



Avaya Solution & Interoperability Test Lab

Application Notes for SimpliCTI Software Solutions SimpliAgent with Avaya Interaction Center – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for SimpliCTI Software Solutions SimpliAgent to interoperate with Avaya Interaction Center. SimpliAgent is a custom agent desktop application developed from the Avaya Interaction Center Client Software Development Kit. SimpliAgent minimizes the footprint necessary on the agent desktop, and supports the voice, email, and web media channels. The integration with Avaya Interaction Center is achieved through the client Application Programming Interface.

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

1. Introduction

These Application Notes describe the configuration steps required for SimpliCTI Software Solutions SimpliAgent to interoperate with Avaya Interaction Center (IC). SimpliAgent is a custom agent desktop application developed from the Avaya IC Client Software Development Kit (SDK). SimpliAgent minimizes the footprint necessary on the agent desktop, and supports the voice, email, and web media channels. The integration with Avaya IC is achieved through the client Application Programming Interface (API), which is a component of the Avaya IC Client SDK. The Avaya IC Client SDK supports the .NET and Java libraries for custom application development, and SimpliAgent was developed with the .NET technology.

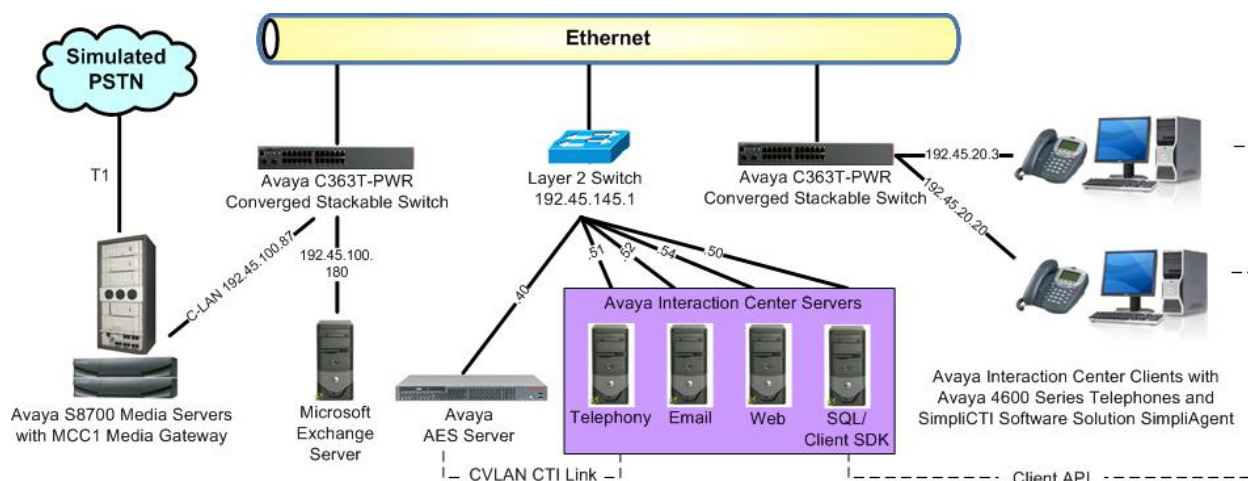


Figure 1: SimpliCTI Software Solutions SimpliAgent with Avaya Interaction Center

The compliance test configuration utilized four servers to host Avaya IC components, as shown in **Figure 1** above. The Avaya IC client computers are running the SimpliCTI Software Solution SimpliAgent custom agent desktop application, and networked to the Avaya IC Client SDK server via TCP/IP. Contact related actions such as answering calls and transferring emails are initiated via the desktop utilizing the client API.

The Avaya IC has a CallVisor LAN (CVLAN) Computer Telephony Integration (CTI) link to Avaya Application Enablement Services (AES) to enable call event reporting and third party call control of contact center devices from Avaya Communication Manager. The administration of the contact center devices and CTI connectivity for Avaya Communication Manager, Avaya AES, and Avaya IC are assumed to be in place and will not be described.

In addition, the network infrastructure includes a Microsoft SQL server that co-resides with the Avaya IC Client SDK server in the test configuration for database support, and a Microsoft Exchange server for email support. These Application Notes assume all network infrastructures are in place and configured, and the focus will be on the configuration of the Avaya IC Client SDK server and SimpliCTI Software Solution SimpliAgent.

2. Equipment and Software Validated

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

Equipment	Software
Avaya S8700 Media Servers	Avaya Communication Manager 3.1.2, R013x.01.2.632.1
Avaya Application Enablement Services	3.1.2, build 46.5
Avaya C363T-PWR Converged Stackable Switch	4.3.12
Avaya 4610SW IP Telephones (H.323)	2.7
Avaya IC Servers on Dell PowerEdge 850	7.1 Microsoft Windows Server 2003, SP1
Microsoft SQL Server	Microsoft SQL Server 2000, 8.00.761
Microsoft Exchange Server	Microsoft Exchange Server 2000, SP3
Avaya IC Clients with SimpliCTI Software Solution SimpliAgent on Dell Precision 380	2.1.a Windows XP Professional SP2

3. Configure Avaya Interaction Center

The detailed administration of the CTI connectivity between Avaya IC, Avaya AES, and Avaya Communication Manager is not the focus of these Application Notes and will not be described. For administration of the CTI connectivity, refer to the appropriate documentation listed in **Section 9**.

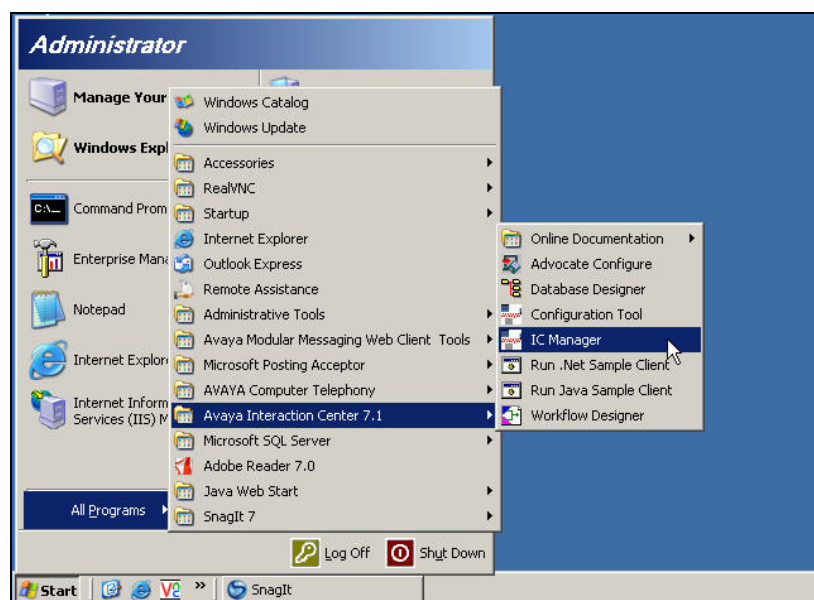
As for the Avaya IC Client SDK server, it is assumed that the Avaya IC core server components have been installed with a secondary ORB server created as part of the installation. This section provides the procedures for configuring the Avaya IC Client SDK server, which includes the following areas:

- Launch IC Manager
- Administer SDK domain
- Administer agent account for Java Application Bridge
- Administer Java Application Bridge
- Administer client SDK service
- Start client SDK service

For the compliance testing, agents with login ID of “agent24511, agent24512” were created on the Avaya IC server and configured to be able to handle contacts from the voice, email, and web media channels. Domains “Voice1” and “Web” were created with an Agent Data Unit (ADU) server.

3.1. Launch IC Manager

From the Avaya IC server where the Avaya IC Design and Administration Tools have been installed on, select **Start > All Programs > Avaya Interaction Center 7.1 > IC Manager** to launch the IC Manager.

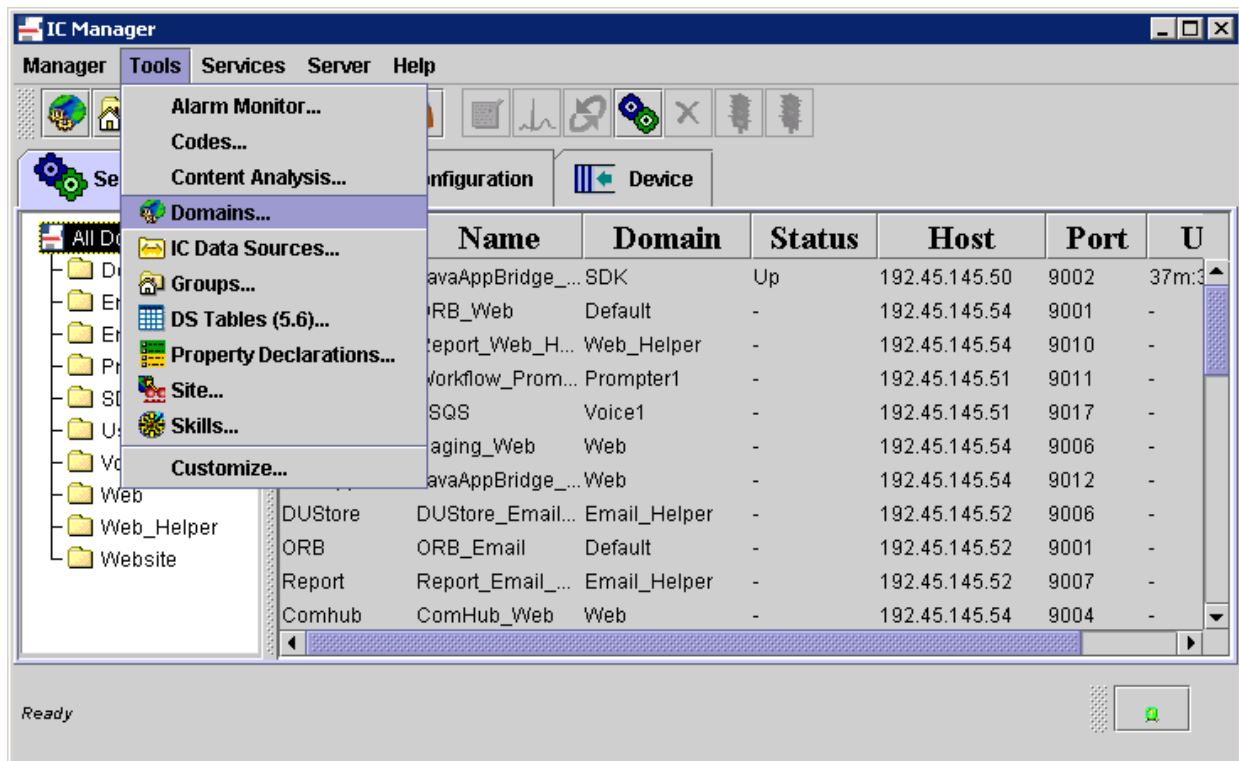


The **AIC Login** dialog box is displayed. Enter the appropriate credentials and click **OK**.

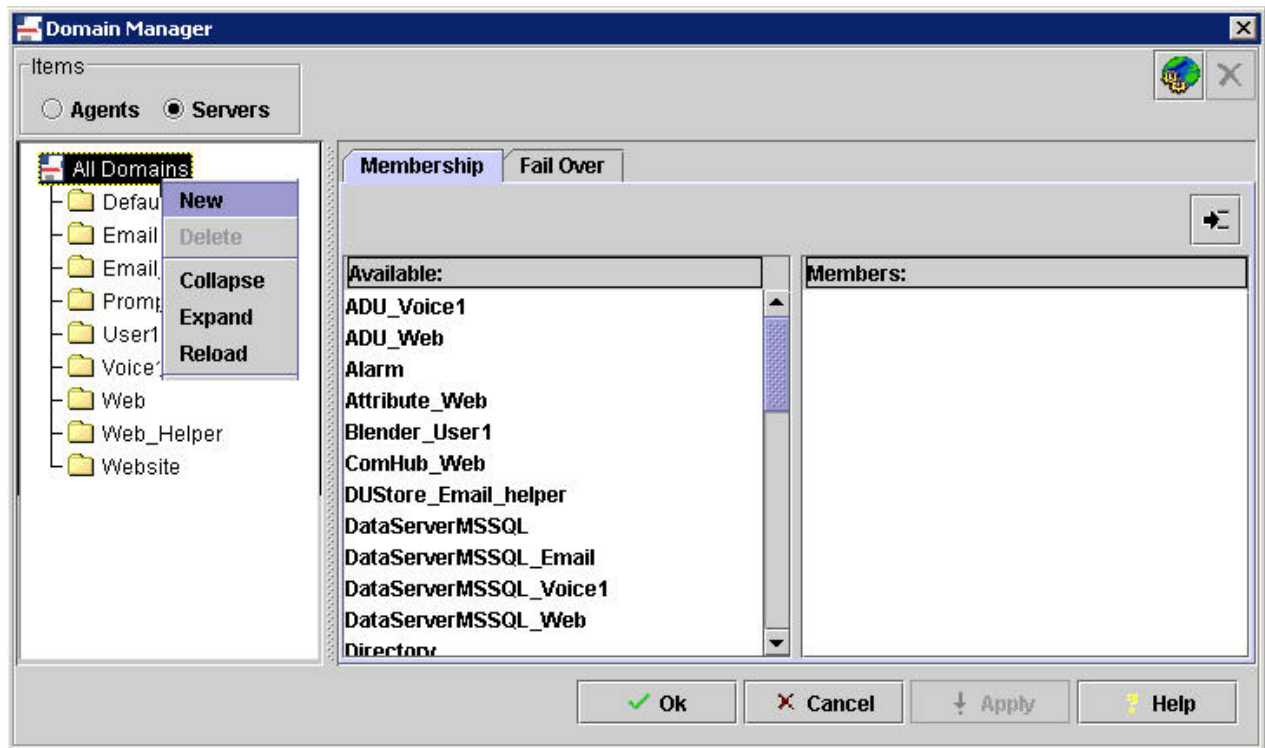


3.2. Administer SDK Domain

The **IC Manager** screen is displayed. Select **Tools > Domains** from the menu bar to create a new domain for the IC Client SDK server.



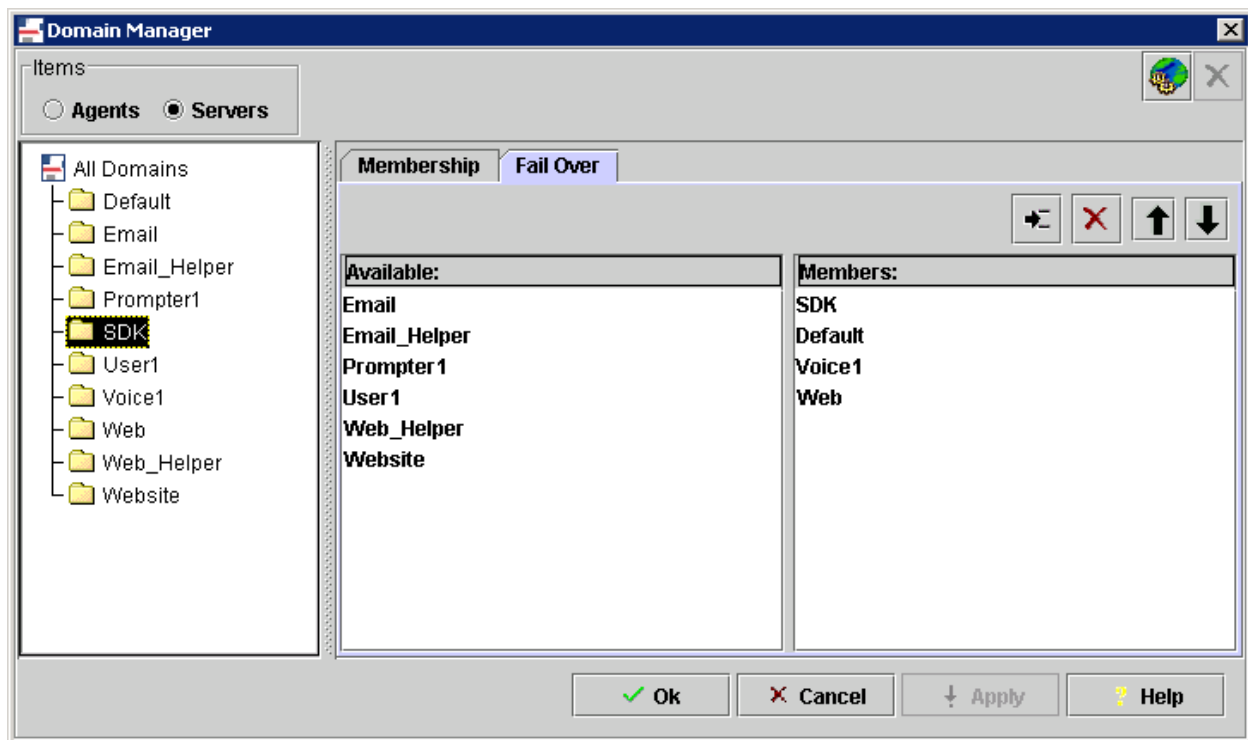
The **Domain Manager** screen is displayed next. Right click in the left pane and select **New**.



The **New** dialog box is displayed. Enter a descriptive domain name for the Avaya IC Client SDK server and click **OK**.

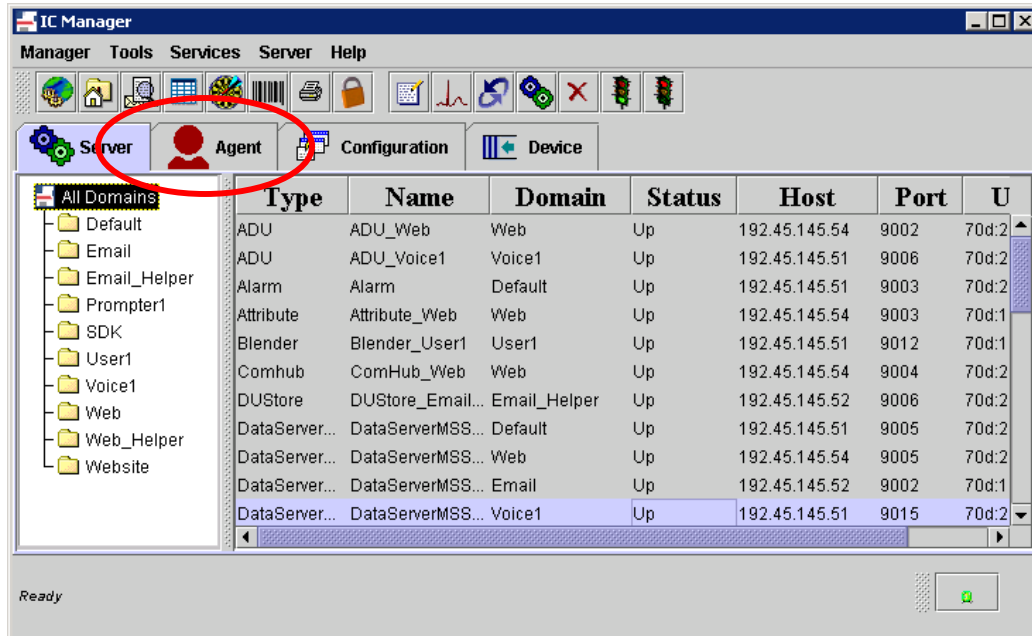


The **Domain Manager** screen is displayed again, and updated with the new “SDK” domain shown in the left pane. Note that the domain name may vary. Select the newly created domain in the left pane, and click on the **Fail Over** tab above the middle pane. The newly created domain will need to be configured to fail over to the following: itself, the “Default” domain, and all domains with an ADU server. This is accomplished by selecting the applicable domains from the middle pane, and move to the right pane using the right arrow icon. In the test configuration, the domains with an ADU server are “Voice1” and “Web”. Click **OK**.

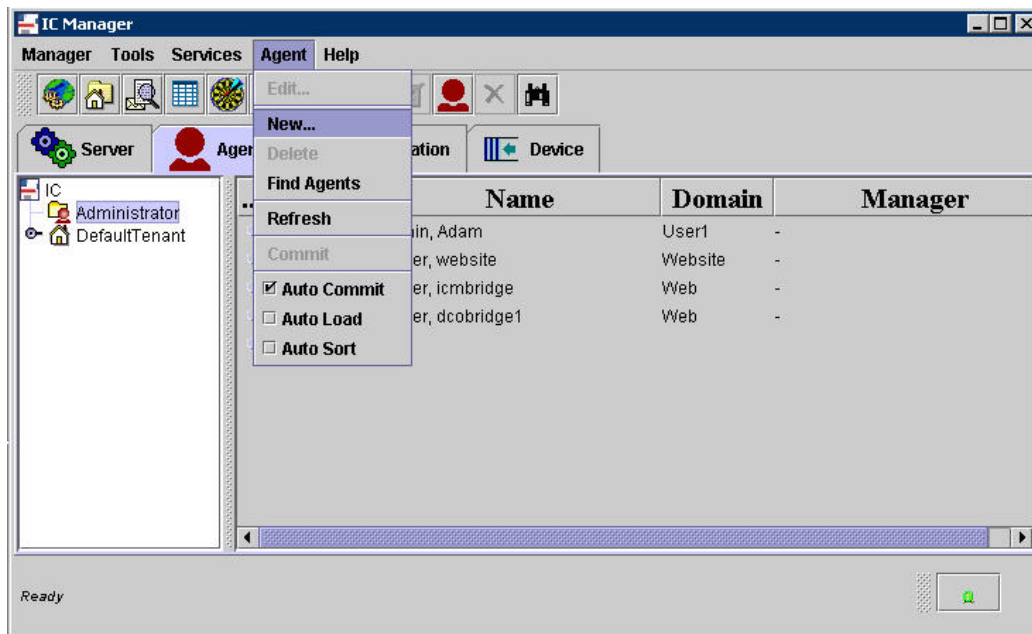


3.3. Administer Agent Account for Java Application Bridge

The **IC Manager** screen is displayed again, and updated with the “SDK” domain shown in the left pane. Click the **Agent** tab.



The **IC Manager** screen is updated with agent account information. In the left pane, navigate to the directory where a non-human agent account will be created. For the compliance testing, the agent account was created under **IC > Administrator**, as shown below. Select **Agent > New** from the menu bar to create an agent account.



The **Agent Editor** screen is displayed. Select the **General** tab. Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **First Name:** A descriptive first name, in this case “dcobridge3”.
- **Last Name:** A descriptive last name, in this case “server”.
- **Preferred Name:** A descriptive preferred name, in this case “dcobridge3”.
- **Login Id:** A descriptive login id, in this case “dcobridge3”.
- **Domain:** Select the SDK domain from **Section 3.2**.
- **Task Load:** Use the down arrow to decrease the load to “0”.
- **Task Ceiling:** Use the down arrow to decrease the ceiling to “0”.

The screenshot shows the 'Agent Editor' dialog box with the 'General' tab selected. The dialog has a title bar with a close button. Below the title bar are tabs: 'General', 'Channels', 'Security', 'Properties', 'Skills', 'Advocate', and 'Miscellaneous'. The 'General' tab contains several input fields and checkboxes. At the top, there are four text boxes for 'Title', 'First Name *', 'Middle Name', and 'Last Name *'. Below these are 'Preferred Name : *', 'Manager :', 'Employee Id :', and 'Is Manager :'. At the bottom, there are two sections: 'System Information' and 'Membership Information'. The 'System Information' section has 'Login Id : *', 'Options :', 'Task Load : *', and 'Task Ceiling : *'. The 'Membership Information' section has 'Domain : *', 'Workgroup : *', and 'Site : *'. At the very bottom are four buttons: 'Ok', 'Cancel', 'Apply', and 'Help'.

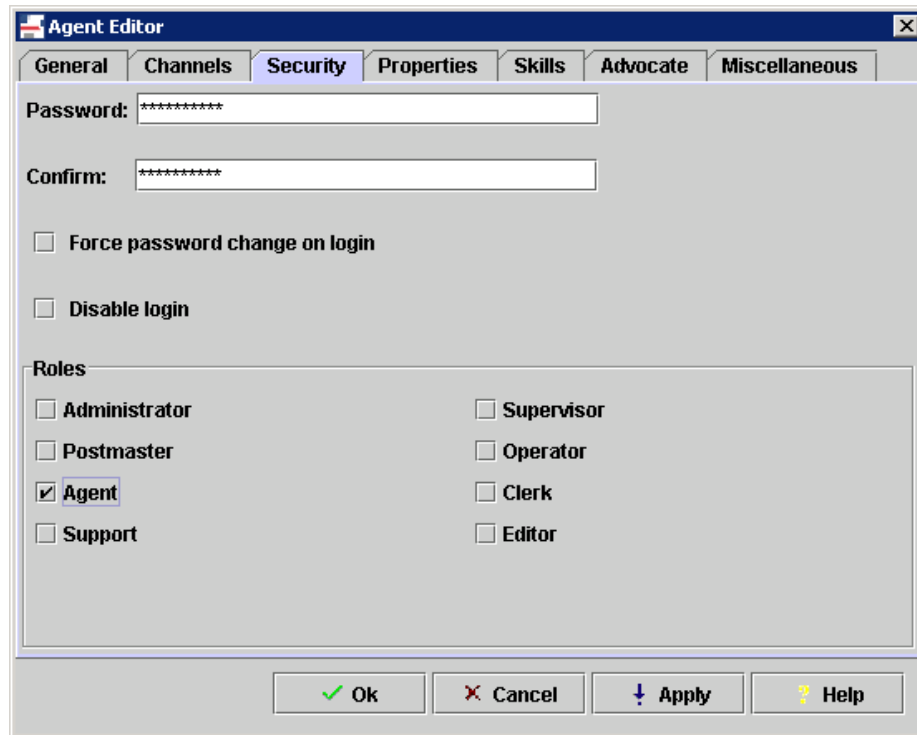
Title	First Name *	Middle Name	Last Name *
	dcobridge3		server

Preferred Name : *	dcobridge3	Manager :	
Employee Id :		Is Manager :	<input type="checkbox"/>

System Information		Membership Information	
Login Id : *	dcobridge3	Domain : *	SDK
Options :	...	Workgroup : *	...
Task Load : *	0	Site : *	DefaultSite
Task Ceiling : *	0		

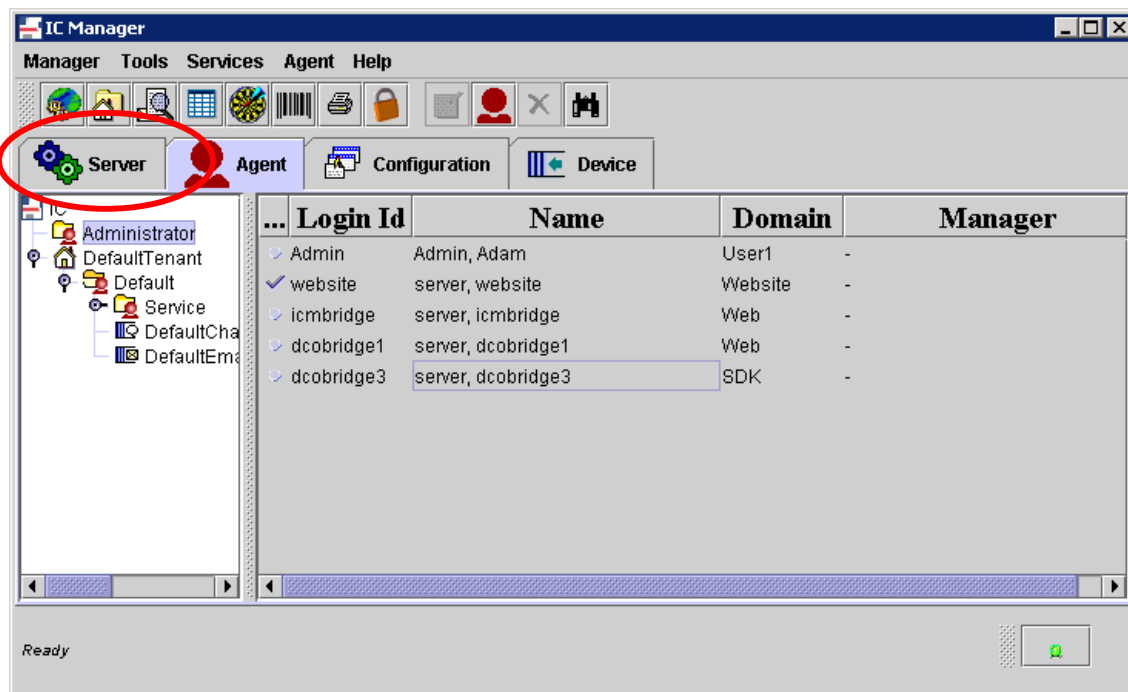
Ok	Cancel	Apply	Help
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Select the **Security** tab. Enter the desired password into the **Password** and **Confirm** fields. Uncheck the **Force password change on login** field, and check the **Agent** field. Click **OK**.



The screenshot shows the 'Agent Editor' window with the 'Security' tab selected. The 'Password' and 'Confirm' fields are both filled with '*****'. The 'Force password change on login' checkbox is unchecked, and the 'Disable login' checkbox is also unchecked. In the 'Roles' section, the 'Agent' checkbox is checked, while all other roles (Administrator, Postmaster, Support, Supervisor, Operator, Clerk, Editor) are unchecked. At the bottom, there are buttons for 'Ok', 'Cancel', 'Apply', and 'Help'.

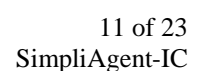
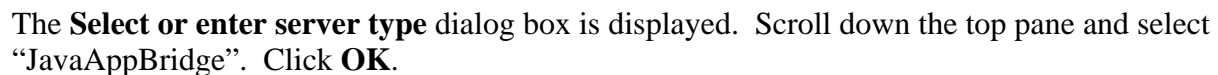
The **IC Manager** screen is displayed again, and updated with the newly added agent account “dcobridge3” as shown below. Click the **Server** tab.



The screenshot shows the 'IC Manager' window. The 'Server' tab is highlighted with a red circle. The 'Agent' tab is also visible. The 'Configuration' and 'Device' tabs are also present. The 'Login Id' table is displayed with the following data:

Login Id	Name	Domain	Manager
Admin	Admin, Adam	User1	-
website	server, website	Website	-
icmbridge	server, icmbridge	Web	-
dcobridge1	server, dcobridge1	Web	-
dcobridge3	server, dcobridge3	SDK	-

The **IC Manager** screen is updated with server information. Select **Server > New** from the main menu, as shown below.



The **Server Editor** screen is displayed next. Select the **General** tab. For the **Name** field, enter a descriptive name. Select the SDK domain from **Section 3.2** from the **Domain** field drop down list. Maintain the automatically populated default values in the remaining fields.

The screenshot shows the 'Server Editor' dialog box with the 'General' tab selected. The fields are as follows:

- Name:** JavaAppBridge_SDK
- Domain:** SDK (selected from a dropdown)
- Host:** 192.45.145.50 (selected from a dropdown)
- Directory:** C:\Program Files\Avaya\IC71\etc\
- Port:** 9002
- Executable:** am Files\Avaya\IC71\bin\jabsrv (selected from a dropdown)
- ☐ Auto Start
- ☐ Security
- Status:** (empty text field)
- Start Time:** (empty text field)
- Uptime:** (empty text field)
- Version:** (empty text field)

At the bottom are buttons: **Ok** (with a green checkmark), **Cancel** (with a red X), **Apply** (with a blue down arrow), and **Help** (with a yellow question mark).

Select the **JavaAppBridge** tab. For the **IC User** field, enter the agent account from **Section 3.3**. Select the **IC Password** field to display the **setPassword** dialog box. Enter the agent account password from **Section 3.3** into the **Password** and **Confirm Password** fields in the dialog box, and click **OK**. Maintain the default values in the remaining fields on the **Server Editor** screen, and click **OK**.

The screenshot shows the 'Server Editor' dialog box with the 'JavaAppBridge' tab selected. The fields are as follows:

- * IC User:** dcobridge3
- * IC Password:** ... (button to open setPassword dialog)
- Agent List:** ... (button)
- Refresh Glo:** (button)
- Refresh Er:** (button)
- Refresh:** (button)
- UNC to UNI:** (button)

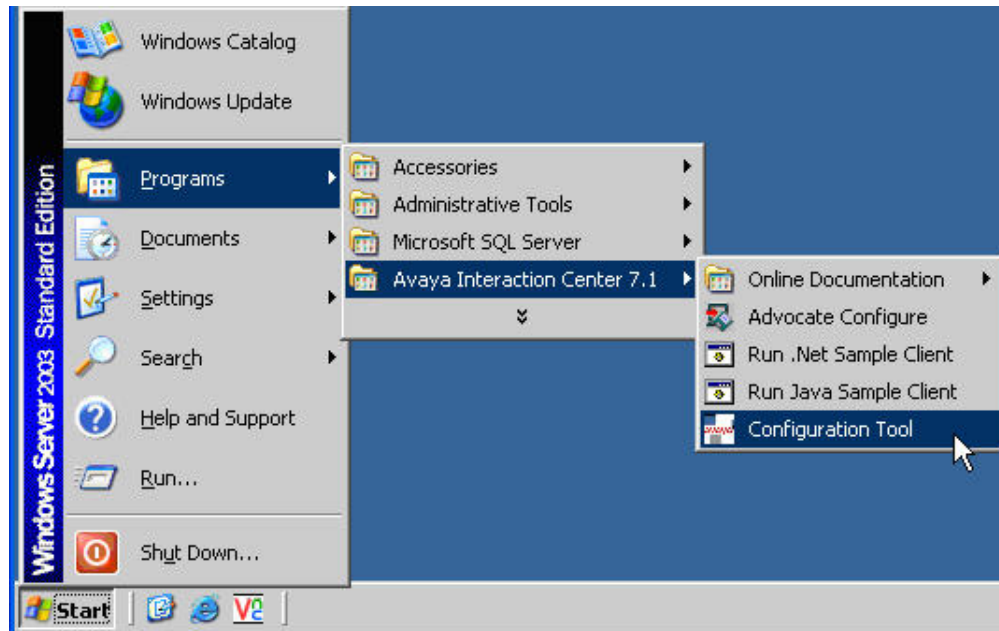
The **setPassword** dialog box is open, showing:

- Password:** (masked with asterisks)
- Confirm Password:** (masked with asterisks)
- Buttons: **Ok** (with a green checkmark), **Cancel** (with a red X), **Apply** (with a blue down arrow).

At the bottom of the 'Server Editor' dialog are buttons: **Ok** (with a green checkmark), **Cancel** (with a red X), **Apply** (with a blue down arrow), and **Help** (with a yellow question mark).

3.5. Administer Client SDK Service

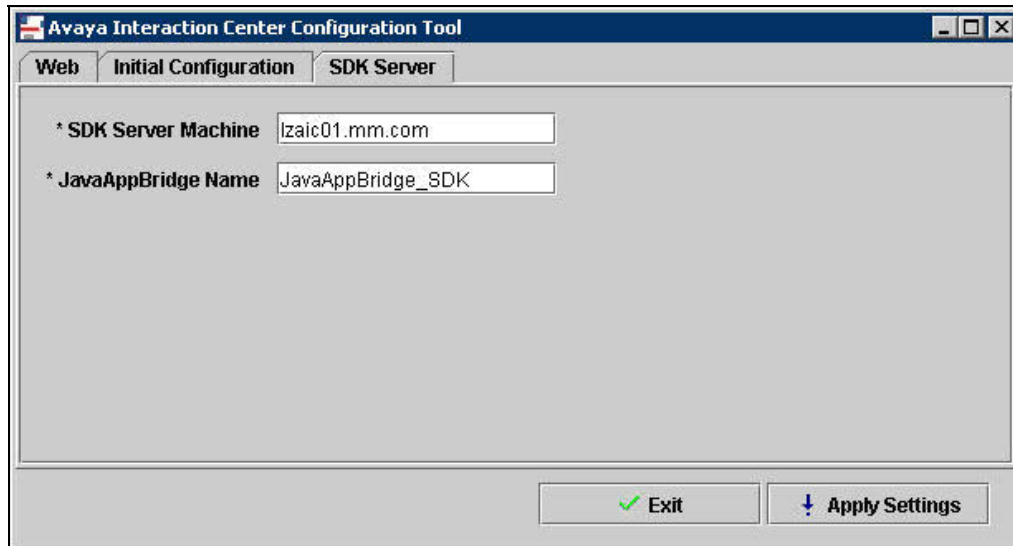
From the IC Client SDK server, select **Start > Programs > Avaya Interaction Center 7.1 > Configuration Tool**.



The **AIC Login** dialog box is displayed. Enter the appropriate credentials and click **OK**.

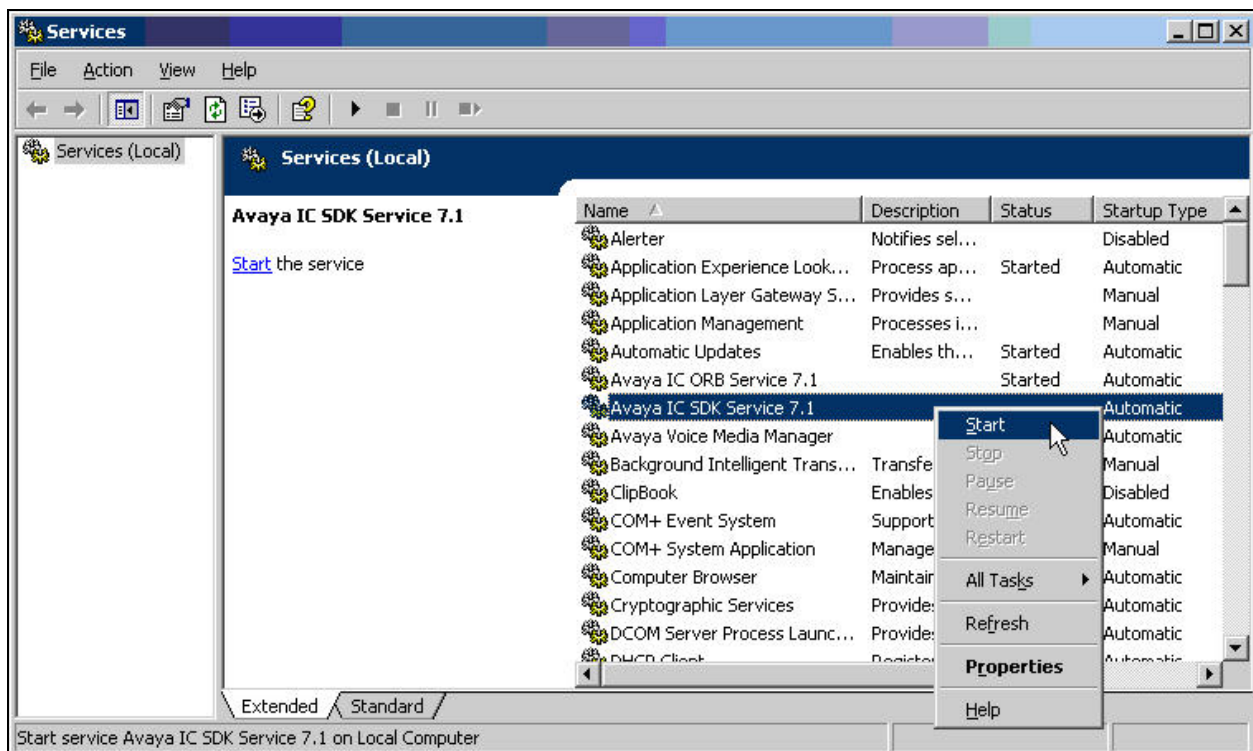


The **Avaya Interaction Center Configuration Tool** screen is displayed next. Select the **SDK Server** tab. For the **SDK Server Machine** field, enter the fully-qualified domain name of the IC Client SDK server. For the **JavaAppBridge Name** field, enter the name of the Java Application Bridge from **Section 3.4**. Click **Apply Settings** followed by **Exit**.



3.6. Start Client SDK Service

From the IC Client SDK server, select **Start > Settings > Control Panel > Administrative Tools > Services** (not shown) to bring up the **Services** screen below. Right click on **Avaya IC SDK Service 7.1**, and select **Start** to start the service.



4. Configure SimpliCTI SimpliAgent

This section provides the procedures for configuring SimpliCTI Software Solutions SimpliAgent. The procedures fall into the following areas:

- Launch SimpliAgent
- Connect to Avaya IC SDK server
- Log into Avaya IC

4.1. Launch SimpliAgent

From the Avaya IC client, double-click on the **SimpliAgent** icon shown below, which was created as part of the SimpliAgent installation.



4.2. Connect to Avaya IC SDK Server

The **Connect to SDK Server** dialog box is displayed. Enter the URL “http://<ip-address>:9700/icsdk”, where <ip-address> is the IP address of the Avaya IC Client SDK server. Click **OK**.

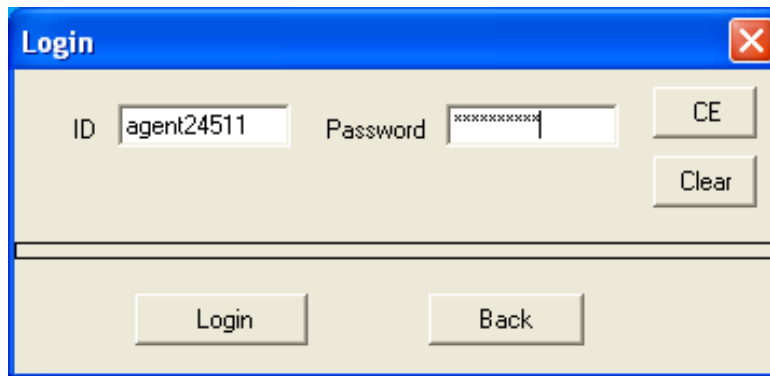


4.3. Log Into Avaya IC

The **SimpliAgent** screen below is displayed. Click on the **Login** icon to log into Avaya IC.



The **Login** dialog box is displayed. Enter a valid agent login ID and password administered on the Avaya IC server, and click **Login**. For the compliance testing, two agents with login ID of “agent24511” and “agent24512” were created on Avaya IC.



The **SimpliAgent** screen is displayed again, and updated showing the agent in the “AUXWORK” mode, with the **AVL** and **LOGOUT** icons enabled. Click on **AVL** to make the agent available to handle contacts from the media channels.



The **SimpliAgent** screen is updated, and shows the agent in the “AVAILABLE” mode, with the **AUX** and **LOGOUT** icons enabled. The **ACD**, **Chat**, and **Email** icons are also enabled, showing that the agent is available to handle contacts for all three media channels.



5. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying SimpliCTI Software Solutions SimpliAgent on the following: screen pop of voice/email/web contact information, agent login/logout and change work modes, wrap up and aux work reason codes, blind and consult voice transfers, voice conference, email reply/forward/attachment/defer/transfer, and web chat transfer.

The serviceability testing focused on verifying the ability of SimpliAgent to recover from adverse conditions, such as disconnecting the Ethernet cable on the Avaya IC client PC running SimpliAgent.

5.1. General Test Approach

The feature test cases were performed manually. Incoming calls, emails, and web chats were made to Avaya IC and delivered to available agents. Manual controls and work mode changes from the agent desktops were exercised as necessary to test the handling of media channel contacts through the SimpliAgent custom desktop interface.

The serviceability test cases were performed manually by disconnecting and reconnecting the Ethernet cable to SimpliAgent.

5.2. Test Results

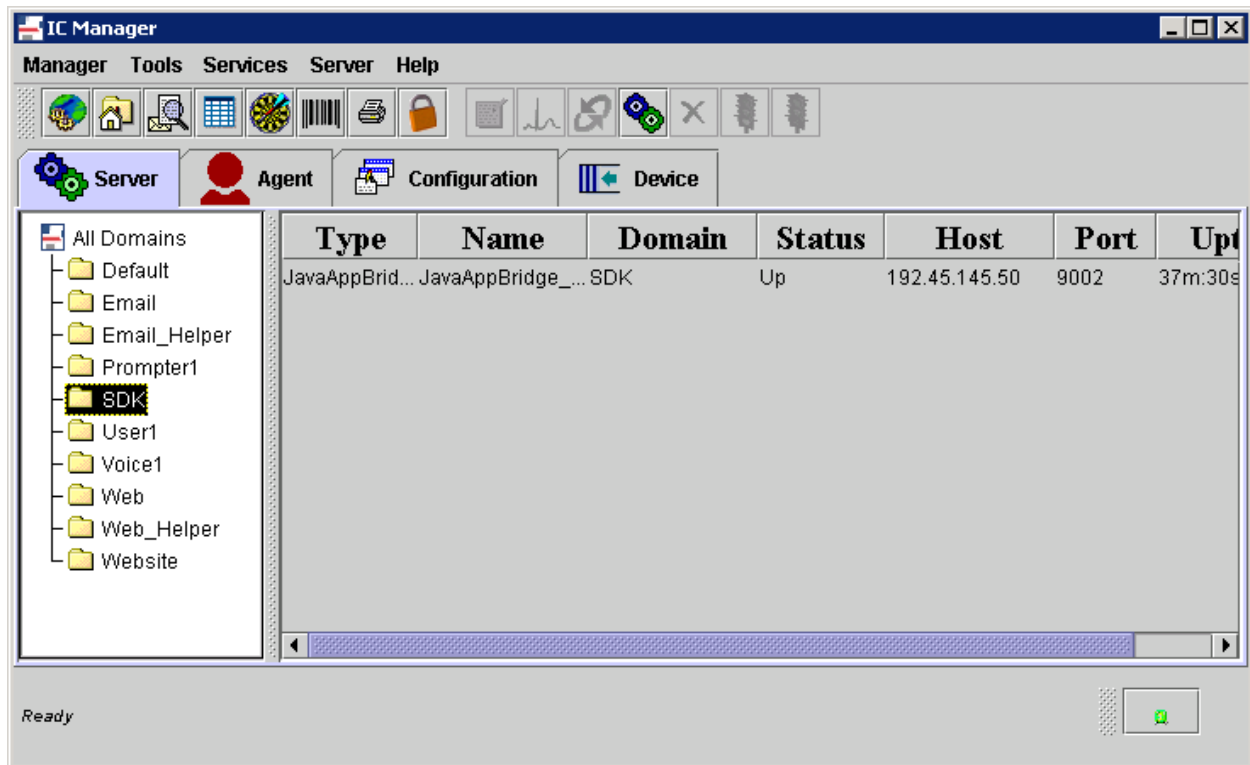
All test cases were executed and passed.

6. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya Interaction Center.

6.1. Verify Avaya Interaction Center

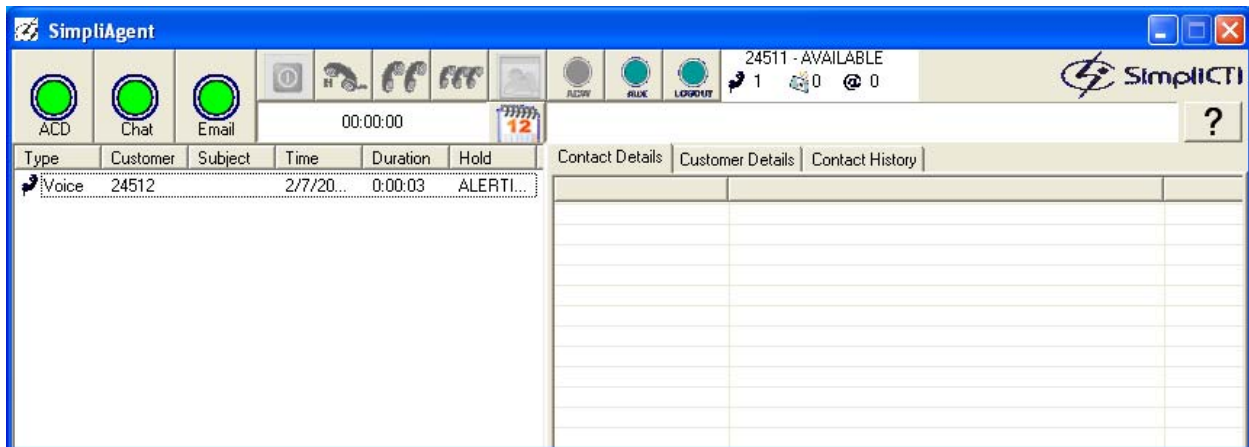
From the **IC Manager** screen, select the **Server** tab. Select the SDK domain from **Section 3.2** in the left pane. Verify that the Java Application Bridge from **Section 3.4** is displayed in the right pane, and that the **Status** is “Up” as shown below.




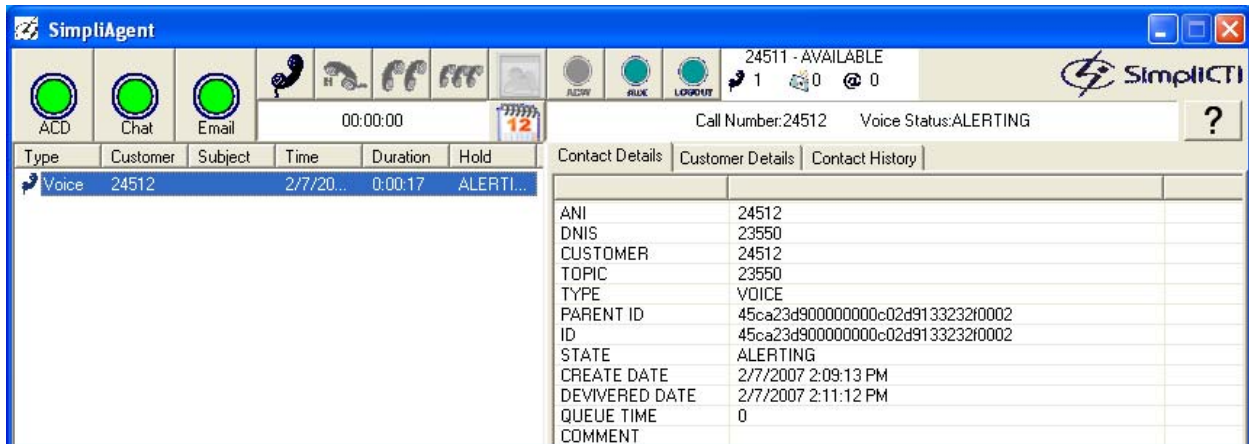
6.2. Verify SimpliCTI SimpliAgent

6.2.1. Verify Voice

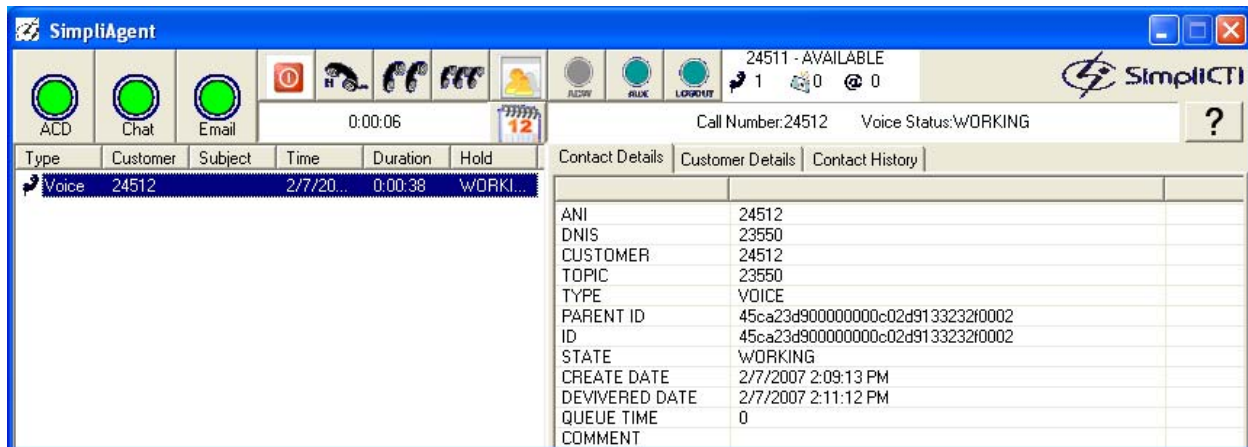
Make an incoming call to the Avaya IC application, with available agent “24511” that can handle all media contacts. Verify that the agent desktop is populated with an alerting voice contact entry, as shown below. Click on the **Voice** contact entry in the left pane.



Verify that the right pane is populated with call details, and that the accept icon  is enabled in the top menu. Click on the accept icon to accept the voice contact.

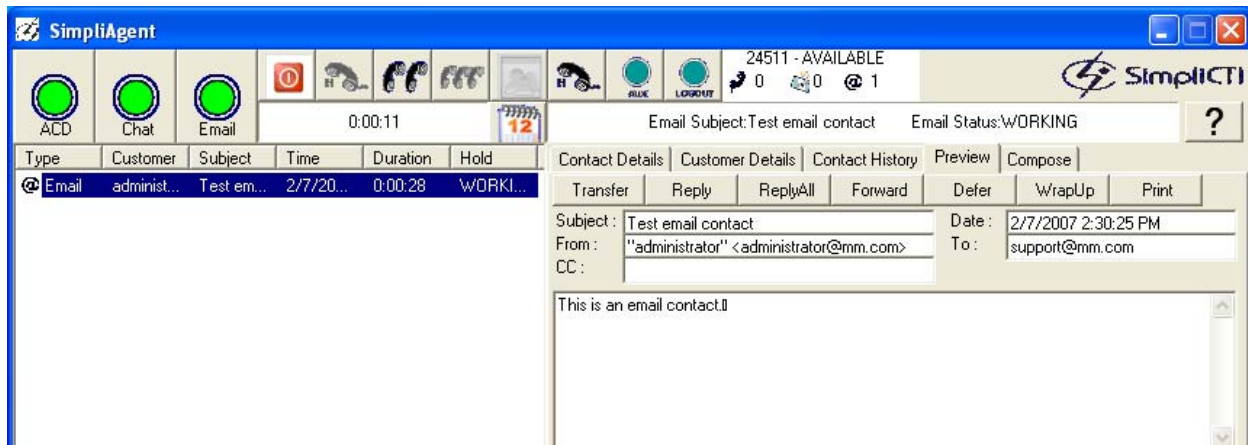


Verify that the agent is connected to the caller, and that the status for the voice contact changes to “WORKING”.



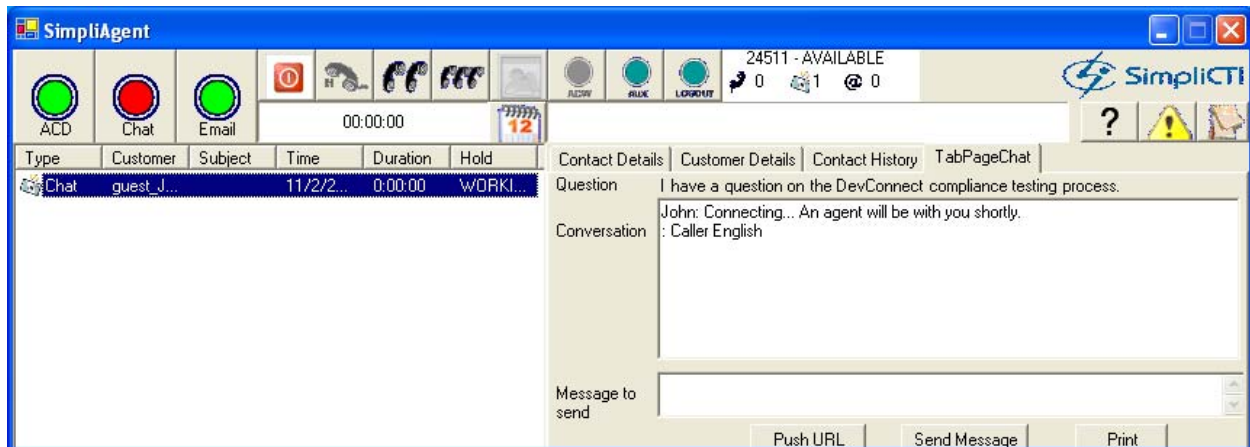
6.2.2. Verify Email

Make an incoming email to the Avaya IC application, with available agent “24511” that can handle all media contacts. Verify that the agent desktop is populated with an alerting email contact entry, as shown below. Click on the **Email** contact entry in the left pane followed by the accept icon to accept the email contact. Verify that the right pane is populated with the detail of the email contact.



6.2.3. Verify Chat

Make an incoming chat to the Avaya IC application, with available agent “24511” that can handle all media contacts. Verify that the agent desktop is populated with an alerting web chat contact entry, as shown below. Click on the **Chat** contact entry in the left pane followed by the accept icon to accept the web chat contact. Verify that the right pane is populated with the detail of the chat contact.



7. Support

Technical support on SimpliCTI SimpliAgent can be obtained through the following:

- **Phone:** 1-877-213-6883
- **Email:** techsupport@simplicti.com

8. Conclusion

These Application Notes describe the configuration steps required for SimpliCTI SimpliAgent 2.1.a to interoperate with Avaya Interaction Center 7.1 via the client SDK interface. All feature and serviceability test cases were completed successfully.

9. Additional References

This section references the product documentation relevant to these Application Notes.

- *Administrator Guide for Avaya Communication Manager*, Document 03-300509, Issue 2.1, May 2006, available at <http://support.avaya.com>.
- *Avaya MultiVantage Application Enablement Services Administration and Maintenance Guide Release 3.1.2*, Document ID 02-300357, Issue 4, September 2006, available at <http://support.avaya.com>.
- *Avaya Interaction Center Release 7.1 Installation & Configuration*, Document 07-300569, May 2006, available at <http://support.avaya.com>
- *Avaya Interaction Center Release 7.1 Client SDK Programmer Guide*, Document ID 07-300562, February 2006, available at <http://support.avaya.com>.
- *SimpliAgent Release 2.1.a Agent User Guide*, December 2006, available as part of the SimpliCTI Software Solutions SimpliAgent 2.1.a installation.

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