Deploying Avaya Aura® Experience Portal and Proactive Outreach Manager on Amazon Web Services

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Contents

Chapter 1: Introduction

Purpose

This document describes the procedures to deploy Avaya Aura® Experience Portal and Avaya Proactive Outreach Manager (POM) as Software as a Solution by using the Amazon Web Services Management console.

Intended Audience

This document is intended for people who want to install and configure Avaya Aura® Experience Portal and POM at a customer site.

Prerequisites

Before deploying the product, ensure that you have the following knowledge, skills, and tools.

Knowledge

- AWS setup and operation
- RHEL 6.8 64 bit or a higher version of RHEL 6.x.
- Avaya Aura® Experience Portal
- POM

Skills

To administer the AWS Management console and Avaya Aura® Experience Portal.

Tools

For information about tools and utilities, see Configuration tools and utilities on page 14.

Chapter 2: Overview

Amazon Web Services (AWS) is a cloud services platform that enterprises use to securely run applications on the virtual cloud. The key components of AWS are Amazon Elastic Compute Cloud (EC2) and Amazon Simple Storage Service (S3).

Supporting Avaya applications on the AWS Infrastructure as a Service (IaaS) platform provides the following benefits:

- Minimizes the capital expenditure (CAPEX) on infrastructure.

  Customers can move from CAPEX to operational expense (OPEX).
- Reduces the maintenance cost of running data centers.
- Provides a common platform for deploying applications.
- Provides a flexible environment to accommodate the changing business requirements of customers.

Related links

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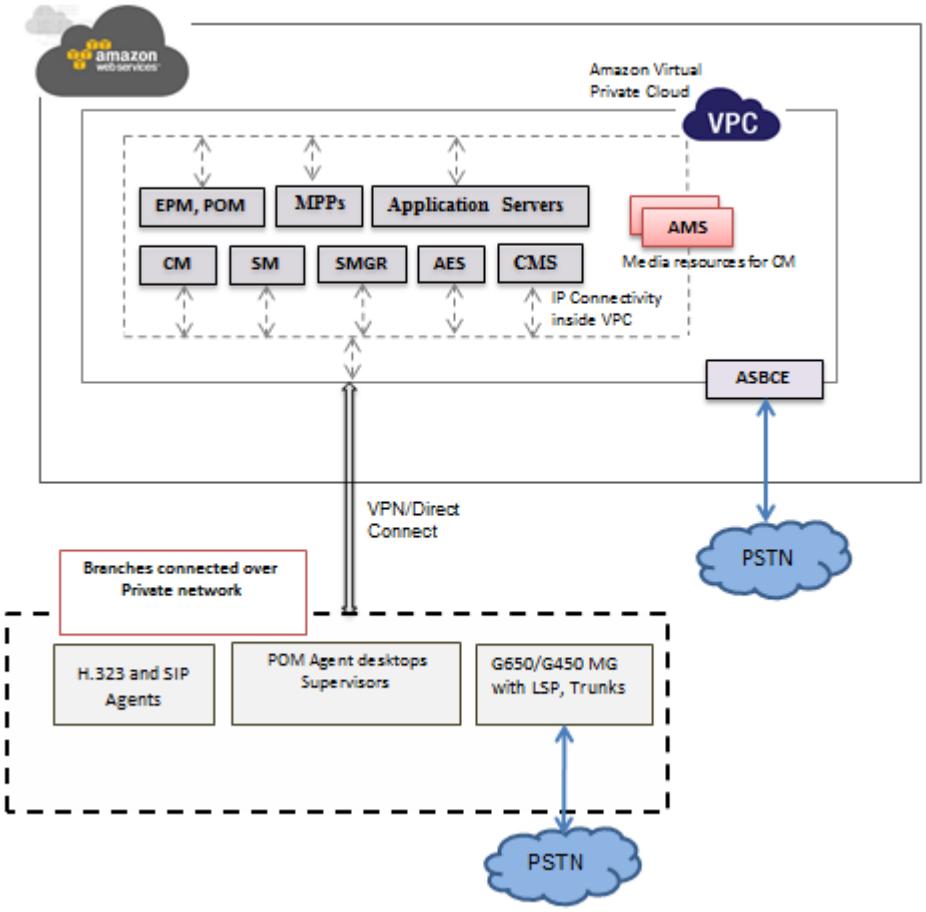
License management on page 10
Customer responsibilities for the Contact Center offering on page 11

Topology

The following diagram depicts the architecture of the Avaya applications on the Amazon Web Services platform. This diagram is an example setup of possible configuration offered by Avaya. The setup must follow the AWS deployment guidelines, but does not need to include all the applications.



Related links

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Networking considerations for connecting Avaya applications

When you deploy an Avaya application at main location or at a branch location on AWS, ensure that you follow the networking requirements, such as the WAN network topology, bandwidth, and latency of the Avaya applications. You must adhere to the Avaya network recommendations and AWS networking rules.

AWS has few limitations for establishing public internet VPNs and direct connections into AWS. For more information about Amazon VPC Limits, see the AWS documentation at http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Appendix_Limits.html.

Important:

Avaya recommends the use of direct connection in combination of a private WAN connection with Service Level Agreement (SLA) measures to ensure that the network quality is appropriate for signaling and voice traffic.

Avaya is not responsible for network connections between AWS and customer premises.

Related links

Topology on page 8

Types of network connection

You can connect applications in a hybrid network on Virtual Private cloud (VPC) in the following ways:

Connection type	Resource
VPN Connection	For information about VPN Connections, see http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/vpn-connections.html.
Direct Connection	For information about AWS Direct Connections, see https://aws.amazon.com/directconnect/.

Related links

Topology on page 8

License management

The following are the use cases for managing licenses when an AWS supported application is migrated from a VMware in a customer-provided Virtualized Environment to AWS:

- If the WebLM service is moved from a VMware in a customer-provided Virtualized Environment to AWS, all applications that host licenses on that WebLM must regenerate the licenses as the WebLM service is also moved.
- If the WebLM service is not moved from the existing VMware in a customer-provided Virtualized Environment to AWS, but only the AWS supported applications move to AWS, then you do not have to regenerate the license for those applications that move to AWS.
- If you are using the local WebLM of EPM, and if you are migrating from on-premise to AWS, then you must regenerate the licenses to match the new WebLM server.

Related links

Overview on page 8

Customer responsibilities for the Contact Center offering

- The customer must set up, maintain, and troubleshoot:
  - The Amazon Web Services (AWS) environment
  - The network connectivity to AWS
  - The operating systems required for the software-only applications
- While Avaya provides recommendations for AWS instance use, the customer can choose the correct AWS instance. AWS instances have different levels of reliability, network performance, supported storage, and Input/output operations per second (IOPS). The customer can choose the AWS instances that provide the level of support deemed necessary.
- Avaya support is limited to isolated issues at the environment level. When the issue is related to the application execution environment, the customer or Avaya Business Partner must resolve the issue by raising tickets with AWS.
- Avaya provides information about the tasks that customers must perform on the AWS Management Console. Amazon might periodically update the information. Therefore, for the latest and most accurate information, see Amazon Web Services documentation.

For more information about customer responsibilities, see *Service Agreement Supplement for Avaya Support Advantage Essential and Preferred Support* on the Avaya Support website.

Related links

Overview on page 8

Chapter 3: Planning and configuration

Planning checklist

Ensure that you complete the following tasks before deploying the Avaya Aura® Experience Portal on Amazon Web Services Management console:

No.	Task	Link/Notes	✔
1.	Download the required software.	See Configuration tools and utilities. See Downloading software from Avaya PLDS on page 14.	
2.	Purchase the required licenses. Register for PLDS and perform the following tasks: • Obtain the license file. • Activate license entitlements in PLDS.	Go to the Avaya Product Licensing and Delivery System at https://plds.avaya.com/.	
3.	Log on to the Amazon Web Services Management console.	See Signing in to the Amazon Web Services Management console on page 15.	
4.	Create a key pair.	See Creating a key pair on page 16.	

Release details of ISO

You can download the following ISO from the Avaya PLDS website at https://plds.avaya.com/.

Product name	Release version	AAEP ISO
Avaya Aura® Experience Portal	7.2	`AAEP-7.2.0.0.1117`
Avaya Proactive Outreach Manager	3.1	`POM.03.01.00.00.00.019-r30271-x86_64.iso`

Supported footprints

The following table shows the footprints for Avaya Aura® Experience Portal on AWS:

Product name	AWS instance type	AWS vCPU	AWS RAM (GB)	HDD (GB)	NICs
Avaya Aura® Experience Portal	m4.xlarge	4	16	160	1

The following table shows the footprints for POM on AWS:

Product name	AWS instance type	AWS vCPU	AWS RAM (GB)	HDD (GB)	NICs
Avaya Proactive Outreach Manager	c4.4xlarge	16	30	160	1

System capacities

The following is the maximum number of voice ports recommended to run concurrently on a Media Processing Platform (MPP) configured with 4 CPUs and 16 GB RAM. The table has a column for Max G.711 and Max G.729 ports per MPP server. Although G.729 uses less network bandwidth, more resources on the MPP are used to transcode the G.729 packets. Limiting factors to the maximum number of ports run on a MPP is that the overall CPU usage of the MPP instance does not exceed 60% with minimal network latencies and dropped packets. Your maximum number may vary depending on your environment such as CPU speed.

Type of application	Max G.711 Ports per MPP	Max G.729 Ports per MPP	Max G.711 Ports per Single Server EPM/MPP	Max G.729 Ports per Single Server EPM/MPP
Simple/Moderate Touch tone Application	450	200	150	150
Simple/Moderate Speech Application	450	200	150	150
Complex Speech Application with ECMA scripting	350	150	75	50

Multimedia sizing

The following is the maximum number of recommended multimedia messages per hour for Primary and Auxiliary EPM servers to process. These numbers are gathered from AWS instances configured with 4 CPUs and 16 GB RAM. Limiting factor on an EPM is that the overall CPU usage

of the AWS instance does not exceed 70%. Your maximum number may vary based on application complexity, CPU speed, service provider and other factors. Large email size and attachments will substantially reduce expected throughput.

Avaya Aura® Experience Portal Resource	Primary EPM capacity (messages/hour)	Auxiliary EPM capacity (messages/hour)	Single-box system capacity (messages/hour)
Email Messages			
Outbound Only (Message size 3 KB)	Up to 20,000	Up to 30,000	Up to 100
Inbound Only (Message size 5 KB)	Up to 10,000	Up to 20,000	Up to 100
SMS Messages			
Outbound Only	Up to 25,000	Up to 50,000	Up to 100
Inbound Only	Up to 12,500	Up to 25,000	Up to 100

System capacities for POM

Capacities for POM are the same on AWS as they are supported on premises VMware solutions.

Configuration tools and utilities

To deploy the AMI and configure the applications, you need the following tools and utilities:

- A browser for accessing the Amazon Web Services Management console.
- PuTTY, PuTTYgen, and WinSCP.

Downloading software from Avaya PLDS

About this task

When you place an order for an Avaya PLDS-licensed software product, PLDS creates the license entitlements of the order and sends you an email notification. The email includes a license activation code (LAC) and the instructions for accessing and logging in to PLDS. Using the LAC, you can locate and download the purchased license entitlements. You can also download the product software from http://support.avaya.com/ by navigating to the **Support by Product** menu at the top of the page.

Procedure

1. Type `http://plds.avaya.com/` in your web browser.
2. Type your login ID and password.
3. On the PLDS home page, click **Assets**.

4. Click **View Downloads**.
5. Click the search icon () for Company Name.
6. In the Search Companies dialog box, do the following:
   a. In the **%Name** field, type `Avaya` or the partner company name.
   b. Click **Search Companies**.
   c. Locate the correct entry and click the **Select** link.
7. In **Download Pub ID**, type the download pub ID.
8. In the **Application** field, click the application name.
9. In the **Download type** field, click one of the following:
   - **Software Downloads**
   - **Firmware Downloads**
   - **Language Packs**
   - **Miscellaneous**
10. In the **Version** field, click the version number.
11. Click **Search Downloads**.
12. Scroll down to the entry for the download file, and click the **Download** link.
13. Select a location where you want to save the file, and click **Save**.
14. **(Optional)** On Internet Explorer, if you receive an error message, click the `Install ActiveX` message at the top of the page to start the download.

Supported browsers for Amazon Web Console

For information about supported browser list and version, see https://aws.amazon.com/console/faqs/#browser_support on the AWS website.

Signing in to the Amazon Web Services Management console

Before you begin

Create an AWS account.

Procedure

1. In your web browser, type `https://aws.amazon.com/`.
2. Click **Sign In to the Console**.

   The system displays the Amazon Web Services page and auto-populates the **Account** field.
3. In the **User Name** field, type the user name or registered email address.
4. In the **Password** field, type the password.
5. Click **Sign In**.

   The system displays the AWS Management Console page.

Next steps

Create public and private keys.

Creating a key pair

About this task

A key pair is a set of public and private keys. The public key is used to encrypt data, such as the login password. The private key is used to decrypt the encrypted data. This key pair can be used when you deploy an Avaya Aura® application AMI.

Procedure

1. Sign in to the Amazon Web Services Management console.
2. Go to **All Services** > **Compute** and click **EC2**.
3. In the left navigation pane, go to **NETWORK & SECURITY**, and click **Key Pairs**.
4. Click **Create Key Pair**.
5. In the Create Key Pair dialog box, in the **Key pair name** field, type a name for the key pair.
6. Click **Create**.

   The system generates a `*.pem` file and prompts you to save the file on your computer. You can also view the created key pair name in the Key pair name column.
7. Save the `*.pem` file.

   Important:

   When you create a key pair, save it. If you lose the key, you cannot retrieve it and you will not be able to access the instance.

Chapter 4: Deploying Avaya Aura Experience Portal on AWS

Installing RHEL 6.8 or later on AWS

Before you begin

Ensure you have an AWS account.

Procedure

1. Log in to the Amazon Web Services Management console.
2. Go to **All Services** > **Compute** and click **EC2**.

   The system displays EC2 Dashboard.
3. On EC2 Dashboard, click **Launch Instance** under **Create Instance** section.

   The system displays a list of AMIs.
4. Select a RHEL 64 bit AMI. For example, `RHEL-6.8_HVM_GA-20160503-x86_64-1-Hourly2-GP2`, i.e. RHEL 6.8 64 bit.
5. On the Choose an Instance Type page, select instance type as `m4.xlarge`, which is 4 CPU and 16 GB of RAM.

   You must select the correct instance type for deploying the AMI. If you select an incorrect instance type, usability of the system might be affected.
6. Click **Next: Configure Instance Details**.
7. On the Configure Instance Details page, do the following:
   a. In the **Network** field, click a VPC network.
   b. In the **Network interfaces** section, assign an IP address.

      Add a static IP address to the instance and not the DHCP.
8. Click **Next: Add Storage**.
9. On the Add Storage page, in the **Size (GiB)** field, type `160`.

   Ensure the **Delete on Termination** check box is selected to remove volumes when you terminate the instance.
10. Make the required changes in the settings, and click **Next: Add Tags**.

11. On the Add Tags page, add a tag, and click **Next: Configure Security Group**.
12. On the Configure Security Group page, create a new security group or select an existing security group, and click **Review and Launch**.

    You must select the security group that has the required ports enabled. For information about ports, see port matrix on the Avaya Support website at http://support.avaya.com/.
13. On the Review Instance Launch page, review the details of your instance and click the Edit links to make any changes to your instance.
14. Click **Launch**.
15. On the Select an existing key pair or create a new key pair dialog box, select one of the following options:
    - **Choose an existing key pair**: If you select this option, perform the following:
      a. From the **Select a key pair** drop-down list, select a key pair.
      b. Select the **I acknowledge that I have access to the selected private key file (<example.pem>), and that without this file, I won't be able to log into my instance** check box.
    - **Create a new key pair**: If you select this option, perform the following:
      a. In the **Key pair name** field, type a name for the private key file. The extension of the private key file is `.pem`.
      b. Click **Download Key Pair**.
      c. Save the file in a secure and accessible location.

      Note:

      You will not be able to download the file again.
    - **Proceed without a key pair**: If you select this option, select the **I acknowledge that I will not be able to connect to this instance unless I already know the password built into this AMI** check box.
16. Click **Launch Instances**.

    The system creates and displays the instance on the Instances page.

    When the system creates an instance, the **Status Checks** column displays the message: `2/2 checks passed`.

Deploying Avaya Aura® Experience Portal

Before you begin

- Ensure that you have deployed RHEL 6.8 64–bit or higher version of Red Hat 6.x on AWS.
- Download the Avaya Aura® Experience Portal ISO from Avaya PLDS.

- Check if ONBOOT is set to Yes in `/etc/sysconfig/network-scripts/ifcfg-eth0`.
- Ensure you have access to internet through Net Gateway.

Procedure

1. Open an ssh session to the Avaya Aura® Experience Portal server. Enter the key that you used in step 15 of section “Installing RHEL 6.8 or later on AWS”.
2. Login with the user “ec2-user”.
3. Enable the root login.

   ```
   [ec2-user@EPdc1~]$ sudo su
   [root@EPdc1 ec2-user]# passwd root
   Changing password for user root.
   New password:
   Retype new password:
   passwd: all authentication tokens updated successfully.
   [root@EPdc1 ec2-user]#
   ```

4. Ensure that the Firewall is disabled by typing `service iptables status`. The command generates the following output:

   ```
   [root@primaryepm ec2-user]# service iptables status
   iptables: Firewall is not running.
   ```

5. Disable the SElinux in the `/etc/selinux/config` file by setting `SELINUX=disabled`.
6. Assign a valid hostname to the instance. For instructions to change the hostname, see AWS documentation.
7. Edit `/etc/hosts` and add an entry for your server. For example, `ipAddress fqdn hostname`.
8. Reboot the server by using the command **`reboot`**.
9. Copy the Avaya Aura® Experience Portal ISO file `AAEP-7.2.0.0.1117.iso` to the server.
10. Mount the ISO using the **`mount`** command. For example `mount AAEP-7.2.0.0.1117.iso -o loop /mountpoint` where mountpoint is the name of the media directory, for example `/media/cdrom`.
11. Install Avaya Aura® Experience Portal. For installation details, see *Implementing Experience Portal on a single server*, or *Implementing Experience Portal on multiple servers*.
12. If you get an error because php process rpm is not installed, then download and install the rpm and then run the Avaya Aura® Experience Portal installer. For example, for RHEL 6.8 64–bit, download and install `php-process-5.3.3-49.el6.x86_64.rpm` using the following command:

    `rpm -i php-process-5.3.3-49.el6.x86_64.rpm`

Deploying Media Processing Platform

Before you begin

- Ensure that you have deployed RHEL 6.8 64–bit or higher version of Red Hat 6.x on AWS.
- Download the Avaya Aura® Experience Portal ISO from Avaya PLDS.
- Check if ONBOOT is set to Yes in `/etc/sysconfig/network-scripts/ifcfg-eth0`.

Procedure

1. Open an ssh session to the MPP server. Enter the key that you used in step 15 of section “Installing RHEL 6.8 or later on AWS”.
2. Login with the user “ec2-user”.
3. Enable the root login.

   ```
   [ec2-user@EPdc1~]$ sudo su
   [root@EPdc1 ec2-user]# passwd root
   Changing password for user root.
   New password:
   Retype new password:
   passwd: all authentication tokens updated successfully.
   [root@EPdc1 ec2-user]#
   ```

4. Ensure that the Firewall is disabled by typing `service iptables status`. The command generates the following output:

   ```
   [root@primaryepm ec2-user]# service iptables status
   iptables: Firewall is not running.
   ```

5. Disable the SElinux in the `/etc/selinux/config` file by setting `SELINUX=disabled`.
6. Assign a valid hostname to the instance. For instructions to change the hostname, see AWS documentation.
7. Edit `/etc/hosts` and add an entry for your server. For example, `ipAddress fqdn hostname`.
8. Reboot the server by using the command **`reboot`**.
9. Copy the Avaya Aura® Experience Portal ISO file `AAEP-7.2.0.0.1117.iso` to the server.
10. Mount the iso using the **`mount`** command. For example `mount AAEP-7.2.0.0.1117.iso -o loop /mountpoint` where mountpoint is the name of the media directory, for example `/media/cdrom`.
11. Install MPP.
12. If you get an error because php process rpm is not installed, then download and install the rpm and then run the Avaya Aura® Experience Portal installer. For example, for RHEL 6.8 64–bit, download and install `php-process-5.3.3-49.el6.x86_64.rpm` using the following command:

    `rpm -i php-process-5.3.3-49.el6.x86_64.rpm`

Deploying managed applications on AWS

Deploying POM on AWS

Before you begin

- Deploy Avaya Aura® Experience Portal 7.2 on AWS.
- Install the latest patch of EPM and MPP.
- Download the POM ISO from Avaya PLDS.

Procedure

1. Copy the POM ISO file `POM.03.01.00.00.00.019-r30271-x86_64.iso` to the server.
2. Mount the ISO using the **`mount`** command. For example `mount POM.03.01.00.00.00.019-r30271-x86_64.iso -o loop /mountpoint` where mountpoint is the name of the media directory, for example `/media/cdrom`.
3. Install POM. For installation details, see *Implementing Proactive Outreach Manager*.

Chapter 5: Experience Portal post installation administration

Avaya Aura® Experience Portal post installation administration

Use the information in this chapter to perform post-installation administrative tasks. For all other administrative tasks, see *Administering Avaya Aura® Experience Portal*.

Opening an ssh session to Avaya Aura® Experience Portal

About this task

This procedure assumes that you have a secure shell (ssh) client, such as PuTTY or PuTTYtel running on your administrative workstation.

Procedure

1. Start your ssh client, and complete the information in the dialog box that it presents to open a session. For example, specify the following information to open a session to theAvaya Aura® Experience Portal server.
   - Host Name (or IP address) - enter the host name or IP address of your Avaya Aura® Experience Portal server, for example, `epserver.example.com`.
   - Port - enter `22`.
   - Provide the Authentication key ppk.
   - Connection type - enter `SSH`.
   - Click **Open**.

     Note:

     The server displays the PuTTY Security Alert window the first time you connect to the SAMP. If you see this window, click **Yes** to accept the server's host key.

   The system displays the PuTTY window.
2. If you are an Avaya service technician or Business Partner, log in as follows:
   a. At the login as: prompt, type `ec2-user`.

b. At the password prompt, press `Enter` key.

Logging in to the Avaya Aura® Experience Portal Management Console

About this task

Important:

You cannot log in to the Avaya Aura® Experience Portal Management Console with a root account.

Procedure

1. In the address bar of your browser, type the fully qualified domain name or IP address of the Avaya Aura® Experience Portal server (for example `https://epserver.example.com`).

   The first time you try to access the Avaya Aura® Experience Portal server, your browser presents a security alert for an SSL certificate. If the SSL certificate is not presented, verify that the address bar on your browser displays https and the fully qualified domain name or IP address of the Avaya Aura® Experience Portal server.
2. From the security alert window, click **Yes** to accept the certificate.
3. From the Avaya Aura® Experience Portal welcome page, click **Continue To Login**.
4. In the Username box on the Avaya Aura® Experience Portal Management Console log in page, type your login ID.
5. Click **Continue**.
6. In the Password box, enter your password.

   Note:

   When logged in as a service technician, and if the Enhanced Access Security Gateway (EASG) is present, your login ID is challenged by EASG. You must enter a proper response in the Response box to log in successfully.

   For customer user logins, these options are not presented.
7. Click **Login**.

   Your browser displays the Avaya Aura® Experience Portal Management Console. The main menu is in the left pane and the welcome page is in the right pane.

   Note:

   If this is the first time you are logging in, the **End User License Agreement** page will be displayed.

Verifying the software version

About this task

The software version appears in the upper, right-hand corner of the Avaya Aura® Experience Portal Management Console window. You can also view the software version by running the command as provided below.

Procedure

1. Open an ssh session to the Avaya Aura® Experience Portal server.
2. From the command line in a terminal window, run the **`iaversion.php`** command.
3. Verify that the version number and build number are correct.

Chapter 6: Administering the Experience Portal instance

Administering the Avaya Aura® Experience Portal instance

For information about administering the Avaya Aura® Experience Portal instance, see *Administering Avaya Aura® Experience Portal*.

For information about troubleshooting the POM instance, see *Troubleshooting Proactive Outreach Manager*.

Chapter 7: Resources

Amazon Web Services documentation

For information about the Amazon Web Services documentation, go to the AWS documentation website at https://aws.amazon.com/documentation/.

Documentation

For information on feature administration, interactions, considerations, and security, see the following Avaya Aura® Experience Portal and POM documents available on the Avaya Support site at http://www.avaya.com/support:

Title	Description	Audience
Deploying Contact Center Applications on Amazon Web Services	This document describes how to deploy the Contact Center applications by using the Amazon Web Services Management console.	Administrators Implementation Engineers Support Personnel
Avaya Aura® Experience Portal Overview and Specification	This document describes tested Avaya Aura® Experience Portal characteristics and capabilities, including feature descriptions, interoperability, performance specifications, security, and licensing requirements. This document describes how to use Experience Portal features.	Administrators Sales Engineers Implementation Engineers Support Personnel
Implementing Avaya Aura® Experience Portal on a single server	This document provides information about installing the Avaya Aura® Experience Portal software on a single server machine.	Implementation Engineers
Implementing Avaya Aura® Experience Portal on multiple servers	This document provides information about installing the Avaya Aura® Experience Portal software on multiple servers.	Implementation Engineers

Table continues…

Title	Description	Audience
Troubleshooting Avaya Aura® Experience Portal	This document provides general information about troubleshooting and resolving system problems, and detailed information about finding and resolving specific problems.	Implementation Engineers Administrators Support Personnel
Administering Avaya Aura® Experience Portal	This document provides general information about administering and configuring specific Avaya Aura® Experience Portal functions and features using a web-based interface.	Administrators Implementation Engineers
Avaya Proactive Outreach Manager Overview and Specification	This document describes tested product characteristics and capabilities of Avaya Proactive Outreach Manager, including product overview and feature descriptions, interoperability, performance specifications, security requirements, and licensing requirements.	Administrators Sales Engineers Implementation Engineers Support Personnel
Implementing Proactive Outreach Manager	This document describes procedures to install, configure, and uninstall Avaya Proactive Outreach Manager.	Implementation Engineers
Troubleshooting Proactive Outreach Manager	This document describes how to troubleshoot Avaya Proactive Outreach Manager.	Implementation Engineers Administrators Support Personnel

Finding documents on the Avaya Support website

Procedure

1. Navigate to http://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 an appropriate release number.
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 displays the documents only from the selected category.

7. Click **Enter**.

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.

Procedure

- To find videos on the Avaya Support website, go to http://support.avaya.com and perform one of the following actions:
  - In **Search**, type `Avaya Mentor Videos` to see a list of the available videos.
  - In **Search**, type the product name. On the Search Results page, select **Video** in the **Content Type** column on the left.
- To find the Avaya Mentor videos on YouTube, go to www.youtube.com/AvayaMentor and perform one of the following actions:
  - Enter a key word or key words in the **Search Channel** to search for a specific product or topic.
  - Scroll down Playlists, and click the name of a topic to see the available list of videos posted on the website.

Note:

Videos are not available for all products.

Support

Go to the Avaya Support website at http://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.

Appendix A: Configuring Putty

Converting the *.pem file to the *.ppk format

Before you begin

Download the PuTTYGen software.

Procedure

1. Double-click the downloaded `puttygen.exe` file.
2. In the PuTTY Key Generator dialog box, click **Conversions** > **Import key**.
3. On Load private key, select a `.pem` file from your local computer, and click **Open**.

   The system displays the key in the **Key** section.
4. Click **Generate**.

   The system takes a few minutes.
5. Click **Save private key**.

Configuring PuTTY for an SSH session

Before you begin

Convert the `*.pem` file to the `*.ppk` format.

Procedure

1. Open a PuTTY session for SSH.
2. On the PuTTY Configuration dialog box, in the left navigation pane, click **Connections** > **SSH** > **Auth**.
3. In the **Authentication parameters** section, click **Browse**.
4. On **Select a private key**, select a `.ppk` file from your local computer, and click **Open**.

Signing in to the Amazon EC2 virtual server instance

Before you begin

- Convert the `*.pem` file to the `*.ppk` format.
- Configure PuTTY for an SSH session.

Procedure

1. Open a PuTTY session for SSH.
2. On the PuTTY Configuration dialog box, in the left navigation pane, click **Session**.
3. In **Host Name (or IP Address)**, type `admin@<IP_Address>`, where `<IP_Address>` is the IP address of the Amazon EC2 virtual server instance.
4. Click **Open**.

Amazon Web Services instance management

Using EC2 Management Console, you can start, stop, reboot, and terminate an instance.

Note:

With the stop and start operations, the instance might move to a different host that might change the IP Address and MAC Address if not statically allocated. Rebooting the instance will not change the host, IP Address, and MAC Address in AWS.

Starting an AWS instance

Procedure

1. Sign in to the Amazon Web Services Management console.
2. Go to **Services** > **Compute**, and click **EC2**.

   The system displays the EC2 Management Console page.
3. In the left navigation pane, click **Instances**.
4. Select one or more instance, click **Actions** > **Instance State** > **Start**.

   The system displays a message to start the instances.
5. Click **Yes, Start**.

   When the system starts the instance, the **Instance State** column displays the state as `running`.

Stopping an AWS instance

Procedure

1. Sign in to the Amazon Web Services Management console.
2. Go to **Services** > **Compute**, and click **EC2**.

   The system displays the EC2 Management Console page.
3. In the left navigation pane, click **Instances**.
4. Select one or more instance, click **Actions** > **Instance State** > **Stop**.

   The system displays a message to stop the instances.
5. Click **Yes, Stop**.

   When the system stops the instance, the **Instance State** column displays the state as `stopped`.

Rebooting an AWS instance

Procedure

1. Sign in to the Amazon Web Services Management console.
2. Go to **Services** > **Compute**, and click **EC2**.

   The system displays the EC2 Management Console page.
3. In the left navigation pane, click **Instances**.
4. Select one or more instance, click **Actions** > **Instance State** > **Reboot**.

   The system displays a message to reboot the instances.
5. Click **Yes, Reboot**.

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