

Avaya Aura®

Avaya Aura® Session Manager



**Unify media,
networks, devices,
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and real-time,
actionable
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a common
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Transformation
experience**


Overview

Getting together with customers, coworkers, and suppliers is no longer enough. Employees need tools to take an active role in creating value, delighting customers and engaging colleagues in flexible interactions that deliver business results. To enable this transformative, people-centric engagement, Avaya has developed the Avaya Aura® Platform – a set of seamless components that mesh together to provide comprehensive unified communications and call center solutions that deliver a meaningful impact to your business.

Avaya Aura® Session Manager is the core of Avaya's Session Initiation Protocol (SIP) based architecture. The Session Manager platform makes it possible to securely unify media, networks, devices, applications and real-time, actionable presence across a common infrastructure, creating the on-demand access to services and applications that define the Digital Transformation experience.

Avaya Aura Session Manager enables:

- A highly secure and reliable architecture from the core to the edge
- Lower total cost of ownership through centralized infrastructure and management
- Reduced operational costs with single routing and dial plan control
- Support for third-party equipment integration through comprehensive adaptation modules



**Avaya Aura®
Session Manager
is a comprehensive
SIP routing core
for real time
voice, video and
collaborative
engagement.**

**Its scalability,
reliability and
openness create
the foundation for
enterprise Digital
Transformation.**

- True converged multimedia Call Admission Control (CAC) with configurable video bandwidth management
- Rapid application deployments to users based on need, not location
- Comprehensive support for SIP devices and trunking
- Scale to 300,000 users and 1 million SIP devices on a single enterprise network

Key Customer Benefits

Quality Experiences

- Business agility driven through a holistic enterprise architecture for connecting users, applications and multi-vendor solutions.
- New cost savings from SIP connectivity and reduced PSTN usage through centralized, enterprise-wide routing and trunking.
- Increased customer satisfaction by more efficiently and effectively connecting people and accelerating processes in real-time across the engaged enterprise.
- Lower total cost of ownership with the centralized, easy to use Avaya Aura® System Manager interface plus the ability to efficiently deploy enterprise-wide centralized applications.
- Unprecedented enterprise wide scalability with support for truly global deployments of up to 300,000 total users, 1 million SIP devices, 2,000 Communication Managers, and 25,000 locations with a single point of management.
- Solid reliability and redundancy through simultaneous endpoint registrations at up to two core Session Managers and a third Survivable Remote Branch Session Manager.
- Outstanding geo-redundancy with up to 28 “active-active” Session Manager instances that safely tolerate network delays up to 1 second.
- Enterprise wide centralized dial plan management including integration and management of third party solutions.

Feature Summary

Scale and Capacity

Session Manager supports up to 25,000 locations with more than 3 Million Busy Hour Call Completions (BHCC). A single instance of Session Manager is now certified for over 400,000 BHCC of trunk and inter-location calling with support for 66,700 SIP devices, 180 sessions per second and 510,000 simultaneous sessions. With capacity for up to 28 Session Managers in a single enterprise environment, SIP users can now be supported on a global Avaya Aura Platform.

Reliability and Redundancy

The Avaya Aura® Platform employs the Internet Engineering Task Force (IETF) standard RFC 5626 to deliver multiple, simultaneous registrations to endpoints. Avaya and RFC compliant endpoints can register with multiple core Session Managers and with a local branch Avaya Aura®

- Access to advanced SIP-based collaboration and customer contact solutions
- Lower total cost of ownership
- Centralized infrastructure and management
- Reduced operational costs with single routing and dial plan control

Survivable Remote Session Manager instance for a total of three simultaneous registrations. As a result, calls can be placed during network outages without dropping, and with only a delay of two seconds or less.

Session Manager supports Network Interface Card (NIC) bonding and up to 28 geo-redundant Session Manager instances. It can tolerate up to 1,000 msec of network round trip delay providing true global coverage and resiliency for larger enterprise networks. Session Manager also supports Call Preservation in the event of a network or Session Manager failure in the core that allows calls in queue in a contact center to be processed in the normal way without any interruption or loss in service.

Third-Party PBX Support

Session Manager supports connectivity to third-party PBXs and works in conjunction with Communication Manager to support legacy Avaya H.323, analog and digital endpoints, providing a forward migration path for customers with heterogeneous networks.

Endpoint Support

Session Manager provides extensive endpoint support including the Avaya J Series Deskphones, Avaya Equinox, Avaya IX Workplace client (Equinox) and third party SIP endpoints including those provided by Avaya's DevConnect partners.

Advanced Administration

Avaya Aura® System Manager's tab-based administration interface allows faster Session Manager configuration and administration. In addition, System Manager simultaneously supports multiple Session Manager Releases for flawless system upgrades.

Avaya Aura® Quick Reference Specifications	
Item	Release 8.1
Total Enterprise SIP Users	300,000
Total Enterprise Users	300,000
Total Enterprise SIP Devices	1,000,000
Total Enterprise Presence Users	300,000
SIP Users/Communication Manager	41,000
SIP Trunks per Communications Manager	40,000
Survivable Remotes/Communication Manager	250
Survivable Remotes per Enterprise Network (BSMs)	500
Locations/Adaptations/SIP Entities	25,000
SIP Domains	1000
Dial Patterns/Routing Policies	300,000

Note: Please consult appropriate product documentation before making purchase decisions.



Converged Call Admission Control

Session Manager supports truly converged voice and video bandwidth management with centralized administration and control. In a converged network, each SIP or H.323 entity link can be administered for dynamic bandwidth allocations handling voice and video on a call by call basis, with the remainder allocated for data traffic. Flexible options allow voice to utilize unused bandwidth from video allocations, and Avaya's video down-speeding capability allows video calls to be completed when the full bandwidth requested is not available, without affecting the quality of existing calls.

Enhanced Emergency Calling

Through integration with Avaya DevConnect Partner solutions, SIP endpoints can report their exact location down to the specific IP phone jack including devices supported under Multi-device Access (MDA).

Security

Session Manager can connect SIP entities and every endpoint in the enterprise with encrypted Transport Layer Security connections using a new software-based technology that no longer requires Transport Layer Security acceleration hardware. In addition, the System Manager Trust Management interface is easy to use, and makes sending and applying unique third-party security certificates to any SIP entity simple to accomplish.

SIP Connectivity

Supports SIP connections (but is not limited) to:

- Avaya Aura® Communication Manager and Avaya Communication Server 1000
- Avaya Aura® Messaging and Avaya IX Messaging (Officelinx)
- Avaya IX Workplace (Equinox)
- Avaya Voice Portal, Avaya Experience Portal, and Intelligent Call Routing
- Avaya Aura® Contact Center
- Avaya SIP Endpoints including Video Capable Endpoints
- Avaya G860 Media Gateway and AudioCodes M3000
- Avaya IP Office
- Avaya Session Border Controller for Enterprise

Dial Plan

Session Manager allows central enterprise-wide dial plans across multi-vendor PBX environments. It implements a uniform dial plan where required, or binds together multiple length dial plans in one centralized, easy-to-manage database so users do not have to change the way they dial.



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Network Routing

Avaya Aura Session Manager supports system-wide network routing rules to cost-effectively route calls using an enterprise's IP network, including:

- Enterprise-wide least cost routing
- Enterprise-wide alternate routing including routing around failures, following customer-provided priorities, and dynamically avoiding routes with bandwidth limits
- Enterprise-wide time of day routing
- Tail end hop off
- Toll avoidance

Application Agility

Avaya Aura enhances user productivity while increasing business agility by enabling faster, and easier deployment of applications targeted to unique users and workgroups. Each application can be added to an enterprise without any modifications or upgrades to the other applications in the enterprise cloud including Communication Manager.

Call Detail Recording

Each instance of Session Manager provides a third-party Call Detail Recording (CDR) interface, allowing enterprise-wide CDR data to be recorded and saved. New video bandwidth parameters for multimedia calls are also included in the CDR output.

Secure Centralized Trunking

Avaya Aura® Session Manager provides redundant connections to a SIP service provider via the Avaya Session Border Controller for Enterprise. To facilitate these connections, Session Manager provides the location based Automatic Number Identification (ANI) information needed by service providers as well as new "From" and "To" header manipulations that make multiple service provider SIP integration simple to implement.

Centralized Messaging

The load balancing and star connectivity capabilities of Session Manager allows a single Avaya Aura Messaging or AvayaIX Messaging (Officelinx) instance to provide service (including lighting message waiting indicator lamps) for Avaya and other third-party SIP-compliant PBX systems.

Centralized Conferencing

Avaya IX Workplace (Equinox) Conferencing capabilities can be "shared" across a Session Manager network with up to three systems providing the scale necessary for large conferencing needs while still providing local access to conferencing resources. This avoids mesh conferencing connections that waste bandwidth across large multi-data center enterprise configurations.



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Multi-Device Access (MDA)

Improves worker productivity in a multi-device world by allowing a user to register up to 10 SIP devices to the same extension. All devices are alerted when an incoming call arrives, and the user can answer the call on any device. Once the call is answered, all devices stop ringing.

Learn More

To learn more about Avaya Aura Session Manager talk to your Avaya Account Manager or Authorized Partner. Also, visit us at www.avaya.com.

About Avaya

Businesses are built on the experiences they provide and every day millions of those experiences are built by Avaya (NYSE:AVYA). For over one hundred years, we've enabled organizations around the globe to win—by creating intelligent communications experiences for customers and employees. Avaya builds open, converged and innovative solutions to enhance and simplify communications and collaboration—in the cloud, on premise, or a hybrid of both. To grow your business, we're committed to innovation, partnership, and a relentless focus on what's next. We're the technology company you trust to help you deliver Experiences that Matter. Visit us at www.avaya.com.

