications
- Ease of support
 - Lesser dependencies between HW platform and apps
- Midsize Enterprise Solution becomes obsolete
 - No problem to repeat the app set if needed
- Servers supported
 - Common Server Gen1 / Gen 2 / Gen 3
 - ACP 120 servers
 - Embedded Servers S8300D и S8300E
 - With a fixed app set due to low resource, no flexible footprint
 - SAL must be installed on a separate server/VM (does not fit in)

Avaya Converged Platform



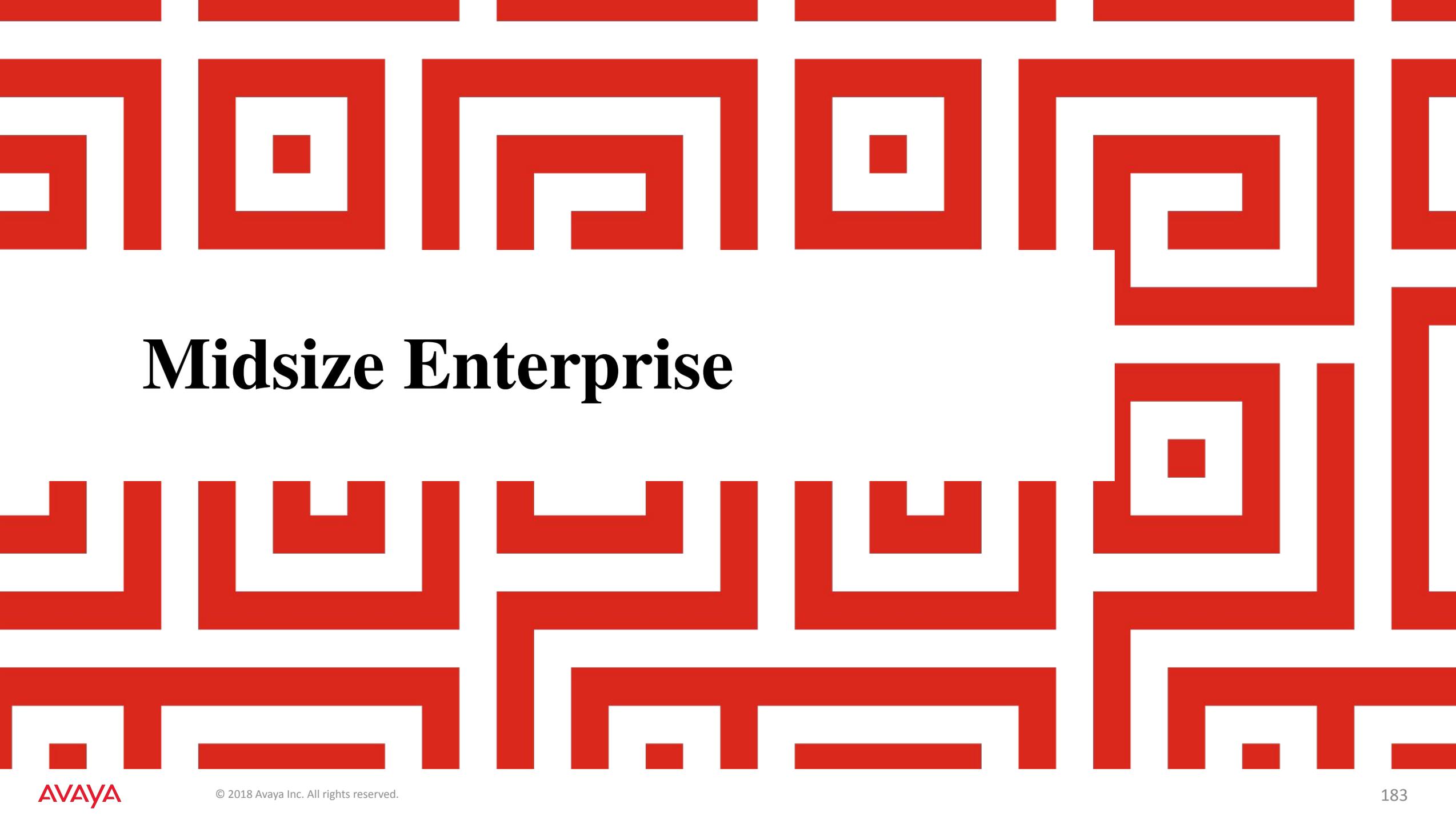
ISS = Integrated Stacked Solution

Feature	ACP 110 Appliance	ACP 120 Appliance	ACP 130 Appliance	ACP 800 ISS (Q3FY19)	ACP 4200 ISS (Q1FY19)
Hypervisor (HPV)	Non-Virtualized	Avaya's AVP	ESXi STD	ESXi STD / ENT+	ESXi STD / ENT+
Supported Applications	25%	20%	100%	100%	100%
vCenter Managed	No	No	Yes*	Yes	Yes
HA, vMotion, DRS	No	No	Yes*	Yes	Yes
Deployed OVA's	Native Installed	No	No	Yes	Yes
Alarming	None	SAL	SAL	SAL	SAL
High Capacity Storage	No	No	No	Yes	Yes
Expandability Path	Service Affecting + License Upgrade	Service Affecting + License Upgrade	In-Service	In-Service	-
Networking	None	None	None	ERS 1GB	VSP 10GB
Cost	\$	\$	\$	\$\$	\$\$\$

* Requires addition H/W

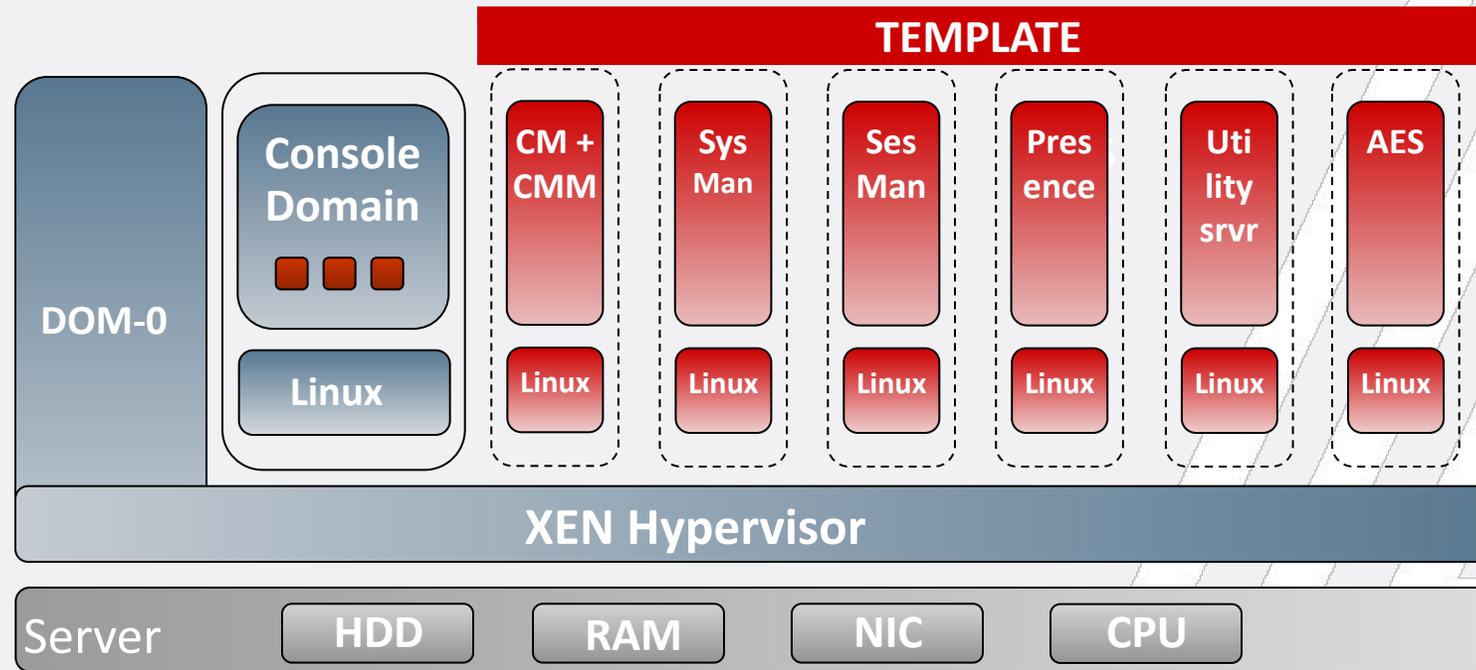
ACP 100 Server Constructs

SERVER CONSTRUCTS	Profile #2	Profile #3	Profile #4	Profile #5	Profile #51
SKU	700514097	700514098	700514099	700514100	700514100
RMU	1U	1U	1U	1U	1U
Intel Skylake CPU	S-4114	S-4114	G-6132	G-6132	G-6132
Nbr of CPUs Sockets	1	2	1	2	2
Nbr of Cores/Server	10	20	14	28	28
Core Frequency (Ghz)	2.2	2.2	2.6	2.6	2.6
Memory/Server in GB	24	48	96	192	192
Nbr of HDDs 2.5" 10K SAS	3	4	4	6	8
Network 1Gb ports	4	6	6	6	6
Usable Disk Space	1.2TB	1.2TB	1.2TB	2.4TB	3.6TB
Power Supplies	2	2	2	2	2
Rail Kit	Y	Y	Y	Y	Y



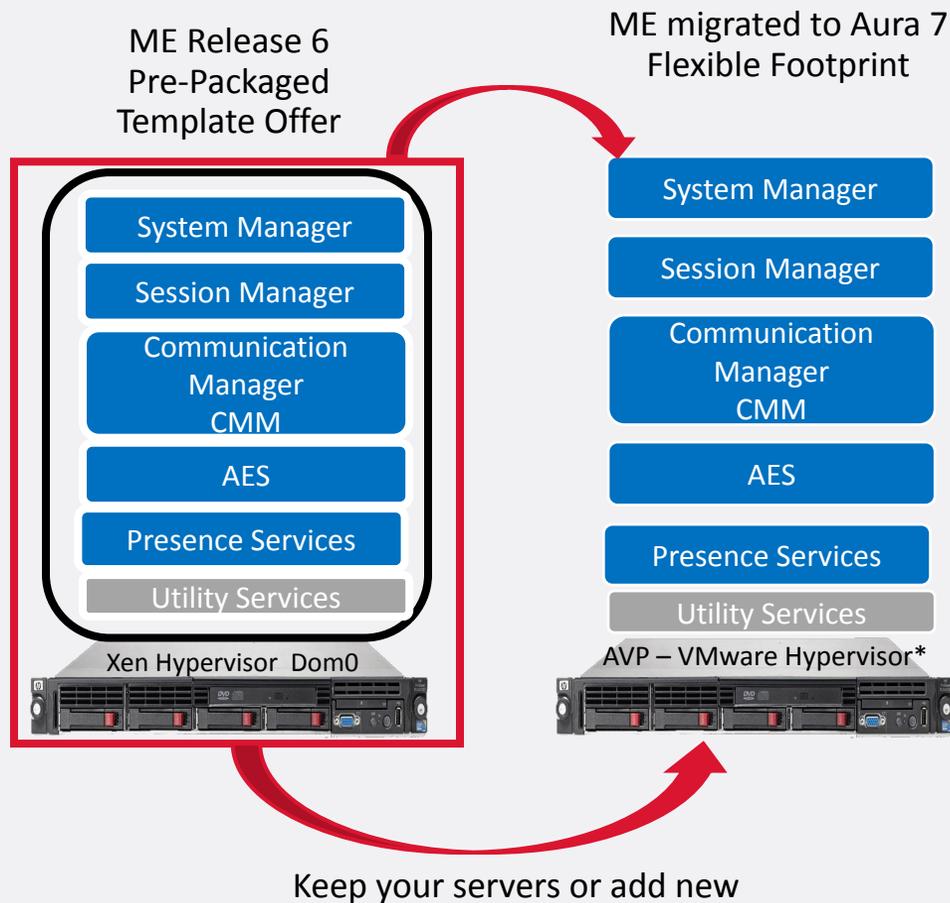
Midsize Enterprise

Solution for Midsize Enterprise



- Base version – 6.2 FP4
- 2400 subscribers, 250 locations
- External System/Session Managers are not supported

Midsize Enterprise migration to Aura 7



- Separate applications
- Same server HW platform
 - Set of migration HDDs for CSR R7 as option
- Upgrade via R7 stop-over

Higher ME flexibility with R7 upgrade:

- Higher capacities
- Application level Resiliency / Geo Redundancy
- Selected applications can be moved / extended to separate servers
- Avaya Aura roadmap sync

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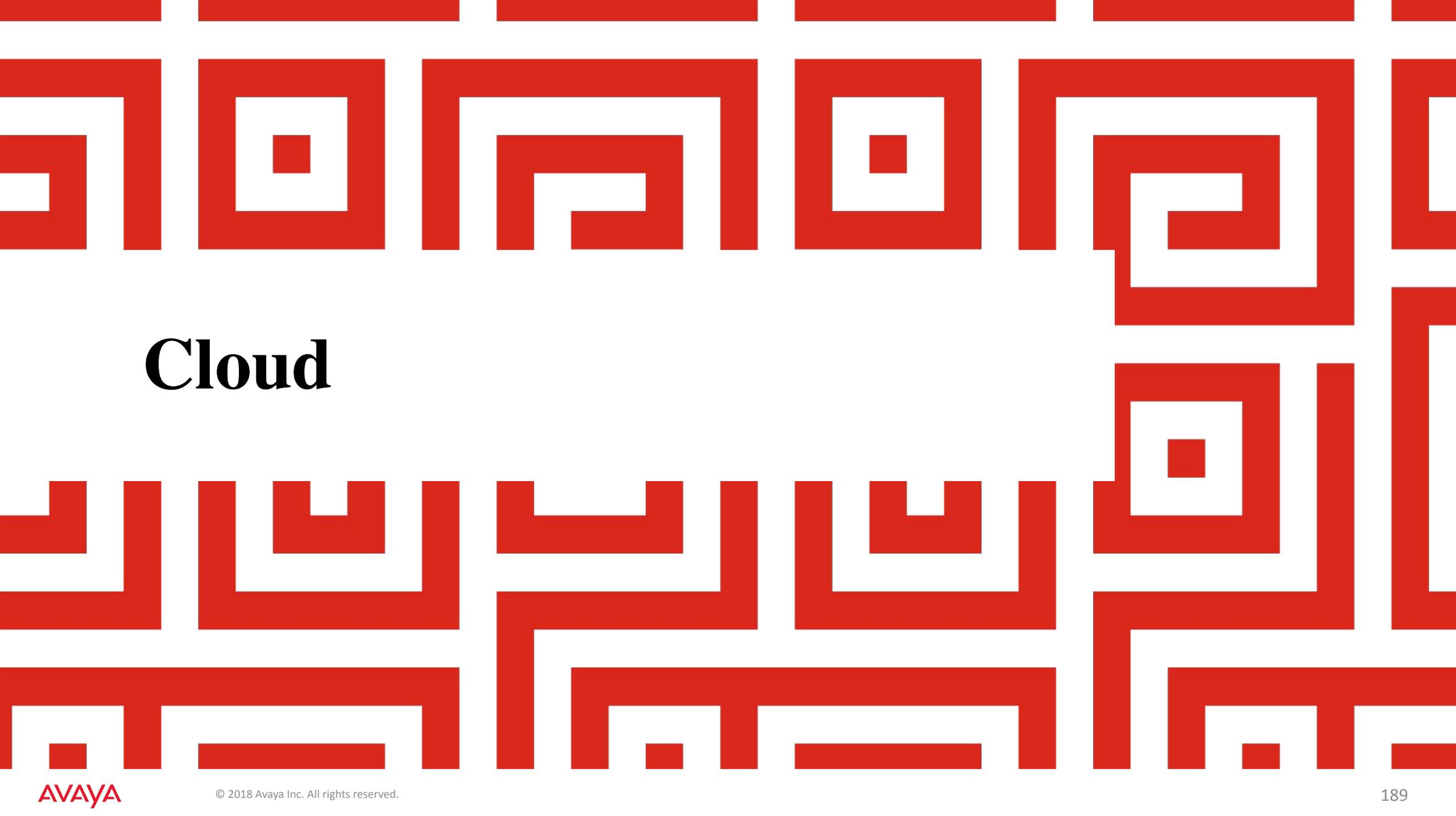
Service and Buy-to-Current

Service level and delivery

- Support Advantage
 - Remote support, require SAL
 - Minimum level – Preferred 24x7 + Upgrade Advantage
 - For Equinox – Essential 24x7
 - Options
 - Parts advance replacement 8x5 or 24x7
 - Dedicated technician
 - Onsite support
 - Service Contracting models
 - Direct – service purchased and provided from Avaya
 - Co-delivery – authorized partner provide first line
 - Wholesale – allows Partners to offer Avaya solutions on their own agreements

Buy to Current

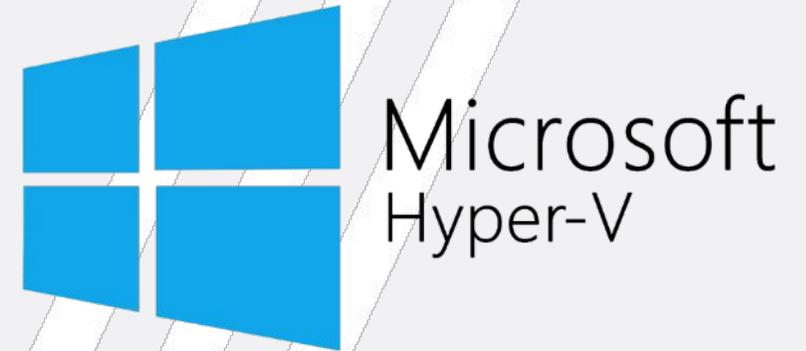
- Purchase R8
- Select N (R8) or N-1 (R7) deployment release
- Get the requested release license file in PLDS
- Can switch from N-1 to N anytime
- More flexible and less painful transition on release change



Cloud

Expanded Infrastructure Support

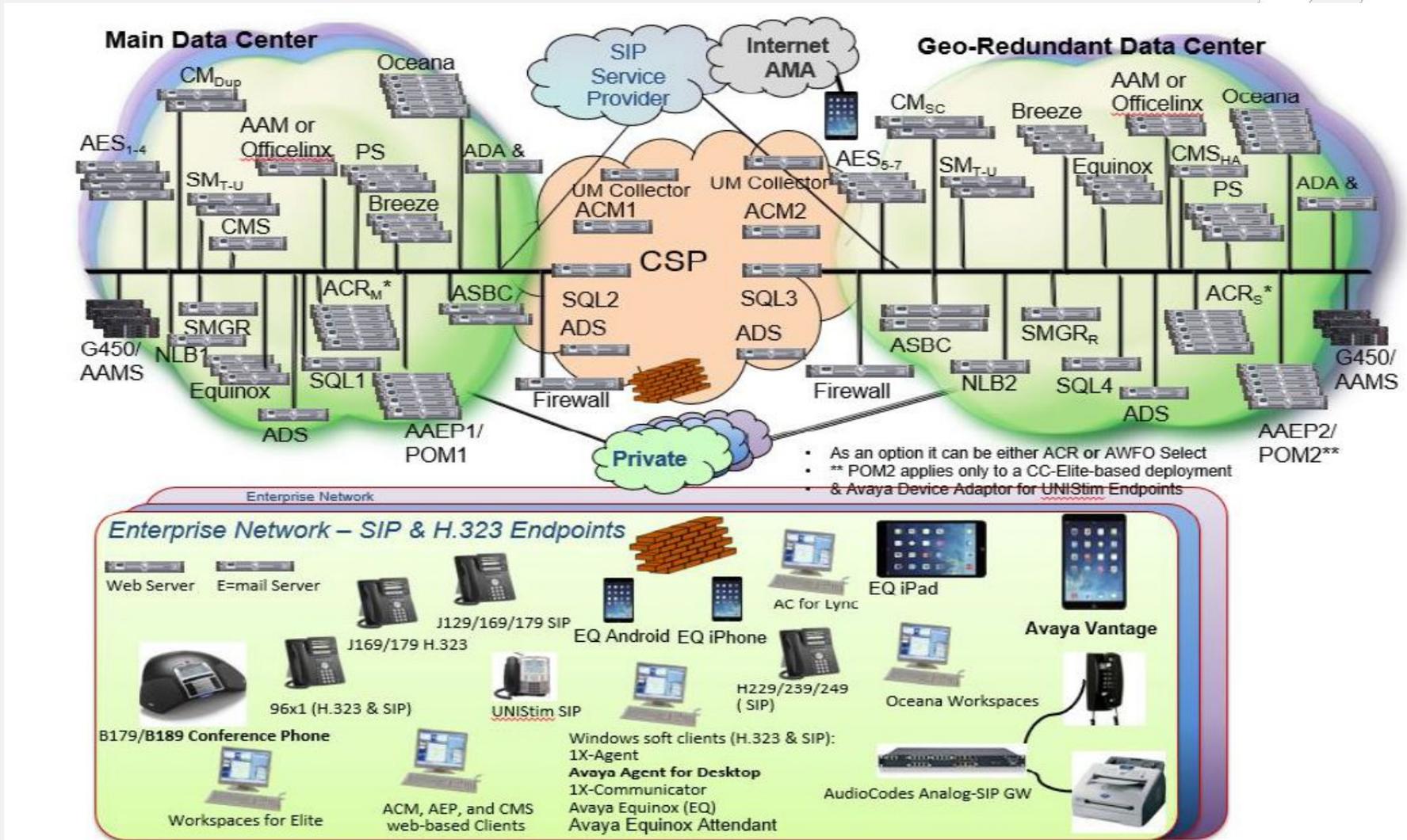
- IaaS clouds supported: IBM BlueMix, Google Cloud, Microsoft Azure, Amazon Web Services
- R8.0.1 adds MS Hyper-V support
 - Based on Windows Server 2012 / 2016
- OS Separation (Kubernetes)
 - Enables applications on any cloud infrastructure that support RedHat OS
 - Avaya verified and published supported platform list the applications
 - Customer controls OS patching processes
 - post Avaya verification utilized modules
 - Applications separated from RedHat OS
 - Leveraged on customer provided OS



xCaaS 2.1

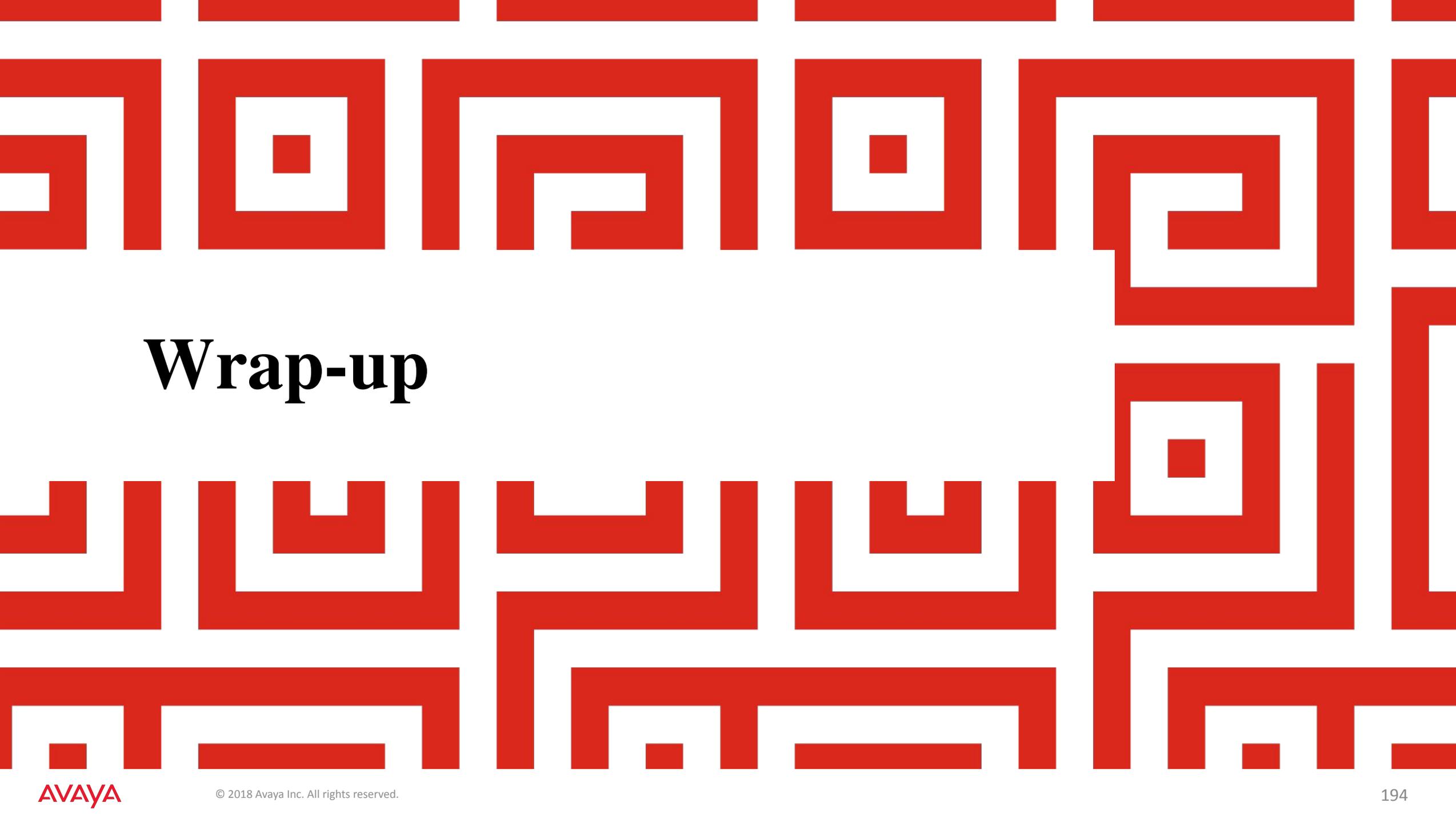
- Offer for CSP for Cloud delivery
 - Single-stack for Team & Customer Engagement
 - Public (Multi-tenant) and private (Dedicated) clouds
 - Full Stack Cloud or Hybrid deployments
- Higher scale, centralized management, improved TCO
- Up to 150 tenants, 4000 CC agents, 20000 UC users
- Subscription - monthly rate card payments
 - based on monthly average daily usage peak

xCaaS 2.1 – offer for CSPs



One Cloud – ReadyNow

- Offer to use Avaya DC based cloud solution for UC/CC
 - Option to migrate from existing on prem setup
 - Option to do PoC/Pilot or go straight to Production
 - Russia not on approved countries list
- Duplicated DCs in US, Germany, Singapore
 - Main customer-facing server in DC1 – redundant in DC2 and vice versa
 - DCs fully supported, operated and run by Avaya
- Simplified and supported enrollment fast tracks
- Rate cards include HW/SW usage, installation & management monthly fees
- No extra support fees or \$\$\$ HW purchases
- Allows for technology transformation with minimum \$\$\$

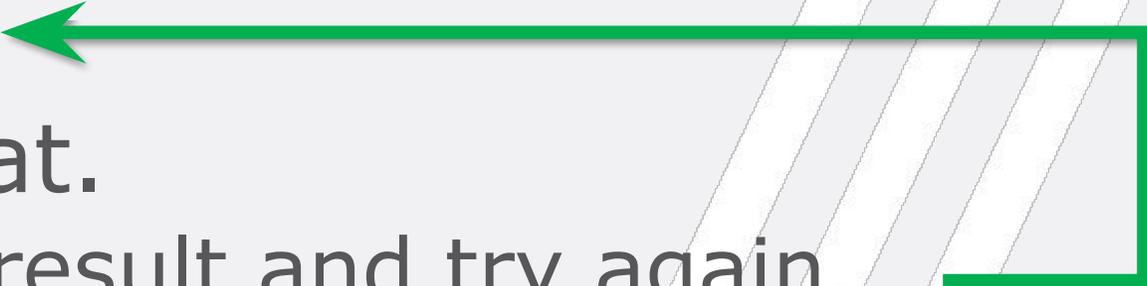


Wrap-up

Where to get more info?..

- Sales/Design Docs
 - Sales Portal <http://sales.avaya.com>
 - Pay attention to Offer Definitions and Announcements
- Implementation Docs
 - Support Portal <http://support.avaya.com>
 - Implementation Manuals, Application Notes
- Hands-On experience with Designer tools
 - One Source Portal <http://www.avaya.com/ebizu>
 - A1S Configurator

How to raise your proficiency level?

- Design.
 - Try and repeat.
 - Analyze the result and try again.
 - Master your design skills.
 - This is a continuous job.
- 



Thank you.