

Avaya Solution & Interoperability Test Lab

### Application Notes for MultiTech MultiVOIP FX with Avaya IP Office using SIP Fax Endpoints – Issue 1.0

#### Abstract

These Application Notes describe the configuration steps required for MultiTech MultiVOIP FX to interoperate with Avaya IP Office. The MultiTech MultiVOIP FX is a gateway that provides connectivity between legacy analog voice/fax endpoints and a VoIP infrastructure. In the compliance testing, MultiTech MultiVOIP FX connected analog fax endpoints at the Branch site to Avaya IP Office at the Main site, and registered the analog fax endpoints to Avaya IP Office as SIP endpoints with T.38 fax capabilities.

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 MultiTech MultiVOIP FX to interoperate with Avaya IP Office. The MultiTech MultiVOIP FX is a gateway that provides connectivity between legacy analog voice/fax endpoints and a VoIP infrastructure. In the compliance testing, MultiTech MultiVOIP FX connected analog fax endpoints at the Branch site to Avaya IP Office at the Main site, and registered the analog fax endpoints to Avaya IP Office as SIP endpoints with T.38 fax capabilities.

### 1.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying the following on MultiTech MultiVOIP FX:

- Proper registration, send/receive fax, internal fax with Main, external fax with PSTN, and miscellaneous failure fax scenarios.
- Proper handling of faxes with different pages, complexity, format, and data rates.
- No adverse impact on the internal and external calls during faxes.

The serviceability testing focused on verifying the ability of MultiTech MultiVOIP FX to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet cable to MultiTech MultiVOIP FX.

#### 1.2. Support

Technical support on MultiTech MultiVOIP FX can be obtained through the following:

- **Phone:** (763) 717-5863
- Web: <u>https://support.multitech.com</u>

# 2. Reference Configuration

**Figure 1** below shows the configuration used for the compliance testing. The MultiTech MultiVOIP FX consists of 2, 4, and 8 port models. In the compliance testing, the 2-port MVP210-FX model was used.

In the test configuration, MultiTech MultiVOIP FX connected physically to two analog fax machines at the Branch site, and registered both fax machines as SIP endpoints with Avaya IP Office at the Main site. The SIP endpoints were configured on Avaya IP Office with T.38 fax capabilities.

MultiTech MultiVOIP FX can be configured via a web interface, or via the MultiVOIP application running on a PC. In the compliance testing, the MultiVOIP application was used to configure MultiTech MultiVOIP FX. The PC running the MultiVOIP application has a serial connection to MultiTech MultiVOIP FX.

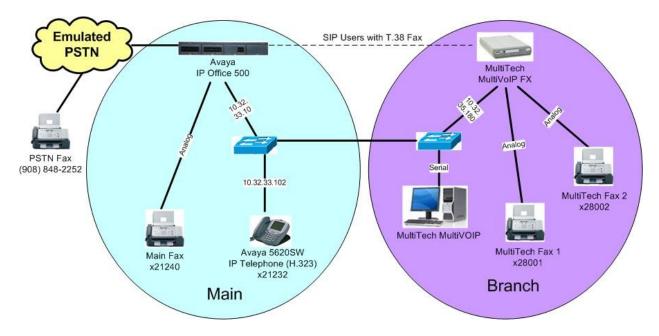


Figure 1: MultiTech MultiVOIP FX with Avaya IP Office

# 3. Equipment and Software Validated

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

Equipment	Software
Avaya IP Office 500	5.0 (15)
Avaya 5620SW IP Telephone (H.323)	2.9
MultiTech MultiVOIP FX on MVP210-FX	6.11.27
MultiTech MultiVOIP	6.11.27

Solution & Interoperability Test Lab Application Notes ©2010 Avaya Inc. All Rights Reserved.

### 4. Configure Avaya IP Office

This section provides the procedures for configuring Avaya IP Office. The procedures include the following areas:

- Verify IP Office license
- Obtain LAN IP address
- Administer SIP registrar
- Administer SIP extensions
- Administer SIP users

#### 4.1. Verify IP Office License

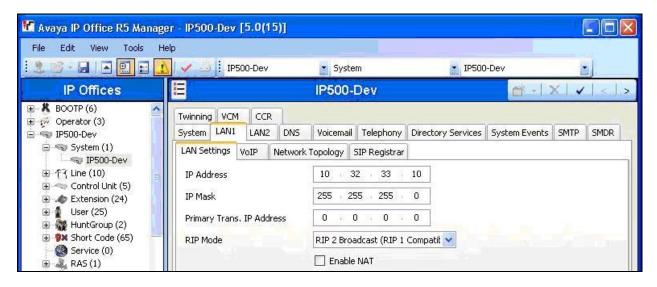
From a PC running the Avaya IP Office Manager application, select **Start > Programs > IP Office > Manager** to launch the Manager application. Select the proper IP Office system, and log in with the appropriate credentials.

The Avaya IP Office R5 Manager screen is displayed. From the configuration tree in the left pane, select License > IP End-points to display the IP End-points screen in the right pane. Verify that the License Status is "Valid".

🜃 Avaya IP Office R5 Manage	r - IP500-Dev [	5.0(15)]			
File Edit View Tools He	lp:				
	ј 🖌 🏄 🕴 ІР50	0-Dev	🗾 License	IP End-poir	nts 🔄
IP Offices	H		IP End-points		🛃 •   🗙   🗸   <   >
IP Route (1)      Account Code (0)      Account Code (0)      License (45)      Additional Voicer      Advanced Small      Advanced Small      Advanced Small      Advanced Small      CCC Agent Rost      CCC Agent Rost      CCC Cousigner (u      CCC EMail      CCC Designer (u      CCC Spectrum W      CCC Spectrum W      CCC Spectrum W      CCC Supervisors      Conference Cen      CTI Link Pro      DECT Integratioi      BLF      Integrated Mess	Licenses License Key License Type License Status Instances Expiry Date	jvyeaNb995C IP End-points Valid 255 Never	DcFpee4H_QLKvW5_rVsR	jC	

### 4.2. Obtain LAN IP Address

From the configuration tree in the left pane, select **System** to display the **IP500-Dev** screen in the right pane. 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 MultiTech MultiVOIP FX. Note that IP Office can support SIP extensions on the LAN1 and/or LAN2 interfaces, and the compliance testing used the LAN1 interface.



### 4.3. Administer SIP Registrar

Select the VoIP sub-tab. Make certain that SIP Registrar Enable is checked, as shown below.

🖿 Avaya IP Office R5 Manage	r - IP500-Dev [5.0(15	)]					
File Edit View Tools He	lp   🖌 🍰 📔 IP500-Dev	💌 System	12	IP500	-Dev		J
IP Offices		IP500-E	)ev		<u>et - 1</u> 2	×	.<. .>
BOOTP (6)     Operator (3)     IP500-Dev     System (1)     IP500-Dev     Control Unit (5)     Control Unit (5)     Extension (24)     User (25)     M HuntGroup (2)     Short Code (65)     Service (0)     RAS (1)     Coming Call Route     WanPort (0)	Twinning VCM CCR System LAN1 LAN2 LAN Settings VOIP N I H323 Gatekeeper E SIP Trunks Enable SIP Registrar Enable H323 Auto-create	nable e Extn	Telephony IP Registrar P Port Numb rt Range (Mi	-	System Events	SMTP	SMDR
	H323 Auto-create	User Po	rt Range (Ma	aximum) 53246			

Select the **SIP Registrar** sub-tab, and enter a valid **Domain Name** for SIP endpoints to use for registration with IP Office. In the compliance testing, the **Domain Name** was left blank, so the SIP endpoints used the LAN IP address for registration.

🜃 Avaya IP Office R5 Manage	r - IP500-Dev [5.0(15)]			
File Edit View Tools He	lp			
i 2 🖻 - 🖬 🖃 💽 🖬 🚺	] 🗸 🍰 📴 IP500-Dev	💽 System	IP500-Dev	
IP Offices		IP500-Dev	<u>er</u> - 1	×   ✓   <   >
BOOTP (6)     Operator (3)     IP500-Dev     System (1)     IP500-Dev     System (1)     Extension (24)     User (25)     Sort Code (65)     Service (0)     RAS (1)     Oncoming Call Route     WanPort (0)     Directory (0)     Time Profile (0)	Twinning       VCM       CCR         System       LAN1       LAN2       DNS         LAN Settings       VoIP       Netwo         Domain Name       Layer 4 Protocol       TCP Port         UDP Port       Challenge Expiry Time (secs)       Auto-create Extn/User	Voicemail Telephony rk Topology SIP Registrar Both TCP & UDP 👻 5060 📚 10 📚		SMTP SMDR

#### 4.4. Administer SIP Extensions

From the configuration tree in the left pane, right-click on **Extension**, and select **New > SIP Extension** from the pop-up list to add a new SIP extension. Enter the desired digits for **Base Extension**, and retain the default check in the **Force Authorisation** field shown below.

🜃 Avaya IP Office R5 Ma	nager - IP500-Dev [5.0(15)]			
File Edit View Tools	Help			
	] 🚺 🗸 🤐 🕴 IP500-Dev	Extension	2 21233	· · · · ·
IP Offices	SIP	Extensions: 8002 *		📸 📲 🗶 🛛 🖌 🔤 🗧
<ul> <li> <b>BOOTP</b> (6)      </li> <li> <b>⊕</b> -              <i>φ</i> </li> <li> <b>Operator</b> (3)         </li> </ul>	Extn VoIP T38 Fax			
E IP500-Dev	Extension ID	8002		
⊕ 🖘 System (1) ⊕ 17 Line (10)	Base Extension	28001		
⊕	Caller Display Type	On		
User (26)	Reset Volume After Calls			
	Device type	Unknown SIP device		
🕀 🚢 RAS (1) 🗄 😰 Incoming Call Roul	Module	0		
WanPort (0) Multiple Directory (0)	Port	0		
Time Profile (0)	Disable Speakerphone			
<ul> <li>         • ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●</li></ul>	Force Authorisation			

Select the **VoIP** tab. Check **Fax Transport Support** to enable T.38 fax capabilities for the SIP extension. Retain the default values for the remaining fields.

Repeat this section to add a new SIP extension for each MultiTech MultiVOIP FX port. In the compliance testing, two SIP extensions with base extensions of "28001" and "28002" were created.

File Edit View Tools	Help			
2 🖻 - 🔲 🖪 🔛 📰	🚺 🗸 🍰 🗓 IP500-I	Dev 🗾 Extension	8002 28001	- j
IP Offices		SIP Extensions: 8002 *		📸 •   🗙   🗸   <
BOOTP (6)     Operator (3)     IF500-Dev     IF500-Dev     System (1)     (1)     (7 Line (26)     Control Unit (6)     (6)     (7 Lines (27)     User (23)     User (23)     User (23)     User (24)	Extn VoIP T38 Fa IP Address Compression Mode TDM->IP Gain IP->TDM Gain	AX O O O O O O O O O O O O O O O O O O O	VoIP Silence : VoIP Silence : Fax Transpor Local Hold ML V Allow Direct M	t Support Isic
<ul> <li>Short Code (66)</li> <li>Service (0)</li> <li>RAS (1)</li> </ul>	DTMF Support	RFC2833	Re-invite Sup	•

#### 4.5. Administer SIP Users

From the configuration tree in the left pane, right-click on User, and select New from the pop-up list. Enter desired values for Name and Full Name. For Extension, enter the first SIP base extension from Section 4.4.

🜃 Avaya IP Office R5 Ma	nager - IP500-De	v [5.0(15)]					
File Edit View Tools	Help						
I 🗶 📸 - 🔙 I 🔺 💽 🗉	: 🚺 🗸 🖾 🗄 I	P500-Dev	<ul> <li>User</li> </ul>	<b>*</b> 280	01 sip28001	-	
IP Offices			<user:0< th=""><th>⊳:*</th><th></th><th>📥 +   ×</th><th><math display="block">\left  \begin{array}{c} \checkmark \end{array} \right  &lt; \left  \begin{array}{c} &gt; \end{array} \right </math></th></user:0<>	⊳:*		📥 +   ×	$\left  \begin{array}{c} \checkmark \end{array} \right  < \left  \begin{array}{c} > \end{array} \right $
	Menu Programming	Mobility Phon	e Manager Options	Hunt Group Membership	Announcements	Personal Director	У
🖃 🦏 IP500-Dev	User Voicemail	DND ShortCo	odes Source Numbe	rs Telephony Forward	ling Dial In Voic	e Recording Butt	on Programming
System (1)     System (1)     Grad Control Unit (6)     System (29)     System (23)     User (23)     User (23)     Control Unit (6)     System (23)     Control Unit (6)     System (23)     Control Unit (6)     Con	Name Password Confirm Password Full Name Extension Locale	M	928001 ultiTech Fax 1 1001				
	Priority Device Type	5	Ex Directory Enable one-X Portal evice Type Unknown	Services		×	

Select the Voicemail tab, and uncheck Voicemail On, as shown below.

👫 Avaya IP Office R5 Ma	nager - IP500-Dev [5.0(15)]
File Edit View Tools	Help
I & 💕 - 🖬 🔺 💽 🖬	IP500-Dev 💽 User 💽 28001 sip28001
IP Offices	Image: Section 2.1 and the section of the secti
BOOTP (6)     Operator (3)     DECODeration	Menu Programming Mobility Phone Manager Options Hunt Group Membership Announcements Personal Directory
	User         Voicemail         DND         ShortCodes         Source Numbers         Telephony         Forwarding         Dial In         Voice Recording         Button Programming           Voicemail Code         Image: Voicemail On         Image: Voicemail On         Image: Voicemail Help         Image: Voicemail Ringback         Image: Voicemail Ringback         Image: Voicemail Reading
<ul> <li>21233 Extn</li> <li>21234 Extn</li> <li>21235 Extn</li> <li>21235 Extn</li> <li>21236 Extn</li> <li>21236 Extn</li> <li>21237 Extn</li> <li>21238 Extn</li> </ul>	UMS Web Services

Select the **Telephony** tab, followed by the **Supervisor Settings** sub-tab. Enter a desired **Login Code**.

Repeat this section to add a new user for each SIP extension from **Section 4.4**. In the compliance testing, two users with names of "sip28001" and "sip28002" were created.

🕅 Avaya IP Office R5 Mai	nager - IP500-Dev [5.0(15	5)]				
File Edit View Tools	Help					
i 🗶 📨 - 🔜 🔺 💽 🖬	] 🚺 🖌 🚈 🔋 IP500-Dev	💌 User		28001 sip28001	•j=	
IP Offices	12	<user:0< th=""><th>D&gt;:*</th><th></th><th></th></user:0<>	D>:*			
	Menu Programming Mobility	Phone Manager Options	Hunt Group Member	ship Announcements	Personal Directory	
🖃 🦏 IP500-Dev	User Voicemail DND S	ihortCodes Source Numb	ers Telephony For	warding 🛛 Dial In 🗌 Voic	e Recording Button Programming	
।	Call Settings Supervisor Se	ttings Multiline Options	Call Log			
	Login Code	****		Force Login		
🖃 🧯 User (23)	Login Idle Period (secs)			Force Account Code		
	Monitor Group	<none></none>	*	Force Author	ization Code	
21233 Extn	Coverage Group	<none></none>				
21235 Extn	Status on No-Answer	Logged On (No change)	*	Outgoing Cal	l Bar	
21236 Extn 21237 Extn	Reset Longest Idle Time -			🔲 Inhibit Off-Sv	witch Forward/Transfer	
21238 Extn	All Calls			Can Intrude		
21239 Extn 21241 Extn	O E transfer			🔽 Cannot be In	truded	
21241 Extr	O External Incoming			🔲 Can Trace Ca	alls	
-1 21245 Extn				CCR Agent		
21250 Extn 21251 Extn 21253 Fron 21253 Fron	After Call Work Time (secs)	System Default (10)	0	Automatic Af	ter Call Work	

# 5. Configure MultiTech MultiVOIP FX

This section provides the procedures for configuring MultiTech MultiVOIP FX. The procedures include the following areas:

- Launch MultiVOIP
- Administer IP address
- Administer fax
- Administer interface
- Administer SIP
- Administer outbound phone book
- Administer inbound phone book
- Save and reboot

#### 5.1. Launch MultiVOIP

From a PC running the MultiVOIP application, create a shortcut for **Start > Programs > MultiVOIP 6.11 > Configuration**. Double click on the newly created shortcut, to display the **MultiVoIP** screen below.



#### 5.2. Administer IP Address

Select **Configuration > Ethernet / IP** from the left pane, to display the **Ethernet / IP Parameters** screen. Modify the **IP Address**, **IP Mask**, and **Gateway** fields to match the network configuration.

📾 MultiVolP-MultiVOlP	2 v6.11.27 (Firmware : Aug 07 2009)	
Configuration Advanced	Phone Book Statistics Download Connection ?Help	
A 🔤 🔌 🖏 🕸	😫 🕏 🕸 🔽 🔟 👍 🍞	
<ul> <li>Configuration</li> <li>Ethernet / IP</li> <li>Voice/Fax</li> <li>Interface</li> <li>Call Signaling</li> <li>SNMP</li> <li>Regional</li> <li>SMTP</li> <li>RADIUS</li> <li>Logs/Traces</li> <li>NAT Traversal</li> <li>Supplementary Sei</li> <li>System Informatio</li> <li>Advanced</li> <li>Phone Book</li> <li>Statistics</li> <li>Save Setup</li> <li>Connection</li> <li>Help</li> </ul>	Ethernet / IP Parameters Ethernet Parameters Priority Call Control 6:Voice ▼ VoIP Media 3:Excellent Effort ▼ Others 0:Best Effort ♥ Diff Serv Parameters Call Control PHB : 34 VolP Media PHB : 46 FTP Server I▼ Enable DNS	OK Cancel Help
		>
• •		
MultiVOIP Found!		Rights:Read/Write 🏒

#### 5.3. Administer Fax

Select **Configuration > Voice/Fax** from the left pane, to display the **Voice/Fax Parameters** screen. For the **Select Channel** field, select a channel to configure, in this case "Channel 1".

In the Coder section, select an appropriate codec from the Selected Coder drop-down list. In the Fax/Modem Parameters section, check Fax Relay Enable and uncheck Modem Relay Enable, as shown below. Retain the default values for the remaining fields.

AultiVolP-MultiVOIP v6.11.27 (Firmware : Aug 07 2009) 🖙 Configuration Advanced Phone Book Statistics Download Connection ?Help 品 🔜 🖢 巻 🕸 별 巻 🕸 💪 🕃 🔟 🛆 🍞 Voice/Fax Parameters Configuration ~ Select Channel Channel 1 Ethernet / IP -0<u>K</u> Fax/Modem Parameters Voice/Fax Voice Gain Interface 🔽 Fax Relay Enable Cancel Input 0 dB Output 0 ▼ dB 🛨 Call Signaling Modem Relay Enable SNMP Dtmf-Max Baud Rate 14400 -Copy Channel Regional Gain Fax Volume -9.5 - dB SMTP High -6 ✓ dB Low -8 ✓ dB Default RADIUS Jitter Value 400 ms Logs/Traces Duration 100 ms Help NAT Traversal Mode T.38 -DTMF : Out Of Band - Fixed Duration -Supplementary Sei System Informatio Out Of Band Mode: Rfc2833 -+ Advanced Coder + Phone Book Advanced Features + Statistics Silence Compression • Manual C Automatic + Save Setup Selected Coder G.711 U - law@64 kbps 💌 Echo Cancellation + Connection + Help Max bandwidth 10 Forward Error Correction Auto Call / OffHook Alert Auto Call /OffHook Alert None 📩 厂 Generate Local Dial Tone OffHook Alert Timer 10 Phone Number Dynamic Jitter Buffer 60 Minimum Jitter Value ms Maximum Jitter Value 300 ms > < 0 0 MultiVOIP Found! Rights:Read/Write

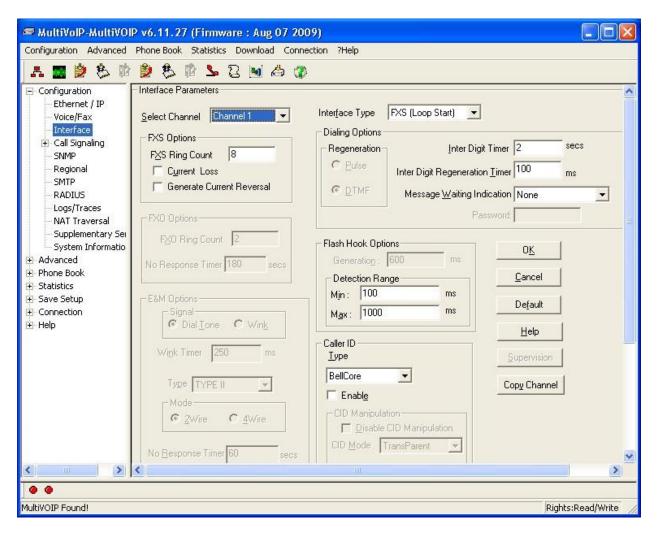
Repeat this section to configure all channels.

#### 5.4. Administer Interface

Select **Configuration > Interface** from the left pane, to display the **Interface Parameters** screen. For the **Select Channel** field, select a channel to configure, in this case "Channel 1".

For **Interface Type**, select "FXS (Loop Start)". Retain the default values for the remaining fields.

Repeat this section to configure all channels.



#### 5.5. Administer SIP

Select **Configuration > Call Signaling > SIP** from the left pane, to display the **SIP Parameters** screen. Check the **Use SIP Proxy** field. For **Primary Proxy**, enter the LAN IP address of Avaya IP Office from **Section 4.2**. Retain the default values for the remaining fields.

📾 MultiVolP-MultiVOI	P v6.11.27 (Firmware : Aug 07 2009)	
Configuration Advanced	Phone Book Statistics Download Connection ?Help	
a 🔤 😫 🕏 🖻	🔮 🕏 🕸 🔽 🗟 🔟 😂 🐲	
<ul> <li>Configuration</li> <li>Ethernet / IP</li> <li>Voice/Fax</li> <li>Interface</li> <li>Call Signaling</li> <li>H.323</li> <li>SIP</li> <li>SPP</li> <li>SMMP</li> <li>Regional</li> <li>SMTP</li> <li>RADIUS</li> <li>Logs/Traces</li> <li>NAT Traversal</li> <li>Supplementary Sei</li> <li>System Informatio</li> <li>Advanced</li> <li>Phone Book</li> <li>Statistics</li> <li>Save Setup</li> <li>Connection</li> <li>Help</li> </ul>	SIP Parameters Signaling Port : Use SIP Proxy Allow Incoming Calls Through SIP Proxy Only SIP Proxy Parameters Proxy Domain Name / IPAddress Primary Proxy 10.32.33.10 Alternate Proxy 1 Alternate Proxy 2 5060 Alternate Proxy 2 5060 Default Subscriber : Default Ugername Passworg : Re-Registration Time : 3600 secs Proxy Polling Interval : 60 secs TTL Value : 60 secs SIP Voice Mail Server Parameters Voice Mail Server Domain Name / IP Address :	
		>
MultiVOIP Found!	Righ	ts:Read/Write 🏼 🏑

#### 5.6. Administer Outbound Phone Book

Select Phone Book > Outbound Phone Book > Add Entry from the left pane, to display the Add/Edit Outbound Phone Book screen. Check the Accept Any Number field. For IP Address, enter the LAN IP address of Avaya IP Office from Section 4.2.

For Protocol Type, check SIP. Retain the default values for the remaining fields.

AultiVolP-MultiVOI	P v6.11.27 (Firmware : Aug 07 2009)	
Configuration Advanced	Phone Book Statistics Download Connection ?Help	
上 🔤 😫 憨 腔	🔮 参 🅸 💪 🛯 🛆 🐲	
<ul> <li>Configuration</li> <li>Advanced</li> <li>Phone Book</li> <li>Outbound Phone Bo</li> <li>List Entries</li> <li>Add Entry</li> <li>Edit Entry</li> <li>Statistics</li> <li>Save Setup</li> <li>Connection</li> <li>Help</li> </ul>	Add/E dit Outbound Phone Book         Phone Number Details         If Accept Any Number         Destination Pattern:         Add Prefix:         Add Prefix:         Add Prefix:         Add Prefix:         Add Prefix:         IP Address:         10 . 32 . 33 . 10         Description:         Protocol Type         C H.323         Vise GateKeeper         Gateway H.3231D:         Gateway Prefix:         H: 323         Vise Proxy         Transport Protocol         CICP         SIP         Use Proxy         Transport Protocol         SIP Port Number:         SIP URL:	
MultiVOIP Found!		Rights:Read/Write

#### 5.7. Administer Inbound Phone Book

Select **Phone Book > Inbound Phone Book > Add Entry** from the left pane, to display the **Add/Edit Inbound Phone Book** screen. Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Remove Prefix:** A SIP base extension from Section 4.4.
- Channel Number: Select a channel from the drop-down list.
- Register with SIP Proxy: Check this field.
- Username: The corresponding SIP user name from Section 4.5.
- **Password:** The corresponding SIP user login code from Section 4.5.

Repeat this section to add a phone book entry for each channel.

📾 MultiVolP-MultiVOI	IP v6.11.27 (Firmware : Aug 07 2009)	
Configuration Advanced	Phone Book Statistics Download Connection ?Help	
a 🔤 🔌 🖏 🖄	e 🎒 🕏 🅸 🔽 🗟 🔟 🛆 🐲	
Configuration Advanced Phone Book Inbound Phone Bo List Entries Add Entry Edit Entry Statistics Save Setup Connection Help	Add/Edit Inbound Phone Book  Add/Edit Inbound Phone Book  Bernove Prefix: 28001  Add Prefix: 28001  Add Prefix: 28001  Add Prefix:	
	Tech Prefix Password	
< >		
MultiVOIP Found!	Rights:Read	l/Write 🅢

#### 5.8. Save and Reboot

Select Save Setup > Save & Reboot from the left pane, followed by OK in the right pane.

🖙 MultiVolP-MultiVOI	IP v6.11.27 (Firmware : Aug 07 2009)	
Configuration Advanced	Phone Book Statistics Download Connection ?Help	
a 🛛 🔌 🖏 🕸	r 😫 🕏 🕸 🜭 🔁 🔟 🛆 🖚	
<ul> <li>Configuration</li> <li>Advanced</li> <li>Phone Book</li> <li>Statistics</li> <li>Save Setup</li> <li>Save &amp; Reboot</li> <li>Connection</li> <li>Help</li> </ul>	Image: Save Current Setup as User Default Configuration.         MultiVOIP will be brought down         OK       Cancel	
• •		
MultiVOIP Found!	Rights:R	ead/Write

### 6. General Test Approach and Test Results

The feature test cases were performed manually. Internal and external fax calls to and from the analog fax machines physically connected to MultiTech MultiVOIP FX were made. The fax calls were sent and received using the analog fax machine at the Branch, Main, and PSTN.

The serviceability test cases were performed manually by disconnecting/reconnecting the Ethernet cable to MultiTech MultiVOIP FX.

All test cases were executed.

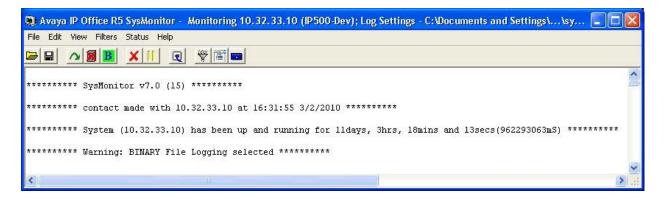
The one observation from the compliance testing is that the shortcut for the MultiVOIP application needs a manual modification to append "y" to the target executable path. This is needed to bypass the hardware ID check on the MultiVOIP FX series, in order to enable the 6.11.27 firmware.

### 7. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya IP Office and MultiTech MultiVOIP FX.

### 7.1. Verify Avaya IP Office

From a PC running the Avaya IP Office Monitor application, select Start > Programs > IP Office > Monitor to launch the application. The Avaya IP Office R5 SysMonitor screen is displayed, as shown below. Select Status > SIP Phone Status from the top menu.

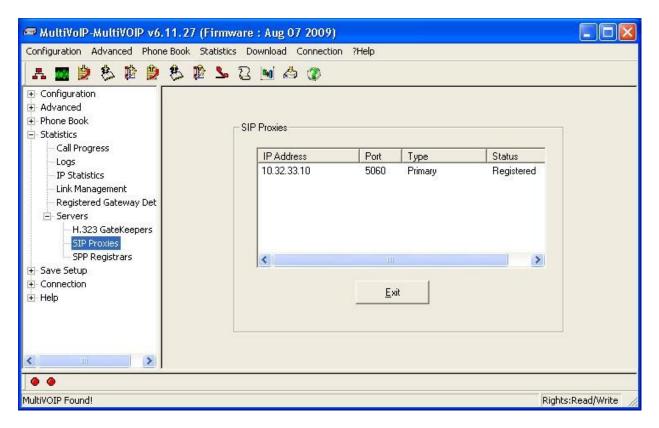


The **SIPPhoneStatus** screen is displayed. Verify that there is an entry for each SIP extension from **Section 4.4**, and that the **Status** is "SIP: Registered", as shown below.

SIPP ho	neStatus				
Total Config Total Regist			Waiting 2 secs for update Registered Status		
Extn Num	IP Address	Transport	User Agent	SIP 0	Status
28001 28002	10.32.35.180 10.32.35.180	UDP UDP	UA? UA?		SIP: Registered SIP: Registered
Cisplay Op		ered C UnRe	gistered Print Cancel		>

### 7.2. Verify MultiTech MultiVOIP FX

From a PC running the MultiVOIP application, follow the procedure in Section 5.1 to launch the application. Select Statistics > Servers > SIP Proxies from the left pane, to display the SIP Proxies screen. Verify that an entry is shown for Avaya IP Office, with the LAN IP address from Section 4.2 in the IP Address field, and a Status of "Registered".



### 8. Conclusion

These Application Notes describe the configuration steps required for the MultiTech MultiVOIP FX to successfully interoperate with Avaya IP Office using SIP endpoints with T.38 fax capabilities. All feature and serviceability test cases were completed, with one observation listed in **Section 6**.

### 9. Additional References

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

- 1. *IP Office 5.0 Documentation CD*, August 2009, available at <u>http://support.avaya.com</u>.
- 2. *MultiVOIP Manager Quick Start Guide*, PN: 82099700 Rev. A, available at <a href="http://www.multitech.com/en\_US/DOCUMENTS/Families/MultiVOIPFX/manuals.aspx">http://www.multitech.com/en\_US/DOCUMENTS/Families/MultiVOIPFX/manuals.aspx</a>.
- **3.** *MultiVOIP Voice/Fax over IP Gateways User Guide*, PN: S000383D, available at <a href="http://www.multitech.com/en\_US/DOCUMENTS/Families/MultiVOIPFX/manuals.aspx">http://www.multitech.com/en\_US/DOCUMENTS/Families/MultiVOIPFX/manuals.aspx</a>.

#### ©2010 Avaya Inc. All Rights Reserved.

Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by  $\mathbb{R}$  and  $^{TM}$  are registered trademarks or trademarks, respectively, of Avaya Inc. All other trademarks are the property of their respective owners. The information provided in these Application Notes is subject to change without notice. The configurations, technical data, and recommendations provided in these Application Notes are believed to be accurate and dependable, but are presented without express or implied warranty. Users are responsible for their application of any products specified in these Application Notes.

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DevConnect Program at <u>devconnect@avaya.com</u>.