Abstract

These Application Notes describe the administrative steps required to configure Automated Attendant on Avaya Distributed Office in an Avaya Intelligent Branch Solution consisting of Avaya Communication Manager, Avaya SIP Enablement Services (SES), Avaya Voice Portal, and Avaya Distributed Office.

An Avaya Intelligent Branch configuration delivers industry-specific solutions comprised of products from Avaya and key strategic partners. These solutions are centered at the store front office to deliver lower costs, and improved service levels and worker productivity at the edge, while leveraging applications and resources from other store locations and core headquarters.
1. Introduction

These Application Notes describe the administrative steps required to configure Automated Attendant on Avaya Distributed Office in an Avaya Intelligent Branch Solution consisting of Avaya Communication Manager, Avaya SIP Enablement Services (SES), Avaya Voice Portal, and Avaya Distributed Office.

An Avaya Intelligent Branch configuration delivers industry-specific solutions comprised of products from Avaya and key strategic partners. These solutions are centered at the store front office to deliver lower costs, and improved service levels and worker productivity at the edge, while leveraging applications and resources from other store locations and core headquarters.

1.1. Intelligent Branch Solution

Avaya Distributed Office delivers rich communication, collaboration and mobility capabilities to branch offices. This centrally managed SIP-based communications platform easily scales to meet the needs of large enterprises with distributed sites. The Avaya SES Edge, in the Headquarters, provides SIP signaling between Avaya Distributed Office branches, as well as the Headquarters location of an enterprise.

Typically, as in the sample configuration illustrated in Figure 1, the Avaya SES Edge server is located in a Headquarters along with an Avaya SES Home server and Avaya S8700 servers running Avaya Communication Manager. Inter-location call routing between Avaya Distributed Office (Branch Stores A and B) and Avaya SES Home (Headquarters) is achieved by using unique numeric prefixes for each location and the user extension (prefix + extension). The Avaya SES Home server manages SIP requests for the assigned domain (retail.com) and forwards any requests pertaining to other locations (or domains) based on assigned prefix to the Avaya SES Edge server. The Avaya SES Edge server manages SIP requests from all locations/domains, forwarding requests received from Avaya SES Home servers and Avaya Distributed Office.

1.2. Automated Attendant

These Application Notes will focus on a scenario where a PSTN inbound customer call is answered after hours by an Avaya Distributed Office Automated Attendant. The Automated Attendant prompts the user to press a button and upon this input transfers the caller to Voice Portal in the Headquarters. The sample Avaya Voice Portal Verification Test Application will be used to verify Avaya Voice Portal connectivity. Refer to [7] for more information on configuring the test application in Avaya Voice Portal.

1.3. Network Configuration

Figure 1 illustrates the Retail Store Headquarters and Branch Store configuration used to verify these Application Notes.
The Headquarters Location consists of Avaya S8710 Servers controlling a G650 Media Gateway. Avaya Voice Portal is a web-based and speech-enabled interactive voice response system that is configured as an adjunct system on the Avaya SES Home server. An Avaya SES adjunct is an entity that provides services to the Avaya SES Home server via a SIP interface. The Avaya Voice Portal system is composed of a Voice Portal Management System (VPMS) server, and one or more Media Processing Platform (MPP) servers, and typically includes web-based application servers that provide automated speech recognition and text-to-speech services. Branch A and B are Distributed Office i120 locations. The Headquarters also houses Avaya Distributed Office Central Manager (DOCM), which provides remote administration of each branch in the configuration.

Each location has access to a simulated PSTN network for incoming customer calls.

Figure 1: Network Configuration for an Avaya Intelligent Branch Solution
2. Equipment and Software Validated

The following equipment and software were used for the sample configuration provided:

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avaya S8710 Servers</td>
<td>Avaya Communication Manager 5.0</td>
</tr>
<tr>
<td>G650 Media Gateway</td>
<td>R015x.0.0.825.4</td>
</tr>
<tr>
<td>Avaya TN2312BP IPSI</td>
<td></td>
</tr>
<tr>
<td>Avaya TN799DP C-LAN</td>
<td></td>
</tr>
<tr>
<td>Avaya TN2302AP MEDPRO</td>
<td></td>
</tr>
<tr>
<td>Avaya SIP Enablement Services</td>
<td>R 5.0</td>
</tr>
<tr>
<td>Home Server</td>
<td>SES-5.0.0.0-825.31</td>
</tr>
<tr>
<td>Edge Server</td>
<td>SES-5.0.0.0-825.31</td>
</tr>
<tr>
<td>Avaya Voice Portal</td>
<td>4.0.0.0-2901</td>
</tr>
<tr>
<td>• Voice Portal Management System</td>
<td></td>
</tr>
<tr>
<td>• Media Processing Platform</td>
<td>4.0.0.0-2901</td>
</tr>
<tr>
<td>Avaya Distributed Office Branches A and B</td>
<td>27.12.0</td>
</tr>
<tr>
<td>• i120-Analog Platform</td>
<td>1.1.0_33.02-SP-1.0.0</td>
</tr>
<tr>
<td>• AM110 Application Module</td>
<td></td>
</tr>
<tr>
<td>Avaya Distributed Office Central Manager</td>
<td>4.0.124.3098</td>
</tr>
<tr>
<td>• Dell PowerEdge 850 Server</td>
<td>Microsoft Windows Server 2003 SP1</td>
</tr>
<tr>
<td>Avaya 9600 Series IP Telephone</td>
<td>R2.0 (SIP)</td>
</tr>
<tr>
<td>Avaya 4600 Series IP Telephone</td>
<td>R2.8 (H.323)</td>
</tr>
</tbody>
</table>

Table 1: Equipment and Software Version

3. Assumptions and Limitations

It is assumed that Avaya Communication Manager, Avaya SES, Avaya Voice Portal, and Avaya Distributed Office systems are configured to work in an Avaya Intelligent Branch solution. See [1], [2], [3], [4], [5], and [6] for more details.
4. Configure Automated Attendant

Each Avaya Distributed Office branch must be administered for Automated Attendant support. This section will describe the administrative steps to configure Automated Attendants in Avaya Distributed Office.

For management at the individual branch level, Distributed Office Local Manager (DOLM) provides quick local deployment using wizards for step-by-step, visual guidance on installation and customization templates. DOLM will be used at each branch to configure Automated Attendants.

4.1. Avaya Distributed Office – Automated Attendants

Avaya Distributed Office provides an Automated Attendant feature to route incoming calls. This feature reduces the need for live attendants, and helps control costs. An Automated Attendant serves as an entry point to the telephone system for callers. For example, callers might be prompted by an announcement to enter the extension of the person they want to reach.

The Automated Attendant capability is provided by the voice mail service on Avaya Distributed Office. Up to four Automated Attendants can be administered in Avaya Distributed Office.

Using a web browser, enter the IP address of the Avaya DOLM for Branch A. Use the appropriate credentials to log in.

![Avaya Distributed Office Local Manager](image-url)
From DOLM, in the Managed Objects section, select Automated Attendant Service → Automated Attendants. This action loads the Auto Attendant window as shown below. The Auto Attendants are displayed, with default extensions already pre-assigned. These default extensions can be modified to suit customer needs. Those steps are outside the scope of these Application Notes, and will not be covered here. For Avaya Distributed Office R1.0.5 or earlier, it is highly recommended to use Automated Attendant extensions that are up to four digits in length only. For more information on changing default Automated Attendant information, refer to [5].

Select an Automated Attendant to configure by clicking on its link. For these Application Notes, Auto Attendant 3 was selected (not shown).
Click on the **Fixed Schedule** tab to configure the information for a fixed schedule for a selected Auto Attendant.

Enter the following information in the **Fixed Schedule** tab:

- **Open or Closed**: Specify whether the Auto Attendant will be active (Open) or non-active (Closed) on the associated day.
- **Opening Time/Closing Time**: If **Open** is selected, an **Opening Time** and **Closing Time** must be specified. The **Day Menu** will be used from the **Opening Time** to **Closing Time** configured in this tab. The **Night Menu** will be used for all off hour, or **Closed**, schedules.

For these Application Notes, open branch hours are Monday through Friday with an **Opening Time** of 9:00 am and a **Closing Time** of 5:00 pm (represented in military time of 17:00).

Since these Application Notes focus on off-hours Automated Attendants, the configuration of the **Day Menu** tab will not be covered here. For more information on that configuration, refer to [5].
To administer the **Night Menu** for a selected Automated Attendant, select the **Night Menu** tab. In the screen shot below, the **Key** field displays the dial pad button associated with the **Selector Code** and action. The **Selector Code** field displays the selector code associated with the dial pad button and action. For these Application Notes, **Key/Selector Code 4** was used to transfer an off-hours call back to Avaya Voice Portal in Headquarters.

Enter the following information on the **Night Menu** tab:

- **Action: Transfer to Extension.** This prompt transfers the incoming customer call to be transferred to a specific extension. The transferred-to number must be configured in the corresponding box located to the right of the **Action** field.

For inter-site dialing, a caller at any location in **Figure 1** may dial the Automatic Alternate Routing (AAR) access code, a location prefix, and extension. For these Application Notes, the Avaya Voice Portal number is **222-0601**, which is represented as **81992220601**, where **8** represents the AAR access code and **199** represents the location prefix of the Headquarters.

![Night Menu Screen Shot](image)

When complete, click on **Apply Changes** to save changes made to this Automated Attendant. Once complete, click on **Save Configuration** to ensure that changes made to the configuration are stored in Avaya Distributed Office.

Repeat these steps to configure Automated Attendants in all Avaya Distributed Office branch locations.
5. Verification Steps
The following steps can be used to verify proper Automated Attendant operation in an Avaya Intelligent Branch Solution.

1. Place calls from customers to the Automated Attendant in all locations using the simulated PSTN network during branch off-hours.
2. Verify that the call is received by the appropriate Avaya Distributed Office branch location. Since the call is received off-hours, the Automated Attendant configured for off hours is played. The caller hears a message that the branch is closed and to press 4 to transfer the call.
3. Press the number 4 key on the calling telephone. A message should be played back to the caller that the call is about to be transferred.
4. Verify that the call is transferred back to the Headquarters and is picked up by the Avaya Voice Portal Verification Test Application. The call is answered by the Avaya Voice Portal Verification Test Application and prompts the caller for further information.

Verification steps will vary based on customer configurations. Another verification step to consider, in a production environment, could include a transfer of a call from an Automated Attendant in Avaya Distributed Office to Headquarters, where the call is answered by a live agent, Modular Messaging, Vector Directory Number (VDN), or any other Headquarters entity.

6. Conclusion
These Application Notes have provided the details on configuring Automated Attendants in Avaya Distributed Office for an Avaya Intelligent Branch Solution. As illustrated in these Application Notes, Avaya Distributed Office provides an Automated Attendant feature to route incoming calls and reduces the need for live attendants, which helps control costs.

7. Additional References
See the following documentation addressing Avaya Communication Manager, Avaya SES, and Avaya Distributed Office configuration at http://support.avaya.com.