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Avaya Solution & Interoperability Test Lab

Application Notes for Abla T-Connect with Avaya Voice Portal - Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Abla T-Connect to interoperate with Avaya Voice Portal. Abla T-Connect enables Avaya Voice Portal to use the CTI functionalities of third-party CTI servers. Using Avaya Dialog Designer, speech applications can call Java methods to invoke the T-Connect library functions for CTI functionalities such as obtaining call information, performing call transfer and conference.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

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Solution & Interoperability Test Lab Application Notes
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VP-TConnect

1. Introduction

The configuration used for the compliance testing is shown in **Figure 1**. Avaya Voice Portal is connected to Avaya Communication Manager using H.323 VoIP connections with 10 ports configured. Calls were placed to Avaya Communication Manager and delivered to Avaya Voice Portal. The T-Connect sample speech application was developed using Avaya Dialog Designer. The T-Connect library file was imported and compiled as part of the application. The application was then deployed to the Apache Tomcat Server. Voice Portal was configured to run the sample application by connecting to the Apache Tomcat Server. The third-party CTI server connects to Avaya Communication Manager through the Avaya Application Enablement Services (AES) server to obtain call information and perform call control. Abla T-Connect was installed on a server running Red Hat Enterprise Linux ES Release 4 Update 4. It translates the requests from the sample speech application and forwards them to the third-party CTI server. The Avaya C364T-PWR Converged Stackable Switch provides network connectivity to all the servers and IP telephones.
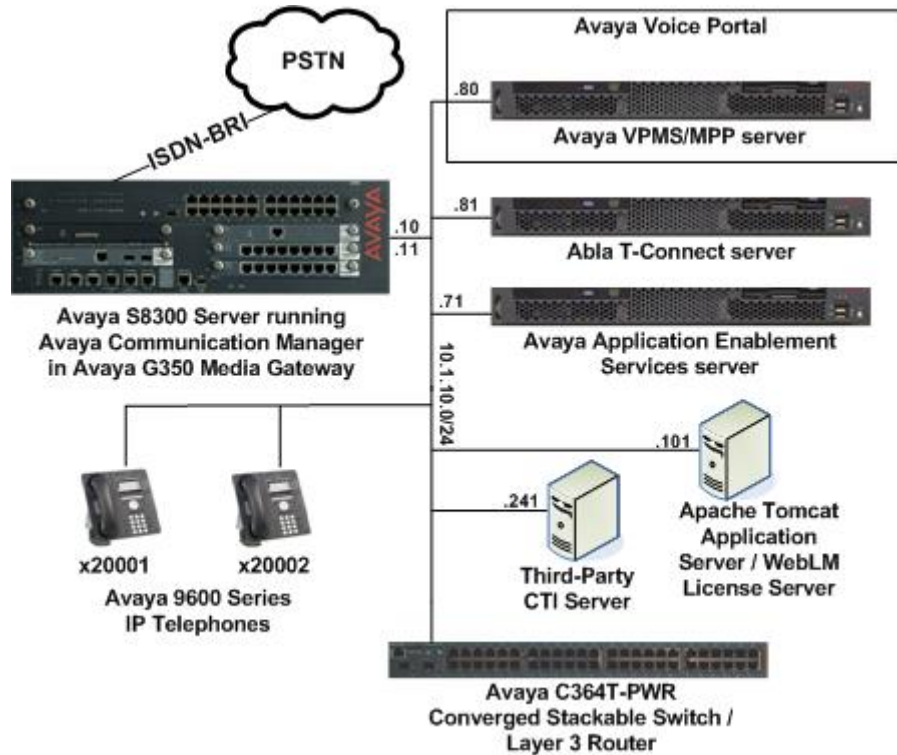

Figure 1: Test Configuration

2. Equipment and Software Validated

The following equipment and software/firmware were used for the configuration utilized in the testing.

Equipment	Software/Firmware
Avaya S8300 Server	Avaya Communication Manager 4.0.1 (R014x.00.1.731.2)
Avaya G350 Media Gateway	26.36.0
Avaya Voice Portal ▪ Voice Portal Management System (VPMS) ▪ Media Processing Platform (MPP)	 4.0.0.0.2901 4.0.0.0.2903
Avaya Dialog Designer	4.0.8.2
Avaya Application Enablement Services	4.0.1 (r4-0-1-bld-51-0)
Avaya 9600 Series IP Telephones ▪ 9630	 1.5 (H.323)
Avaya C364T-PWR Converged Stackable Switch	4.5.18
Abla T-Connect	1.1

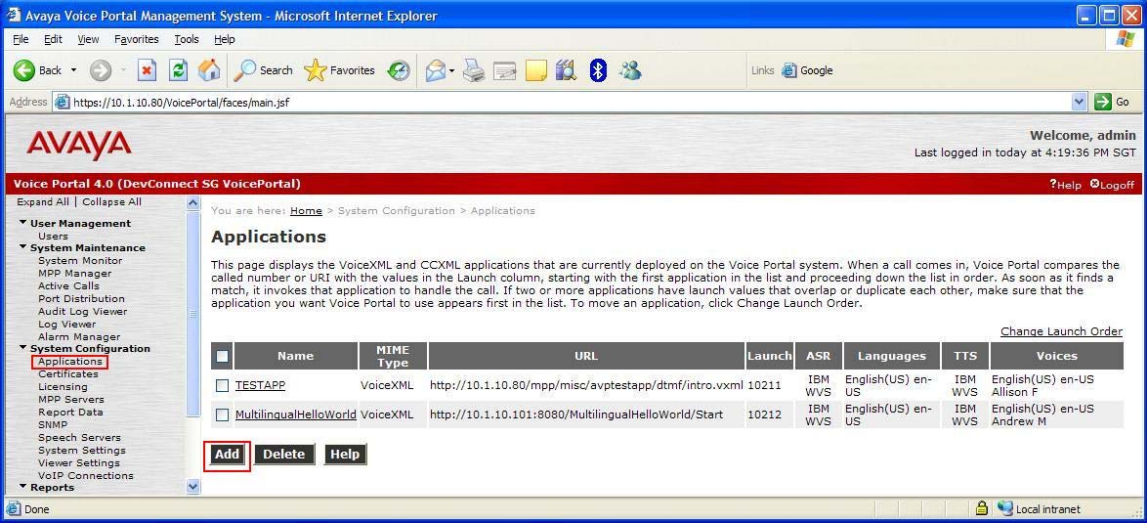## 3. Configure Avaya Communication Manager

The detailed administration of the H.323 VoIP connections between Avaya Voice Portal and Avaya Communication Manager is not the focus of these Application Notes and will not be described. For administration of the H.323 VoIP connections, refer to [3] listed in **Section 10**.
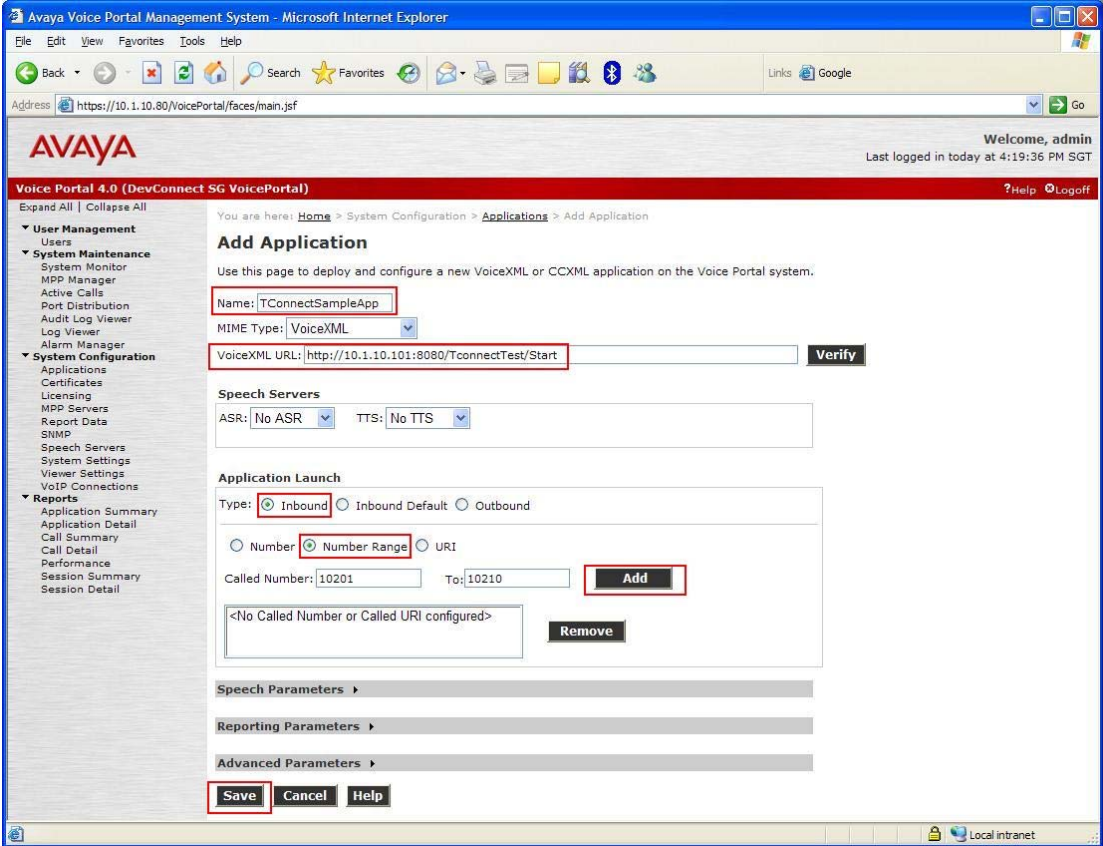
4. Configure Avaya Voice Portal

This section provides the procedure for configuring Avaya Voice Portal. In this test configuration, Avaya Voice Portal consisted of a single server running both the Voice Portal Management System (VPMS) and Media Processing Platform (MPP) software. It is assumed that the Voice Portal have the appropriate licenses. The VPMS manages the MPP and provides a web interface for administering Avaya Voice Portal. The MPP executes the T-Connect sample speech application residing on the Apache Tomcat application server and communicates with Avaya Communication Manager using a H.323 connection.

The VPMS web interface can be accessed by entering http://<Hostname or IP address of VPMS server>/VoicePortal in the URL. Log in using an account with administrative privileges.

4.1. Administer Speech Application

Step	Description
1.	In the left pane of **Voice Portal Management System**, navigate to **System Configuration > Applications**. The **Applications** screen appears in the right pane. Click **Add**.

Step	Description
2.	The **Add Application** screen appears. Enter the following values and retain the default values for the remaining fields. • **Name**: Enter a descriptive name, for example "TConnectSampleApp". • **VoiceXML URL**: Enter the URL value "http://<IP address of the Apache Tomcat Application server>:8080/<path to speech application>". For example, the URL for compliance testing was **http://10.1.10.101:8080/TconnectTest/Start**. • **Application Launch**: Select **Inbound** for **Type** and select **Number Range**. • **Called Number**: Enter the starting extension of the ports assigned to run this application (e.g. 10201). • **To**: Enter the ending extension (e.g. 10210). Click **Add** and then click **Save**.

5. Configure the Abla T-Connect Server

This section provides the procedure for configuring the Abla T-Connect Server. The Abla T-Connect Server is the interface between Avaya Voice Portal and the third-party CTI server. The Dialog Designer speech application running on the Voice Portal uses the T-Connect library to request for CTI functionalities from the third-party CTI server through the T-Connect Server.

Step	Description

1.	From the T-Connect server, log in using an account with administrative privileges. Change to the directory where the T-Connect Server is installed using the command **cd <T-Connect install directory>**. Use a text editor (e.g. vi) to edit the file **driver_configuration.cfg** which contains the parameters required to connect to the third-party CTI server. Enter the following values and retain the default values for the remaining fields.
	
	• **hostname**: IP address of the third-party CTI server
	• **number_of_dips**: Number of T-Connect server processes to run. Each T-Connect server process can handle 5 calls.
	
	Save and exit the file.
	
	<pre>**hostname 10.1.10.241**
	portnumber xxxx
	number_of_dips 2
	name_of_xxxxxxxxxxxx IR_AVAYA_CONN
	path_to_log_file ./
	verbosity_level 3
	~
	~
	~
	~
	~
	~
	~
	~
	"driver_configuration.cfg" 6L, 131C</pre>

2.	To start the T-Connect server, enter the command **./tconnect_script.sh start**. Note that a valid license file **license.lic** is required for the T-Connect server to start. The license file is obtainable from Abla.

6. Interoperability Compliance Testing

The interoperability compliance testing included feature and serviceability testing. The feature testing evaluated the ability of T-Connect to obtain call information (e.g. ANI and DNIS), perform blind and supervised call transfer and call conference. The ability of T-Connect to handle simultaneous calls was also evaluated. The serviceability testing introduced failure scenarios to verify that the T-Connect was able to resume operation after failure recovery.

6.1. General Test Approach

The general approach was to place calls to a VDN on Avaya Communication Manager which routed the calls to Avaya Voice Portal. The Voice Portal executed the T-Connect sample application which included the various menu options to test the T-Connect functionalities. For serviceability testing, failures such as network disruption to the T-Connect server and resets of the third-party CTI server, T-Connect server and Apache Tomcat server were applied.

6.2. Test Results

T-Connect successfully performed the functionalities as discussed in **Section 6**. For serviceability testing, T-Connect was able to resume operation after restoration of network connectivity to the T-Connect server, and after resets of the third-party CTI server, T-Connect server and Apache Tomcat server.

7. Verification Steps

The following steps can be used to verify the T-Connect server.

Step	Description
1.	From the T-Connect server, log in using an account with administrative privileges. Ping the Apache Tomcat server and the third-party CTI server to verify that there is network connectivity.

2.	From the command prompt, run the command **ps -ef | grep tconnectDIP**. Verify that the correct number of T-Connect server processes is running. The example below shows 2 T-Connect server processes running.
	
	 ```[root@tconnect Abla]# ps -ef|grep tconnectDIP```
	```root 29962 1 0 10:57 pts/0 00:00:00 /opt/Abla/tconnectDIP 1```
	```root 29964 1 0 10:57 pts/0 00:00:00 /opt/Abla/tconnectDIP 2```
	```root 30003 3805 0 10:57 pts/0 00:00:00 grep tconnectDIP```
	```[root@tconnect Abla]#```

8. Support

Technical support for T-Connect can be obtained by contacting Abla's Support Desk at +39 348 7517222 or +39 348 8557001, or sending an e-mail to gianpaolo.coro@abla.it or marco.mille@abla.it.

9. Conclusion

These Application Notes describe the configuration steps required for Abla T-Connect to interoperate with Avaya Voice Portal to enable Avaya Voice Portal to use the CTI functionalities of third-party CTI servers. All feature and serviceability test cases were completed successfully.

10. Additional References

This section references the Avaya and Abla documentation that are relevant to these Application Notes.

The following Avaya product documentation can be found at http://support.avaya.com.

[1] *Administering Avaya Voice Portal 4.0*, June 2007
[2] *Installing and Configuring Avaya Voice Portal 4.0*, June 2007
[3] *Application Notes for Nuance Open Speech Attendant with Avaya Voice Portal*, Issue 1.0, Apr 25, 2007

The following T-Connect documentations are provided by Abla.
[4] *T-Connect: VXML Developer's Guide*, 1 August 2007

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