Avaya Experience Portal Solutions Guide

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Chapter 1: Introduction

Purpose

This document describes Avaya Experience Portal from a holistic perspective focusing on the strategic, enterprise, and functional views of the architecture.

The document includes a high level description of Avaya Experience Portal as well as topology diagrams, connectivity details, interoperability concept, product interactions, and failover best practices.

The primary audience for this document is the Sales Engineer. This guide is intended to help the audience understand how Avaya Experience Portal meets customer needs at a high level. Sales Engineers can use this document, in conjunction with *Avaya Experience Portal Overview and Specification* when responding to customer requirements. This document can also be used by Solution architects, Implementation Engineers, and Support personnel.

Chapter 2: Avaya Experience Portal overview

Avaya Experience Portal is a standards-based software-only system that enables organizations to:

- Deliver powerful, cost-effective voice and multichannel self-service solutions for customer care.
- Support infrastructure based on SIP and H.323. This infrastructure includes Avaya Aura® Communication Manager-based gateways and Contact Center products.
- Enhance IT reliability, scalability, and manageability.
- Meet the present demand for simpler IT-managed speech, SMS, email, HTML, and video self-service solutions.

Experience Portal architecture

An Experience Portal network consists of the Experience Portal system and other external systems.

The Experience Portal system consists of the following major subsystems:

- The Experience Portal Manager (EPM) that handles outgoing calls, email processors, SMS processors and HTML application along with managing the Experience Portal system.
- One or more MPPs that process all incoming and outgoing calls
- An auxiliary EPM server that handles outgoing calls, email processors, SMS processors and HTML application.

The Experience Portal network consists of the following external systems:

- Private Branch Exchange (PBX) servers
- Automatic Speech Recognition (ASR) and Text-to-Speech (TTS) speech servers
- Application servers

A SIP network includes the following external servers:

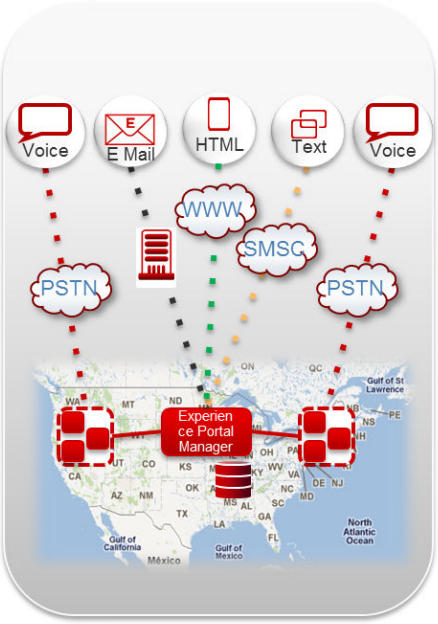
- Session Manager
- Gateways, such as Audio Mediant Gateway or Avaya G860 High Density Trunk Gateway

For email, SMS and HTML handling capabilities, the Experience Portal system requires the following additional components:

- SMS processors and Short Message Service Center (SMSC)
- Email processors and email servers
- HTML

Zoning architecture

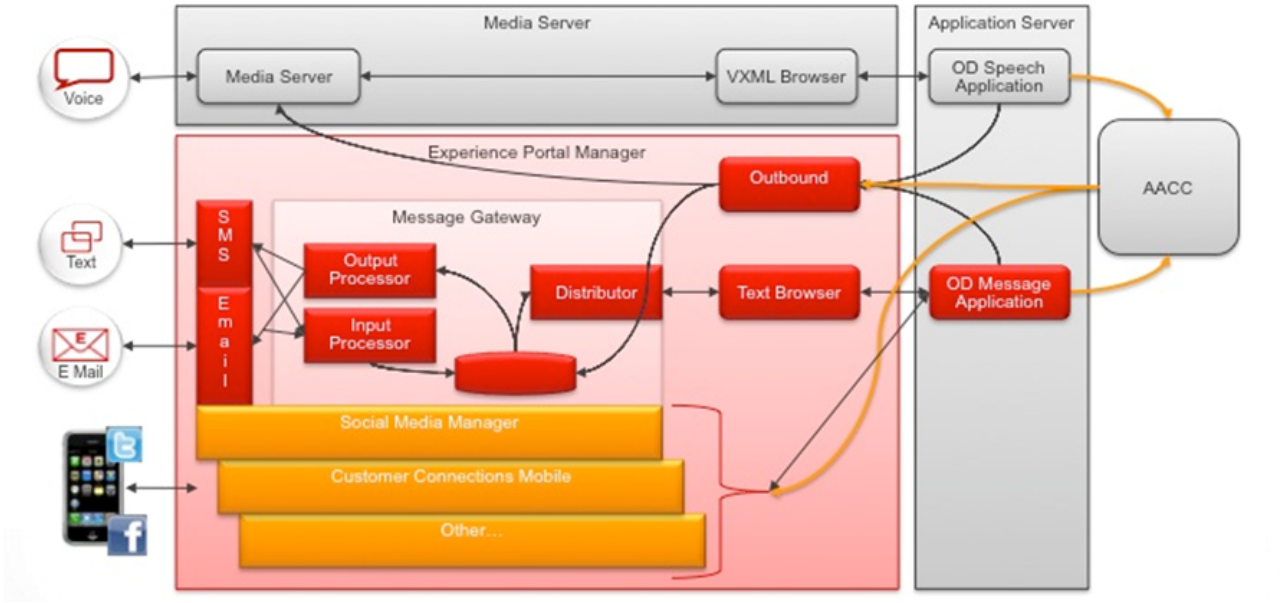
Zoning provides the capability to deploy a single Experience Portal system across geographical locations while maintaining centralized management and reporting. With the new zoning feature in Experience Portal, customers can distribute Media Processing Platforms (MPPs), speech or Text to Speech, and application server resources across locations. Customers can simultaneously use Experience Portal Manager to manage the distributed system. Administrators can manage port licensing and allocate ports by zone or geographical location, organization, and application.





Multichannel architecture

The following diagram is a logical representation of a multichannel system.



The typical voice configuration for Experience Portal is:

- The telephony server routes incoming PSTN calls to MPP.
- MPP launches the VoiceXML and CCXML application on the web server based on the called number or SIP URI.
- When the VoiceXML application requests ASR and TTS, MPP sends the request to the speech server.

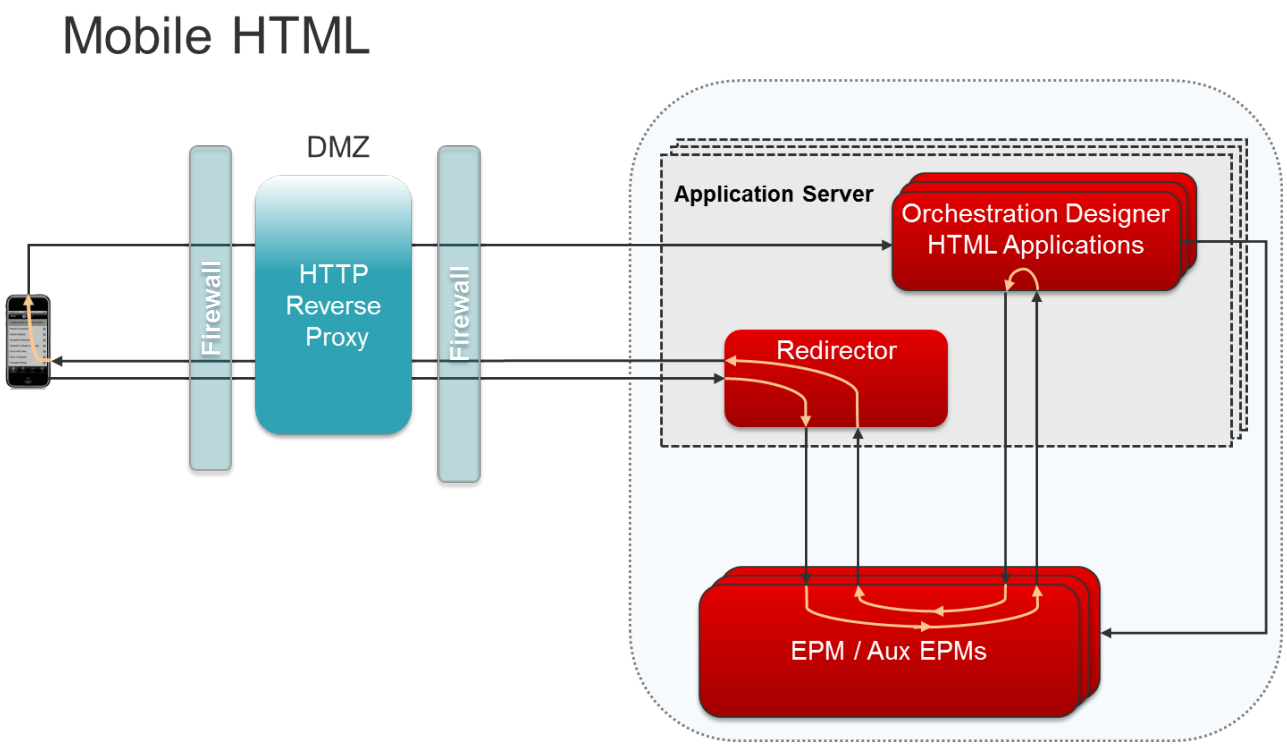
The typical email configuration for Experience Portal is:

- The system routes the incoming email through Internet to the email server.
- EPM monitors the mailbox and identifies the new message.
- EPM launches the Orchestration Designer email application on the web server.
- Orchestration Designer runtime communicates with EPM to send an email message.

The typical SMS configuration for Experience Portal is:

- The system routes the incoming SMS message to the external SMSC, that is in the cloud network, using either SMPP or http.
- SMSC routes the messages to EPM.
- EPM launches the Orchestration Designer SMS application on the web server.
- Orchestration Designer runtime communicates with EPM to send an SMS message.

HTML architecture

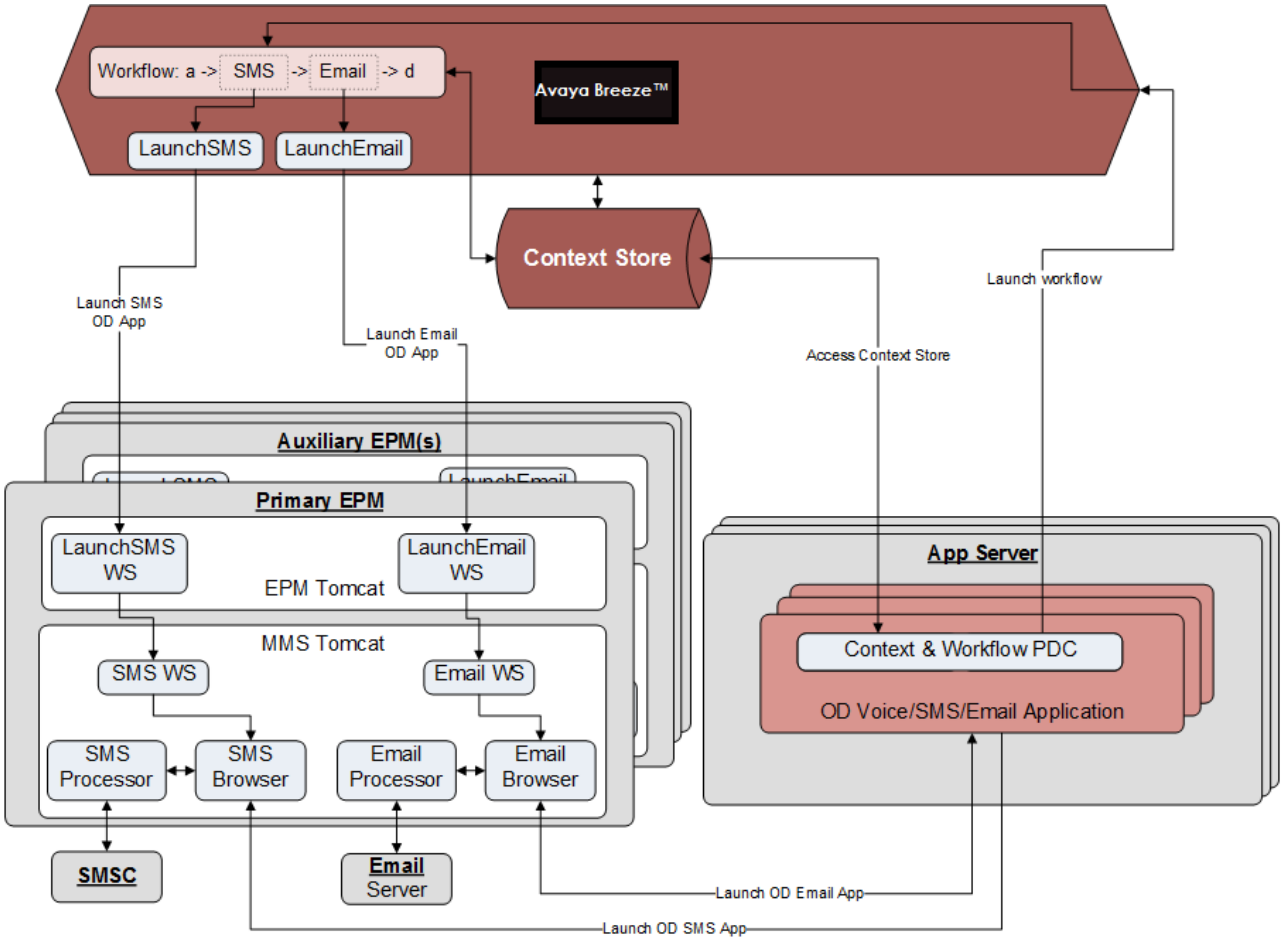


The typical HTML configuration for Experience Portal is:

- A mobile device sends a request to the Redirector.
- The Redirector fields requests from the mobile devices and routes them to one of the sets of EPMs defined in the Redirector's configuration.
- The EPM locates and routes the request to an Orchestration Designer application.
- The Orchestration Designer application establishes a session and returns the Session ID to the EPM.
- The EPM returns the Session ID to the Redirector.
- The Redirector redirects the session mobile device to a session of the Orchestration Designer application.
- The Orchestration Designer application and the mobile device interact through HTML.

Avaya Breeze® platform integration

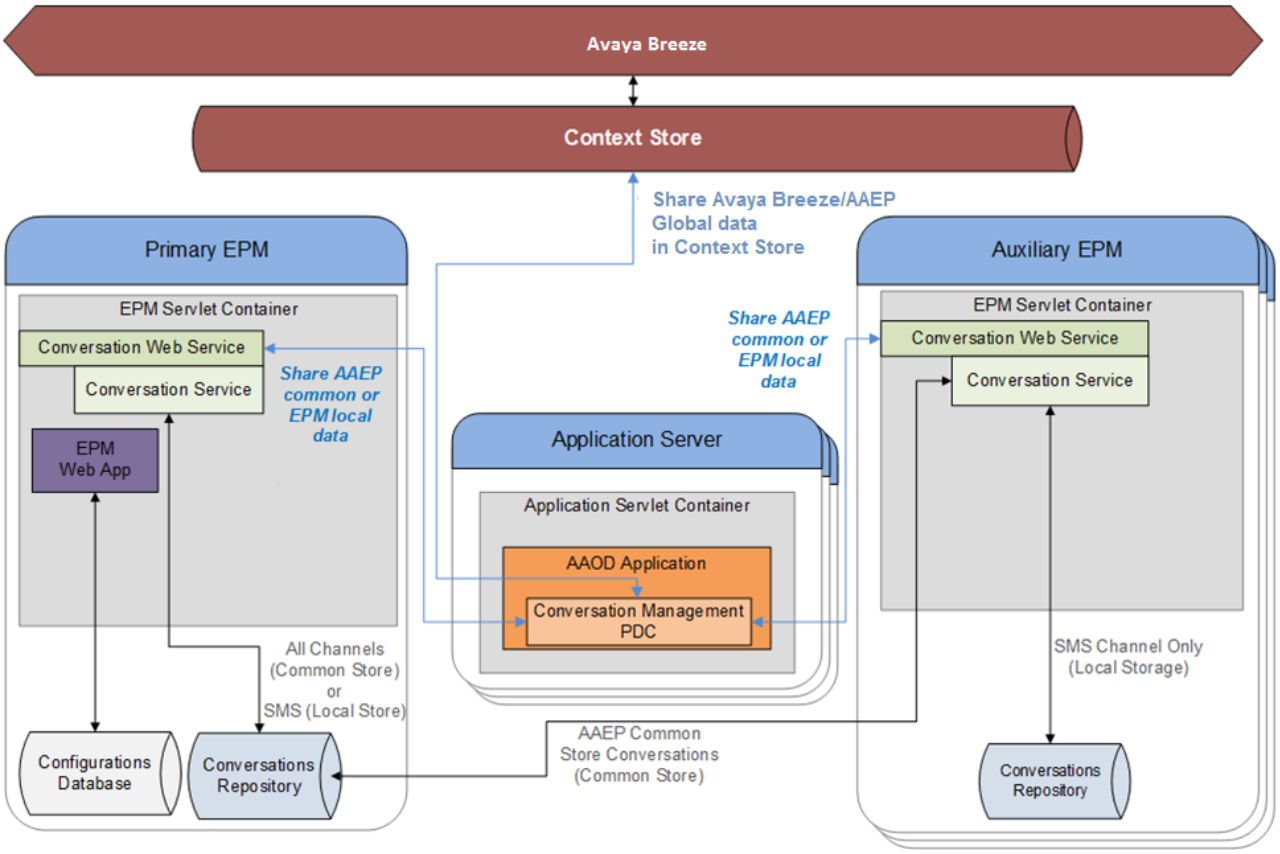
Experience Portal and Avaya Breeze® platform Integration



The typical Experience Portal and Avaya Breeze® platform configuration is:

- Avaya Breeze® platformPlatform.
- Use System Manager to configure access to Experience Portal (not shown in current image).
- Use LaunchSMS dynamic task to launch Experience Portal SMS applications from Avaya Breeze® platform work flows.
- Use LaunchEmail dynamic task to launch Experience Portal email applications from Avaya Breeze® platform work flows.
- The Context Store provides data integration between Experience Portal and Avaya Breeze® platform applications that allows applications to pass and maintain large amounts of data between application invocation.
- The PDCs in Orchestration Designer starts ED workflows in Avaya Breeze® platform.

Context Store integration

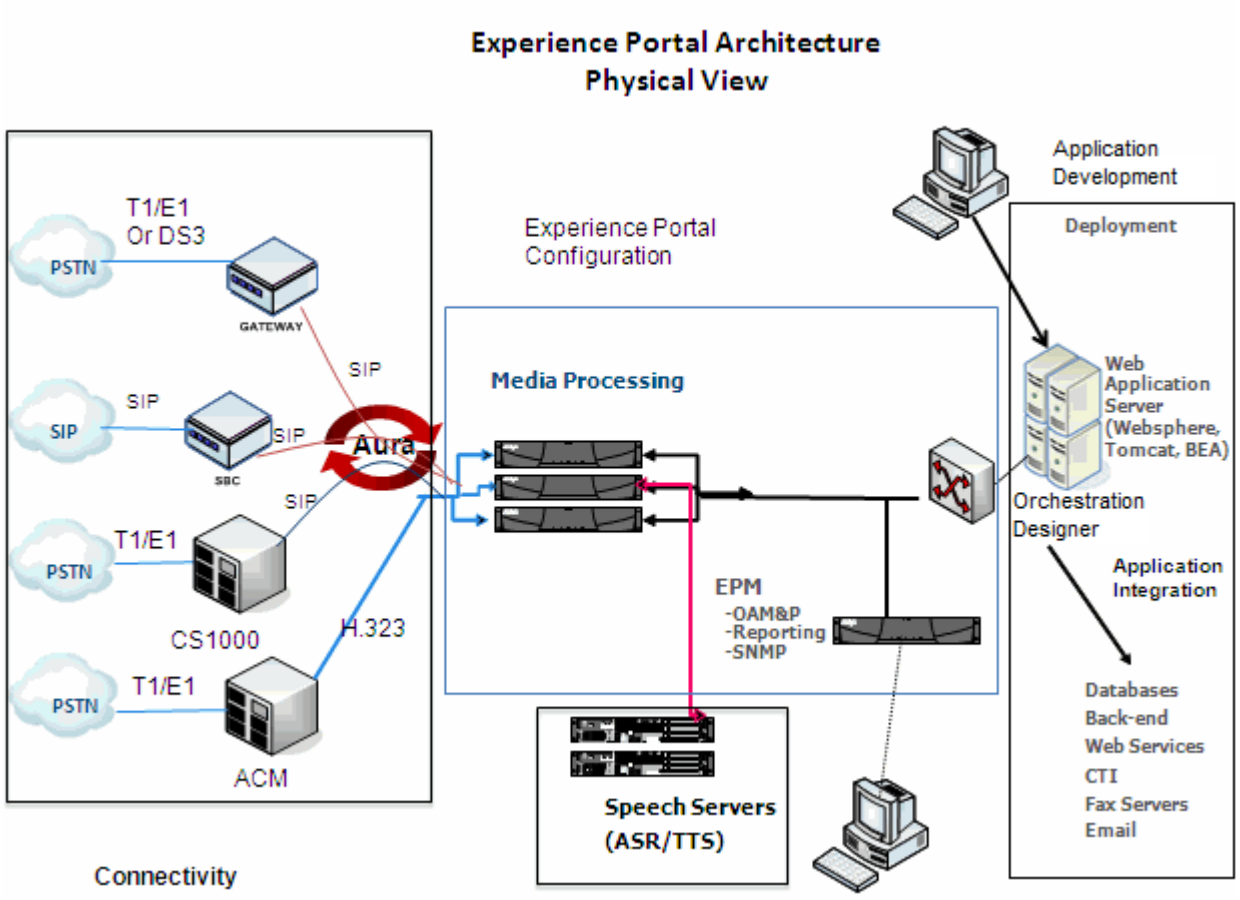


The typical Experience Portal Conversation and Context Store configuration is:

- The Context Store is deployed separately from Experience Portal and is a data store for holding transient information for all channels and provides high availability.
- The Local Conversation Store is deployed on Primary and Auxiliary EPMs as part of Experience Portal and is a data store for holding transient information for SMS channel only.
- The Experience Portal Common Conversation Store is deployed only on the Primary EPM as part of Experience Portal and is a data store for holding transient information for all channels such as SMS, Voice, email, and HTML.
- Orchestration Designer application and Conversation Management PDC receives and saves conversation store data.

Experience Portal network diagram

The following figure shows the Experience Portal network architecture and the connection between the components.



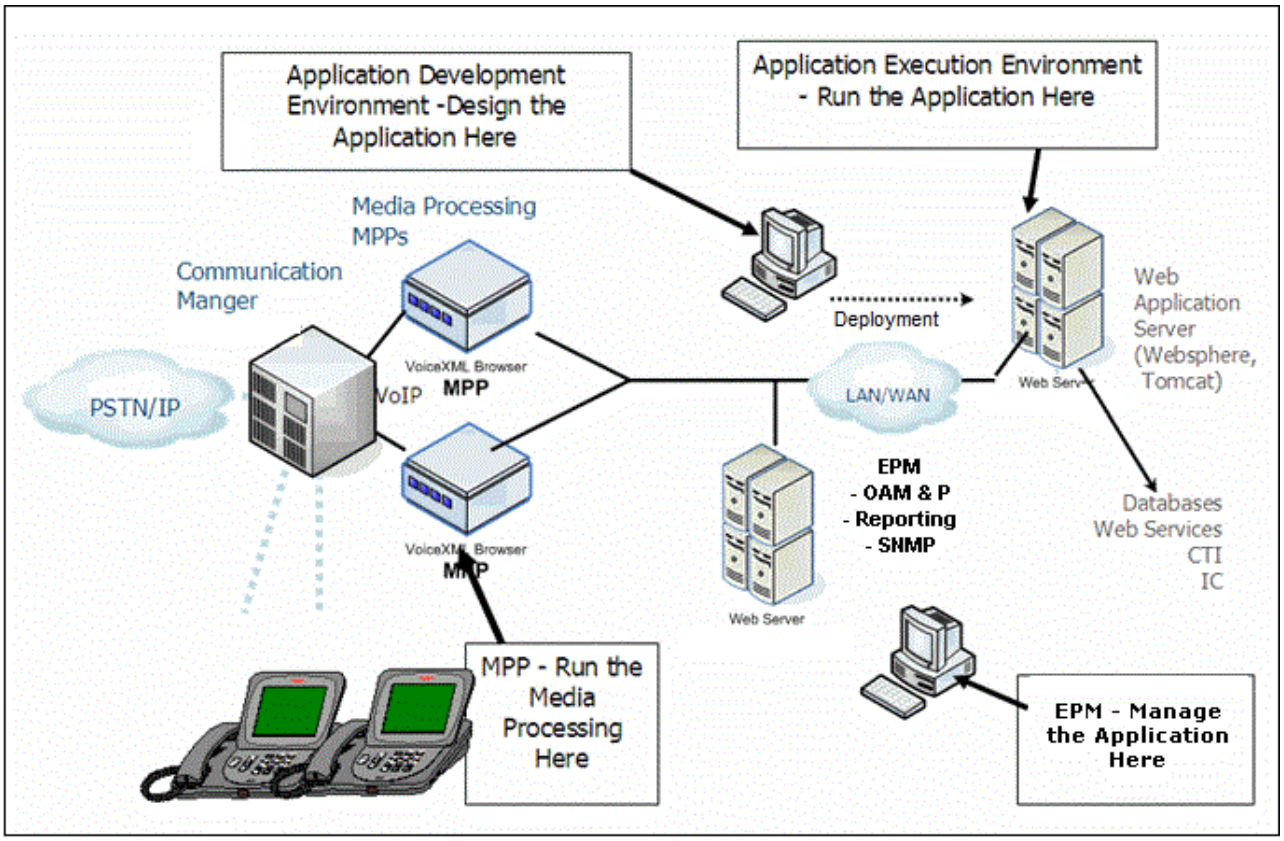
The Experience Portal architecture includes the following:

- Connectivity
- Size of the Experience Portal
- Application servers and integrations
- Speech servers

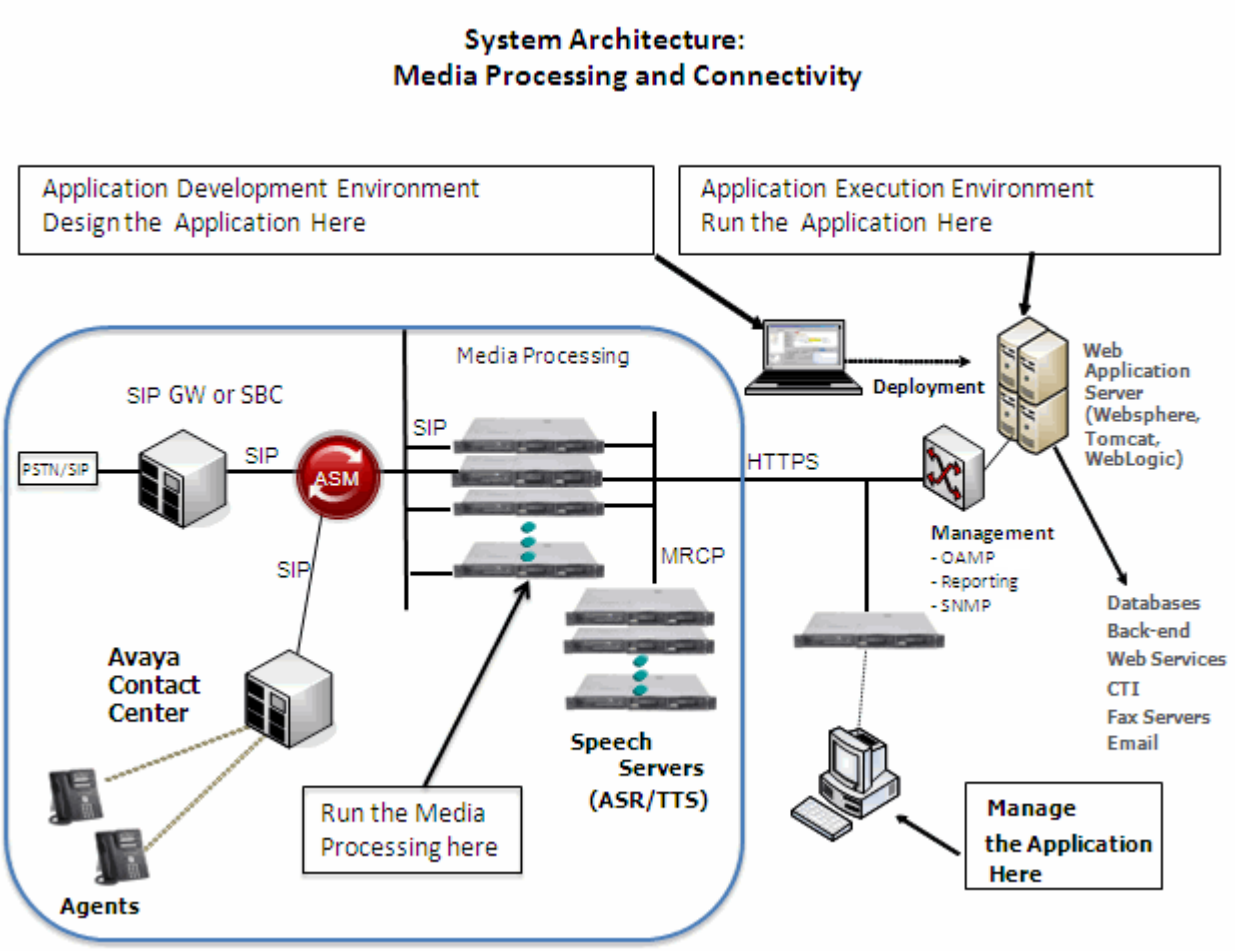
In an Experience Portal system:

- The connectivity to IP telephony is either through SIP or through H.323 as IP stations on Communication Manager.
- Application connectivity is through a secure HTTP or HTTPS.
- Speech connectivity is through Media Resource Control Protocol (MRCP).
- Multiple media processors are used for scaling and redundancy.

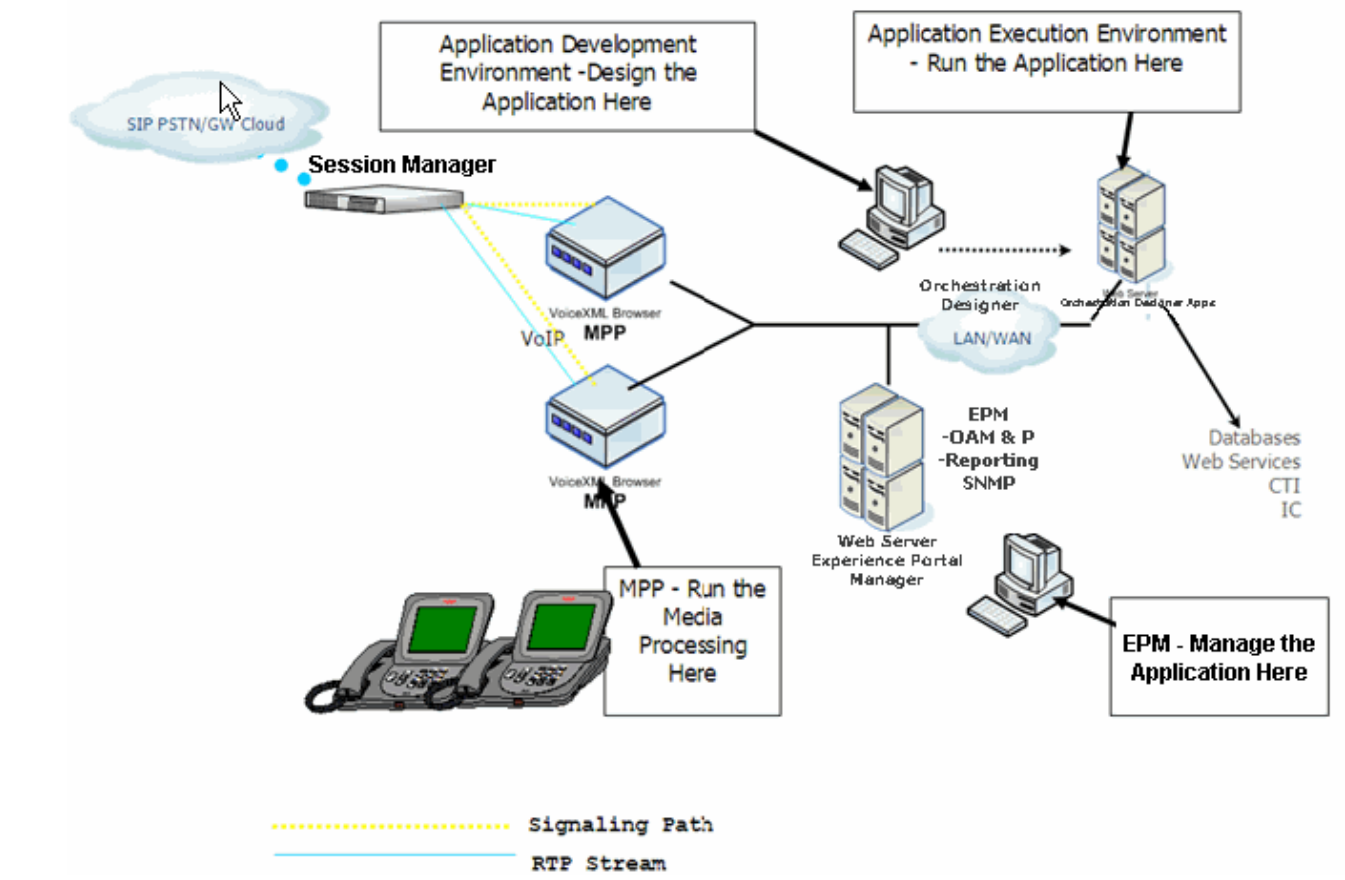
H.323: A physical view



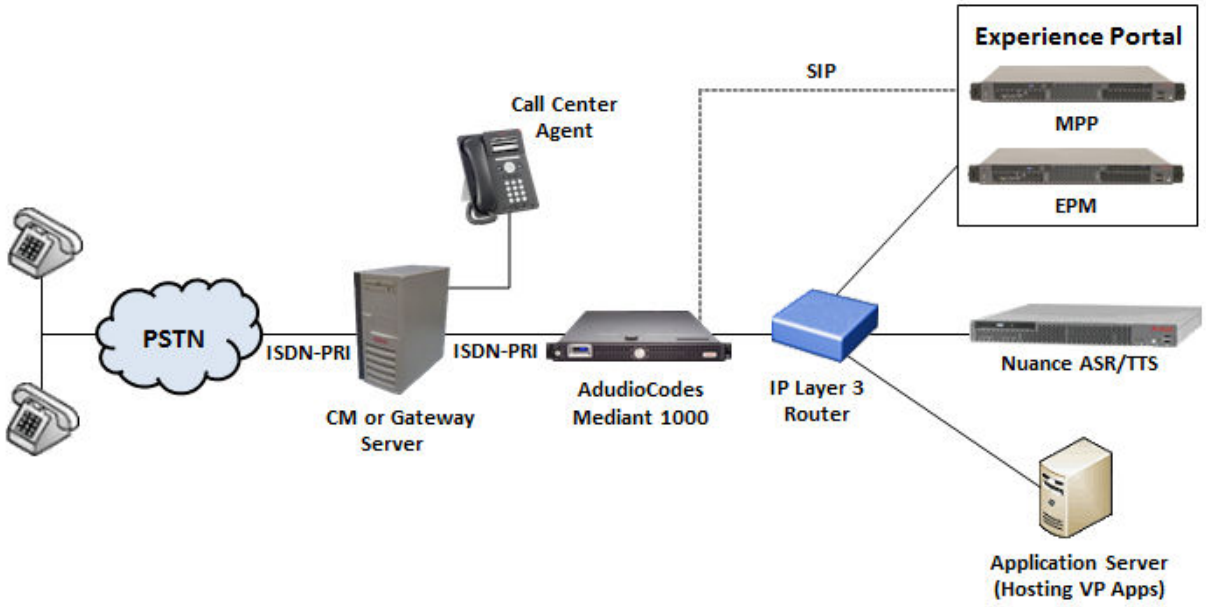
SIP: A physical view



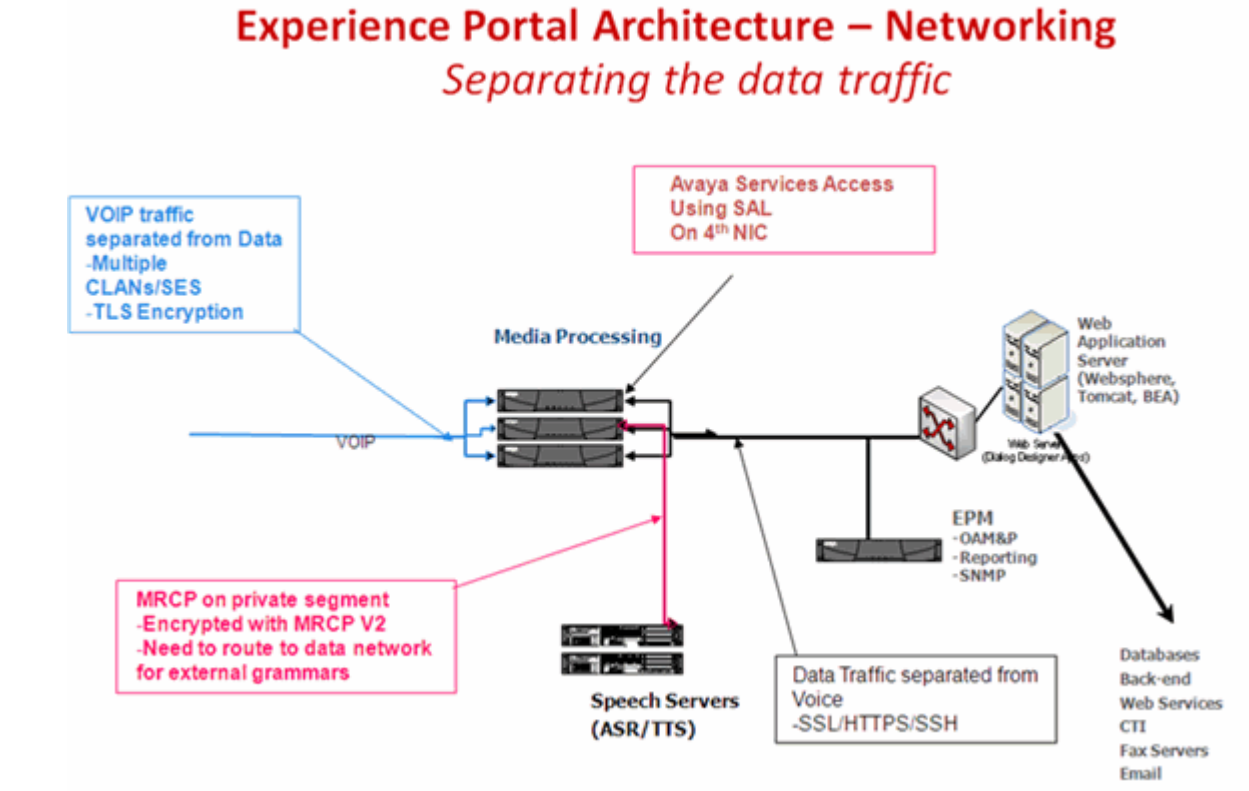
SIP: A physical view - Experience Portal first



Experience Portal network architecture (a physical view - TDM) with audiocodes gateway



Experience Portal architecture - networking



In terms of data networking, the different kinds of traffic is separated. In general, MPP traffic can be segregated by the application server, speech server, VoIP and management but does not have to be divided. To facilitate this categorization, the system is deployed on servers with multiple NIC ports. The network traffic is separated as follows:

- VoIP traffic is separated out from another network.

  MRCP traffic to speech servers has their own network. MRCP traffic must have access to the application servers when remote grammars for ASR or text for TTS are used.
- Data traffic to application servers is separated out and secured. The security of traffic between the MPP or email, or processors and the application servers is controlled by the application's configuration.
- Avaya services can gain access to SAL on the fourth link.

Experience Portal offer concept

The Experience Portal Full Ports offer concept includes the basic self-service functionality, such as connectivity, reporting, and management. This functionality includes maximum concurrent connections or ports. This model has the following price points for purchase:

- Experience Portal ports.
- Experience Portal ports as part of a speech bundle. This offer has a special price with bundled speech.
- Experience Portal for customers migrating from a previous Avaya IVR solution. These features provide migration credits for existing customers.

Some more features can be added as options. These new features include:

- Video: Supports interactive voice and video interactions.
- Call Classification: Facilitates call classification on outbound calls and is bundled with the Proactive Outreach Manager software.
- ASR and TTS Proxies: Facilitates connections to speech recognition and text-to-speech servers and are included with speech licenses purchased from Avaya.
- Zones: Provides the capacity to zone resources into logical partitions for centrally managed and distributed deployments.
- SMS and email: Supports email and SMS two-way interactions.
- HTML: Supports HTML. Provides HTML licenses that limit the number of HTML sessions that can be generated per hour.

Customers can buy ports with restricted functionality for special requirements. These ports include:

- Announcement-only port: Used primarily with ICR to provide wait treatment. This port does not support interactivity.
- SIP signaling ports: Used with ICR. These ports only support signaling and do not support any media, including audio.
- Disaster Recovery (DR) ports: These ports are cost-effective, standby ports that the system uses when an outage occurs in one or more of the system components.

  Note:

  DR ports are not required because the Experience Portal architecture is sufficient to handle outages. However, DR ports are available as an option for certain customer situations.

Note:

Certain components are licensed on an individual server basis. For example, ICR Controller is licensed on an individual server basis. With ICR Controller, you can opt for a more affordable DR server.

Chapter 3: Components

Experience Portal provides the following software elements:

- Media server software - To provide IVR-based functionality and Call Classification.
- Experience Portal Manager (EPM) and Auxiliary EPM applications: To offer:
  - Centralized management and support for: Experience Portal and its features, Proactive Outreach Manager, and Intelligent Customer Routing.
  - SMS, email and HTML channels.
- Web Server host: To provide the standards-based VoiceXML, CCXML, or TextXML script to the media server. Web Server also hosts email and HTML applications as required for smaller deployments. Larger deployments support customer-provided application servers.
- Avaya Orchestration Designer tool: To build speech applications, call control applications, and message applications. You can deploy the VXML or CCXML applications on an existing Apache Tomcat, IBM WebSphere, or Oracle WebLogic, or JBOSS Web server environment. You can also deploy TextXML-based applications that are developed with Orchestration Designer.
- Orchestration Designer: To support application development for Experience Portal.
- Avaya Solutions Platform 110 and Avaya Solutions Platform 130 are also solution components as Avaya Turnkey offer.

For more information about feature description, see *Experience Portal Overview and Specification*.

Chapter 4: Experience Portal Manager support policy

The process and scope of Avaya support services for Avaya Experience Portal depend on the phase in which the customer requires support.

Development

Avaya provides support during development and application creation while using Orchestration Designer, or during a development lab installation of Experience Portal. Avaya DevConnect Program is the primary support program for program developers. The program developers might include customers, system integrators, and independent third-party software vendors.

Implementation

Avaya provides support during the deployment and use of a productive system, during activities that involve operational applications that are run on an Experience Portal system deployed at the production level. This kind of support is the domain of Avaya Services organization.

Support during development

DevConnect provides the following three levels of support options.

- Community-supported forum boards that are:
  - Monitored by Avaya, but for which Avaya does not guarantee a response.
  - Primarily used for information and basic troubleshooting.
  - Not useful for debugging or for reporting environment issues that require a response from Avaya.
- Free basic Tiers One and Two technical support that is:
  - Available to all registered and Tiers One and Two member levels.
  - Used for basic troubleshooting, Orchestration Designer use, and software configuration or operational assistance.

  Avaya responses are limited to pointers to existing documentation for self-help. The free, basic technical support does not include debugging, log file analysis, or other detailed software design investigations.

- Pay-enhanced Tiers Three and Four technical support is available for:
  - Registered and higher membership levels.
  - Gold and platinum members who can use DevConnect membership benefits for these technical support hours.

  Registered members can buy support hours on an hourly basis or upgrade to higher-level memberships. The higher-level memberships can include a customer level membership that comprise a specific number of support hours as part of the benefit package.

Based on the support option, DevConnect provides assistance for Orchestration Designer and creates self-service applications that run on an Experience Portal environment.

- Avaya support is limited to isolated issues on the platform or the product level Orchestration Designer, Experience Portal, and Interactive Response (IR) when the issue is with the application execution or application execution environment such as an Orchestration Designer application or Tomcat Server. The customer or the Avaya Business Partner is responsible for the resolution of all other application issues.
- DevConnect provides:
  - Limited support for the installation, configuration, and administration of an Experience Portal system to those gold and platinum members who have procured the system for lab use through DevConnect membership. All other customers or registered-level DevConnect members must obtain support from authorized Avaya channel partners or Avaya global services, based on current maintenance agreements.
  - The compliance testing services to gold and platinum members. Avaya issues a compliance letter and other benefits that are outlined in Avaya gold or platinum membership agreement to members who complete the test. DevConnect responds to support issues from the gold or platinum member based on the configuration as tested.
- DevConnect does not troubleshoot application issues on production systems. DevConnect replicates all technical support tickets on lab systems.

Scope of support for productive systems

Avaya responsibilities

Under the terms of relevant hardware and software support contracts, Avaya supports the system, hardware and software, from end to end, managing the escalation and resolution of problems with system components to the correct support organization. This system includes hardware and software categorized as a standard product. A standard product refers to configurations that Avaya initially designs, tests, and certifies.

Note:

Avaya provides a software-only solution and a hardware and software offer. For the latest and most accurate compatibility information, go to https://support.avaya.com/CompatibilityMatrix/Index.aspx.

For a software-only offer, Avaya support is limited to the Avaya Experience Portal software.

Other configurations are of permissive use. The policy is described in the Self Service Compatibility Matrix.

For the latest and most accurate compatibility information, go to https://support.avaya.com/CompatibilityMatrix/Index.aspx.

Orchestration Designer is only supported on certain versions of Tomcat, Websphere, and WebLogic. Avaya Experience Portal can work with any HTTP web and application server provided the server supports the HTTP protocol. The customer or partner must provide the application server.

Avaya provides limited support for speech server platforms that are purchased through Avaya. If required, Avaya engages the Speech Service provider to resolve problems with all speech system components.

For information related to Avaya services support for Avaya Solution Platform 130, see document *Policies for technical support of the Avaya Solutions Platform (ASP) 130* posted on support site https://support.avaya.com.

Customer responsibilities

Experience Portal customers have the following responsibilities:

- If the product is customized, and not tested and certified by Avaya, the customer must support and maintain the product.
- Avaya support is limited to isolated issues at the environment level. When the issue is related to the application execution environment, that is, Tomcat Server or Orchestration Designer application, the customer or the Avaya Business Partner is to resolve the issue.
- If a customer expects Avaya to work with the software developers to resolve issues that are not related to Experience Portal, Avaya Support makes best efforts to support on a time-and-materials basis.
- The customer or the Avaya Business Partner must maintain the software execution environment. The customer or the Avaya Business Partner must have the necessary skills to troubleshoot and resolve any issue related to the application execution environment.
- The customer or the Avaya Business Partner must troubleshoot and resolve any application-related issue. Consultative support requests related to applications must be sent to Avaya DevConnect .
- For reporting software bugs or for troubleshooting software, the customer must use the standard support process. The Avaya DevConnect mechanism or Orchestration Designer Forum provides software developers the best practices of using Orchestration Designer and

shares information on questions asked by other Orchestration Designer users. Avaya reserves the right to direct customers to other support channels if the forum questions require substantial software consultation support.

- If Avaya develops any application for the customer, a custom application support contract is required to get continuous support from Avaya. This support is beyond the support entitled under a post warranty maintenance contract. The custom application support is a part of the contract with Avaya professional services.
- Customers must perform all administrative tasks. For example, changes in the system, installation of service packs, upgrade of the system, installation of hot fix, maintenance of the Voice Portal database, administration of JBoss, and conducting regular backups of the system.
- Customers must take up resolution or root cause analysis issues directly with speech service providers if the customers have no speech server service contracts with speech software providers. These customers must submit purchase orders.
- Customers are responsible for the external database administration and support.
- Avaya Solutions Platform (ASP) 130 customers own ESXi license key; during server failure customer needs to change the lid and save the ESXi license key. For more information, see *Avaya Converged Platform overview and specification* guide on Avaya Support site http://support.avaya.com.
- Avaya customers are required to have a Monitor, USB keyboard, and USB mouse available for use by installation and/or to diagnose server problems.

Chapter 5: Implementation options

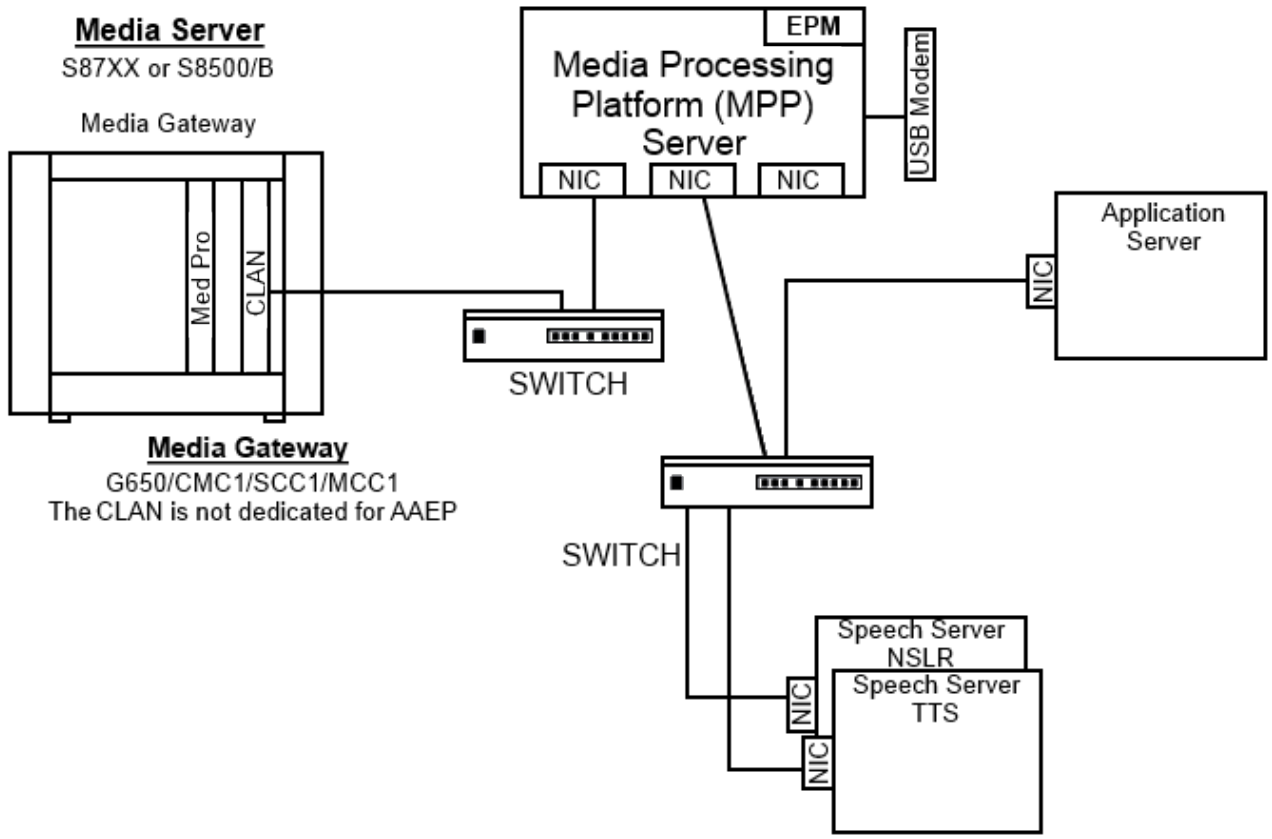
Avaya Experience Portal server configuration options

When you install the Avaya Experience Portal software, you can use a single server or multiple servers, depending on the number of telephony ports that you require.

Note:

For more information, see *Avaya Experience Portal Overview and Specification.*

Topology



Multiple server solution

This configuration includes two or more servers: one dedicated to running the primary EPM software and at least one dedicated to the MPP software. In addition, you can have an auxiliary EPM server that handles failover for Application Interface web service requests.

If one MPP server is unavailable, Avaya Experience Portal can redistribute ports to the other MPP servers if the servers are not already running at full capacity.

The EPM and MPP servers require a LAN to communicate, and network issues might disrupt that communication.

Tip:

To determine the installation requirements, see your Avaya Services Representative or Avaya Business Partner.

For more information on capacity, see *Avaya Experience Portal Overview and Specification*.

Avaya Experience Portal multisite management

An Experience Portal cluster consists of multiple Experience Portal systems, each with an EPM and one or more MPPs. However, with the zoning architecture, the Experience Portal system can have one centralized EPM at the primary or default zone and one auxiliary EPM at each zone or location. A centralized database (DB) connects all Experience Portal systems into a cluster. In the current release, this DB can be either Oracle, PostGres, or Microsoft SQL Server and is provided by the customer. The main information in the centralized DB is the semi real-time operational data (used for monitoring) and the reporting data.

The following figure depicts an Experience Portal cluster with three Experience Portal systems. The number of MPPs varies in each Experience Portal system in the cluster. The Experience Portal system in Singapore consists of a single box that hosts both the MPP and the EPM.

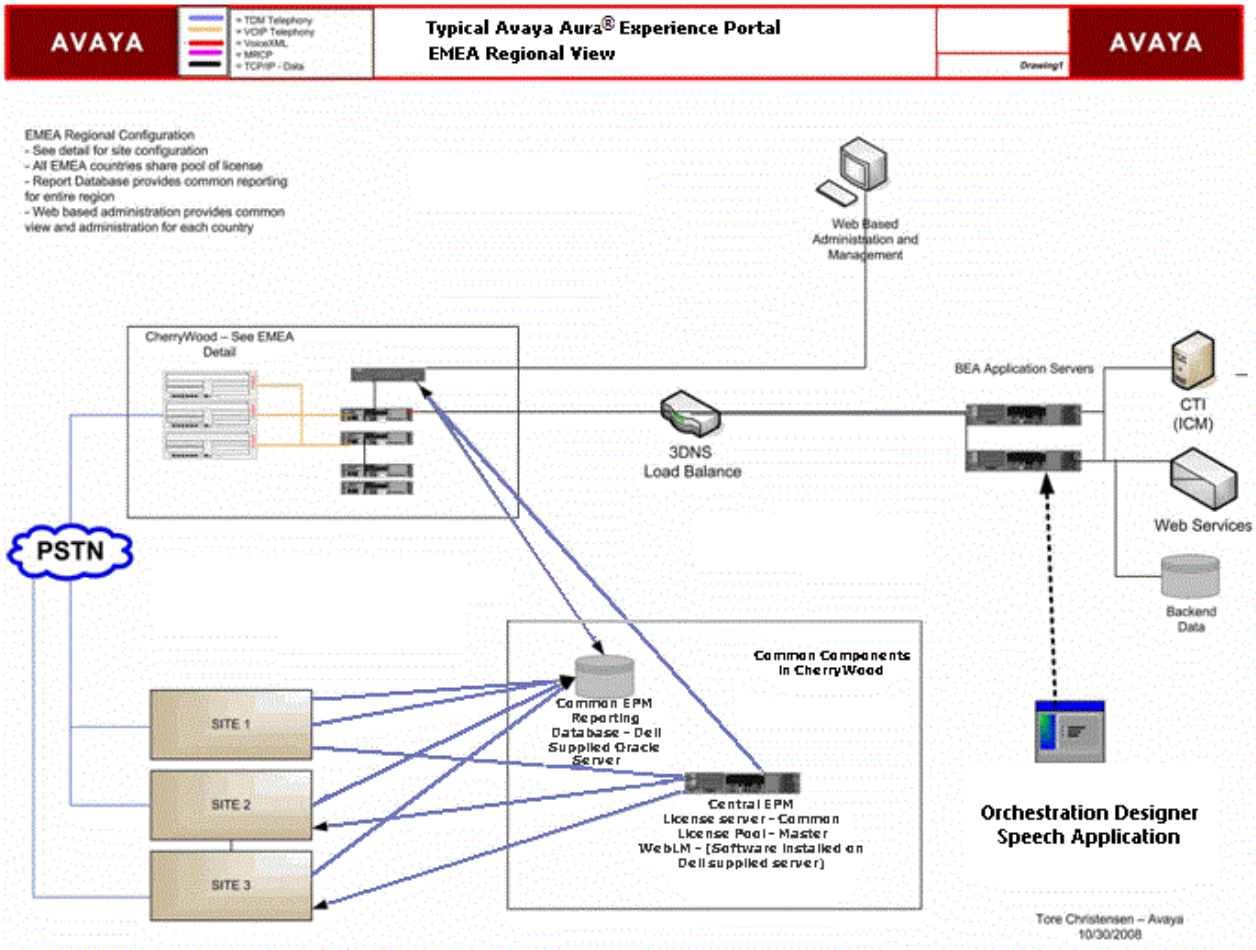
The licensing of an Experience Portal cluster is either centrally handled through Enterprise Wide Licensing (EWL) WebLM and a local WebLM on each site, or locally managed through the local WebLM. The advantage of the centralized option is that the customer manages license distribution across sites without the involvement of Avaya. That is, the customer generates a license each time licenses must be redistributed across the Experience Portal systems in the Experience Portal cluster. The advantage of the local option is site independence and one less component to manage.

From any system in the Experience Portal cluster, you can get the condition of each Experience Portal system in the Experience Portal cluster. The monitoring data is automatically and regularly updated. You can also get a link to each remote system.

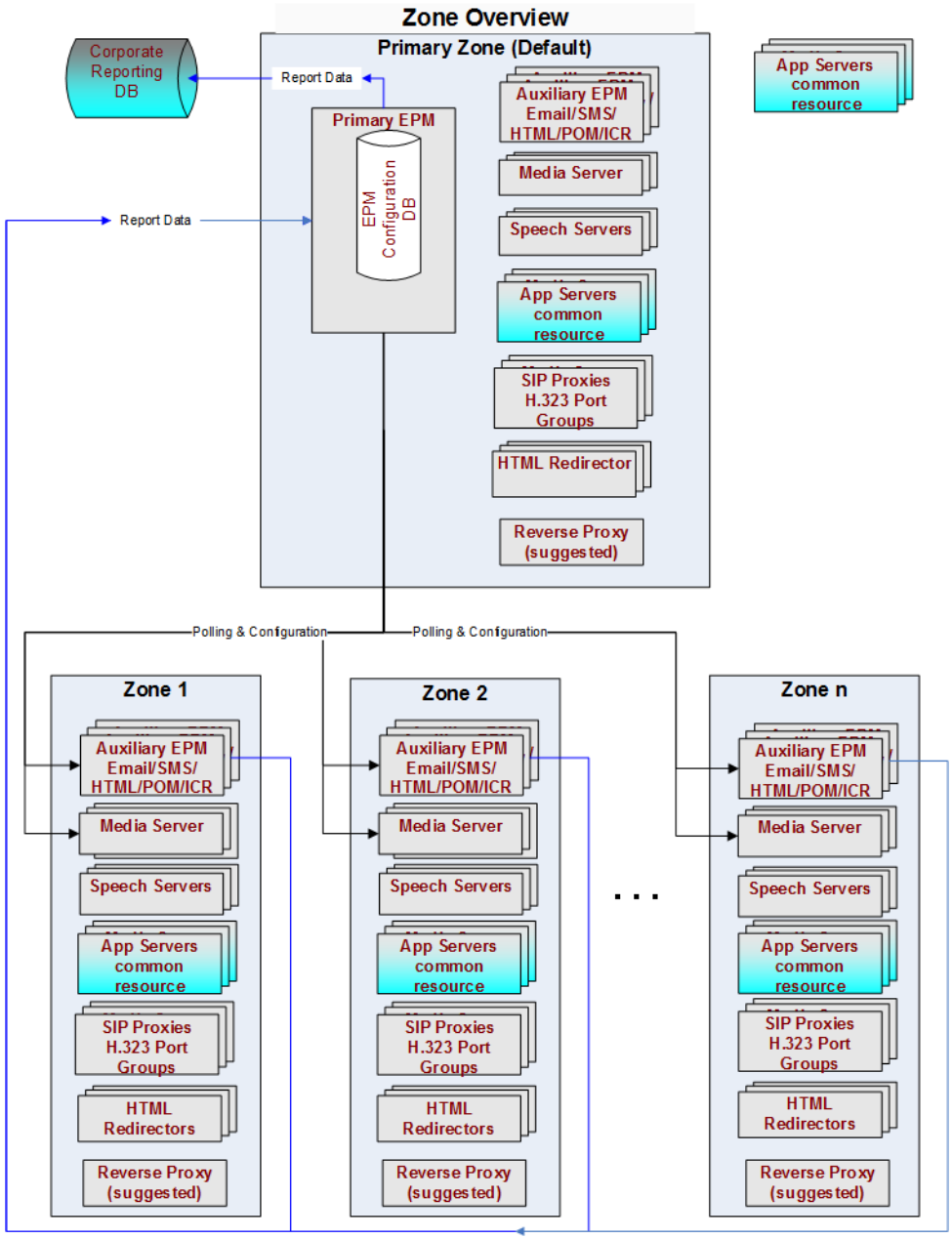
For multisite configurations, Avaya provides a report-only EPM. The report-only EPM provides a vehicle for running reports and also functions as the host for WebLM. The software is the standard

EPM software. This software is set up as an EPM, and has no MPPs. You can also install the enterprise WebLM on this server.

The Experience Portal properties file must be changed because WebLM takes all licenses.

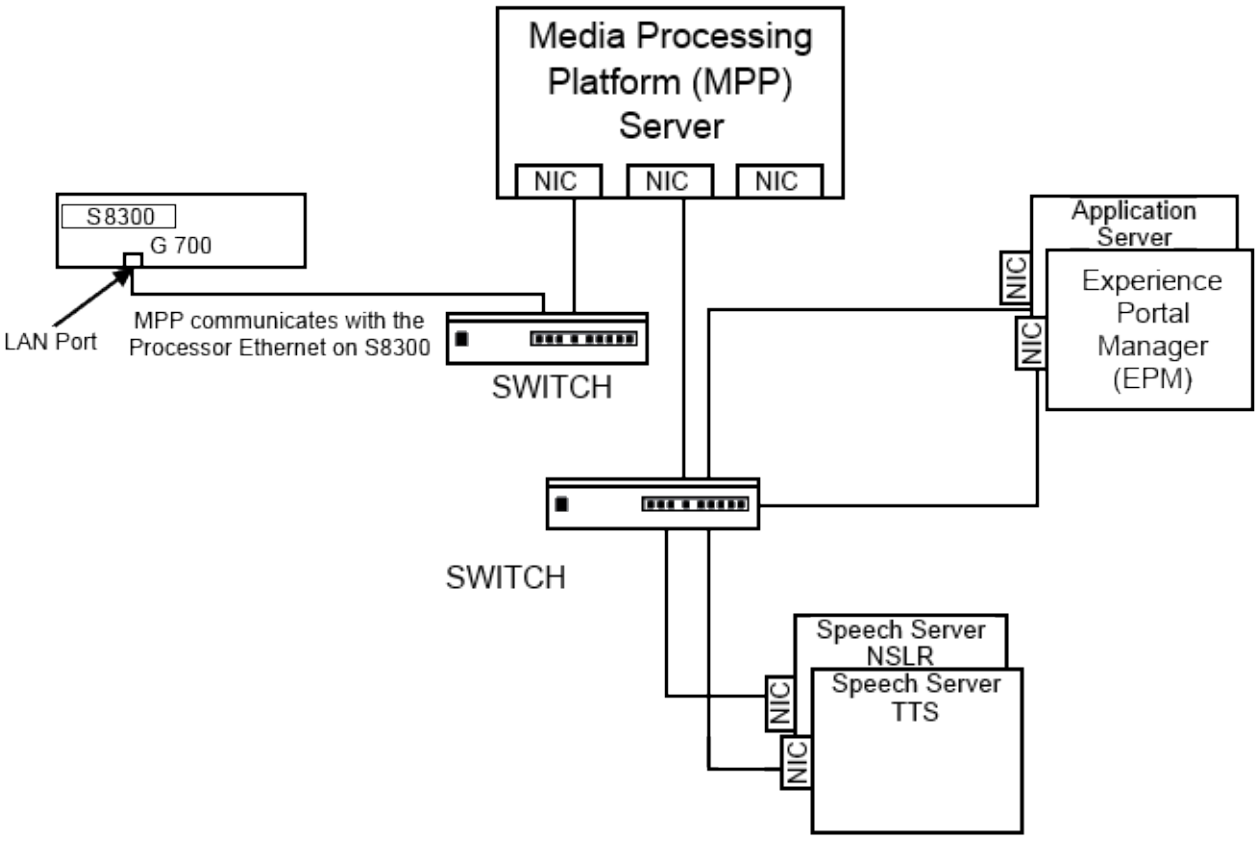


Multisite Experience Portal Configuration best practice

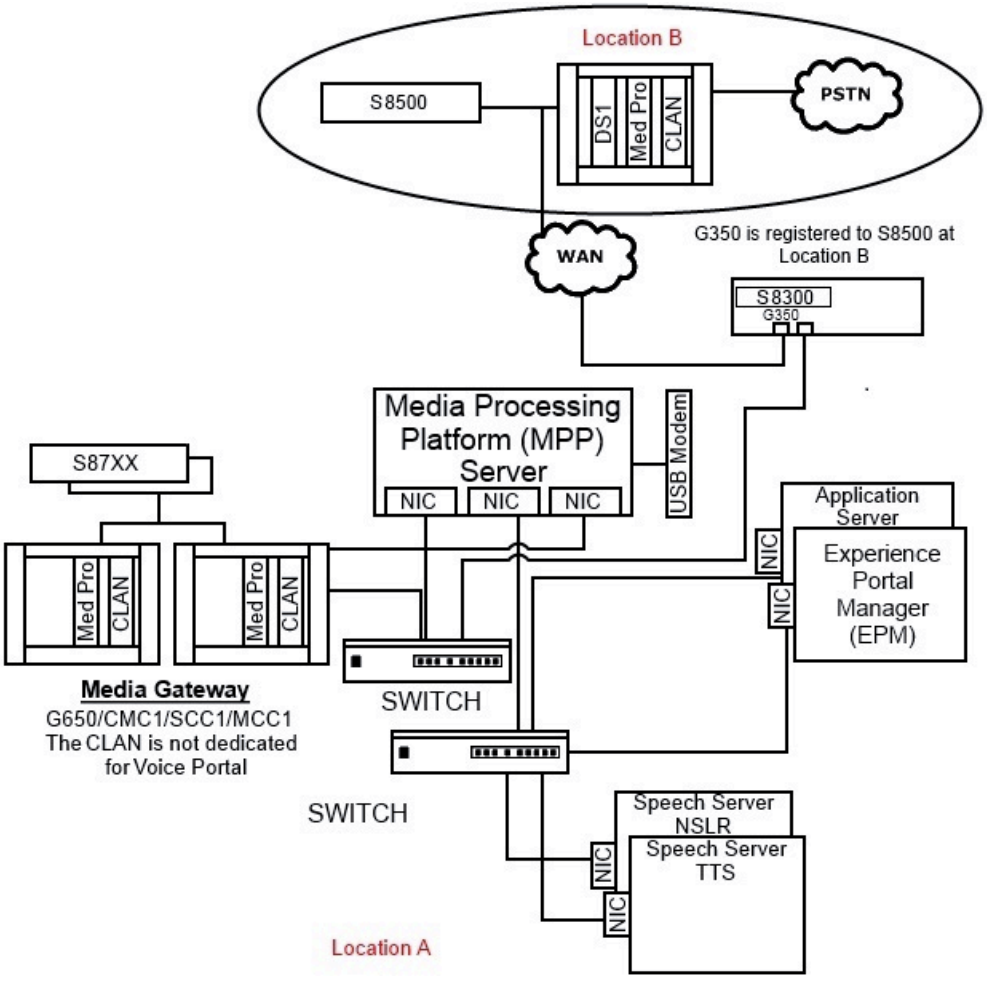


Chapter 6: Connectivity details

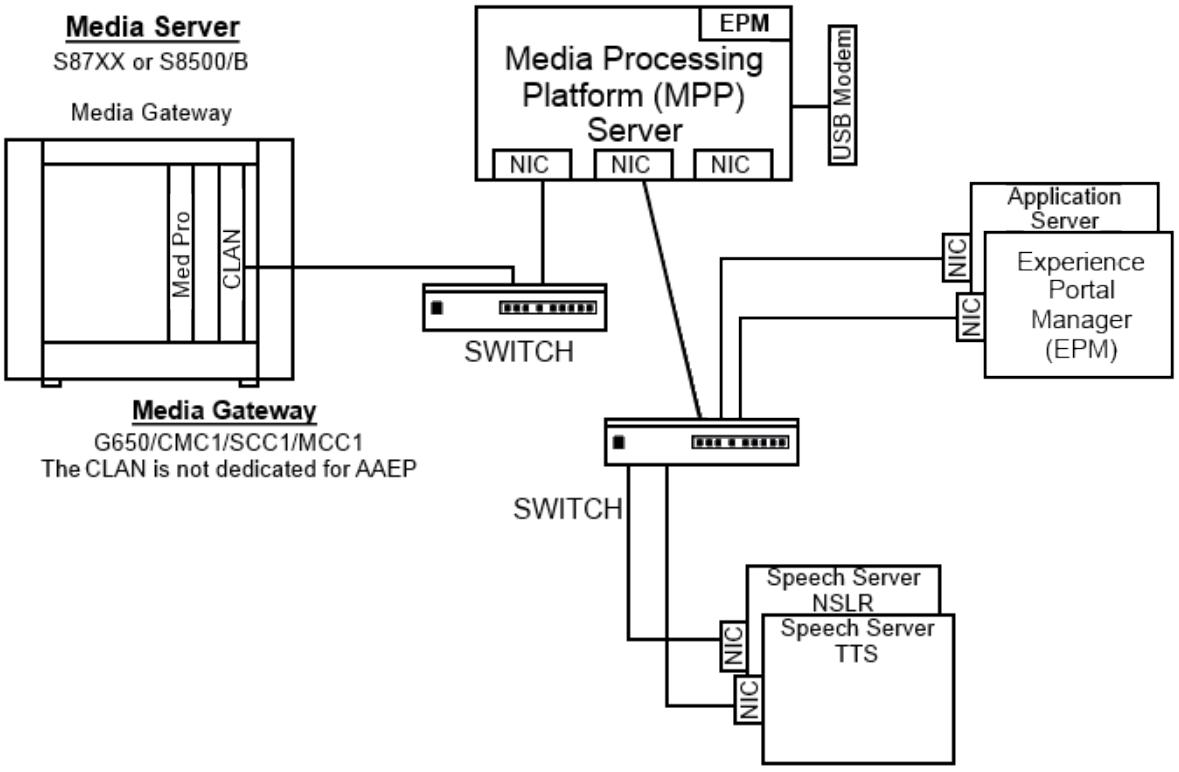
Communication Manager (G700) connectivity with two network segments



Multiple Gatekeeper connectivity



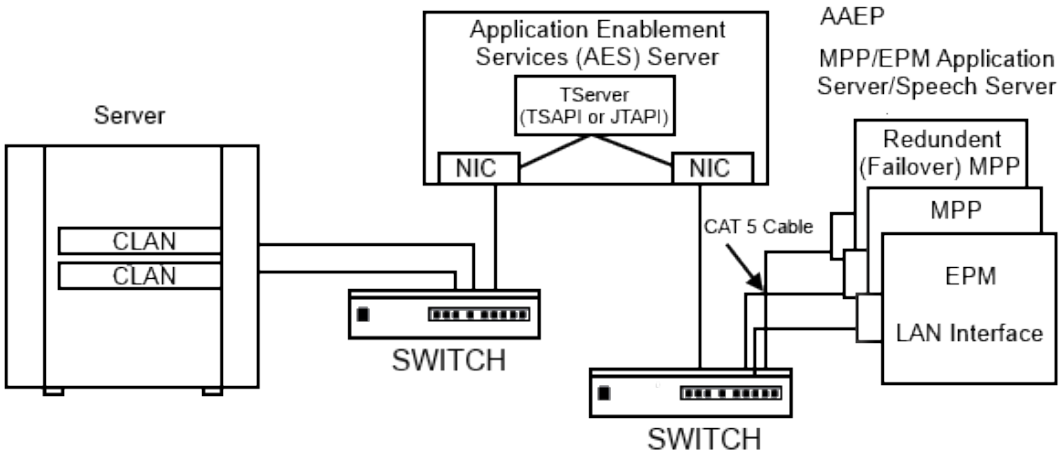
Communication Manager (Media Gateway) connectivity with two network segments



CTI-DIP connectivity — JTAPI (Java Telephony API) through AES

Note:

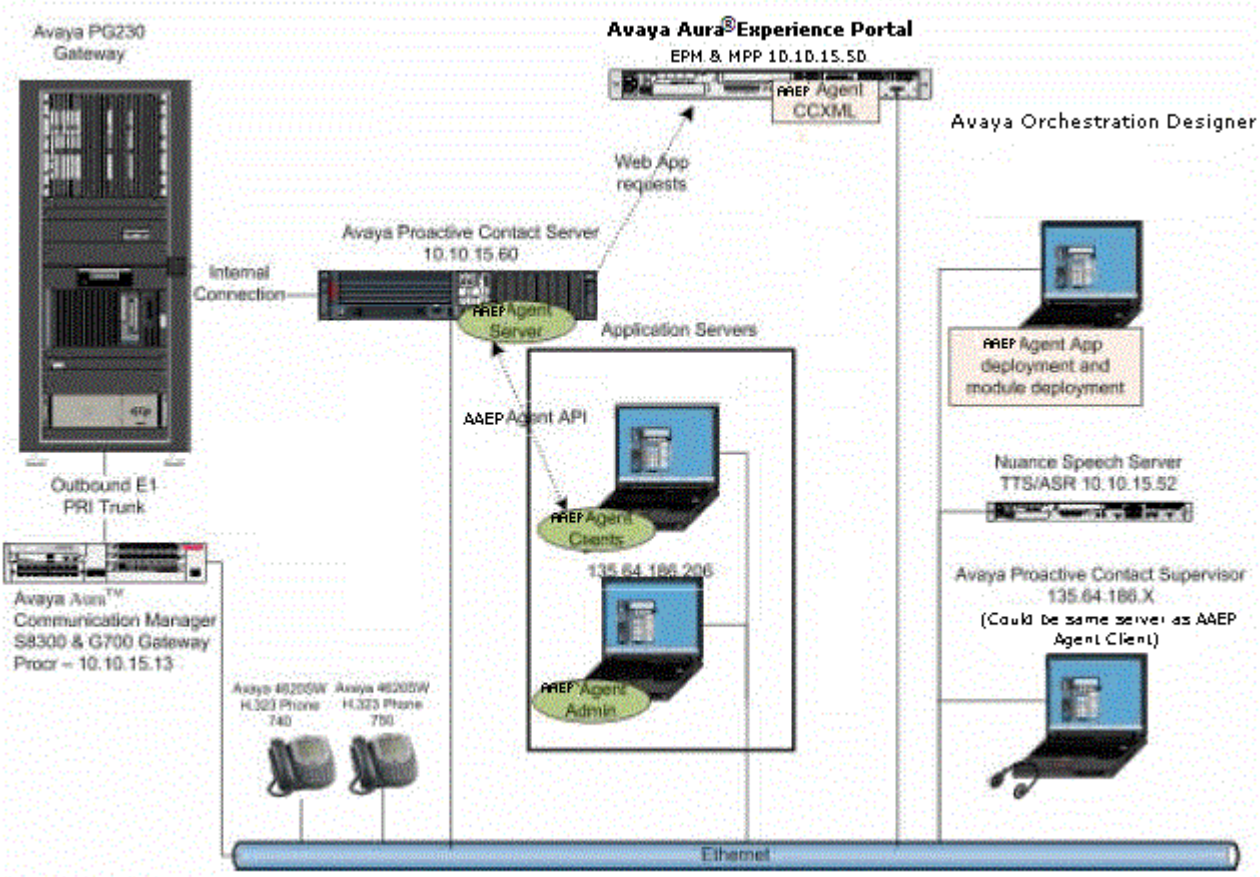
Application Enablement Services (before AES4.2.1)



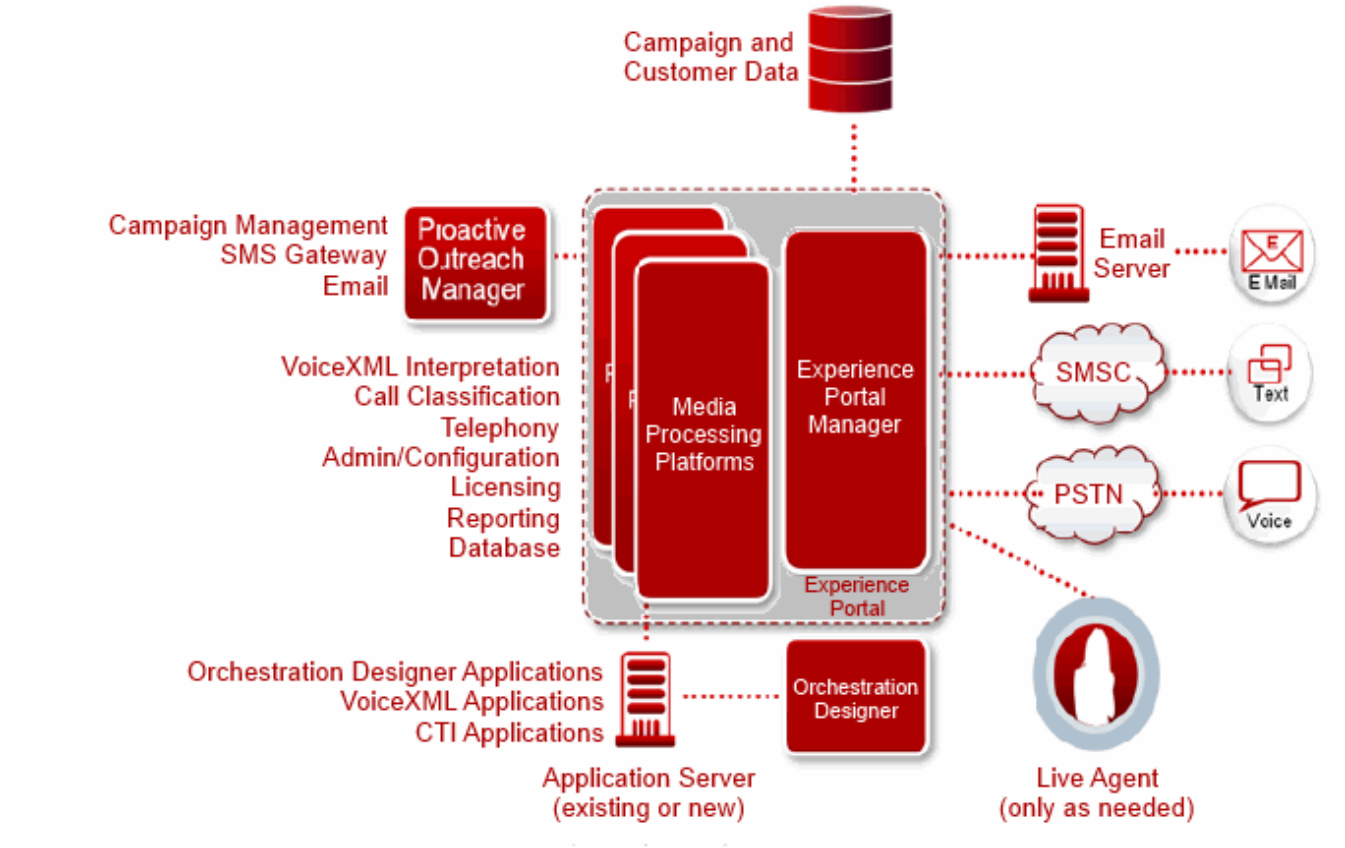
TSAPI Advanced supports the following functionality:

- Adjunct Route Vector Step.
- Predictive Dialing.
- Selective Listen/Hold: This feature helps a Supervisor to converse without the caller hearing the conversational path between Supervisor and Agent real-time coaching.

Proactive Contact (PC) connectivity



Proactive Outreach Manager (POM) connectivity



Interaction Center (IC) connectivity

Orchestration Designer applications can integrate with systems such as Interaction Center 6.1.3 to 8.0, through the IC connectivity VOX server or through the IC VRUSM that is sold as an add-on to IC. This integration means that each system can use the strengths of the other system in a single speech application.

With the IC connector items in Orchestration Designer IVR applications, you can:

- Raise alarms on the IC system.
- Transfer calls to the IC system.
- Run a workflow on the IC system.
- Get and set values in the VDU fields on the IC VOX server.

At runtime, the IVR system that uses the Orchestration Designer speech application configured for IC and the IC system must both be configured to monitor the same channel for incoming calls. The IVR system can be either an Avaya IR or an Avaya Experience Portal system.

As a call comes in through a channel that the IC system is monitoring, the switch notifies the IC system. When the IVR system identifies the call, the Orchestration Designer application that runs on the IVR system sends a new call command to the IC system. The IC system, in return, creates a new EDU, and returns the ID to the application on the IVR system. The IC system populates the VDU id variable field value. This establishes a pipeline to the IC system for the call, thus making IC functionality available during that session.

Note:

The Avaya Experience Portal system does not use the concept of channels in routing calls, but of extensions. So, if you use the IC connector in an application on an Avaya Experience Portal system, the channel that the IC system monitors on the switch must be mapped to a specific extension on the Avaya Experience Portal system. That is, if the IC system uses channel 1234, the extension that you use on the Avaya Experience Portal system must be 1234. For more information, see the Avaya Experience Portal documentation library.

If this dual connection cannot be established within time that is configurable on the IC system, the IVR system generates an error and discontinues the call.

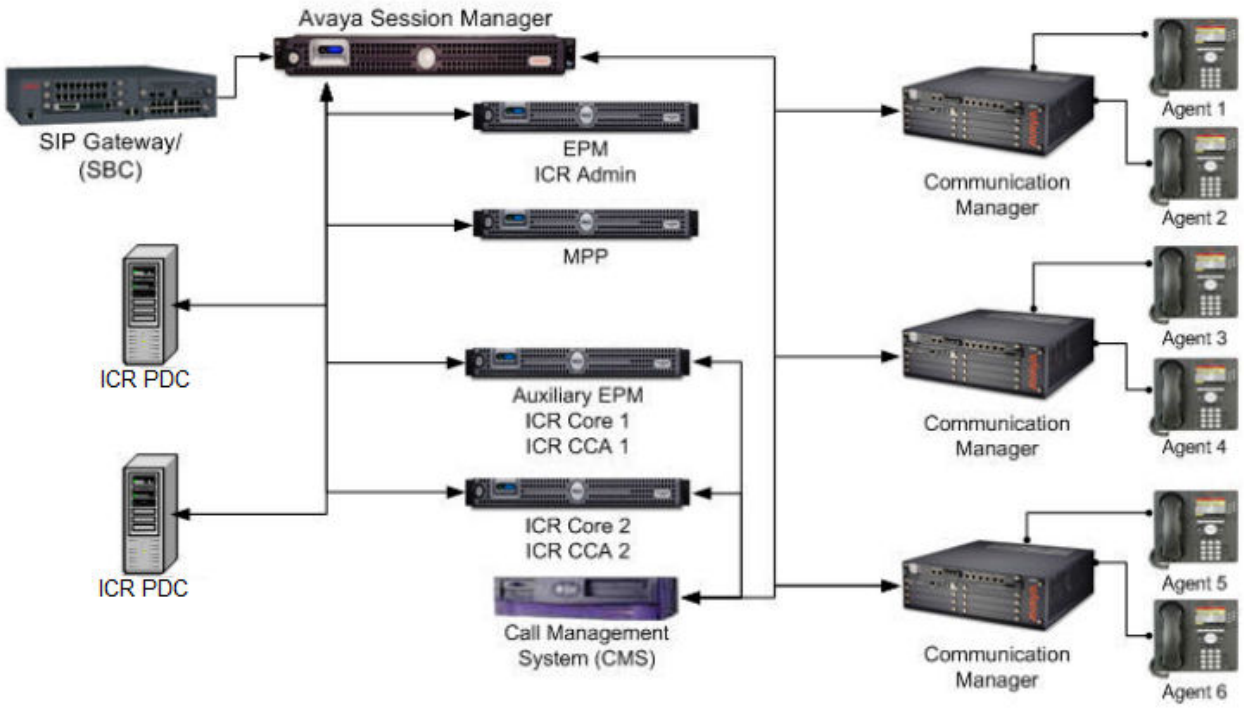
At the end of the call, the speech application sends a call gone command to the ICsystem to signal that the system can also disconnect the call. For more information, see the Orchestration Designer documentation library.

Intelligent Customer Routing (ICR) connectivity

Intelligent Customer Routing (ICR) is a feature of Avaya Experience Portal that provides superior customer experiences across automated and agent-assisted resources. ICR uniquely combines Self-Service Applications (SSA), advanced Wait Treatment Applications (WTA), and real-time routing data from multiple ACDs to deliver excellent customer experiences at the lowest possible costs. Additionally, Error Handling Applications (EHA) can be configured to ensure that any error conditions, such as loss of connectivity with all ACD, issues with speech server are easily handled. ICR eliminates duplicate, parallel CTI network by leveraging the power of SIP.

ICR supports two types of routing mechanisms: BSR and CMS_rt. The ICR architecture consists of the following four components:

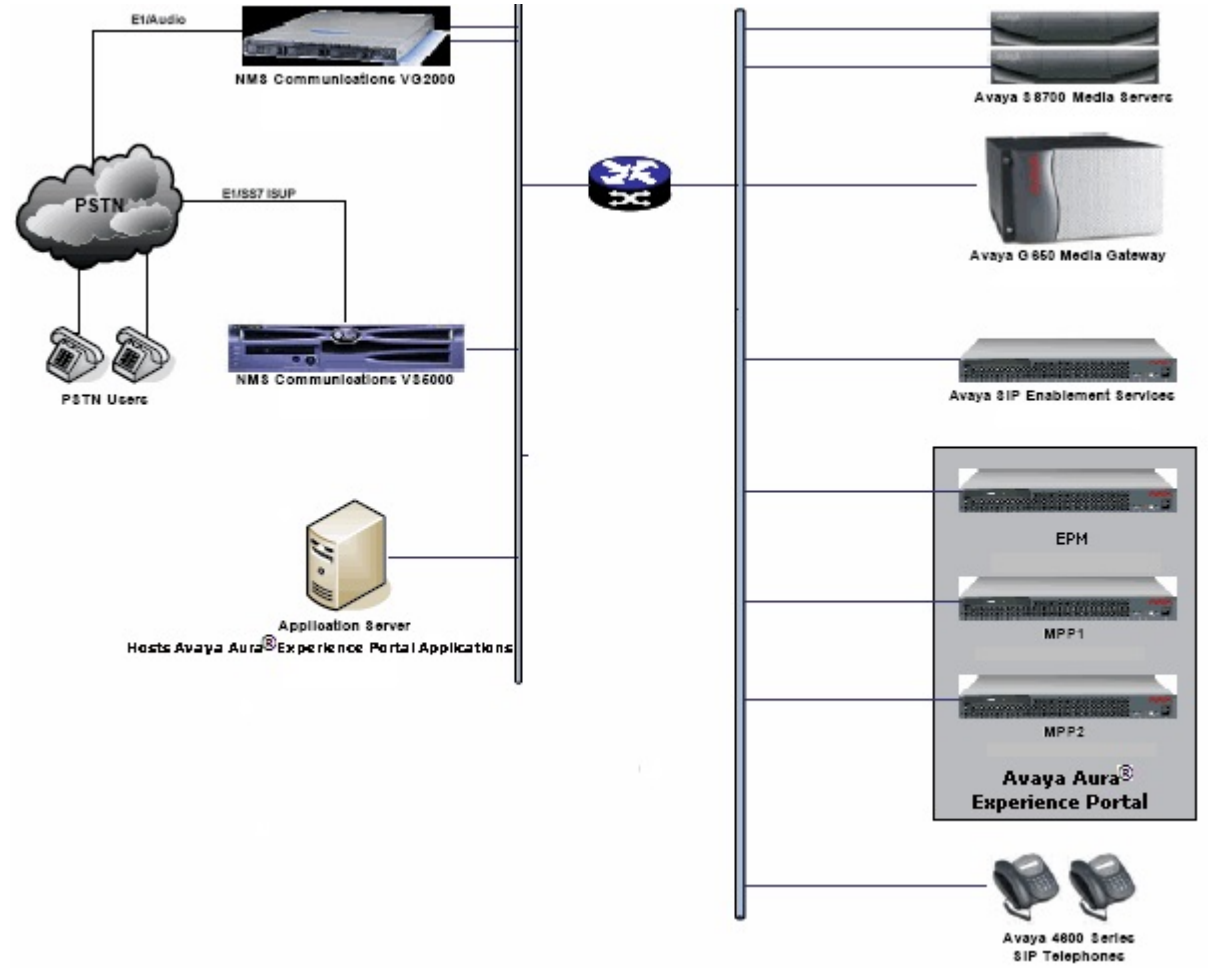
- ICR Admin
- ICR Core
- ICR Call Control Application (CCA)
- ICR PDC.



Avaya Aura® Contact Center (AACC) connectivity

Avaya Experience Portal supports integration with AACC, a context-sensitive voice and multimedia-enabled customer contact solution that allows enterprises to automate and accelerate customer interactions. For more information about AACC, see *Avaya Aura® Contact Center Fundamentals* on the Avaya Support website http://support.avaya.com.

SS7 connectivity



For more information, see https://devconnect.avaya.com/public/flink.do?f=/public/download/dyn/SM52-VP50-IMG.pdf.

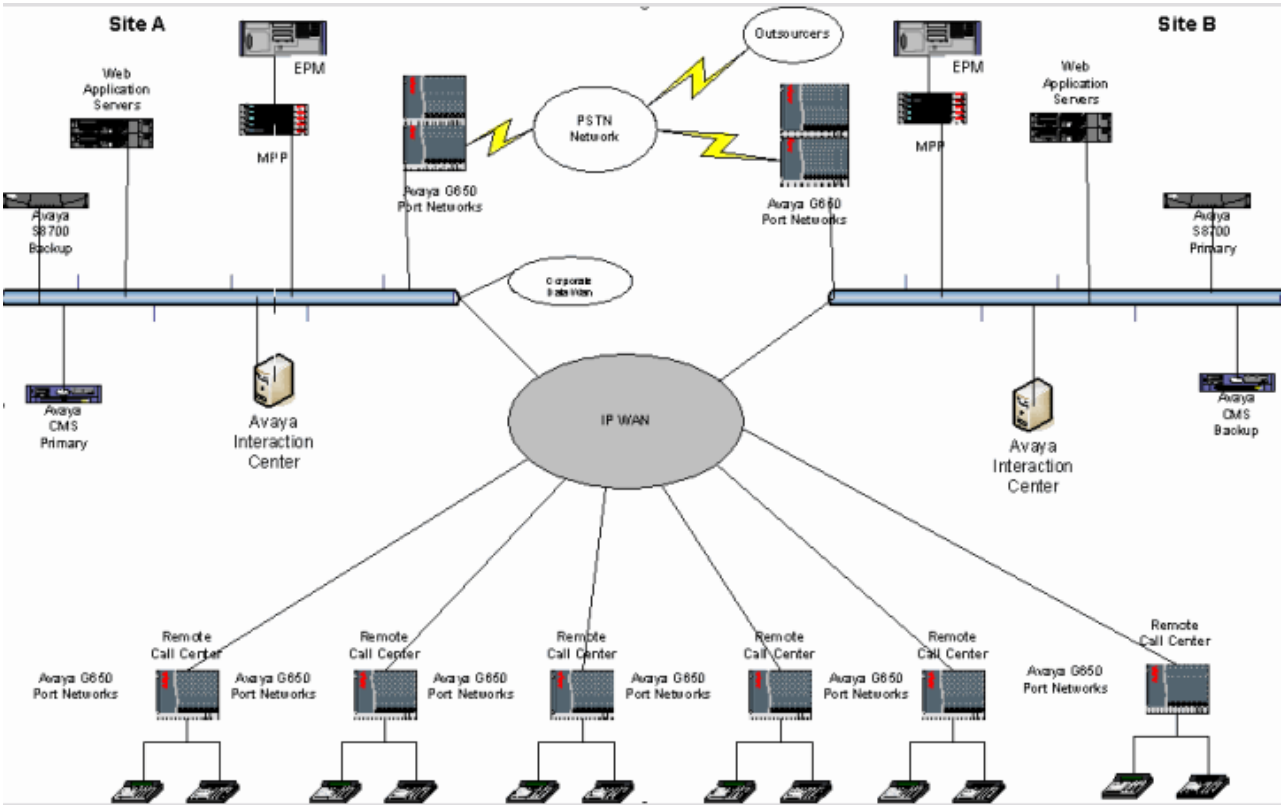
Deployment of Avaya Experience Portal in Avaya — Flatten, Consolidate, Extend (FCE) Architecture

This growth of contact centers has driven scalability, scope of distribution, multichannel options, and consistency more than before. In this context, the customers have requested the facility to deliver ingress from multiple points within an Enterprise to a consistent skill pool with a single point of management. This request has driven FCE to:

- Flatten: through distributed gateway support.

- Consolidate: through single Avaya Aura® Communication Manager management, skills, and, VDNs.
- Extend: through remote agent pools and IP Agent.

FCE and ICR are only complementary solutions. The customer scenario establishes whether these solutions can be positioned together or separately. ICR provides cost savings and customer service benefits, and adds additional proof to flatten and consolidate. ICR reduces infrastructure costs and licensing requirements, while protecting from the competition.



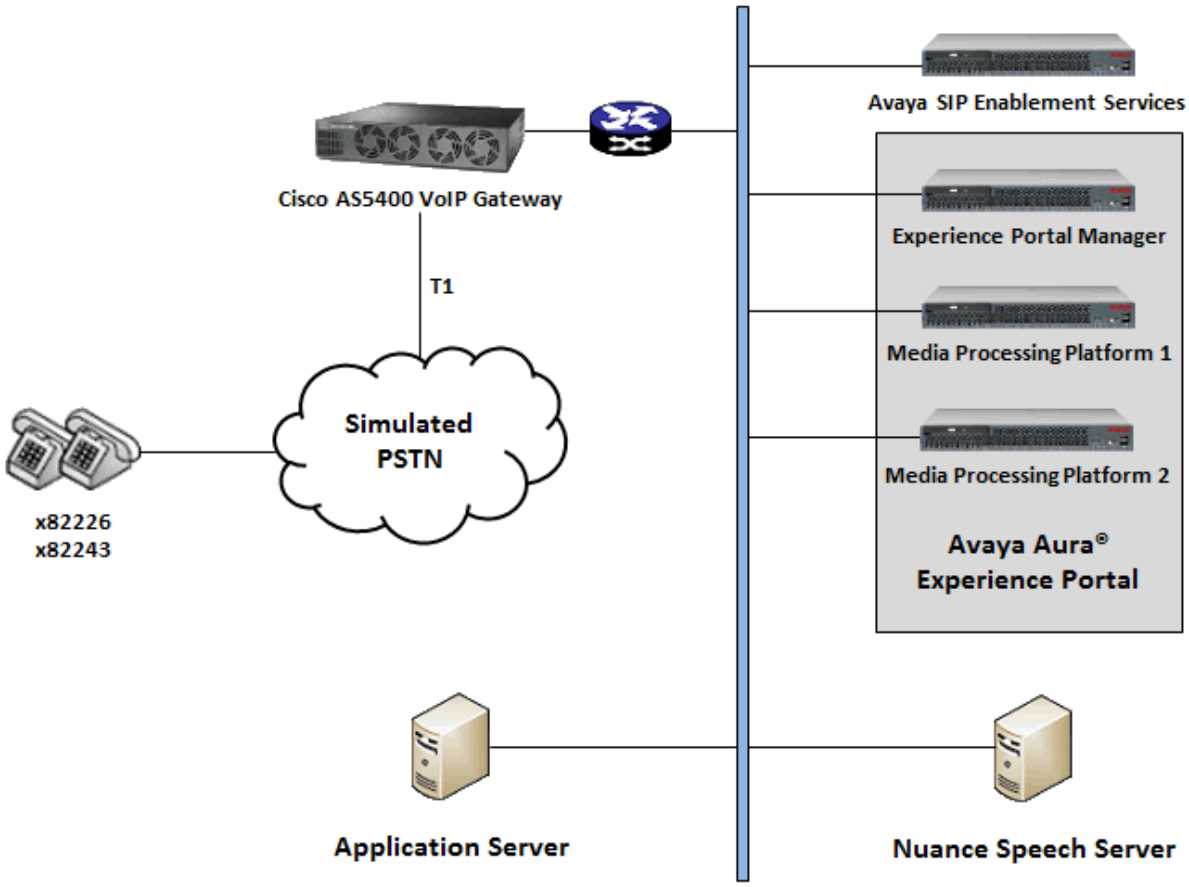
Avaya Experience Portal with Non-Avaya PBX connectivity

You can connect Avaya Experience Portal to a non-Avaya PBX in the following ways:

- Non-Avaya PBX-> Avaya Avaya Aura® Communication Manager /Gateway-> H.323Avaya Experience Portal
- Non-Avaya PBX-> SIP-> ASM/SES-> SIP Avaya Experience Portal
- Non-Avaya PBX-> ISDN/R2/SS7/T1/E1-> Gateway (IMG or other)-> SIP-> ASM/SES-> Avaya Experience Portal

For non-Avaya PBX connectivity, see the application notes on the Avaya Enterprise or Business Partner portal:

Solutions Products > Products A-Z > A > Avaya Experience Portal> Sales Collateral and Tools > Application Notes.



Chapter 7: Failover best practices

License management

Use Web License Manager (WebLM) to manage the licensing of Experience Portal. WebLM is an integral part of the Experience Portal system that is available on the EPM server, and provides licenses to EPM. WebLM that resides on the EPM server is also referred to as Local WebLM. In most small setups of Experience Portal systems, the license is installed on the Local WebLM. An Enterprise or Master WebLM is used in a system that requires redundancy through a WebLM that is installed on a separate server. Enterprise WebLM allocates licenses to WebLM that resides on EPM. The location of Enterprise WebLM is critical to the facility of moving a license from one site to another in the event of a failure.

Local Experience Portal redundancy

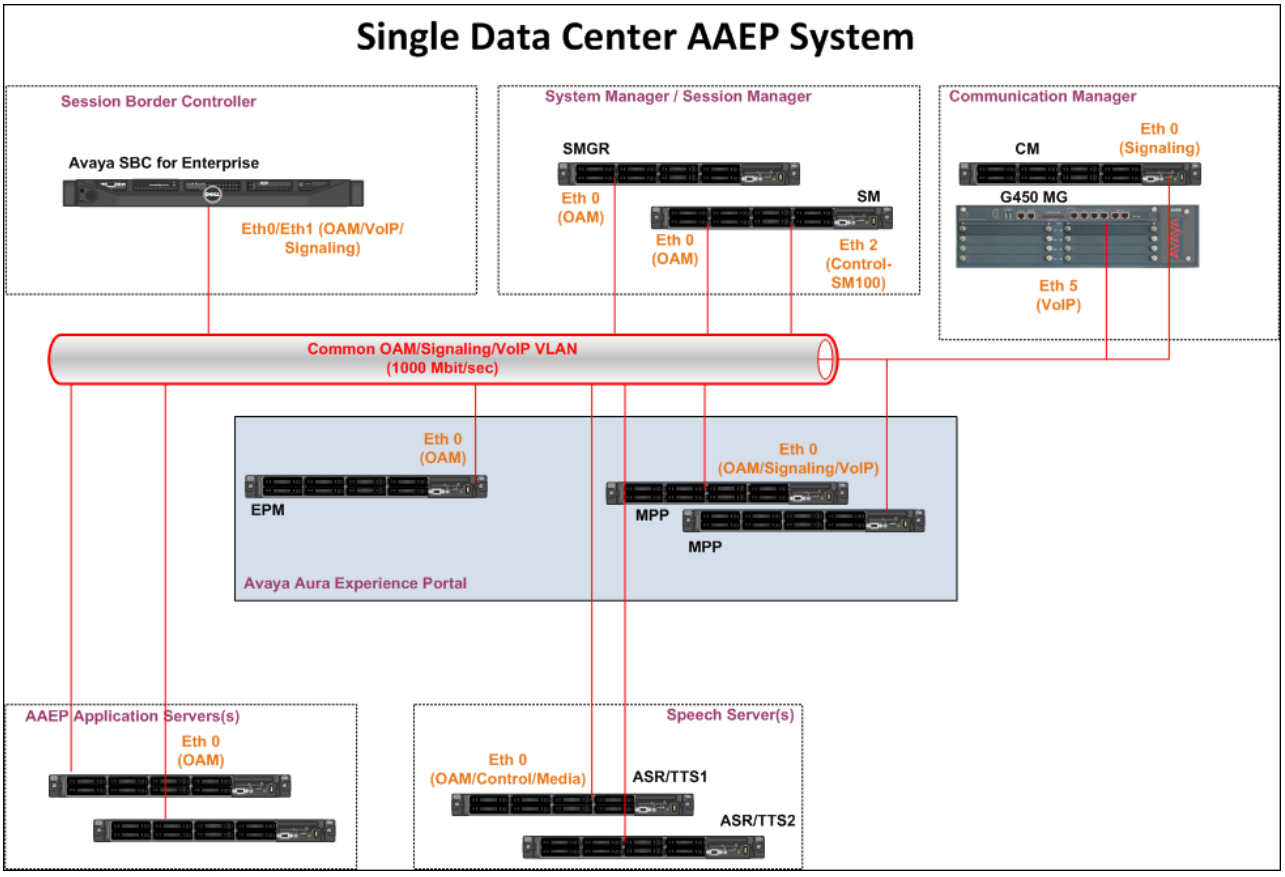
To ensure that the local Experience Portal setup has redundancy for all server components, you must implement additional hardware while configuring Experience Portal. Install a load balancer and additional application servers to provide redundancy for the application server. Ensure that the load balancer is also redundant.

To achieve this redundancy, you must install a highly available solution that utilizes a virtual IP address.

To provide redundancy for the speech servers, install additional speech servers.

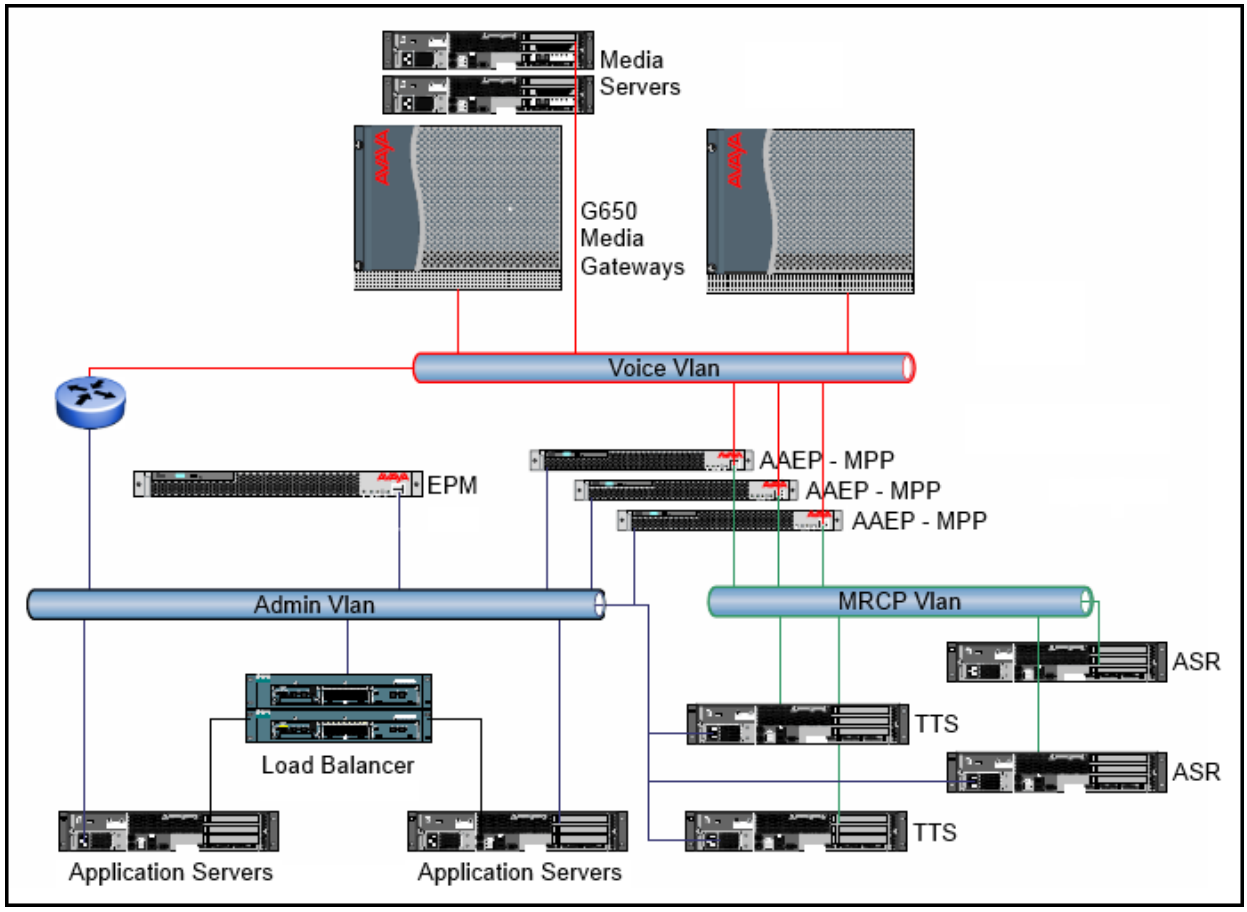
The objective is to provide redundancy when a hardware failure occurs.

Experience Portal redundancy does not provide redundancy in the event of a network infrastructure failure.



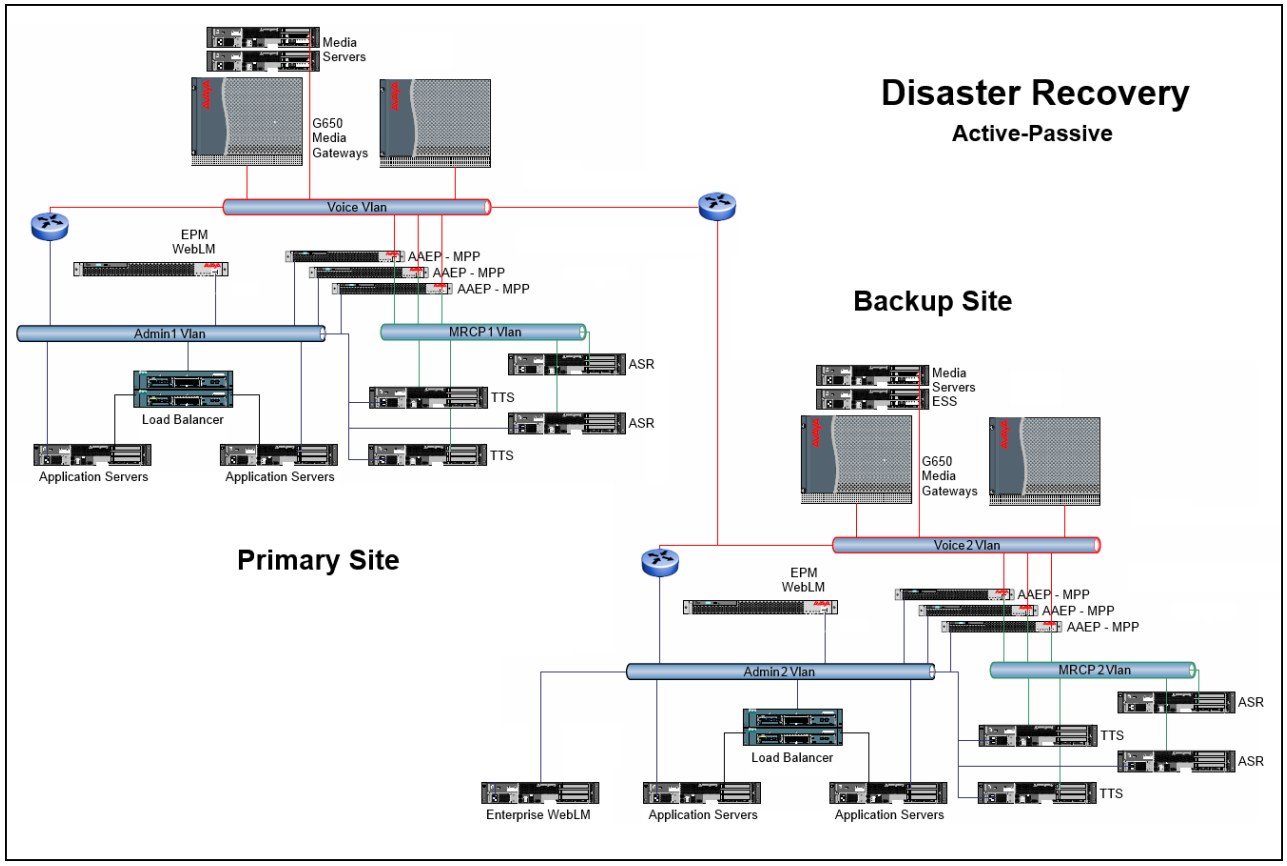
Disaster Recovery site

A common configuration is to provide a second site with an Avaya Experience Portal setup that is used when the first site incurs a major system outage. The Disaster Recovery (DR) site mirrors the functionality of the primary site. Often, the primary site might be built to have redundant speech and application servers, while the DR site is not built for this purpose. The following figure depicts the DR site with an Experience Portal setup that has redundant speech and application servers. The DR site can be configured in two ways: active-passive and active-active.



Active-Passive multi-site configuration

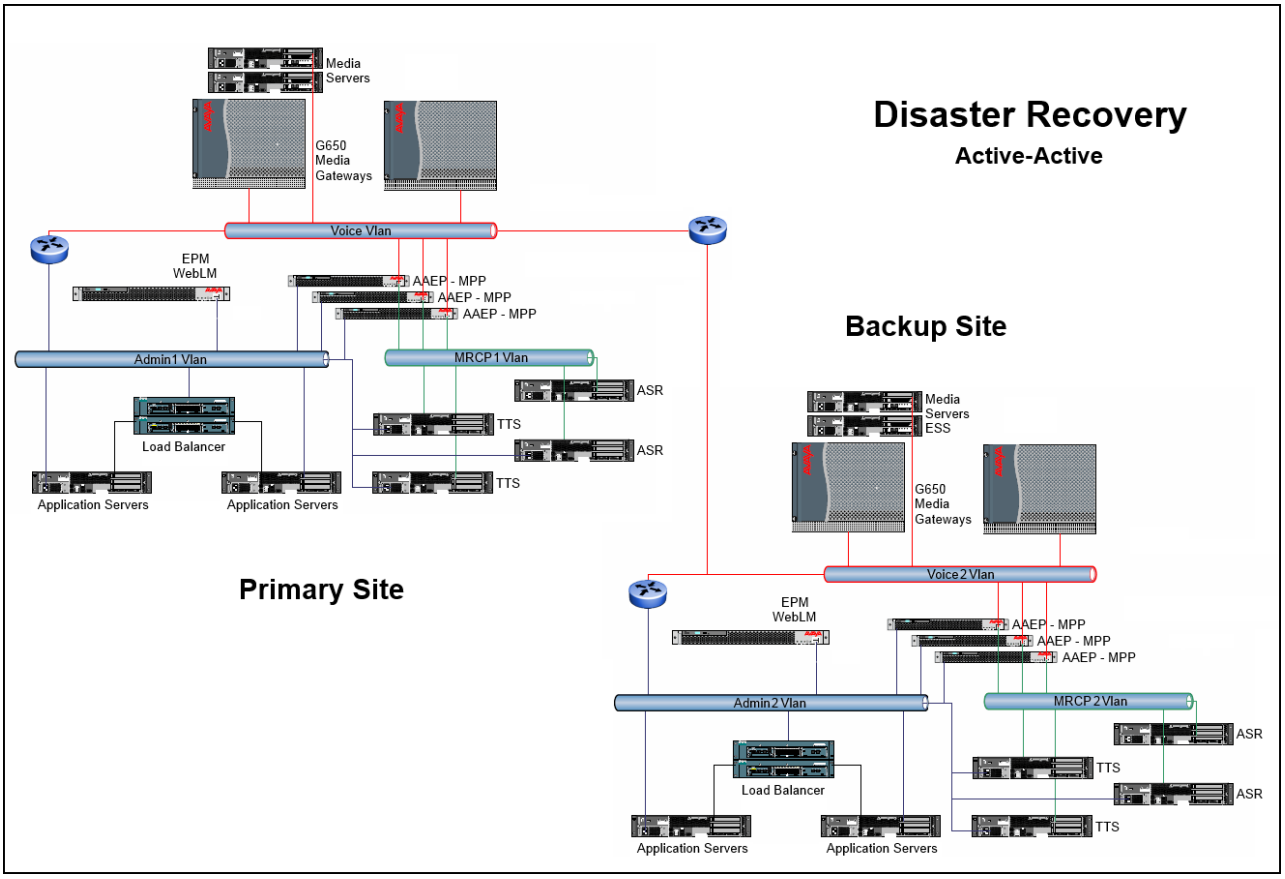
In the active-passive scenario, the DR site is typically not in service and the licenses are shared with the production site. In order to be able to share the Experience Portal licenses between sites, an Enterprise WebLM server must be installed. The following figure depicts a setup that is fully redundant on both the sites with the Enterprise WebLM installed on the backup site. The Experience Portal licenses are installed on the Enterprise WebLM and assigned to the primary site. During a failover, a manual process is implemented to roll the licenses to the backup site. If the Enterprise WebLM server is offline for an extended period, the Experience Portal licenses are valid for 30 days, and are renewed every seven days. If you use the active-passive model, test the DR site at regular intervals to ensure that the site is kept up-to-date and operational.



Active-Active multi-site configuration

Many global enterprises require the ability to handle all traffic and functionality at other sites automatically even after the enterprises lose a site. These enterprises often perform this action in what is called an active-active configuration where each site handles a portion of the traffic, but is sized to handle 100% of the traffic if a site is not available for any reason. The primary difference between active-active and active-passive is the Experience Portal licensing. To implement Active-Active DR, the customer must purchase Experience Portal license.

This configuration helps each site to be licensed and active at the same time. Active-active does not require the use of an Enterprise WebLM server if the customer purchases a separate DR license. Each EPM is licensed and configured for full capacity, but only operates at half capacity during normal operations. If one site fails, the remaining sites must be able to handle the additional load without human intervention.



Media Processing Platform

If an MPP fails, Experience Portal Manager detects the failure, reassigns the licenses, and redistributes the ports to other MPPs.

If the failed MPP is assigned to a zone, Experience Portal Manager reassigns the licenses and redistributes the ports to other MPPs within the same zone.

You cannot redistribute ports across zones.

Speech servers

Speech servers support a load-balancing mechanism across the servers. If a single server fails, the recognition requests and TTS requests go to a backup server. Disaster recovery licensing supports the additional capacity.

The MPP selects which ASR/TTS server to use by considering Speech server state and languages required by the application Speech server status such as errors and latencies.

The Nuance Speech offer and Loquendo Speech offer uses Disaster Recovery Sales Material Codes.

MPPs perform load balancing for speech servers within the same zone.

Application servers

Avaya Experience Portal supports either load balancing or failover mode:

In load balancing mode, Experience Portal load balances by using the two VXML URLs that are configured with the applications and assigns both URLs to the Voice XML Interpreter (VXI), in any order, to fetch the application VXML. The VXI uses the first URL to fetch the VoiceXML application. However, if the first URL fails, the VXI uses the second URL. When the second URL fails, the VXI reports a failure.

In a failover mode, the VXI uses the first URL to fetch the VoiceXML application. The second URL is attempted only if the first URL fails.

If the customer wants to use more application servers, then the customer can provide their own load balancers.

Each MPP polls, every 20 seconds, the application servers that host the VXML applications. If the application server fails to respond to the poll, the server is marked as unavailable. The URL that is referenced by the application server is not used until service is restored and the server responds to the poll. Depending on system load and the time during which the application server fails between polls, the system might take time, such as 1 minute, to mark the application server as offline and stop routing traffic to the unavailable application server.

The load balancing setting of the order of the URLs is arbitrary to provide even loading across multiple application servers during heavier call volumes. Customers that have larger solutions might require a commercial or third-party load balancing solution. For example, customers with high sensitivity for server failure detection, or systems where three or more application servers are used, require a load balancing solution. Experience Portal can work with load balancers, such as F5 Big IP and EQulibrium, without any special configurations.

Multiple application servers provide for capacity and redundancy. Standard web load balancing techniques provide load balancing and failover.

Experience Portal Manager

EPMs are in service at all locations. Even if one location fails, the Master WebLM server distributes all calls to the MPPs at the second location.

Failover within zones

The Experience Portal system supports failover within the same zone. When one resource of a zone fails, the system reassigns the license of the failed resource to another available resource with the same zone. The Experience Portal system does not support failover across zones.

Email, HTML and SMS processors

To achieve failover option for Email, and HTML applications, you can have multiple auxiliary EPMs for the same zone. When one Email, or HTML process of an auxiliary EPM fails, the similar processor in the redundant auxiliary EPM takes over the message processing.

Emails: Incoming emails use the similar processor in the redundant auxiliary EPM to achieve failover while outgoing emails are shared across all auxiliary EPMs within a zone that have email processors.

HTML: Launch requests for HTML applications can be processed by any available EPM in the zone to provide uninterrupted service in the event of a server failure.

Note:

SMS does not provide failover mechanism as IP address of the SMS processor is registered with the SMSC.

Chapter 8: Interoperability and migration concept

Interoperability

For the latest and most accurate compatibility information, go to http://support.avaya.com/CompatibilityMatrix/Index.aspx.

Avaya Experience Portal, Communication Server 1000 and Avaya Aura® Contact Center - SIP Trunk

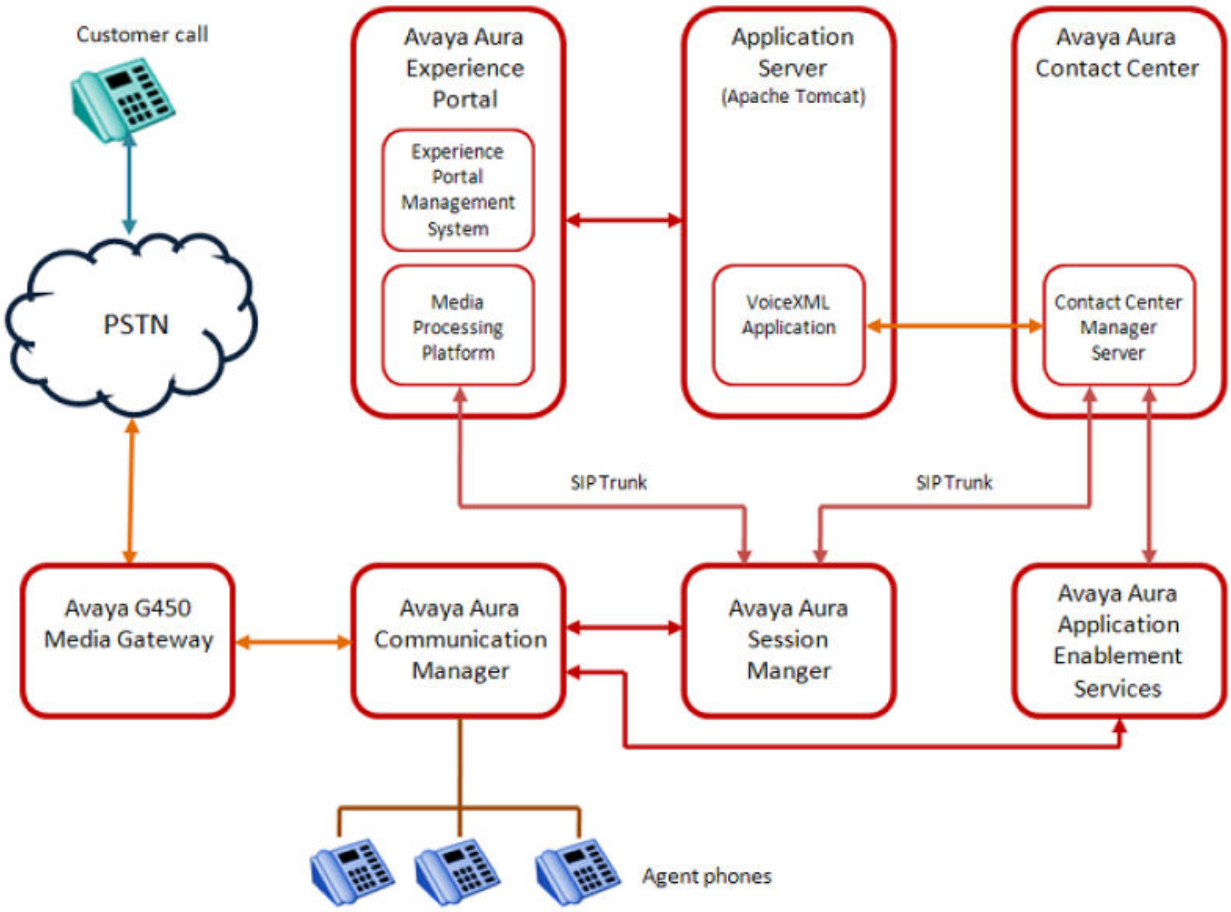
Front-End IVR

In a Front-End IVR scenario:

- A SIP trunk connects Experience Portal and Avaya Communication Server 1000.
- An Orchestration Designer node is used. For example, prompt and collect.
  - When a customer utilizes the Orchestration Designer application variables, the customer can configure prebuilt application through Experience Portal Manager. For example, changing announcements, and activation of menu entries.
  - Role-based access can restrict visibility to this entry only.

In the Front-End IVR deployment, customer calls are first routed to an Avaya Experience Portal system. The system takes all the customer inputs and sends the calls to Avaya Aura® Contact Center with all the call related information in the SIP header. Avaya Aura® Contact Center then processes the information present in the SIP header, and generates a Contact Intrinsic data specific to that call. When the call is transferred to an agent, the agent can use the Contact Intrinsic information to access customer details. This reduces the amount of time the agents spend on each call and also improves the customer experience.

The following diagram shows a typical solution layout of a front-end Avaya Experience Portal self-service integration with Avaya Aura® Contact Center and Avaya Aura® Communication Manager.



Prerequisites

- Avaya Experience Portal
- Orchestration Designer
- Avaya Communication Server 1000
- Required patch: nortel-cs1000-sps-6.00.18.64-00.i386.978

IVR behind CS1K

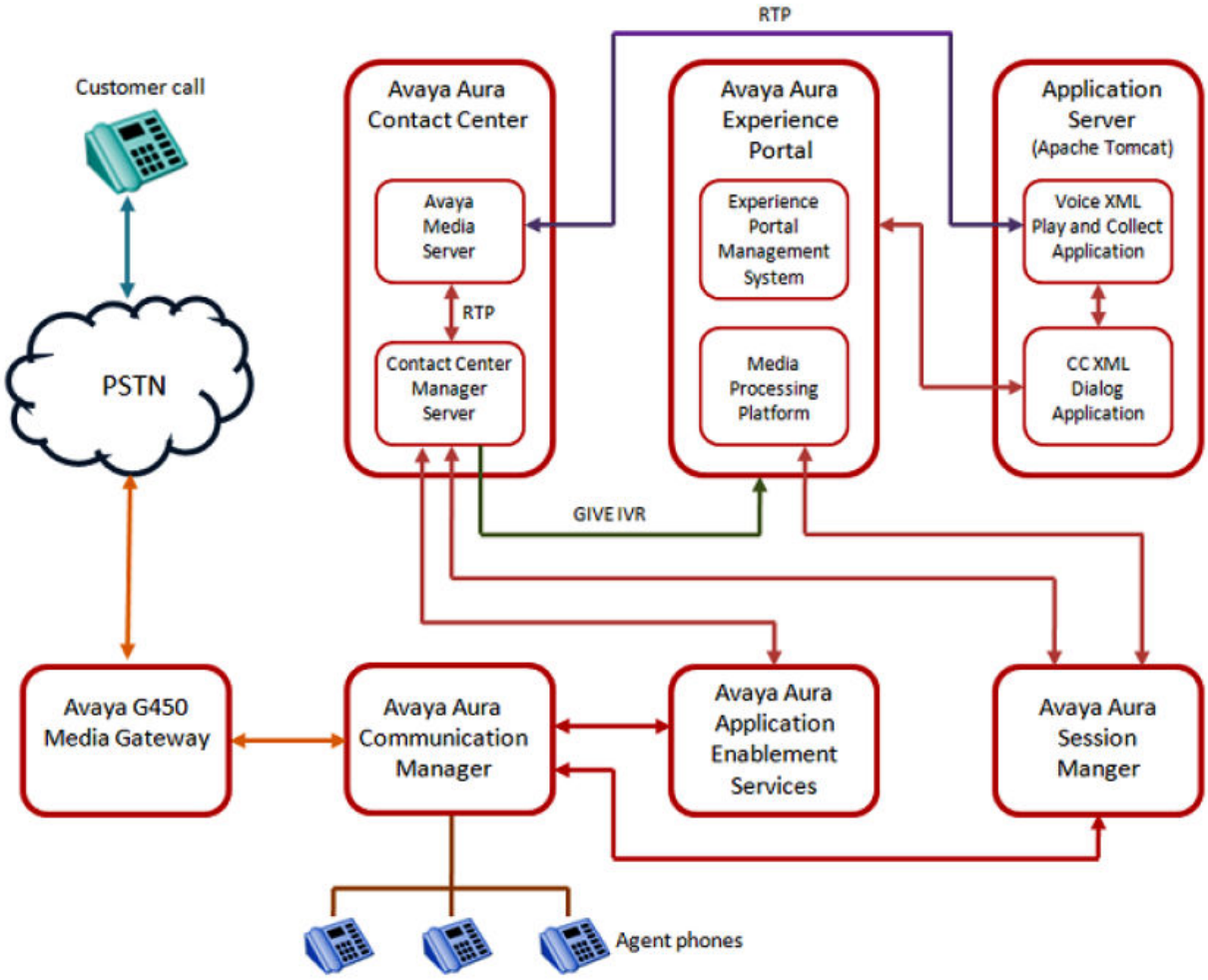
In an IVR behind CS1K scenario:

- A SIP trunk connects Experience Portal and Avaya Communication Server 1000.
- When a user transfers a call to Experience Portal, the call is under the control of Experience Portal. The report is also controlled through Experience Portal.
- Self-Service application can transfer back to Communication Server 1000 or Avaya Aura® Contact Center, utilizing Landing Pad web service.

Avaya Experience Portal provides back-end IVR services such as text-to-speech, digit recognition, music, and speech recognition. A combined Avaya Experience Portal and Avaya Aura® Contact

Center solution provides improved efficiency. Back-end IVR reduces contact center operating costs and improves customer satisfaction (CSAT).

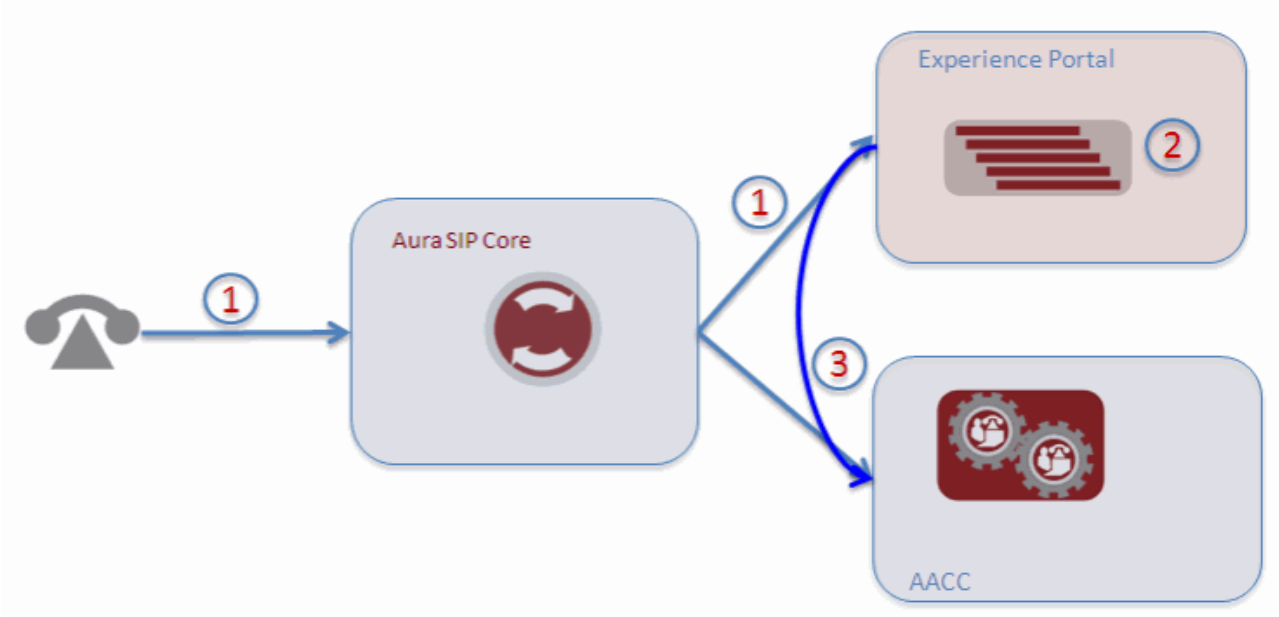
The following diagram shows a typical solution integration of an Avaya Aura® Contact Center with a back-end Avaya Experience Portal system.



Prerequisites

- Avaya Experience Portal
- Orchestration Designer
- Avaya Communication Server 1000
- Required patch: nortel-cs1000-sps-6.00.18.64-00.i386.978

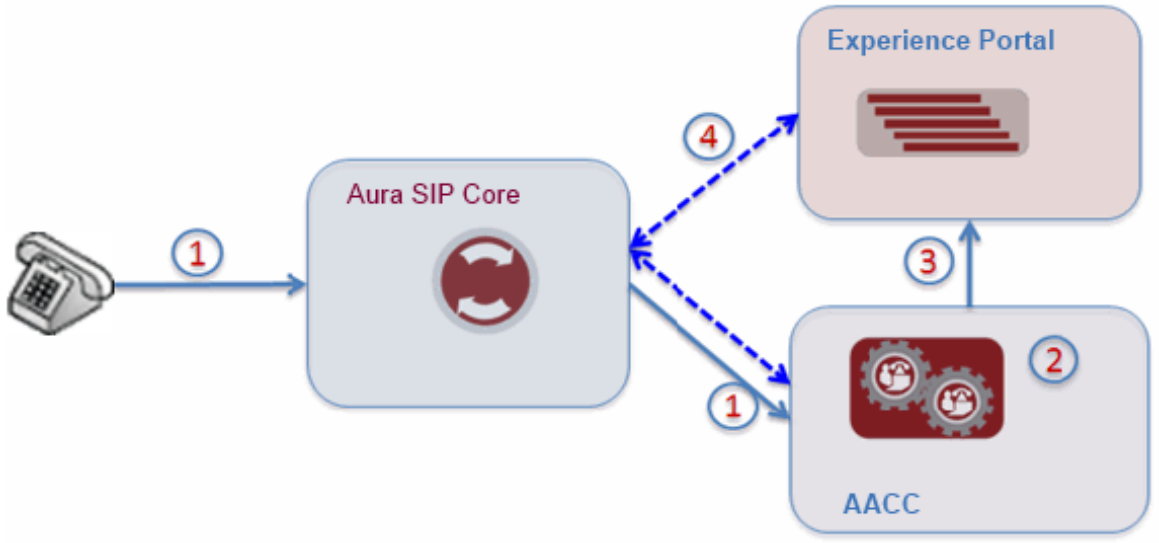
Avaya Aura® Contact Center integration — Experience Portal first



In this scenario:

1. Calls are routed to Experience Portal through SIP.
2. Experience Portal performs initial interactions with the caller, performs self-service, and collects the required caller-context information.
3. Experience Portal transfers the call to Avaya Aura® Contact Center, attaches the collected data in the SIP UUI and the optional P-Intrinsics header.

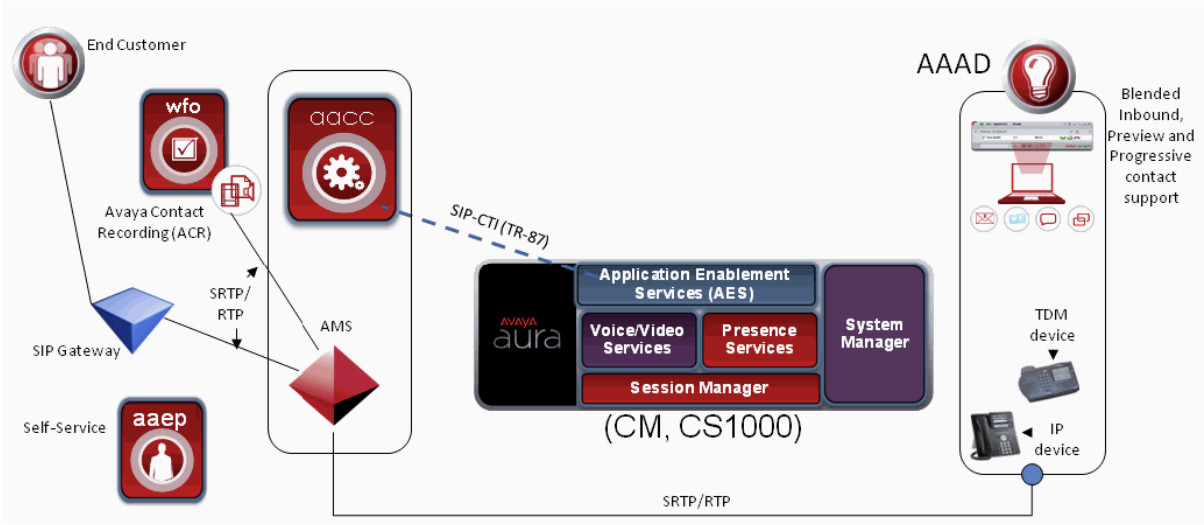
Avaya Aura® Contact Center integration - Experience Portal as a part of call flow



In this scenario:

- The call is routed to Avaya Aura® Contact Center.
- Contact Center performs applicable call treatments like Ringback and recorded announcements (RAN).
- Contact Center conferences Experience Portal with customers to provide advanced IVR functionality, optionally sending context data.
- Experience Portal returns any results to Contact Center through SIP Info messages or web services.

Contact Center SIP in operation - second chance for self service



In this scenario:

- The agent logs in through Avaya Aura® Agent Desktop. The Agent Desktop is the CCT module of Contact Center.
- The customer calls in and Avaya Aura SM/SES sends a SIP invite to self-service platform.
- The Contact Center application performs workflow control, operational reporting, conference session control, and agent desktop control.
- The Self Service session invokes Open Network Web Service to exchange context with Contact Center.
- The Contact Center application selects an agent based on work-assignment rules and issues a SIP Invite to the agent telephone or endpoint through Session Manager.

Migration from Media Processing Server (MPS)

Experience Portal provides a migration path for MPS customers who have access to VoiceXML-based self-service applications. Experience Portal supports standard VXML 2.0, VXML 2.1, and VXML 3.0, so VXML and SCE applications written for the MPS platform that do not utilize any MPS-specific extensions can be designed to run on Experience Portal with few changes.

MPS applications that have been developed using Dialog Designer can migrate to Experience Portal without any changes.

MPS customers who want to migrate to Experience Portal but do not have any immediate plans to change platforms should plan to implement new applications, as well as phasing in components of existing MPS applications, using Orchestration Designer.

Orchestration Designer is the bridge between the MPS Platform and Experience Portal. MPS platform helps with the gradual migration from MPS Developer to Orchestration Designer.

Orchestration Designer applications, in part due to adherence to the VXML standard and the web-based application architecture, ensure that the applications can run on both the platforms without any changes. Orchestration Designer is the design environment for multi-channel applications for Experience Portal and provides the foundation for MPS customers to migrate to multi-channel self service.

Applications developed for MPS in Orchestration Designer can be migrated to run on Experience Portal with a simple change of the target platform setting.

Orchestration Designer licenses are portable between MPS and Experience Portal.

Communication Server 1000 connectivity with Experience Portal

In this scenario:

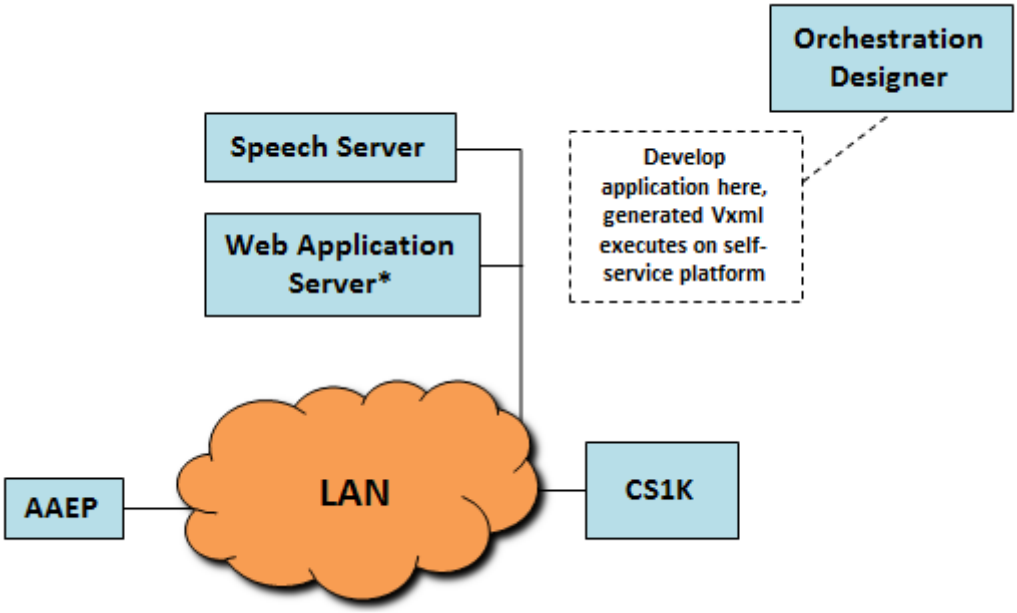
- SIP trunks connect Experience Portal.
- Experience Portal can do SIP references into a queue or directly to an agent. With Experience Portal the UUI can pass during a SIP reference.
- This connectivity does not require CTI.

Prerequisites

- Avaya Experience Portal
- Orchestration Designer
- Avaya Communication Server 1000
  - Avaya Communication Server 1000 with the latest Dep List, Signalling Server COTS ISP1100

    Note:

    Dep list is the dependency list for CS1000.
  - SIP Proxy Server
  - Required patch: See the Avaya Communication Server 1000 documentation.



Developing Applications with Orchestration Designer for Media Processing Server

Prerequisites

- Orchestration Designer
- Media Processing Server (MPS)

Co-residence of Service Creation Environment and OD

In the case where Service Creation Environment (SCE) and OD share a common workstation, a conflict occurs as both the applications by default are set to use port 8080 for web server functions. The solution is to set to OD to use a different port value. A recommended port number is unavailable.

Service Creation Environment applications on Experience Portal

Prerequisites

- SCE with patch Nortel Framework 3.5.0.3 (20100511110254)
- Avaya Experience Portal

Limitations with SCE applications

- You must parse the user input DTMF value from the 'SlotValue' call parameter. The DTMF grammars must be modified.
- Experience Portal does not support the use of MMF prompts. Prompts must be converted to WAV format.
- Experience Portal does not support the handoff of application to MPS Developer.
- Experience Portal does not support non standard MPS or ICP VXML extensions.

Chapter 9: FAQs

Can CMAPI ports be technically split between multiple Communication Managers?

The configuration includes one Avaya Aura® Communication Manager 3.0 and one Communication Manager 2.0 with Avaya Experience Portal ports split between the Communication Managers. Aluminium Screen Design (ASD) Experience Portal screens facilitate the input of only one version of Communication Manager. You can use only one version of Communication Manager with ASD Experience Portal screens.

Answer:

RFA cannot split RTUs in an order. All RTU materials in an order apply to a single Communication Manager SID. So, if you intend to split the CMAPI ports between multiple Communication Managers, split the following codes from the design into multiple orders:

- 191678 Voice Portal REC PORT CONN LIC
- 193019 Voice Portal REC PORT CONN LIC Communication Manager 2.0
- 226823Experience Portal ports split between the Communication Managers. ASD 6.0 PER PORT CONN LIC Communication Manager 5.X
- 228762 Experience Portal PER PORT CONN LIC Communication Manager 6.X

For example, if you use 200 Experience Portal ports, 100 on each one Communication Manager, split 100 of the ports to a second quote. If ASD Split Quote does not support the second order, you might require BPCC or else the distributor to assist because you cannot order the ports under such conditions. Codes are dependent on the Communication Manager release. If you have both Communication Manager 3.0 and Communication Manager 2.0, you require both codes on the respective orders.

Note:

Port connect licenses depend on the versions.

Must the number of ASR and Experience Portal ports be same?

The configuration includes two applications, including a one-touch application.

Answer:

For VoiceXML applications, an ASR resource is allocated when the call is answered and released when the call is disconnected. Thus, you require the same number of ASR ports and licenses as the number of telephony ports that concurrently answer calls. For example, in IR, all telephony ports concurrently answer calls. In TTS, however, the resource is allocated before TTS service is required and the resource is released immediately. Thus, TTS resources are allocated and released multiple times in a particular call. The TTS resources are multiplexed across telephony channels. Usually, the system needs only one-quarter of the number of TTS ports and licenses as the number of telephony channels. For ASR, the number of ports and licenses must be equal to the number of telephony channels deploying VoiceXML applications. For TTS, the number of ports and licenses must be at least one-fourth of the number of telephony channels. The number of Avaya licenses on the speech server for ASR and TTS must be the same as the number of ports on the IR system. From an application configuration point of view, ensure that only the applications that need ASR are configured to use speech.

Can you measure the IR/potential Experience Portal system skill by CMS?

Experience Portal documentation mentions that customers can use the converse step. Can you continue to measure the IR/potential Experience Portal system skill by Call Management System(CMS)?

Answer:

In a skills-based EAS environment, the only way to be able to use the converse step is to create a skills-based hunt group. As the agents assigned to this hunt group are logical agents, AAS agents must log in to these agents, for example, on Conversant/IR. As the station type that Experience Portal uses works with AAS, users cannot create a skills-based hunt group. Because you cannot create a skills-based hunt group, you can no longer measure the group by CMS or use the converse step.

Experience Portal integrates with Communication Manager. To support EAS-type AAS agent capabilities such as reporting, an update is required for the 7434ND station types for Experience Portal IP connections. To check updates for various Communication Manager releases, see http://info.dr.avaya.com/%7Eg3fs/patches/search.html and search for PSN 11586.

Are the gateway and the gatekeeper different?

Answer:

The C-LAN and MedPro need not necessarily be hardware cards to be fit into gateways. C-LAN and MedPro can be software running on a server, for example, S8300 server. The gateway is a

protocol converter. The gateway acts as an interface between two different protocols, for example, digital and IP protocols. A gateway is configured on the edge of the network to communicate with the PSTN. You can also use a MedPro for TDM and IP Calls within the network.

Are third-party tools required with Experience Portal?

Answer:

Experience Portal supports call transfer without CTI using the H.323 signaling. Experience Portal uses Avaya Aura® Communication Manager proprietary messages similar to IP devices. This message is not a real H.323 or H.450 standard message. However, to change the UUI of the call, a CTI server is required.

Can the EPM and Web Application be implemented on the same physical server?

Answer:

No, the EPM is a dedicated server. No other software can be implemented on the EPM or the MPP.

If the application server is identified as a point of failure, are redundant application servers possible?

Answer:

Yes, redundant servers are available following the same strategy that is used for web servers. Avaya recommends a pair of application servers, located behind an IP load balancer.

Must the Communication Manager and all MPPs be colocated?

Answer:

For Avaya Experience Portal, the starting point is that all switches (Communication Manager) and MPPs are colocated.

Can Experience Portal solution be used with Enhanced Survivable Server (ESS)?

Answer:

The ESS configuration must be transparent to Experience Portal and MPPs. All Experience Portal has information about is the C-LAN that the extensions are registering with. Experience Portal with an ESS configuration was tested. The extensions have to reregister after an ESS failover; which happens automatically.

Does Avaya Experience Portal support and work C-LAN failover?

Answer:

Yes, you can configure an alternative gateway IP address in EPM administration.

Are there any additional considerations to the statement about using IP telephony to register each port virtually?

Experience Portal uses IP Telephony to register each port virtually across multiple gateways, causing port licenses to be distributed across inexpensive Linux servers for redundancy.

Answer:

You can have multiple MPPs connected to multiple gateways, all sharing the same pool of licenses. The Experience Portal system can move the licenses from one MPP to another MPP. With this configuration, you must not buy additional licenses. However, you must size the servers so that you can handle the entire traffic load at each site in case of a failure.

Are there specific recommendations for switch, router, and Ethernet hub?

Experience Portal connects to the Avaya IP gateway through an Ethernet LAN segment. The distance depends on the location of LAN switch, router, or Ethernet hub in the customer's network. Considering the distance-related, a customer might require to use specific hub or routers.

Answer:

Avaya does not recommend a specific model for the hub or router that a customer must use.

How to determine the current size of an on-board PostgreSQL database?

Answer:

If the system is already in use, you can verify the database size with the following actions:

- To view the respective table size for the Top n tables, run the `/opt/Avaya/ExperiencePortal/Support/VP-Tools/GetDBTableDiskUsage n` script on EPM. If you run a **`select, count (*) SQL`** command on each table, you can divide the disk usage size by the count, to determine the exact size or call values.
- You can get the total calls in the database from the header information of either the Contact Summary or Contact Detail report. In Avaya Experience Portal, the system displays the information in EPM. To view the information in EPM:
  1. Click Real-Time Monitoring > System Monitor.
  2. Select the Avaya Experience Portal Details tab.
  3. Click the server name to view the Details page. The disk space is displayed in the Database Status group.

Which databases can communicate with Experience Portal?

Answer:

Experience Portal can connect to any database through the Application server. The drivers for some of the common databases are as follows:

- SQL Server: com.microsoft.jdbc.sqlserver.SQLServerDriver
- ODBC Datasource: sun.jdbc.odbc.JdbcOdbcDriver
- Oracle: oracle.jdbc.driver.OracleDriver

How are the JBDC drivers obtained although JDBC drivers are not part of Orchestration Designer installation?

Answer:

The database vendor supplies the JDBC drivers. In general, third-party JDBC drivers might not be distributed because some vendors might have licenses for drivers. See the database vendor's website, or the documentation to determine how to get the driver.

Do the Avaya Common Servers come pre-loaded with the software when you order Experience Portal as a turnkey solution?

Answer:

The S8800 Avaya Common Servers that are shipped as part of a bundled Experience Portal solution do not have a software installed. Linux and Experience Portal software are loaded and configured at the installation site by field services and provisions.

Can WebLM component be installed on the customer's server?

Avaya Web License Manager (WebLM) is a component that is shared among many Avaya products and a license is part of the Experience Portal solution. The customer has a physical WebLM server as part of the infrastructure.

Answer:

Yes, Avaya supports this configuration with Avaya Experience Portal solution.

Can Experience Portal be used on a Blade Server?

Answer:

Yes, Experience Portal (EPM and MPP) can be installed on a blade server. The blade server has to meet the specifications.

Is a backup utility available to back up data stored on EPM?

Answer:

Yes, you can back up only the Experience Portal data. Other data such as the property files that are used by the Tomcat server or the Experience Portal security certificate are not backed up by the Restore tool. If your Experience Portal server fails and cannot be recovered, you must reinstall the Experience Portal Manager and reconfigure the server. After reconfiguring the server, you can restore the Experience Portal database using the Restore tool.

What is the percentage of call classification accuracy for Avaya Proactive Outreach Manager (POM)?

Answer:

As per the POM offer definition document, the Industry leading call classification uses the same algorithm used by Proactive Contact. The POM call classification accuracy matches that of the Proactive Contact, which is approximately 85-90%.

Does POM work with non-Avaya PBX?

Answer:

The implementation of POM is not depends whether the PBX is Avaya or non-Avaya. POM implementation is dependent on whether Avaya Experience Portal is supported with the non-Avaya PBX.

Is Text-To-Speech (TTS) mandatory with POM?

Answer:

Text-to-speech with POM is optional.

What is the maximum quantity of voice ports connected to Audio Mediant Gateway?

Answer:

E1 maximum ports = 120 - T1 = 96. Experience Portal facilitates one SIP proxy to be configured, therefore one M1000 is supported if connected directly and without SIP Enablement Services (SES) or Avaya Session Manager (ASM). If Experience Portal requires more than the maximum

connectivity, SES or ASM is required. Avaya has no plans to test Experience Portal with M2000 Audio Mediant Gateway. The M2000 has the same software as M1000, but might require more than one proxy.

What are the specific requirements for network assessment and Avaya responsibilities?

Answer:

See the Job Aids section for Experience Portal posted on services site for Self-Service, under Sales Collateral and tools.

What does a Nuance Speech Bundle Include?

Answer:

The Nuance Speech Bundle SMC 212517(SLF SVC NUANCE 9 ONE LANG PKG) includes:

- 1 Nuance OSR 3.0 Tier Three First Language License
- 1/4th of the total number of ports ordered--Nuance Real Speak 4.0 First Language License
- 1 OSDM Core License

Which functionality is enabled with SIP?

Answer:

- Support for Experience Portal
- Caller information transferred with the call
- Heterogeneous infrastructure

For Experience Portal H.323 connectivity with Communication Manager, which releases of Avaya Aura® Communication Manager are required to support supervised transfer and call progress?

Answer:

Avaya Aura® Communication Manager 5.x or later is required for support of Supervised Transfer and Call Progress.

Note:

The **Call Progress** feature code is SA8874 and must be displayed as **Enabled** on the system special applications screen.

When multiple ASR/TTS servers are available, what determines which one is used?

Answer:

The MPP determines which ASR/TTS server to use by considering the following factors:

- Speech server state (up/down)
- Languages required by the application
- Speech server status (errors, and latencies)
- Speech server with the least in-use ports (on that MPP)

Can TTS and ASR resources be multiplexed?

Answer:

- TTS Resources are multiplexed.
  - The same TTS resource can be used by simultaneous multiple calls.

    A TTS resource is allocated to a call when a TTS prompt is queued and returned to a free pool when the play is complete, that is, the resource is not released. This facilitates another call, requiring the same resource, to use the already-established connection.
  - If your application uses minimal TTS and more prerecorded prompts, then you might potentially buy fewer TTS licenses.

- ASR Resources are not multiplexed.
  - Total number of ASR licenses = Total number of Telephony ports across the Experience Portal system.
  - An ASR port is allocated at the start of a session and released at the end of a session.

What are the functions of CCXML?

Answer:

The following are the functions of CCXML:

- Replaces the CTI functionality.
  - Advanced Call Control: Connecting a single call to multiple VXML dialog boxes.
  - Future: Handling conference calling and merge. Merge is supported (SIP only).
  - Example: Find me/Follow Me.
- Handles asynchronous events
  - Interrupts a running CCXML page.
  - Example: A caller waiting in a queue for a call center agent.
- Supports Outcall Web Services
  - Advanced handling of call failures. Besides, a CCXML application can log failures to DB.
  - Future: CCXML performs functions differently if outbound call is connected to a fax machine or an answering machine versus the outbound call answered by a person.
  - One LaunchCCXML instance can spawn multiple calls.
  - Example: Call Blast

What happens when EPM fails?

Answer:

When EPM fails, the following results occur:

- All calls in progress on various MPPs continue.
- All MPPs continue to take new calls.
- Log and alarm data generated by MPPs are lost.
- The user cannot gain access to the EPM web interface.
- The system does not generate any SNMP notifications.

- The system does not send any response to SNMP queries.
- Application Interface web service does not make any outbound calls.

Note:

The auxiliary EPM server does not send an alarm.

What happens when an MPP fails?

Answer:

When an MPP fails, the following outcome occurs:

- All calls in progress on the malfunctioning MPP are lost.
- Other MPPs are unaffected.
- The EPM redistributes the Telephony resources from the faulty MPP among the surviving MPPs.

What happens if a Speech server fails?

Answer:

If a speech server fails, the following outcome occurs:

- Calls in progress that depend on the failed speech server for ASR fail.
- Calls in progress that depend on the failed speech server for TTS automatically change to a different speech server.
- All MPPs avoid using the failed speech server for making new calls.

What happens if the Application server fails?

Answer:

If the Application server fails, the following outcome occurs:

- All calls in progress that use applications on the application server fail.
- All new calls that use applications on the application server fail.

What happens if a gateway fails?

Answer:

In case a gateway fails, the following outcome occurs:

- All calls in progress on that gateway fail.
- If an alternate gateway is configured, the affected MPPs reregister the H.323 stations using alternate gateway, and process the new calls.
- If no alternate gateway is configured, no new inbound or outbound calls are processed on the affected H.323 stations.

What happens when Session Manager fails?

Answer:

In case of a Session Manager failure, the following outcome occurs:

- All calls in progress on the Session Manager fail.
- No new inbound or outbound calls can go through the Session Manager.

During Disaster Recovery, can a backup EP system handle new calls?

Answer:

If an entire Avaya Experience Portal fails, new calls cannot be automatically handled by a backup Experience Portal system.

If the failed Avaya Experience Portal system gets licenses from a central WebLM server, licenses can be manually moved to a different Avaya Experience Portal system without getting a new license file from Avaya.

Depending upon your needs, you might partially or fully preconfigure the backup Avaya Experience Portal system so that if disaster strikes, the manual migration of calls becomes easier.

Which EPM is configured as the only point of access?

Condition: With Avaya Experience Portal multi-site management being the single point of administration, management, and reporting, can you configure any one EPM as the only point of access?

Answer:

No, EPM is configured as the only point of access. When all Avaya Experience Portal systems start updating data into the shared database, you can log in to the EPM of any one of those systems and see System Monitor and the reports for all systems simultaneously.

What are the databases that a shared EP configuration supports and who provides the database?

Answer:

The following are the supported databases:

- Microsoft SQL Server 2010, 2012, 2014 and 2016.
- MySQL 5.6.x
- Oracle 11g and 12c
- PostgresSQL 9.4.x and 11.4.

Note:

Later versions are supported under Avaya's permissive use guidelines.

Note:

While this feature is for managing geographically distributed systems, you can also implement the feature at a single site if the customer needs more ports than that a single system can handle.

Multiple Avaya Experience Portal systems write to a common database.

Note:

The customer must provide a common server and third-party database software.

You can generate reports for multiple systems.

The System Monitor feature shows the status of all systems.

Can EP H.323 support a secondary gateway?

Answer:

H.323 can support a secondary gateway. Also listed are the release versions for Avaya Aura® Communication Manager and Avaya Aura® Session Manager required for SIP:

Functionality of H.323

- Support for Secondary Gateway
- Green Feature Support Avaya Aura® Communication Manager 5.2 and later
- Consultative Transfer, that is, conditional blind transfer
- Call Progress

Functionality of SIP

The TLS and SRTP (authentication) encryption options are also available.

- TLS (Avaya Aura® Session Manager 5.2 or later)
- SRTP (Avaya Aura® Session Manager 5.2, Avaya Aura® Communication Manager 5.2)

Do EP servers require more than one Ethernet port, which might have special port requirements?

Answer:

The MPPs come with multiple Ethernet ports — one for VoIP, one for the MRCP to the speech server, and one for data access for HTTPs. The special port requirement is that the link speed must be 100 Mbps full duplex.

Are the provisions for virus protection and backup protection made available for EPM and MPP servers?

The Application/Web Servers and ASR/TTS Servers provided by the customer have virus protection and backup protection as a matter of the Customer' Policy.

Answer :

Avaya servers for MPP and EPM are running an Avaya version of Red Hat 6.x ES. Virus protection is unnecessary because the software cannot be installed without the system access. To back up the administration and report data, a backup script that is run on the EPM is available. A network backup site for backup protection must be available.

What is the Ethernet bandwidth required between the components of a system?

Answer:

The following example takes into consideration 192 Avaya Experience Portal ports:

The bandwidth between the Media Processing Platform servers and the Experience Portal network is 64 kbps x 192 ports = 12 Mbps. This bandwidth is the same for the speech servers. The bandwidth for the application server is about one-tenth of the bandwidth required for speech servers.

Do the Experience Portal components of the Primary System need to be on the same VLAN as the Redundant System, or the components can be on separate VLANs?

Answer:

The two sites can be on separate VLANs.

What are the networking requirements for the system?

The MPP systems use VoIP to communicate with the EPM, which require QOS. Do the ASR/TTS, App/Web Servers, or EPM Management Server also have this requirement?

Answer:

The only QOS requirements are on the connection between the MPP and the EPM. This connection must be a separate NIC to isolate this traffic with QOS on this link.

How much rack space is required for the MPP and other components for both the primary and redundant systems?

Answer:

The servers for the MPP and the EPM are Midsize Application Servers. These servers are 1U-22” deep servers. See the complete specifications at http://www.dell.com/.

How can calls be sent to multiple application servers and provide redundancy?

Answer:

You can use the Software or Hardware Load Balancer. To find vendors, see websites such as Google for a web load balancer.

Can a Load Balancer recognize a failed ASR or TTS server, and stop sending calls to the server?

Condition:A Hardware Load Balancer that is located in front of a bank of ASR or TTS speech servers to distribute the load from Avaya Experience Portal.

Answer:

This capability is already built in to the MPPs. If you add a load balancer, you must add two load balancers so that you do not have a single point of failure.

Avaya has evaluated IBM and Nuance load balancers and concluded that both have limited functionality. Nuance load balancer is only able to balance load behind identically configured speech servers.

Does Orchestration Designer have any sizing tools for application server?

Answer:

Orchestration Designer does not have any sizing guideline tools for application server. You must work with the IT or web services team to get information about the web services, application servers, and traffic load that are used. You also must make provisions for an IP load balancer and redundant application servers that you deploy for standard web applications. Avaya does not sell any IP load balancers. The IT or web services team can provide the information related to IP load balancers.

Chapter 10: Resources

Documentation

The following table lists the documents related to Experience Portal. Download the documents from the Avaya Support website at http://www.avaya.com/support:

Title	Description	Audience
Avaya Experience Portal Documentation Roadmap	Lists all the documents related to Experience Portal and describes the organization of content across the documents.	Avaya Professional Services Implementation engineers
Avaya Experience Portal Overview and Specification	Describes tested product characteristics and capabilities, including product overview and feature descriptions, interoperability, performance specifications, security, and licensing requirements.	Implementation engineers
Implementing Avaya Experience Portal on a single server	Provides procedures to install and configure the Avaya Experience Portal software on a single server.	Implementation engineers
Implementing Avaya Experience Portal on multiple servers	Provides procedures to install and configure Avaya Experience Portal software on two or more dedicated servers.	Implementation engineers
Upgrading to Avaya Experience Portal 8.0	Describes how to upgrade your Avaya Experience Portal 7.2.3 to Experience Portal 8.0.	Implementation engineers
Deploying Avaya Experience Portal in an Avaya Customer Experience Virtualized Environment	Provides procedures for deploying the Experience Portal virtual application in the Avaya Customer Experience Virtualized Environment. This document includes installation, configuration, initial administration, troubleshooting, and basic maintenance checklists and procedures.	Implementation engineers

Table continues…

Title	Description	Audience
Administering Avaya Experience Portal	Provides general information about and procedures for administering and configuring specific Experience Portal functions and features using a web-based interface.	Implementation engineers
Troubleshooting Avaya Experience Portal	Provides general information about troubleshooting and resolving system problems. This document also provides detailed information and procedures for finding and resolving specific problems.	Implementation engineers
Avaya Experience Portal Security White Paper	Provides information about the security strategy for Experience Portal, and provides suggestions that companies can use to improve the security of the Experience Portal systems and applications.	Avaya Professional Services Implementation engineers
Avaya Experience Portal 8.0 Mobile Web Best Practices White Paper	Provides recommended strategies for deploying Avaya Orchestration Designer Mobile Web applications with Avaya Experience Portal 8.0, detailing configuration for security, scalability and high availability.	Avaya Professional Services Implementation engineers

Finding documents on the Avaya Support website

Procedure

1. Go to https://support.avaya.com.
2. At the top of the screen, type your username and password and click **Login**.
3. Click **Support by Product** > **Documents**.
4. In **Enter your Product Here**, type the product name and then select the product from the list.
5. In **Choose Release**, select the appropriate release number.

   The **Choose Release** field is not available if there is only one release for the product.
6. In the **Content Type** filter, click a document type, or click **Select All** to see a list of all available documents.

   For example, for user guides, click **User Guides** in the **Content Type** filter. The list only displays the documents for the selected category.
7. Click **Enter**.

Training

The following traditional courses are transitioning into the Avaya Learning virtual campus and will eventually be retired.

Course code	Course title
4C00101W	Avaya Experience Portal Administration.
5C00092I/V	Avaya Experience Portal, Avaya Orchestration Designer, Avaya Proactive Outreach Manager Maintenance and Troubleshooting Essentials.
5C00040E	Knowledge Access: Avaya Experience Portal with Avaya Proactive Outreach Manager Implementation and Support.
V: Virtual I: Classroom Instructor led W: Self-Paced Web	

For details on the traditional curriculum and the new virtual campus offerings course descriptions, pricing, and registration, go to Avaya Learning website at www.avaya-learning.com.

Avaya Learning Virtual Campus technical training offerings:

Avaya Learning Virtual Campus helps simplify and quicken the process of how partners and customers train, learn, and complete credentials for Avaya solutions.

Users can interact with others in a virtual environment using avatars, spatial audio, and unique collaboration tools.

Course details:

- 5C00040E – Knowledge Access: ACSS Avaya Experience Portal with Proactive Outreach Manager
  - Self-Directed content available 24/7
  - Hands-on Labs in virtual environment – scheduled sessions

Viewing Avaya Mentor videos

Avaya Mentor videos provide technical content on how to install, configure, and troubleshoot Avaya products.

About this task

Videos are available on the Avaya Support website, listed under the video document type, and on the Avaya-run channel on YouTube.

- To find videos on the Avaya Support website, go to https://support.avaya.com/ and do one of the following:
  - In **Search**, type `Avaya Mentor Videos`, click **Clear All** and select **Video** in the **Content Type**.

- In **Search**, type the product name. On the Search Results page, click **Clear All** and select **Video** in the **Content Type**.

  The **Video** content type is displayed only when videos are available for that product.

In the right pane, the page displays a list of available videos.

- To find the Avaya Mentor videos on YouTube, go to www.youtube.com/AvayaMentor and do one of the following:
  - Enter a key word or key words in the **Search Channel** to search for a specific product or topic.
  - Scroll down Playlists, and click a topic name to see the list of videos available for the topic. For example, Contact Centers.

Note:

Videos are not available for all products.

Support

Go to the Avaya Support website at https://support.avaya.com for the most up-to-date documentation, product notices, and knowledge articles. You can also search for release notes, downloads, and resolutions to issues. Use the online service request system to create a service request. Chat with live agents to get answers to questions, or request an agent to connect you to a support team if an issue requires additional expertise.

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