

Avaya Solution & Interoperability Test Lab

## Application Notes for OpenText RightFax with Avaya IP Office 9.1 – Issue 1.0

#### Abstract

These Application Notes describe the configuration steps required for OpenText RightFax to interoperate with Avaya IP Office 9.1. OpenText RightFax is a fax server application that uses the SIP trunk interface with T.38 fax from Avaya IP Office to send and receive fax.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as the observations noted in **Section 2.2**, to ensure that their own use cases are adequately covered by this scope and results.

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.

## 1. Introduction

These Application Notes describe the configuration steps required for OpenText RightFax to interoperate with Avaya IP Office 9.1. OpenText RightFax is a fax server application that uses the SIP trunk interface with T.38 fax from Avaya IP Office 500 V2 to send and receive fax.

For each user on Avaya IP Office desired to use fax, a fax extension is assigned and configured on OpenText RightFax. Incoming fax is routed by Avaya IP Office to OpenText RightFax via an available SIP channel. The received incoming fax can be viewed by the fax user using the RightFax FaxUtil application. Similarly, outgoing fax can be sent by the fax user via the same application.

## 2. General Test Approach and Test Results

The feature test cases were performed manually. Fax calls to and from RightFax were made. The faxes were sent and received using the RightFax FaxUtil application and an analog fax machine at the PSTN.

The serviceability test cases were performed manually by disconnecting and reconnecting the Ethernet connection to RightFax and rebooting the RightFax server.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

#### 2.1. Interoperability Compliance Testing

The compliance testing included feature and serviceability areas.

The feature testing focused on verifying the following on RightFax:

- Proper handling of faxes via SIP trunk with T.38: send/receive, internal fax, external fax over ISDN (PRI), simultaneous bi-directional faxes, and miscellaneous failure scenarios.
- Proper handling of faxes with different pages, resolutions, complexity, paper sizes, and data rates.
- No adverse impact on the internal and external VoIP calls during fax transmission.

The serviceability testing focused on verifying the ability of RightFax to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet connection to RightFax and rebooting the RightFax server.

#### 2.2. Test Results

All test cases were executed and verified as successful with the following observations,

- Sending of faxes from RightFax fails when the transmission rate is set to 4800 and 2400 on the RightFax and the Avaya IP Office SIP trunk.
- When the connection to RightFax is lost either due to Ethernet disconnect or server reboot, only the pages sent or received before the above occurs are received.

#### 2.3. Support

North American Technical support for RightFax can be obtained by contacting OpenText at

- Phone: (800) 540-7292
- Email: <u>support@opentext.com</u>

For other locations go to http://www.opentext.com/2/global/company/company-contact.html

## 3. Reference Configuration

The configuration used for the compliance testing is shown below. IP Office is connected to RightFax via a SIP trunk and to an Emulated PSTN via an ISDN PRI line. Fax extension of 71xxx is configured on the RightFax server which sends and receives fax calls to/from a fax machine in the PSTN. A local fax machine was also configured on an analog port of the IP Office.

All incoming calls to the fax extensions are routed by IP Office over the SIP trunks to RightFax, and all outgoing faxes are routed by RightFax over the SIP trunks to IP Office.



Figure 1: Compliance Testing Configuration

## 4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya IP Office on IP500 V2	9.1.4 build 137
Avaya IP Deskphones:	
• 9621G (H.323)	6.4014
• 1140 (SIP)	4.4.018
OpenText RightFax on Microsoft Windows Server	10.6.2.1110
2008 R2 Enterprise SP1 64-bit, running on a	
VMWare Virtual Machine	
Dialogic Brooktrout SR140 Configuration Tool	6.7.3 Build 3

*Compliance testing is applicable when the tested solution is deployed with a standalone IP Office 500 V2 only.* 

## 5. Configure Avaya IP Office

This section provides the procedures for configuring IP Office, assuming it has been installed and licensed. The procedures include the following areas:

- Verify Avaya IP Office license
- Obtain LAN IP address
- Enable SIP trunks
- Administer SIP line
- ISDN PRI Line configuration
- Administer incoming call route
- Administer short code
- Administer Analog Extension/User
- Save configuration

#### 5.1. Verify Avaya IP Office License

From a PC running the IP Office Manager application, select **Start**  $\rightarrow$  **All Programs**  $\rightarrow$  **IP Office**  $\rightarrow$  **Manager** to launch the Manager application. Select the applicable IP Office system, and log in using the appropriate credentials.

The Avaya IP Office Manager screen is displayed. From the configuration tree in the left pane, select License to display the License screen in the right pane. Verify that the License Status for SIP Trunk Channels is "Valid", and that the Instances value is sufficient for the desired maximum number of simultaneous faxes. If there is insufficient capacity of SIP Trunks, contact an Avaya representative to make the appropriate changes.

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#### 5.2. Obtain LAN IP Address

From the configuration tree in the left pane, select **DevCon IPO 1**  $\rightarrow$  **System** to display the **DevCon IPO 1** screen in the right pane, where **DevCon IPO 1** is the name of the IP Office system. Select the **LAN1** tab, followed by the **LAN Settings** sub-tab in the right pane. Make a note of the **IP Address**, which will be used later to configure RightFax in **Section 6.5**. Note that IP Office can support SIP trunks on the LAN1 and/or LAN2 interfaces, and the compliance testing used the LAN1 interface.

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#### 5.3. Enable SIP Trunks

Select the **VoIP** sub-tab. Ensure that **SIP Trunks Enable** is checked, as shown below.

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#### 5.4. Administer SIP Line

From the configuration tree in the left pane, right-click on Line, and select New  $\rightarrow$  SIP Line from the pop-up list to add a new SIP line. Select the **Transport** tab in the right pane. For **ITSP Proxy Address**, enter the IP address of RightFax. Set the Layer 4 Protocol field to UDP. Retain the default values for the remaining fields.

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Select the **SIP URI** tab, and click **Add** to display the **New Channel** section. Enter the wildcard character "\*" for **Local URI**, **Contact**, and **Display Name**. Enter an unused group number such as "23" for **Incoming Group** and **Outgoing Group**. Set **Max Calls per Channel** to the maximum number of simultaneous faxes allowed by the RightFax license, in this case "10". Retain the default values in the remaining fields. Click **OK**.

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The screen is updated, as shown below.

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Select the **VoIP** tab. Check **Re-invite Supported**. For **Fax Transport Support**, select "T38" from the drop-down list. Retain the default values in the remaining fields.

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Select the **T38 Fax** tab. Uncheck **Use Default Values** toward the bottom of the screen to access all fields.

For **T38 Fax Version**, select "0". Check **Disable T30 ECM** in the right section. Retain the default values in the remaining fields. Click **OK**.

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### 5.5. ISDN PRI Line Configuration

An ISDN PRI Line was pre-configured on the IP Office for connectivity to PSTN. Since it is an integral part of the test configuration, a screenshot is included in this section for informational purposes.

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17     Setth Type     Ni2     Provider     Loc       18     Setth Type     Ni2     Provider     Loc       18     Setth Type     Ni2     Provider     Loc       10     Setth Type     Ni2     Provider     Loc       20     Setth Type     Ni2     Provider     Loc       21     Provider     Image: Setth Setting the set of the set	100	anna lacteries.		<u>E.</u>	700	
18     Send Service Newages     I       19     Outriel Alkoaten     1 -> 10       21     Prefix     I       22     Add Not end-to-end ISDN     Never       13     Add Not end-to-end ISDN     Never       14     Prefix     I       15     Add Not end-to-end ISDN     Never       16     Triorestion Element     Nore       17     Send Sedescing Nander     I       17     Send Sedescing Nander     I       17     Oak Quality     Network     Praising	Telco	Provider Local Telco		NIZ	Seatch Type	
10     Ouernel Allocation     1 -> 20       21     Profix       22     Profix       33     Add Net end-to-end ISDN       -F1 201     Profix       -F1 201     Progress Replacement       -F1 202     Progress Replacement       -F1 203     Send Resh scing Namber       -F1 204     Text Number       -F1 205     Fragens       -F1 206     Text Number       -F1 207     Clock Quality       -F1 208     GRC Checking       -F1 209     CSL Operation       -F1 200     CSL Operation					Send Service Messager	10
21     Strafe       22     Frefor       33     Add Not end-to-end ISON       11201     Thromatics Denent       11202     Frogress Replacement       11203     Sand Redworting Namber       11204     Text Number       11205     Text Number       11206     Geo Quality       11209     Geo Quality       11209     Geo Quality       11209     Geo Checking       11209     Chil Operation				1.5.10	Channel Ministra	20
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11,203         Send Such schrigt Namber         F           11,204         Send Such schrigt Namber         F           11,205         Text Number         F           11,206         Text Number         F           11,207         Olick Quality         Nation A         F           11,208         GRC One dang         F         Zero Suppression         Bs2           11,210         Chil Operation         F         Line Supression         Bs2				None	Ptogress Replacement	-T1 202
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-F3.007         Octo Quality         Network         ▼         Praning         ESF           -F1.208         CRC Chedang         ✓         Zero Suppression         B82           -F1.200         CRC Chedang         ✓         Zero Suppression         B82           -F1.210         CSU Operation         Line Supression         B82				18 com	Seat Number	-73 206
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- F1 219			and the second sector		Faire	- 13 213
13 214 Bent original same party for revealed and twenting can			and twenning calls	d treach the universitied	pend orderer result	-13 214

#### 5.6. Administer Incoming Call Route

From the configuration tree in the left pane, right-click on **Incoming Call Route**, and select **New** from the pop-up list to add a new route. For **Line Group Id**, select the incoming group number from **Section 5.4**, in this case "23". Click **OK**.

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DeuCan IPO 1 Incoming Call	Bure # 23		
IP Offices		23	<u></u> ₫•±1 X < < >
	Standard Voies Records Desire Capability Line Group 10 Incoming Number Incoming CLI Locale Priority Tag Hold Music Source Ring Tone Override	g Destinations	
2 27000 WAN Part (0) Directory (0) El (1) True Profile (1)			Di Loozi Help

Select the **Destinations** tab. For **Destination**, enter "." to match any dialed number from RightFax.

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IP Offices			23		🗂 • 🖄 🗙 🖌 < >
E & BOOTP (10)	Star	dand Voce Recording Destinations			
E g= Operator (3) = -## DevCon IPO 1		TanaProfile	Destination	Fallback.Extensio	n
E He System (1)		Default Value	1 k	1	*
E-11 Line (25)				*	2

Repeat the procedure for Line Group 1, which was automatically created by the system for the PRI trunk. From the configuration tree in the left pane, right-click on **Incoming Call Route**, and select **New** from the pop-up list to add a new route (not shown). For **Line Group Id**, select the incoming group number from **Section 5.5**, in this case "1". For Incoming Number, enter "123456XXXXX" to match any call where the called party number has 123456 as the leading digits. Click **OK**.

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6 8007P (10) Operator (3) # DevCon 3PO 1 - *** System (1)	Standard Voice Records	g   Destinations		
- (-?, Line (25) 	Line Group ID Incoming Number	1 123456×××××	2	
Group (10)     Short Code (63)     Service (0)     Pas (1)	Incoming Sub Address Incoming CLI			
Cal Route (9)	Locale Priority	1-Lose		
© 17 © 23 © 20 © 21	Hold Music Source	System Source	2	

Select the **Destinations** tab. For **Destination**, enter "#". When this route is matched by a call, the "#" in the **Destination** field is replaced by the digits in the called party number that matches the "XXXXX" wildcards. For example, if the calling party number is 12345671000, the destination will be 71000.

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#### 5.7. Administer Short Code

#### 5.7.1. Short Code for Call to RightFax Server

From the configuration tree in the left pane, right-click on **Short Code** and select **New** from the pop-up list to add a new short code for fax calls to RightFax (not shown). In the compliance testing, users on IP Office are designated with fax numbers 71xxx, and faxes are routed over the SIP trunks to RightFax.

For **Code**, enter "71xxx". For **Feature**, select "Dial" from the drop-down list. For **Telephone Number**, enter "71N"@10.10.98.143" where "71N" corresponds to the short code and "10.10.98.143" is the IP address of RightFax. For **Line Group ID**, enter the outgoing group number from **Section 5.4**, which in this case is "23". Click **OK**.

7Ixxx 71xxx: Dial*	d·d × · · ·
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	ccount Code 🗖

#### 5.7.2. Short Code for Call to PSTN

Repeat the procedure for another new short code for fax calls from RightFax to PSTN.

Right-click on **Short Code** and select **New** from the pop-up list. For **Code**, enter "1N;". For **Feature**, select "Dial" from the drop-down list. For **Telephone Number**, enter "1N". For **Line Group ID**, enter the outgoing group number assigned to the PRI trunk which is "1" as configured in **Section 5.5**. Click **OK**.

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DevCon 1PO 1 Short Code	r → #* 10. 1 IN		
IP Offices	E	1N;: Dial	<b>□ + □ × </b>
90 +500 90 - 90 - 90 - 90 - 90 - 90 - 90 - 90	Short Code Code Pesture Telephone Number Line Group ID Locale Porce Account Code Porce Authorization Code	IA   Deal  IA  I       	2

#### 5.8. Administer Analog Extension/User

This section explains the steps to add an analog extension and user. During compliance testing an analog extension/user was added to serve the local fax endpoint on the IP Office.

From the screen below, an analog extension can be selected from the available ports under **Extension** on the left hand menu. During compliance testing an **Extension ID** of "27" was selected and from the **Extn** tab, **Base Extension** was configured as "28227". Retain default values for the rest of the fields.



From the **Analogue** tab, select the radio button for "Standard Telephone". Retain default values for rest of the fields and click on **OK**.

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IP Offices		Analogue Extension: 27 28227	<b>₫•∃ X v</b> <
E Control Link (5) E dension (54)	Dim Analogue     Equipment Classification     Quert Headwait     Paging Speaker     Standard Telephone     Dire Proces     Toro Proces     Toro Proces     Toro Proces     TAX Machine     T MOH Source	Flash Hosk Pulse Width       Image: Watting Lamp Indication Type       Message Watting Lamp Indication Type       Image: Watting Lamp Indication Type       Hook Persistency	

Solution & Interoperability Test Lab Application Notes ©2016 Avaya Inc. All Rights Reserved. From the configuration tree in the left pane, right-click on **User** and select **New** from the pop-up list to add a new user to the extension added above. Configure the values for **Name**, **Account Status**, **Full Name** and **Extension** as shown in the screen below. The value "28227" in the **Extension** field is the **Base Extension** value configured while adding the extension above. Retain default values for all other fields and click on **OK**.

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IP Offices		Extn28227: 28227	<mark>₫•≝ X &lt;</mark> < >
BOOTP (16)     Gestator (3)     Gestator (3)     Gestator (3)     Gestator (3)     Gestator (3)     Gestator (1)     Gestator (2)     Ge	User Voicenal DHD     Name     Password     Confirm Password     Confirm Password     Confirm Conference PDN     Confirm Conference PDN     Confirm Conference PDN     Account Status     Pul Name     Extension     Enail Address     Locale     Priority     System Phone Fights     ACCS Agent Type	Shart Codes   Source Numbers   Telephony   Forwarding   Cial In   Youce Recording   Button P E-m28227 E-m28227 E-m284ed PO Top Analog 28227 5 Nore Nore	rogramming   Menu Programming   Mobility   4   4
26256 Algo 8180 Loud 26201 Extra8201 26202 Extra8202			Ciniz Help

#### 5.9. Save Configuration

Once all the items are configured, click the Save Configuration File 🖬 icon. The Save Configuration screen is displayed. Click OK.

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File Edit View Tools Help						
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DevCon IPO 1 🔹 User	<ul> <li>28227 Extn28227</li> </ul>	-				
IP Offices	III	Extn28227: 28227				
□       User (56)         □       NoUser         □       28255 28255         □       28300 28300         □       28301 Agent 28301         □       28302 Agent 28302         □       28303 Agent 28303         □       28304 Agent 28304         □       28304 Agent 28304         □       28320 Agent 28320         □       6005 Agent 6005         □       6006 Agent 6006         □       6007 Agent 6007         □       6008 Agent 6008         □       6009 Agent 6009         □       6010 Agent 6010         □       28258 Algo 8028 Door         □       28257 Algo 8128 Strob         □       28201 Extn28201         □       28202 Extn28202         □       28203 Extn28203         □       28204 Extn28204         □       28205 Extn28205	User     Voicemail     DND     S       Name       Password       Confirm Password       Conference PIN       Confirm Conference PIN       Account Status       Full Name       Extension       Email Address       Locale       Priority       System Phone Rights       ACCS Agent Type	Short Codes Source Numbers Telephony Forwarding Dial In Extn28227 Save Configuration IP Office Settings DevCon IPO 1 Configuration Reboot Mode Merge Immediate When Free Timed Reboot Time Incoming Calls Outgoing Calls				
28206 Extr28206 28207 Extr28207 28208 Extr28208 28209 Extr28209		OK Cancel Help				

## 6. Configure OpenText RightFax

This section describes the configuration of OpenText RightFax and the embedded RightFax Original Equipment Manufacturer (OEM) or Brooktrout SR140 virtual fax board software from Dialogic (hereafter referred to as "SR140"). It assumes that the application and all required software components, including Brooktrout SR140 and the database software (Microsoft SQL Server 2012), have been installed and properly licensed. For instructions on installing RightFax, refer to **Section 9**.

Note that the configurations documented in this section pertain to interoperability between RightFax and the Avaya SIP infrastructure. The standard configurations pertaining to RightFax itself (e.g., administering fax channels) are not covered. For instructions on administering and operating RightFax, refer to **Section 9**.

The configuration procedures covered in this section include the following:

- Launch RightFax Enterprise Fax Manager and Brooktrout Configuration Tool
- Configure IP stack
- Configure BTCall parameters
- Configure Call Control parameters
- Configure SIP IP parameters
- Configure T.38 parameters
- Configure RTP parameters
- Administer RightFax users

# 6.1. RightFax Enterprise Fax Manager and Brooktrout Configuration Tool

The RightFax configuration is performed using the RightFax Enterprise Fax Manager. Launch the **RightFax Enterprise Fax Manager** from the Windows Start menu. At the main window, highlight the host name of the fax server (created during the installation process) from the navigation menu in the left pane:

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The Brooktrout SR140 was configured during installation. To view or modify the settings, the **RightFax DocTransport Module** must be stopped. Stop All Services of this module by right clicking on the module and then clicking on **Stop All Services** (shown below). After all the service modules indicate the stopped status, right click the **RightFax DocTransport Module** again to select **Configure Service**.



From the screen of the **DocTransport Configuration-LOCAL** shown below, click on **RightFax OEM** (left side of screen), then click on the **Configure Brooktrout** button.

DocTransport Configuration - LOCAL	X
Auto Billing Code Settings Global DocTransport Settings Global Transport Settings Advanced Settings RightFax OEM Channel #0 Channel #1 Channel #2 Channel #3	Board module number: Image: DID Settings   Number from the rotary switch on the board. Number of digits for routing:   Image: Set Fax ID for all channels: Fax Server   Image: Set Capability for all channels: Both   Image: Configure Brooktrout Board Image: Set Capability for all channels:   Image: Configure Brooktrout Board Image: Set Capability for all channels:   Image: Configure Brooktrout Image: Set Capability for all channels:   Image: Configure Brooktrout Image: Set Capability for all channels:   Image: Configure Brooktrout Image: Set Capability for all channels:   Image: Configure Brooktrout Image: Set Capability for all channels:   Image: Configure Brooktrout Image: Set Capability for all channels:   Image: Configure Brooktrout Image: Set Capability for all channels:   Image: Configure Brooktrout Image: Set Capability for all channels:   Image: Configure Brooktrout Image: Set Capability for all channels:   Image: Configure Brooktrout Image: Set Capability for all channels:   Image: Configure Brooktrout Image: Set Capability for all channels:   Image: Configure Brooktrout Image: Set Capability for all channels:   Image: Configure Brooktrout Image: Set Capability for all channels:   Image: Configure Brooktrout Image: Set Capability for all channels:   Image: Configure Brooktrout Image: Set Capability for all channels:   Image: Configure Brooktrout Image: Set Capability for all channels:   Image: Configure Brooktrout Image: Set Cap
Delete Device Add Transp	bort Select Service Account OK Cancel

In the **Account access information** screen shown below, enter the correct credentials for the RightFax Service account used for the RightFax DocTransport Module. This account must have administrative user rights on the computer that runs the service.

Account access inform	ation
The RightFax OE the computer tha	M service account must have administrative user rights on at runs the service.
Enter the Userna log on.	ame and Password of the account with which the service will
Username:	\administrator
Password:	•••••
	OK Cancel

The Brooktrout Configuration Tool – Wizard Mode window is seen. Click the Advanced Mode button as shown in the screen below.



Click on the Yes button when prompted to launch the Configuration Tool in Advanced mode.



#### 6.2. Configure IP Stack

A **Configure IP Stack** window is displayed on first invocation of the Brooktrout configuration tool:

Configure IP Stack
IP Enabled module(s) have been detected in your system. Would you like to configure a Brooktrout IP stack to run on this module(s)?
C None C RP C H\$23
C Both (SIP and H323)
OK Cancel

Select **SIP** from the radio button and then click on **OK** as shown in the screen above. The **Brooktrout Configuration Tool** – **Advanced Mode** window is displayed as shown below.



Note that IP Stack can be viewed/reconfigured from the Brooktrout Configuration Tool menu **Options**  $\rightarrow$  **Configure IP Stack** (not shown).

#### 6.3. Configure BTCall Parameters

*Note:* During the compliance testing, the following settings were retained at the default settings. In practice, these settings may not be required for full functionality.

Navigate to **Brooktrout (Boston Host Service-Running)**  $\rightarrow$  **BTCall Parameters (All boards)** in the left navigation menu. Click the **Show Advanced** button as shown in the screen below.

Brooktrout Configuration Tool - Advanced Mode							
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Image: Constraint of the sector of the s	S ? License Help						
Brooktrout (Boston Host Service - Running) Driver Parameters (All boards)	BTCall Parameters						
BTCall Parameters (All boards) - Call Control Parameters	Country Telephony Parameter File:	BT_CPARM.CFG					
Module 0x41: SR140	Country:	USA (0010)					
⊡ - IP Call Control Modules	Maximum Timeout, sec:	0 0 999					
311	Debug						
	API Debugging:	Disabled					
	1st Debug Log File Name:	🖆 🏹					
	2nd Debug Log File Name:	🖆 🏄					
	Maximum Debug File Size:	10000000					
	Trace Bfv API Function Calls:	Disable					
		Show Advanced >>					

Under the **BTCall Parameters** section, configure the fields as follows:

- Error Correction Mode: ECM enabled 256-byte frames
- **Permitted Compression Types**: *MMR or MR or MH*
- V.34 Enable Send Call Indicator: Enable
- V.34 High Speed Control Signaling: Enable
- V.34 Modulation Capability: Enable

Retain default values for other fields.

Brooktrout Configuration Tool - Advance	ed Mode				
Ale view Options Help	8				
Home Back Next Save Apply	License Help				
Diokubu (Bostori Host Service - Narining)     Driver Parameters (All boards)     BTCall Parameters (All boards)	Error Correction Mode:	ECM enabled 256-byte frames			
Call Control Parameters	Error Detection:	Enabled			
□ IP Call Control Modules	Error Threshold Value:	3			
IIIII SIP	Font Files:	/bfv.api/fonts/ibmpcps.fz8 0			
	Maximum Error Multiplication Value:	200			
	Maximum Number of Pages:	30			
	Maximum Page Width:	215mm A4 1728 Normal resolution pixels			
	Minimum Error Multiplication Value:	40			
	Minimum Number of Lines, x10 units:	0 0 0 255			
	Permitted Compression Types:	MMR or MR or MH			
	Send RTP FSK:	Enabled			
	Time to Wait for CED Tone, x10msec:	4000			
	V.34 Enable Send Call Indicator:	Enable			
	V.34 High Speed Control Signaling:	Enable			
	V.34 Modulation Capability:	Enable 🔽 💌			

#### 6.4. Configure Call Control Parameters

Navigate to **Brooktrout (Boston Host Service-Running)**  $\rightarrow$  **Call Control Parameters**  $\rightarrow$  **Module 0x41: SR140** in the left navigation menu. Ensure the following configuration parameters in the **Parameters** tab are correct for the user's environment:

- IP Call Control Module: Select *SIP* from the drop down menu.
- Media IP Interface for IPv4: If the server contains multiple network interface cards (NICs), ensure you have selected an interface that is able to communicate with IP Office.
- Lowest/Highest IP Port Numbers: Ensure your RTP range matches the port range configured on the Avaya SIP infrastructure. By default, the port range for SR140 is *56000* to *56999*. A maximum range of 1000 ports may be specified. When you change the Lowest IP Port Number value, the Highest IP Port Number value will adjust automatically.

🌧 Brooktrout Configuration Tool - Advan	ced Mode	
File View Options Help		
Home Cack Next Save Apply	S ? License Help	
<ul> <li>□- Brooktrout (Boston Host Service - Running)</li> <li>□- Driver Parameters (All boards)</li> <li>□- Call Control Parameters</li> <li>□- Module 0x41: SR140</li> <li>□- IP Call Control Modules</li> <li>□- SIP</li> </ul>	General Information Parameters IP Call Control Module: Media IP Interface for IPv4: Lowest IP Port Number: Highest IP Port Number:	SIP         (10.10.98.143)         Intel(R) PR0/1000 MT Network C.         56000         56999         (Show Advanced >>)

#### 6.5. Configure SIP IP Parameters

Navigate to **Brooktrout (Boston Host Service-Running)**  $\rightarrow$  **IP Call Control Modules**  $\rightarrow$  **SIP** in the left navigation menu. Select the **IP Parameters** tab in the right pane. Configure the fields as follows:

- **Primary Gateway** The IP address of the IP Office to communicate with.
- From Value If required by the Avaya environment, set this to an appropriate *UserInfo@ServerIP*. During compliance testing this value was configured as 71000@10.10.98.143.
- **Contact IPv4 Address** Enter the IP address assigned to RightFax and the port number *5060*.
- Username Required. Default value is a dash ('-') character.

Retain default values for all other fields.

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Image: Graph of the state     Image: Graph of the state     Image: Graph of the state       Home     Back     Next     Save       Apply	🕉 🧣 License Help	
Brooktrout (Boston Host Service - Running)	General Information IP Parameters T.38 Paramete	rs   RTP Parameters
Driver Parameters (All boards) BTCall Parameters (All boards) Call Control Parameters	Maximum SIP Sessions:	256
Module 0x41: SR140	Primary Gateway:	10.10.97.36
IP Call Control Modules	Primary Proxy Server:	:0
	Additional Proxy Server #2:	:0
	Additional Proxy Server #3:	:0
	Additional Proxy Server #4:	:0
	Primary Registrar Server URL:	:0
	Additional Registrar Server #2:	:0
	Additional Registrar Server #3:	:0
	Additional Registrar Server #4:	:0
	From Value:	71000@10.10.98.143
	Contact IPv4 Address:	10 . 10 . 98 . 143 : 5060
	Username:	·
	Session Name:	no_session_name
	Session Description:	
	Description URI:	

#### 6.6. Configure T.38 Parameters

Select the **T.38 Parameters** tab and configure the fields as shown in the screen below.

• Maximum Bit Rate, bps: Select a value from the drop down menu. During compliance testing various values were selected.

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Image: Constraint of the sector of	Icense         Help	
⊡ - Brooktrout (Boston Host Service - Running) Driver Parameters (All boards)	General Information IP Parameters T.38 Parameters	RTP Parameters
BTCall Parameters (All boards)	Fax Transporting Protocol:	T.38 only
Module 0x41: SR140	Generate CED tone over RTP:	Yes
⊡ · IP Call Control Modules	Maximum Bit Rate, bps:	14400
	Media Passthrough Timeout Inbound, msec:	1000
	Media Passthrough Timeout Outbound, msec:	4000
	Media Renegotiate Delay Inbound, msec:	1000
	Media Renegotiate Delay Outbound, msec:	-1
	T30 Fast Notify:	No
	UDPTL Redundancy Depth Control:	5 0 5
	UDPTL Redundancy Depth Image:	2 0 2
		[Show Advanced >>]

*Note:* During the compliance testing, the above settings were configured at the default settings. In practice, these settings may not be required for full functionality.

### 6.7. Configure RTP Parameters

Select the **RTP Parameters** tab and configure the **RTP codec list** value to use only a single codec, either *pcmu* or *pcma* to match the codec used in the user's region.

After verifying all the above parameters are properly configured, click on **Apply** and then the **Save** button from the top menu.



Exit the **Brooktrout Configuration Tool – AdvancedMode** window.

From the **DocTransport Configuration - LOCAL** screen as shown in **Section 6.1**, click the **OK** button to complete the configuration.

Restart all RightFax service modules by right clicking the **RightFax DocTransport Module** name in the lower right pane of the **RightFax Enterprise Fax Manager** window and select **Start All Services** (refer to the screen shot shown in **Section 6.1**).

#### 6.8. Administer RightFax Users

A user is created on the RightFax server for each incoming fax number. The user represents the fax recipient. To view the list of users, in the **RightFax Enterprise Fax Manager** window, navigate to **Users** in the left navigation menu under the host name of the fax server. The example below shows a list of three users. To view the details of a user, double-click on the user entry in the right pane. During compliance testing the **ADMINISTRATOR** user was used. This section is mentioned here for reference only and therefore no details of configuring a user will be discussed in these application notes.



## 7. Verification Steps

This section provides the tests that can be performed to verify proper configuration of IP Office and RightFax. Prior to verification, start sending a fax from the PSTN to a fax user on IP Office.

#### 7.1. Verify Avaya IP Office

From the Avaya IP Office R9.1 Manager screen shown in Section 5.1, select File  $\rightarrow$  Advanced  $\rightarrow$  System Status to launch the System Status application, and log in using the appropriate credentials.

The Avaya IP Office System Status screen is displayed. Expand Trunks in the left pane and select the SIP line from Section 5.4, in this case "23".

Verify that the **SIP Trunk Summary** screen shows an active channel with **Current State** of the fax. Also verify that the **Other Party on Call** contains the proper information for the trunk with the PSTN, as shown below. In the compliance testing, line "*1*" is the existing PRI trunk to the PSTN.



## 7.2. Verify OpenText RightFax

From the **RightFax FaxUtil** window, a user can verify the status of incoming or outgoing faxes as shown below.

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File Fax List Tools Help							1000-0125
New Fac Delate View First OCR	Forward to Liver Porward to	Pax Route to User Hits		Confernation P	tonebook Options	Colegates Refresh	
All win-ib7rd6c7njp administrator	(8)	Personal and a second		name de les les désider au les			
🗄 💽 Win-b7ntBc7ngp (W2N-187WT	Show as 🔹 tax	6					
	12 1F E 19 00	Date/Time	To/From/File	Fax Number/E-m	Pages/Bytes	Status	
Main	1	11.17 AM	picture	15139653030	Caver+1	OK OK	
- 🗑 Trash	Ð	Thu. 11:53 AM	picture	15139653030	Cover+1	OK OK	
🗄 🎒 Other Users	1	Thu, 11:34 AM	mage	15139653030	Cover+1	🥥 ОК	
EVERYONE	<b>A</b>	Thu: 11:25 AM	From Rightfax	15139653030	Cover+3	OK OK	-
	1	Thu, 11:19 AM	IPO	151 39653030	Cover	○ 0K	
	1	Thu. 11:13 AM	IPO	15139653030	Cover	O DK	
- Main	1	THA. 11:09 AM	IPO	15139653030	Cover	OK OK	
Trash	4	Thu, 10.51 AM	IPO	15139653030	Cover	O OK	
1						72	2
			11		19 Fax	es listed	di la constante da la constante

## 8. Conclusion

These Application Notes describe the configuration steps required for OpenText RightFax to successfully interoperate with Avaya IP Office 9.1. All feature and serviceability test cases were completed with an observation noted in **Section 2.2**.

## 9. Additional References

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

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

- 1. Avaya IP Office 9.1 Administering Avaya IP Office Platform with Manager, Release 9.1
- **2.** Avaya IP Office<sup>TM</sup> Platform Documentation Catalog Release 9.1, Document number 16-604278.
- **3.** Avaya IP Office<sup>TM</sup> Platform 9.1. Deploying Avaya IP Office<sup>TM</sup> Platform IP500 V2, Document number 15-601042.

RightFax product documents may be found at <u>https://knowledge.opentext.com</u>. (Valid login required).

OpenText RightFax 10.6 Administrator Guide OpenText RightFax 10.6 Installation Guide

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