



Avaya Solution & Interoperability Test Lab

Application Notes for Configuring XMedius XM Fax Software with Avaya IP Office 11 via a SIP Trunk - Issue 1.0

Abstract

These Application Notes describe the procedures for configuring the XMedius XM Fax Software with Avaya IP Office using a SIP trunk interface.

XMedius XM Fax is fax software that sends and receives fax calls over an IP network. In the tested configuration, XMedius XM Fax interoperated with Avaya IP Office to send/receive faxes using SIP trunk facilities.

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 procedures for configuring XMedius XM Fax with Avaya IP Office (IPO) using SIP trunks.

XMedius XM Fax is host-based Fax over IP that uses XMedius Fax driver to send and receive fax calls over an IP network. In the tested configuration, XM Fax establishes a SIP trunk interface with T.38 fax from Avaya IP Office to send and receive fax.

In the compliance testing, Avaya IP Office Server Edition system consists of Avaya IP Office Primary Linux running on Virtualized Environment and a 500V2 Expansion.

2. General Test Approach and Test Results

The feature test cases were performed manually. Internal and external fax calls to and from XM Fax server were made. The fax calls were sent and received using the web interface of XM Fax and the analog fax destination at the local and remote sites.

The serviceability test cases were performed manually by disconnecting/reconnecting the Ethernet cable to the XM Fax server, busyout and release SIP the trunk and by rebooting the XM Fax 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.

Avaya recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in this DevConnect Application Note included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

For the testing associated with these Application Notes, the interface between Avaya systems and the XMedius XM Fax do not utilize TLS and secure media SRTP encryption features as requested by XMedius.

2.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing. The feature testing focused on verifying the following with the XM Fax:

- Proper handling of faxes via the SIP trunk including send/receive, internal fax, external fax over SIP trunk simultaneous bi-directional faxes, and miscellaneous failure scenarios.
- Proper handling of faxes with different pages, complexity, format and data rates.
- No adverse impact on any internal or external calls during faxes.

The serviceability testing focused on verifying the ability of XM Fax to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet cable to the XM Fax server.

2.2. Test Results

XMedius XM Fax successfully passed all compliance testing.

2.3. Support

North American Technical support for XM Fax Software can be obtained by contacting XMedius at.

- North America: +1-866-615-3066
+1 514-787-2122
- EMEA: +33 (0) 1 70 92 13 12
- Email: support.software@xmedius.com
- Website: <https://support.xmediusfax.com>

3. Reference Configuration

The test configuration was designed to emulate a local site and a remote site. **Figure 1** illustrates the configuration used in these Application Notes.

In the compliance testing, the Avaya IP Office Server Edition system consists of Avaya IP Office Primary Linux running on Virtualized Environment and a 500V2 Expansion. The IPO Primary was configured to connect to PSTN via a SIP trunk while the 500V2 Expansion connected to PSTN via a PRI trunk, IPO Primary and 500V2 Expansion is communicated by Small Community Network (SCN) IP Office Line. The following are typical scenarios verified during the compliance test:

- Bi-directional faxed between XM Fax server and the local fax endpoint 1 that connected to an analog port in the IPO 500V2 Expansion.
- Bi-directional faxes between XM Fax server and PSTN fax endpoint 2 via SIP Service Provider.

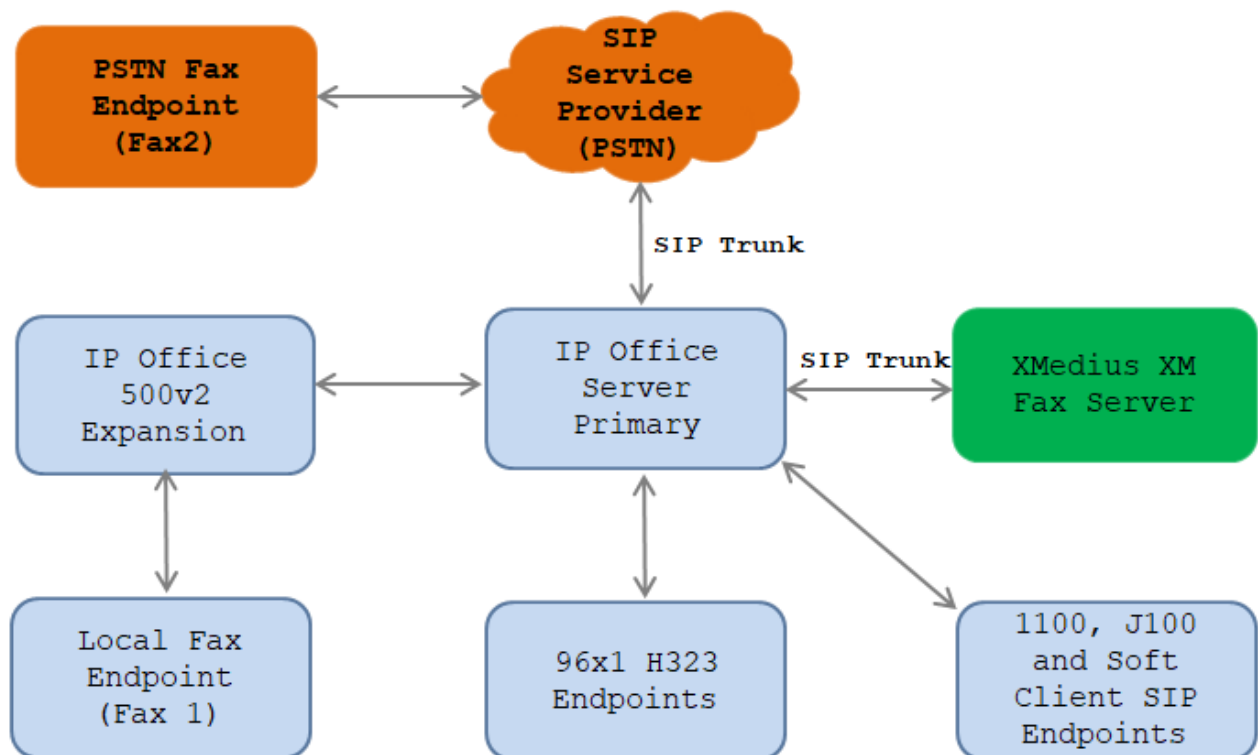


Figure 1: XMedius XM Fax interoperating with Avaya IP Office via SIP Trunk

4. Equipment and Software Validated

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

Equipment	Release/Version
Avaya IP Office Primary Linux running on Virtualized Environment	11.0.4.1 Build 11
Avaya IP Office 500V2 Expansion	11.0.4.1 Build 11
Avaya IP Office Manager	11.0.4.1 Build 11
Avaya 1140E SIP Deskphones	4.04.23
Avaya 96x1 IP Deskphones	6.8
XMedius XM Fax Software running on Microsoft Windows 2016 Server	9.0.0.510 with XMFaxDriver 9.0.0.526

Note: Testing was performed with Avaya IP Office Server Edition Solution that requires an Expansion IP Office 500 V2 to support analog used by fax endpoint. Compliance Testing is applicable when the tested solution is deployed with a standalone IP Office 500.

5. Configure Avaya IP Office

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

- Verify Avaya IP Office License
- Obtain LAN IP address
- Enable SIP trunks
- Administer SIP line
- Administer Incoming Call Route
- Administer Short Code
- Administer IP Office Line

5.1. Verify Avaya IP Office License

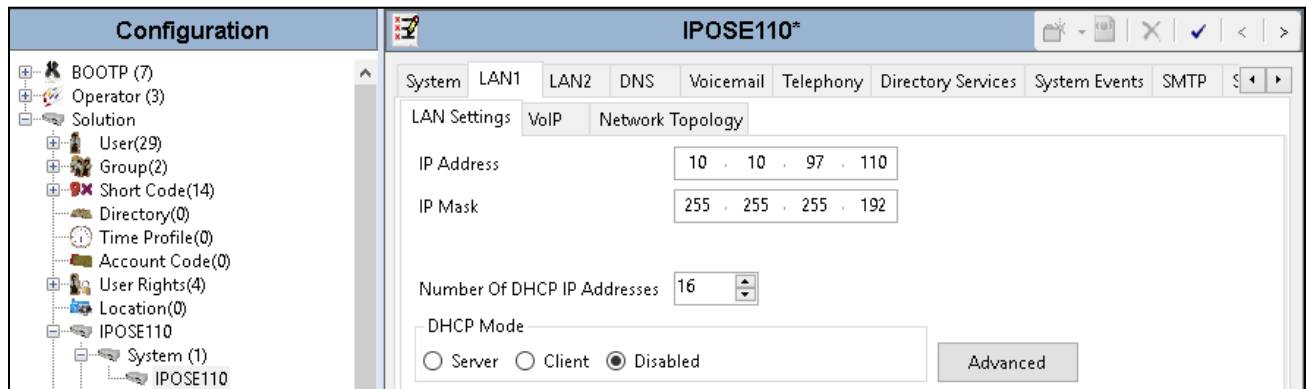
From a PC running the Avaya IP Office Manager application, select **Start → Programs → IP Office → Manager** to launch the Manager application. Select the correct IP Office system and log in with the appropriate credentials.

The **Avaya IP Office R11 Manager** screen is displayed. From the configuration tree in the left pane, select **License**. Verify that the **SIP Trunk Channels** license is “Valid”, and that the **Instances** value is sufficient for the desired maximum number of simultaneous faxes.

Feature	Instances	Status	Expiry Date	Source
Mobile Worker	384	Obsolete	Never	PLDS
Office Worker	384	Valid	Never	PLDS
Avaya Softphone Licence	100	Valid	Never	PLDS
VMPro TTS (Scansoft)	40	Obsolete	Never	PLDS
VMPro TTS Professional	40	Valid	Never	PLDS
IPSec Tunnelling	10	Obsolete	Never	PLDS
Power User	384	Valid	Never	PLDS
Customer Service Agent	100	Valid	Never	PLDS
Customer Service Supervisor	100	Valid	Never	PLDS
Avaya IP endpoints	384	Valid	Never	PLDS
IP500 Voice Networking Channels	32	Obsolete	Never	PLDS
SIP Trunk Channels	1024	Valid	Never	PLDS
IP500 Universal PRI (Additional cha...	100	Obsolete	Never	PLDS
CTI Link Pro	5	Valid	Never	PLDS
Wave User	16	Obsolete	Never	PLDS
3rd Party IP Endpoints	384	Valid	Never	PLDS
Centralized Endpoints	100	Obsolete	Never	PLDS
Essential Edition	5	Obsolete	Never	PLDS
P9x Deferred Edition (A/M Dm)	5	Obsolete	Never	PLDS

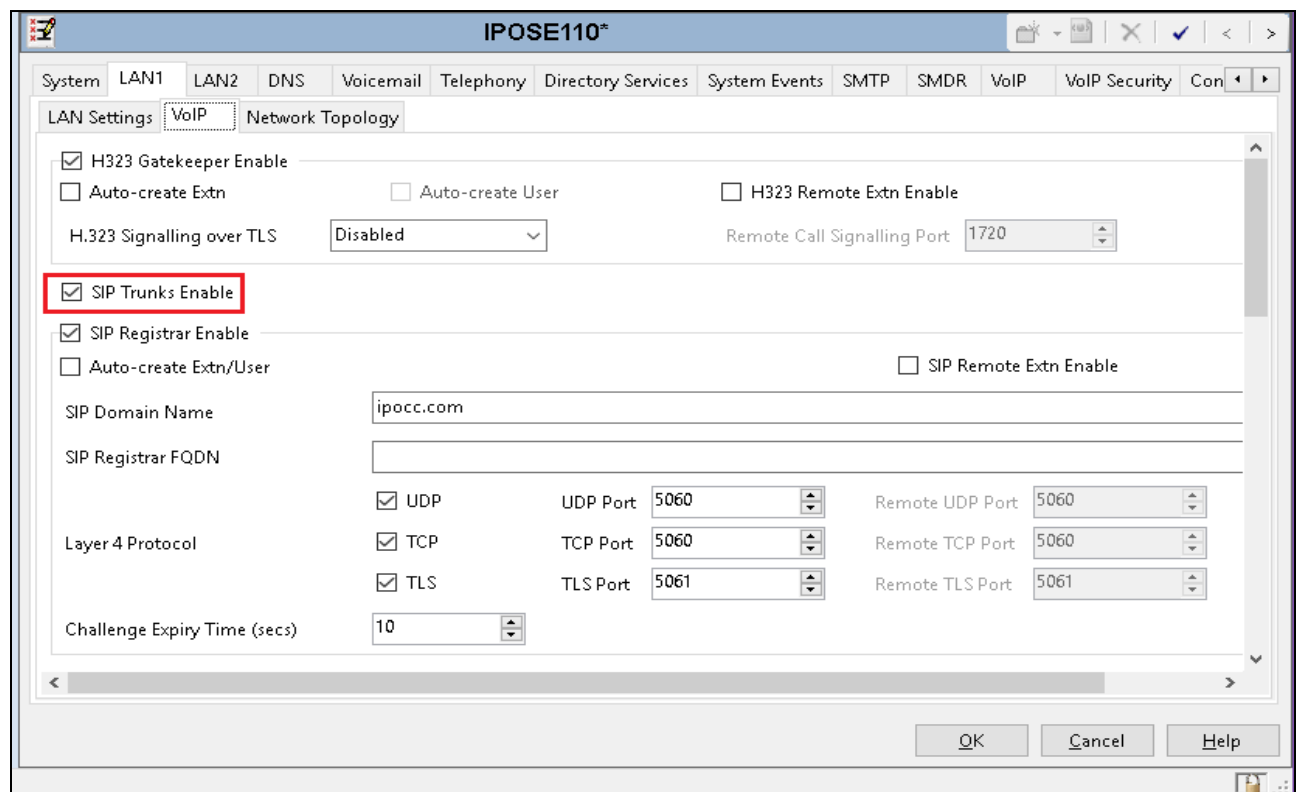
5.2. Obtain LAN IP Address

From the configuration tree in the left pane, select **System** to display the **System** screen for the **IPOSE110** 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 the Dialogic FDTTool. Note that IP Office can support SIP trunks on the LAN1 and/or LAN2 interfaces. The compliance testing used the LAN1 interface.



5.3. Enable SIP Trunks

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



5.4. Administer SIP Line

From the configuration tree in the left pane, right-click on **Line** and select **New → SIP Line** from the pop-up list to add a new SIP line. Select the **SIP Line** displays in the right pane. Select **SIP Line** tab and provide the following values for the fields below.

- **Line Number:** enter an unassigned SIP Line number in the IPO system
- **ITSP Domain Name:** enter the IP address of XM Fax server
- **Local Domain Name:** enter the LAN1 IP address of IPO
- **In Service:** check the checkbox to place the SIP Line in service
- **Check OOS:** tick the checkbox to enable IPO sending out OPTIONS to the XM Fax server to check the status of SIP Line

Leave other fields at default values.

The screenshot shows the 'SIP Line - Line 8' configuration window. The left pane displays a configuration tree with 'Line (6)' selected. The main pane has tabs for 'SIP Line', 'Transport', 'Call Details', 'VoIP', 'SIP Credentials', 'SIP Advanced', and 'Engineering'. The 'SIP Line' tab is active, showing the following fields and values:

Field	Value	Field	Value
Line Number	8	In Service	<input checked="" type="checkbox"/>
ITSP Domain Name	10.33.1.60	Check OOS	<input checked="" type="checkbox"/>
Local Domain Name	10.33.1.110		
URI Type	SIP URI	Session Timers	
Location	Cloud	Refresh Method	Auto
		Timer (sec)	On Demand
Prefix			
National Prefix	0	Redirect and Transfer	
International Prefix	00	Incoming Supervised REFER	Auto
Country Code		Outgoing Supervised REFER	Auto
Name Priority	System Default	Send 302 Moved Temporarily	<input type="checkbox"/>
Description		Outgoing Blind REFER	<input type="checkbox"/>

At the bottom of the window are buttons for 'OK', 'Cancel', and 'Help'.

Select the **Transport** tab and provide the following configuration for the fields:

- **ITSP Proxy Address:** enter the IP address of XM Fax server
- **Network Configuration – Layer 4 Protocol:** select **UDP** from this list
- **Network Configuration - Send Port:** enter the port **5060**
- **Network Configuration - Listen Port:** enter the port **5060**
- **Network Configuration - Use Network Topology Info:** select **LAN1** from the list

Retain the default values for the remaining fields.

The screenshot shows the 'SIP Line - Line 8' configuration window with the 'Transport' tab selected. The left sidebar shows a tree view of the configuration hierarchy, with 'Line (6)' expanded and 'Line 8' selected. The main area contains the following fields:

- ITSP Proxy Address:** 10.33.1.60
- Network Configuration:**
 - Layer 4 Protocol:** UDP
 - Send Port:** 5060
 - Use Network Topology Info:** LAN 1
 - Listen Port:** 5060
- Explicit DNS Server(s):** 0 . 0 . 0 . 0
- Calls Route via Registrar:** ☒
- Separate Registrar:** (empty field)

At the bottom right are buttons for 'OK', 'Cancel', and 'Help'. The status bar at the bottom left shows 'Ready'.

Select the **Call Details** tab, and click **Add** button (not shown) to display the **SIP URI** pop-up window. Enter the SIP line number that is created above for **Incoming Group** and **Outgoing Group**. Set **Max Calls per Channel** to the desired maximum number of simultaneous faxes allowed, in this case “10”. Retain the default values in the remaining fields.

SIP Line - 8 | Call Details | SIP URI

New URI

Incoming Group: 8 Max Sessions: 10

Outgoing Group: 8

Credentials: 0: <None>

	Display	Content
Local URI	Auto	Auto
Contact	Auto	Auto
P Asserted ID	<input checked="" type="checkbox"/> Auto	Auto
P Preferred ID	<input type="checkbox"/> None	None
Diversion Header	<input type="checkbox"/> None	None
Remote Party ID	<input type="checkbox"/> None	None

Field meaning	
Outgoing Calls	Forwarding/Twinning
Caller	Original Caller
Caller	Original Caller
Caller	Original Caller
None	None
None	None
None	None

OK Cancel Help

The screen below shows the SIP URI is created in the **Call Details** of **SIP Line – Line 8**.

SIP Line - Line 8

SIP Line Transport Call Details VoIP SIP Credentials SIP Advanced Engineering

SIP URIs

URI	Groups	Credential	Local URI	Contact	P Asserted ID	P Preferred ID	Diversion Header
1 8 8	8 8	0: <None>	Auto	Auto	Auto		

SIP Line Appearances

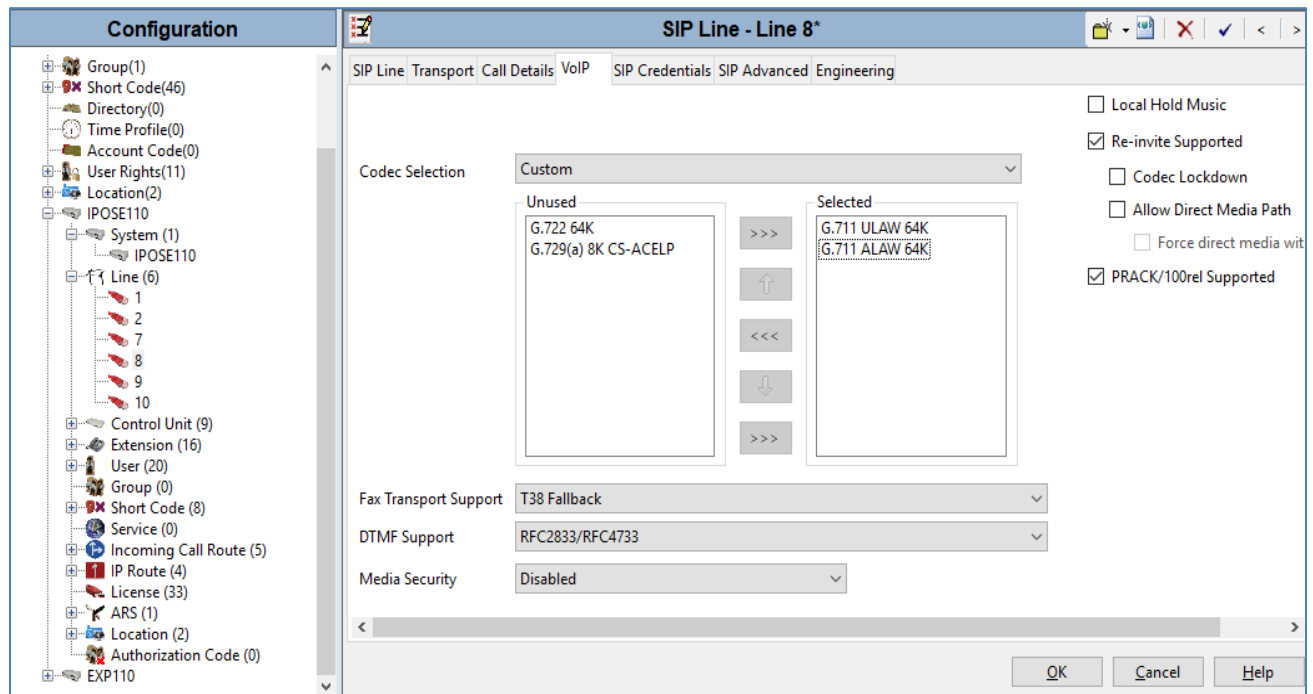
Line ID	Incoming ID	Outgoing ID	Groups	Credential	Local URI	Contact	P Asserted ID
---------	-------------	-------------	--------	------------	-----------	---------	---------------

OK Cancel Help

Select the **VoIP** tab. For **Codec Selection**, select **Custom** and select the applicable G.711ULAW and G.711ALAW codecs in the expanded list. Note that XM Fax supports the G.711 variants.

- **Fax Transport Support** - select **T38 Fallback** from the drop-down list.
- Check **Re-invite Supported**
- **DTMF Support** – select **RFC2833/RFC4733** from the drop-down list
- **Media Security** – select **Disabled**

Retain the default values in the remaining fields.



Retain all values in the **SIP Credentials**, **SIP Advanced** and **Engineering** tabs as default.

5.5. Administer Incoming Call Route

From the left pane, right-click on **Incoming Call Route**, select **New** (not shown) from the pop-up list to add a new route. For **Line Group ID** in the **Standard** tab, select the incoming group number from **Section 5.4** which corresponds to the SIP line, in this case Line Group ID is 8.

The screenshot shows the Configuration window for Incoming Call Route 8. The left pane displays a tree view of the system configuration, with 'Incoming Call Route (5)' selected. The right pane shows the 'Standard' tab with the following fields:

Field	Value
Bearer Capability	Any Voice
Line Group ID	8
Incoming Number	
Incoming Sub Address	
Incoming CLI	
Locale	
Priority	1 - Low
Tag	
Hold Music Source	System Source
Ring Tone Override	None

Buttons: OK, Cancel, Help

Select the **Destinations** tab. For **Destination**, enter “.” to match any dialed number from the XM Fax server.

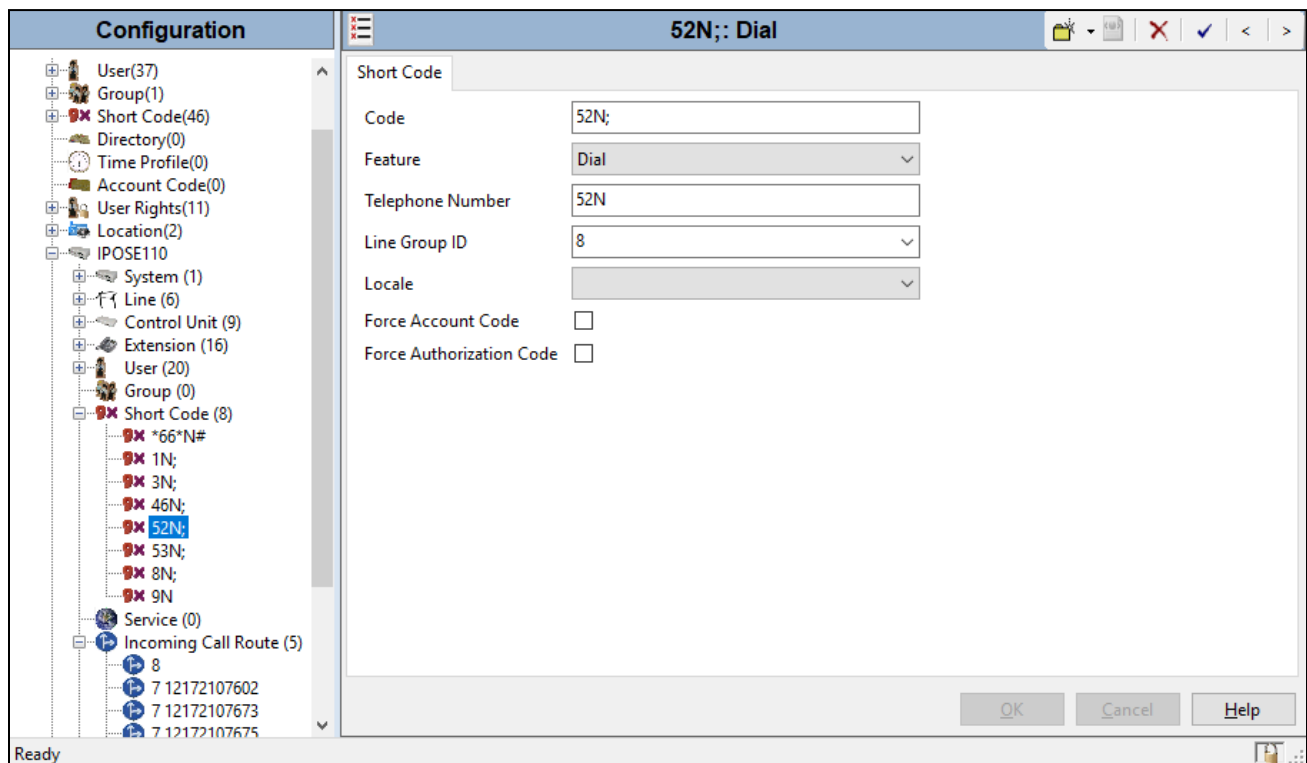
The screenshot shows the Configuration window for Incoming Call Route 6. The left pane displays a tree view of the system configuration, with 'Incoming Call Route (8)' selected. The right pane shows the 'Destinations' tab with a table:

TimeProfile	Destination	Fallback Extension
Default Value	.	

5.6. Administer Short Code

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. In the compliance testing, users on IP Office are designated with fax numbers 52xx, and the fax calls are routed over the SIP trunk to the XM Fax server.

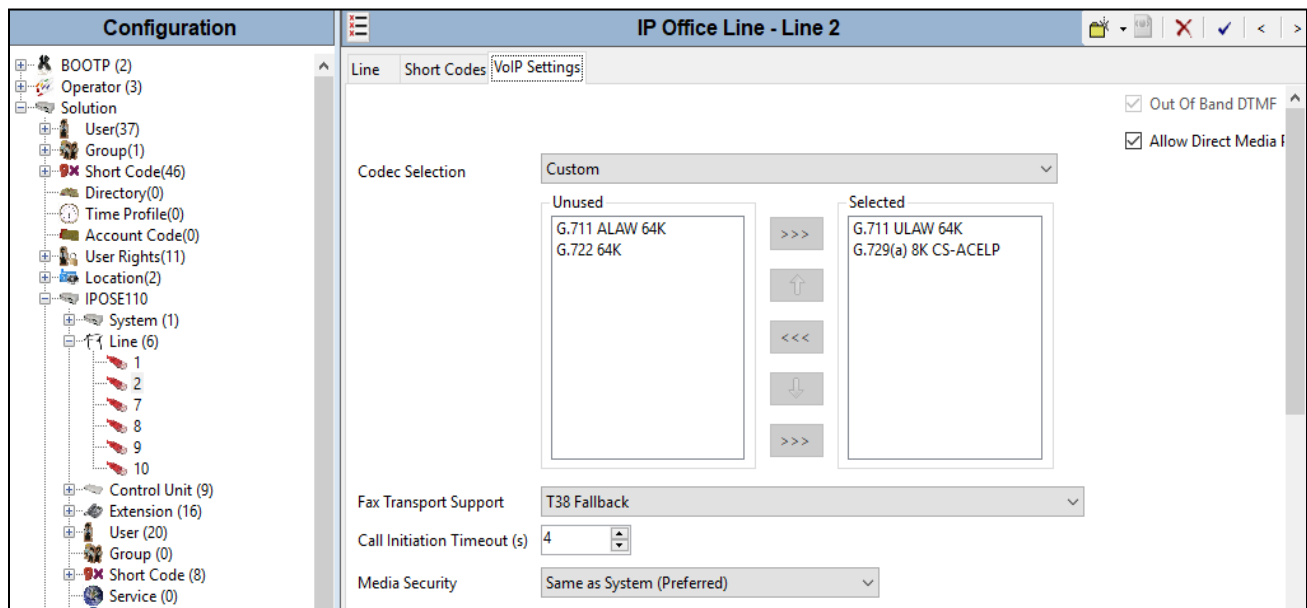
- **Code:** enter **52N;** as the prefix started from **52**
- **Feature:** select **Dial** from the list
- **Telephone Number:** enter **52N**
- **Line Group ID:** enter the outgoing group number **8** from **Section 5.4**, which corresponds to the SIP line.



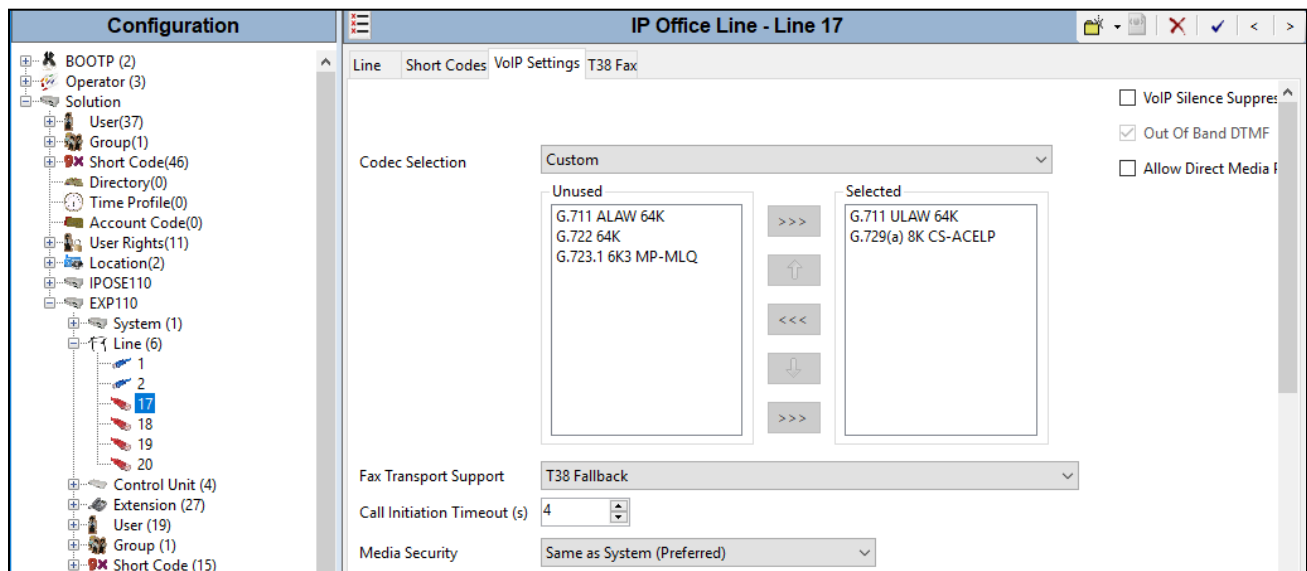
5.7. Administer IP Office Line

The IP Office Small Community Network (SCN) Lines in the IP Office primary and IP Office expansion were previously created during the setup of IP Office Server Edition system when a 500V2 expansion joined to IP Office Primary.

The picture below shows **Line 1 - VoIP Settings** in the IP Office Primary for the compliance test. The **Fax Transport Support** was set to **T.38 Fallback**.



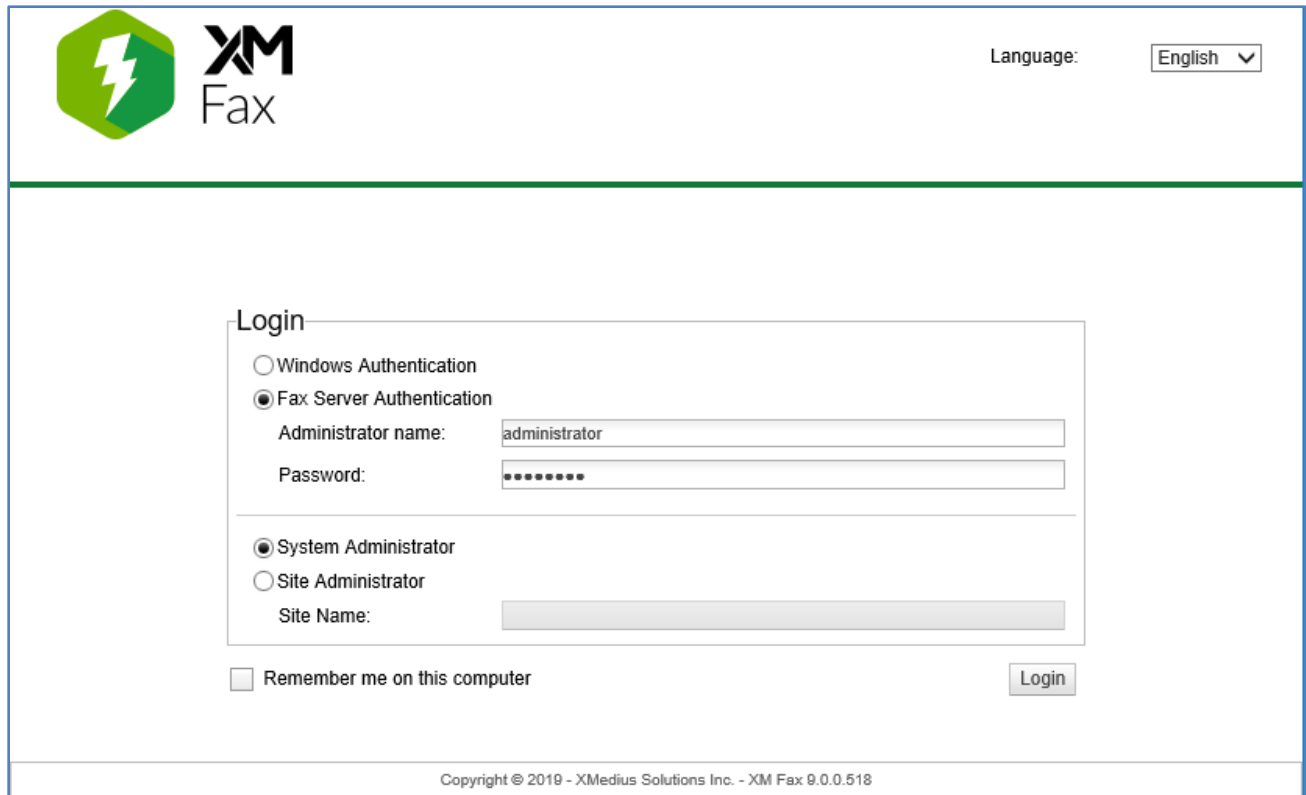
The picture below shows **Line 17 - VoIP Settings** in the IP Office Expansion for the compliance test with the XM Fax server. The **Fax Transport Support** was set to **T.38 Fallback**.



6. Configure Dialogic XM Fax

This section describes the configuration of XM Fax software.

Launch the **XM Fax – Administration Login** webpage and enter a proper user name and password to login.



The screenshot shows the XM Fax Administration Login webpage. At the top left is the XM Fax logo, consisting of a green hexagon with a white lightning bolt and the text "XM Fax". At the top right, there is a "Language:" label followed by a dropdown menu showing "English". The main content area is titled "Login" and contains two authentication options: "Windows Authentication" (unselected) and "Fax Server Authentication" (selected). Under "Fax Server Authentication", there are fields for "Administrator name:" (containing "administrator") and "Password:" (containing "*****"). Below these fields are two radio buttons: "System Administrator" (selected) and "Site Administrator" (unselected). Under "Site Administrator", there is a "Site Name:" field. At the bottom left of the login form is a checkbox labeled "Remember me on this computer". At the bottom right is a "Login" button. The footer of the page contains the text "Copyright © 2019 - XMedius Solutions Inc. - XM Fax 9.0.0.518".

Select **Driver** icon from the left pane. The **Driver Properties** section displays in the right side of the window. In the **Options** tab, set the **Maximum Number of Channels** and **Preferred Number of Channels** available by XM Fax.

The screenshot shows the XM Fax System Configuration window. The left pane shows a tree view with 'SERVER3' expanded, and 'Driver' selected. The right pane shows the 'Driver Properties' section with the 'Options' tab active. The 'Options' tab contains the following fields:

- Number of Channels: 24
- Log Size (MB): 20
- Information Logging Level: Low Level
- ☒ Enable Log Archiving
- Archive Retention (in days): 15
- ☐ Debug
- Display Name: SERVER3
- FoIP Channel Configuration
- Maximum Number Of Channels*: 24
- Preferred Number Of Channels: 24

*Changes to properties marked with an asterisk will take effect when the service is restarted.

OK Cancel

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Select the **FoIP** tab, check the **Enable ECM** field and keep other fields at default values.

The screenshot shows the XM Fax System Configuration window. The left pane shows a tree view with 'SERVER3' expanded, and 'Driver' selected. The right pane shows the 'Driver Properties' section with the 'FoIP' tab active. The 'FoIP' tab contains the following fields:

- ☒ Enable ECM*
- Received Document Encoding*: Group 3 (1d)
- Terminal Resolution Capacity*: Ultra (400x400)
- Binding Interface*: 0.0.0.0
- Call Delay (milliseconds): 0

*Changes to properties marked with an asterisk will take effect when the service is restarted.

OK Cancel

Leave all fields at default values in the **SIP** tab.

The screenshot shows the XM Fax System Configuration window. The left sidebar lists the configuration tree under SERVER3, with 'Driver' selected. The main pane is titled 'Driver Properties' and contains several sub-tabs: Options, FoIP, SIP, SIP Security, H.323, Dial Plan, Peer List, and Network Capture. The 'SIP' sub-tab is active, showing the 'General' section with the following fields:

- Local SIP UDP Port:* 5060
- Local SIP TCP Port:* 5060
- Local SIP TLS Port:* 5061
- ☐ Wait For DTMF Code Input
- Maximum Delay Between DTMF signals (seconds): 10
- ☐ Print SIP Messages

A note at the bottom states: '*Changes to properties marked with an asterisk will take effect when the service is restarted.' The 'OK' and 'Cancel' buttons are at the bottom right.

Select the **Peer List** tab, click **Add SIP Peer** button to add a SIP Peer for IP Office.

The screenshot shows the XM Fax System Configuration window with the 'Peer List' sub-tab selected. The 'Peer List' table is displayed with the following data:

	Host Name	Protocol	Peer Description
<input type="checkbox"/>	server3	SIP	
<input type="checkbox"/>	10.33.1.12	SIP	Session Manager
<input checked="" type="checkbox"/>	10.33.1.110	SIP	IP Office

Buttons on the right include 'Add SIP Peer', 'Add H.323 Peer', 'Remove', and 'Properties'. At the bottom, there are checkboxes for 'Use Peer List For Inbound Security', 'Default SIP Properties...', and 'Default H323 Properties...'.

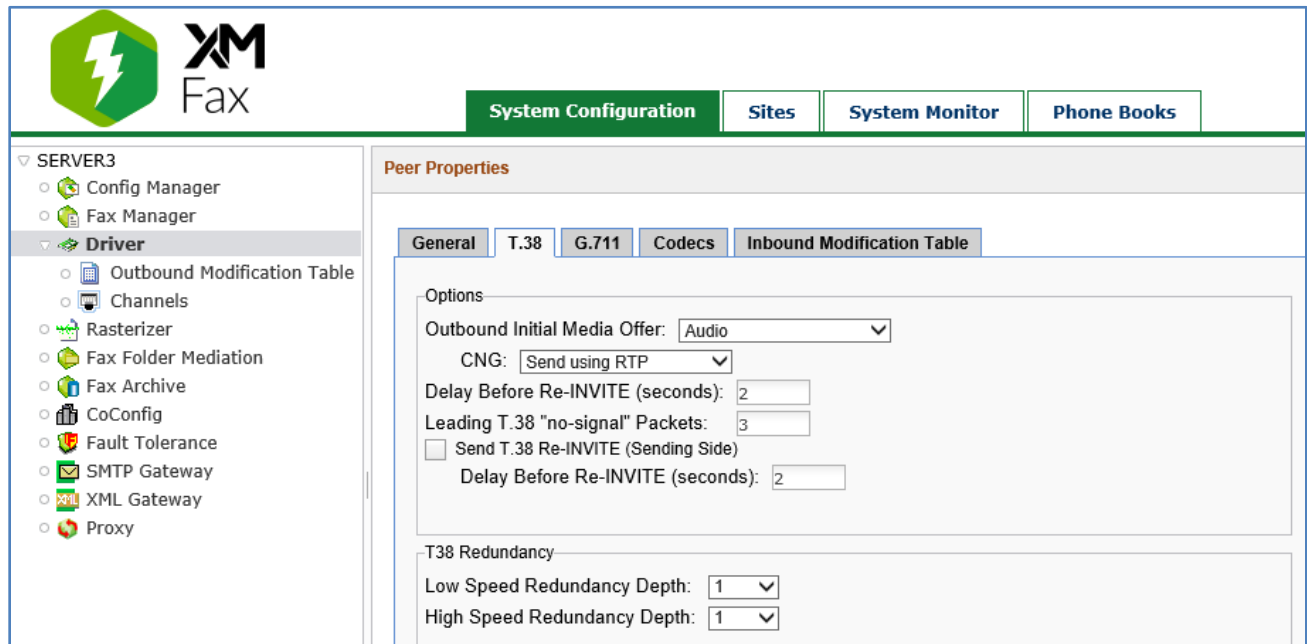
The **Peer Properties** section displays in the right side of the window. In the **General** tab, enter the following parameters:

- **Host Name:** enter the SIP entity IP address of IP Office **10.33.1.110**
- **Peer Description:** enter a description
- **Transport:** select **UDP** port
- **Port:** enter the port **5060**
- **Media Type:** select **T.38 with Fallback to G.711**

And keep other fields at default values.

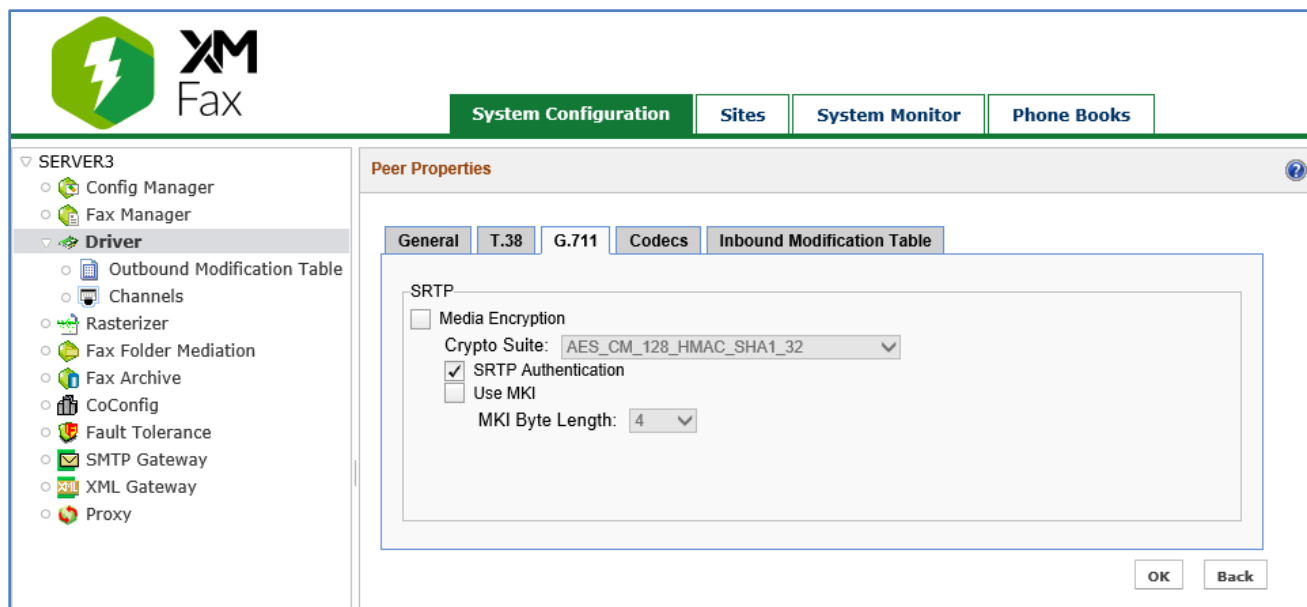
The screenshot shows the XM Fax System Configuration interface. On the left is a tree view under 'SERVER3' containing 'Config Manager', 'Fax Manager', 'Driver' (selected), 'Outbound Modification Table', 'Channels', 'Rasterizer', 'Fax Folder Mediation', 'Fax Archive', 'CoConfig', 'Fault Tolerance', 'SMTP Gateway', 'XML Gateway', and 'Proxy'. The main area is titled 'Peer Properties' and has tabs for 'General', 'T.38', 'G.711', 'Codecs', and 'Inbound Modification Table'. The 'General' tab is active, showing fields for 'Host Name' (10.33.1.110), 'Peer Description' (IP Office), 'Transport' (UDP), 'Port' (5060), 'Media Type' (T.38 with Fallback to G.711), 'G.711 fallback delay after fax detection (milliseconds)' (3500), 'Delay Before Call Completion (seconds)' (1), 'Voice Call Timeout (seconds)' (40), '"user" parameter in SIP URI' (phone), 'VIA and CONTACT Headers Host Name Override' (empty), and checkboxes for 'V.34 Enabled', 'V.17 Enabled', 'V.29 Enabled', 'Use Proxy', and 'Host Name' (empty). There is also a checkbox for 'Disable this peer for incoming calls'.

Select **T38** tab and leave all fields at default values.



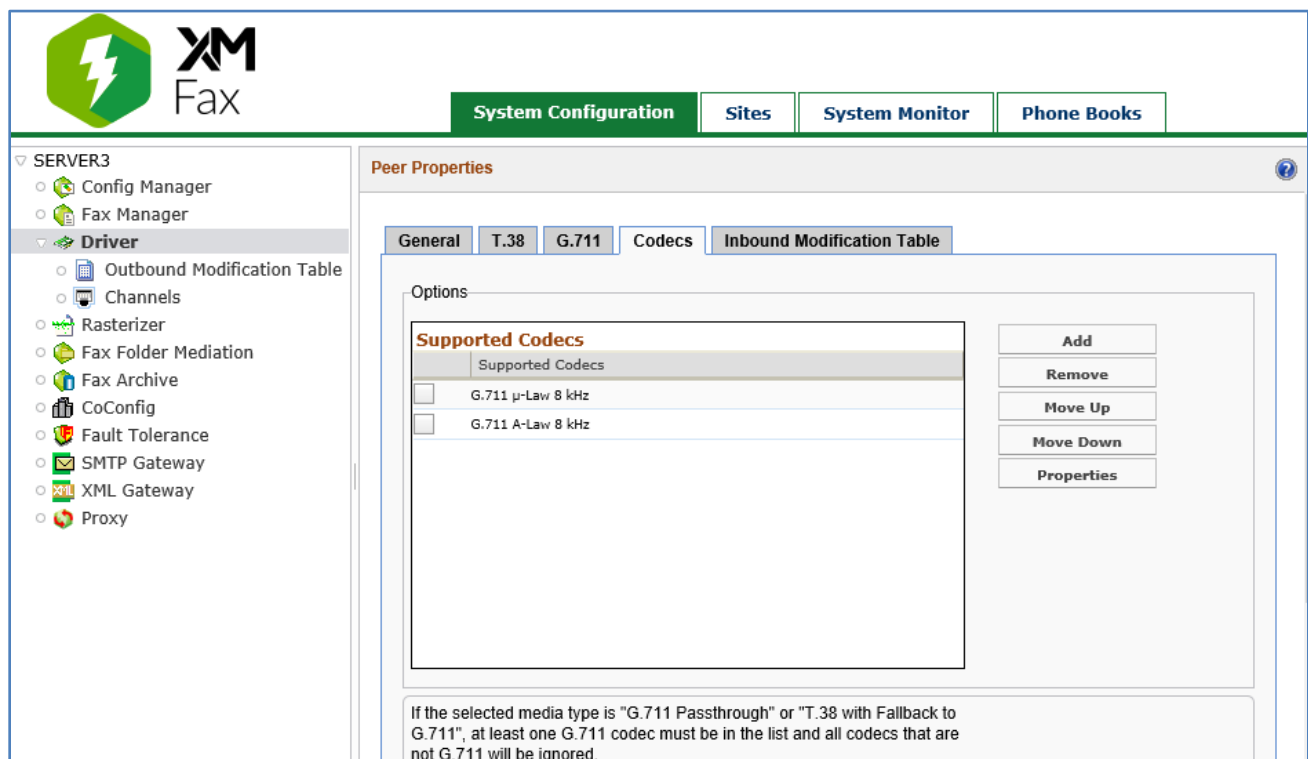
The screenshot shows the XM Fax System Configuration interface. The left sidebar lists the navigation menu under 'SERVER3', with 'Driver' expanded. The main panel is titled 'Peer Properties' and has tabs for 'General', 'T.38', 'G.711', 'Codecs', and 'Inbound Modification Table'. The 'T.38' tab is selected. The 'Options' section contains the following fields: 'Outbound Initial Media Offer' (set to 'Audio'), 'CNG' (set to 'Send using RTP'), 'Delay Before Re-INVITE (seconds)' (set to 2), 'Leading T.38 "no-signal" Packets' (set to 3), and a checkbox for 'Send T.38 Re-INVITE (Sending Side)' which is unchecked. Below this, the 'T38 Redundancy' section has 'Low Speed Redundancy Depth' and 'High Speed Redundancy Depth' both set to 1.

Select **G.711** tab and leave all fields at default values.

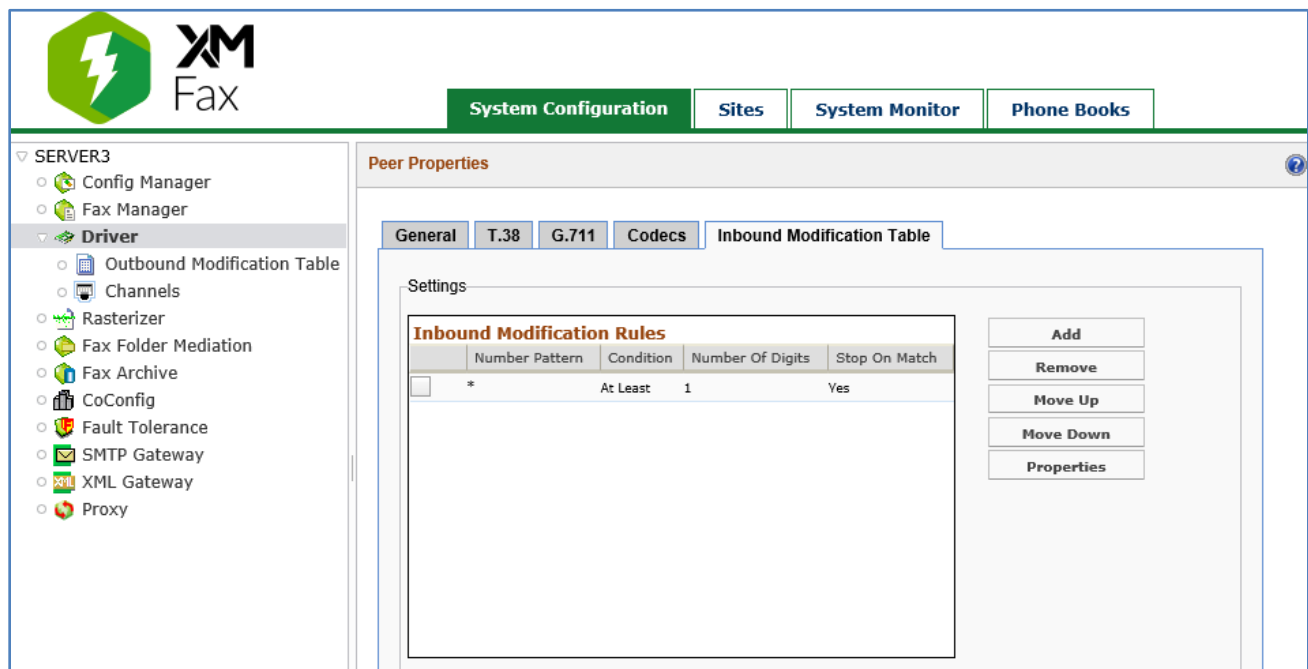


The screenshot shows the XM Fax System Configuration interface with the 'G.711' tab selected in the 'Peer Properties' panel. The 'SRTP' section is expanded, showing 'Media Encryption' (unchecked), 'Crypto Suite' (set to 'AES_CM_128_HMAC_SHA1_32'), 'SRTP Authentication' (checked), 'Use MKI' (unchecked), and 'MKI Byte Length' (set to 4). 'OK' and 'Back' buttons are at the bottom right.

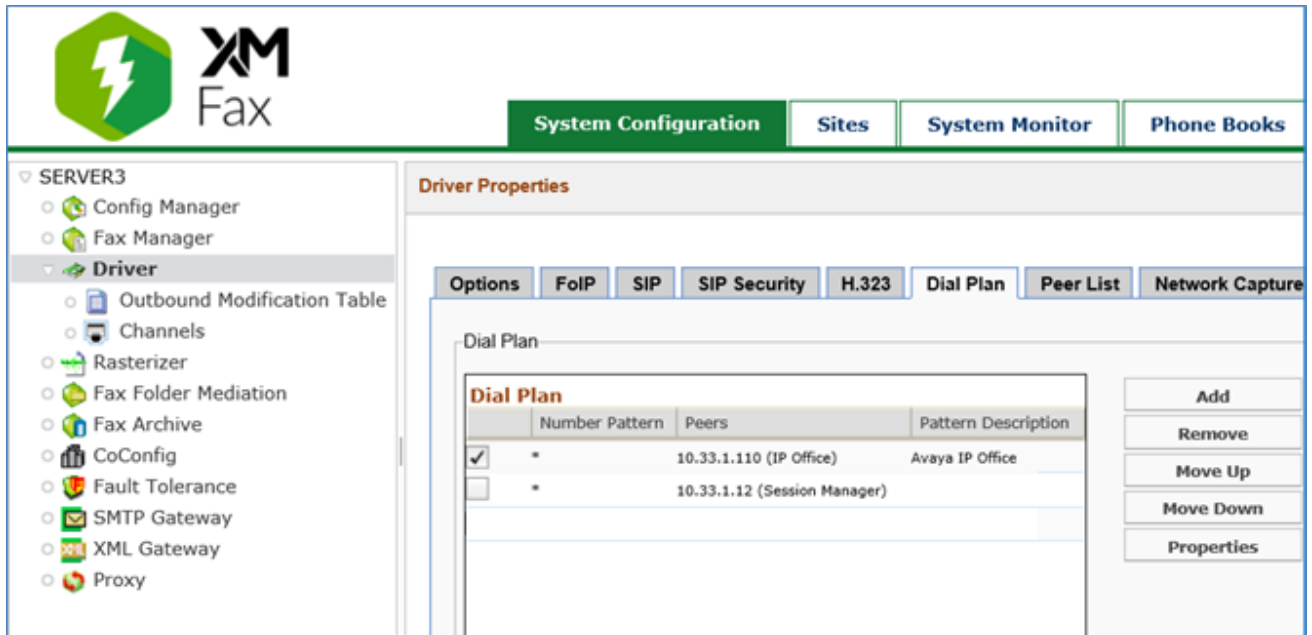
Select **Codecs** tab, in the **Codecs** tab select **Add** button to add a designed codecs to the **Supported Codecs** list. In the compliance test, two codecs **G.711 Mu-law** and **G.711 A-Law** were used.



Select **Inbound Modification Table** tab and then select the **Add** button to add an inbound modification rule as shown in the screenshot below.



Select **Dial Plan** tab, click on **Add** button to add a pattern for outbound fax call and properly position it in the list. The dial pattern uses the start * for any dialed number that is sent through the peer with IPO.



The screenshot shows the XM Fax System Configuration interface. The left sidebar lists various configuration options under 'SERVER3', with 'Driver' selected. The main panel displays the 'Driver Properties' window, specifically the 'Dial Plan' tab. The 'Dial Plan' tab contains a table with columns: 'Number Pattern', 'Peers', and 'Pattern Description'. The table lists two entries: one with a checked checkbox, a '*' pattern, and a peer of '10.33.1.110 (IP Office)' with the description 'Avaya IP Office'; and another with an unchecked checkbox, a '*' pattern, and a peer of '10.33.1.12 (Session Manager)'. To the right of the table are buttons for 'Add', 'Remove', 'Move Up', 'Move Down', and 'Properties'.

	Number Pattern	Peers	Pattern Description
<input checked="" type="checkbox"/>	*	10.33.1.110 (IP Office)	Avaya IP Office
<input type="checkbox"/>	*	10.33.1.12 (Session Manager)	

7. Verification Steps

The following steps may be used to verify the configuration:

From the **Avaya IP Office R11 Manager** screen shown in **Section 5.1**, select **File → Advanced → System Status** to launch the **System Status** application, and log in using the appropriate credentials.

The **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 the SIP trunk line number is “8”.

Verify that the **SIP Trunk Summary** screen shows an active channel with a **Current State** of “**Idle**”, and that the sender fax number is displayed in the **Caller ID or Dialed Digits** field.

The screenshot displays the Avaya IP Office System Status application. The left-hand navigation pane shows a tree structure with 'System' expanded, and 'Trunks (6)' selected. Under 'Trunks', 'Line: 8' is highlighted. The main content area shows the 'SIP Trunk Summary' for Line 8. The summary includes the following details:

- Line Service State: In Service
- Peer Domain Name: 10.33.1.60
- Resolved Address: 10.33.1.60
- Line Number: 8
- Number of Administered Channels: 10
- Number of Channels in Use: 0
- Administered Compression: G711 Mu, G729 A
- Enable Faststart: Off
- Silence Suppression: Off
- Media Stream: RTP
- Layer 4 Protocol: UDP
- SIP Trunk Channel Licenses: 512
- SIP Trunk Channel Licenses in Use: 0
- SIP Device Features: UPDATE (Incoming and Outgoing)

A green circular progress indicator shows 0% usage. Below the summary is a table with 15 columns: Channel Number, URI G..., Call Ref, Current State, Time in State, Remote Media Add..., Codec, Connect..., Caller ID or Dialed..., Other Party on Call, Direction of Call, Round Trip Delay, Receive Jitter, Receive Packet ..., Transmit Jitter, and Transmit Packet ... The table lists 10 channels, all of which are in an 'Idle' state. At the bottom of the application window, there are buttons for 'Trace', 'Trace All', 'Pause', 'Ping', 'Call Details', 'Graceful Shutdown', 'Force Out of Service', 'Print...', and 'Save As...'.

Channel Number	URI G...	Call Ref	Current State	Time in State	Remote Media Add...	Codec	Connect...	Caller ID or Dialed...	Other Party on Call	Direction of Call	Round Trip Delay	Receive Jitter	Receive Packet ...	Transmit Jitter	Transmit Packet ...
1			Idle	9 days 1...											
2			Idle	9 days 1...											
3			Idle	9 days 1...											
4			Idle	9 days 1...											
5			Idle	9 days 2...											
6			Idle	9 days 2...											
7			Idle	9 days 2...											
8			Idle	9 days 2...											
9			Idle	9 days 2...											
10			Idle	9 days 2...											

Verify that fax calls can be placed to/from the XM Fax server from both local and remote sites. The screenshot below shows **System Monitor** of **Outbound History** of fax calls in the XM Fax.

The screenshot displays the XM Fax System Monitor interface. The top navigation bar includes 'System Configuration', 'Sites', 'System Monitor' (selected), and 'Phone Books'. The left sidebar lists various system components: Inbound History, Outbound History (selected), Outgoing Queue, Services Status, Log Files, Channels, and Reports. The main content area shows the 'Outbound History' table with columns for 'Completed/Failed Time', 'User ID', 'Modified Destination', and 'Error Code'. The table lists 15 outbound fax calls, all of which were successfully completed. The calls were made by 'user1' to various destinations, including 4410, 914237610540, 14237610540, 814237610540, and 3315. The times range from February 6, 2020, to February 12, 2020. The interface also includes search filters for 'Time' and 'Status', and a 'Show options' button.

Completed/Failed Time	User ID	Modified Destination	Error Code
Feb 12 2020 07:56 PM	user1	4410	0
Feb 12 2020 07:52 PM	user1	914237610540	0
Feb 12 2020 10:36 AM	user1	14237610540	0
Feb 12 2020 10:23 AM	user1	814237610540	0
Feb 12 2020 09:26 AM	user1	4410	0
Feb 11 2020 10:20 AM	user1	814237610540	0
Feb 11 2020 09:45 AM	user1	4410	0
Feb 8 2020 08:39 PM	user1	4410	0
Feb 8 2020 08:28 PM	user1	4410	0
Feb 8 2020 10:43 AM	user1	4410	0
Feb 8 2020 08:49 AM	user1	411	0
Feb 8 2020 07:58 AM	user1	3315	0
Feb 7 2020 09:57 AM	user1	411	0
Feb 7 2020 08:14 AM	user1	5300	0
Feb 7 2020 08:01 AM	user1	5300	0
Feb 7 2020 07:44 AM	user1	5300	0
Feb 6 2020 10:39 AM	user1	3315	0

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8. Conclusion

These Application Notes describe the procedures required to configure XMedius XM Fax Software to interoperate with Avaya IP Office using SIP trunks. Please refer to **Section 2.2** for any exceptions or observations.

9. Additional References

This section references the documentation relevant to these Application Notes. The following and additional Avaya product documentation is available at <http://support.avaya.com>.

- [1] *Avaya IP Office Platform Solution Description*, Release 11.0, May 2019.
- [2] *Avaya IP Office Platform Feature Description*, Release 11.0, May 2018.
- [3] *IP Office Platform 11.0 Deploying Avaya IP Office Essential Edition*, Document Number 15-601042, Issue 33g, 20 May 2018.
- [4] *Administering Avaya IP Office Platform with Manager*, Release 11.0, May 2018.
- [5] *IP Office Platform 10.1 Using Avaya IP Office Platform System Status*, Document 15-601758, Issue 13a, 05 April, 2018.
- [6] *IP Office Platform 11.0 Using IP Office System Monitor*, Document 15-601019, Issue 09b, 10 may, 2018.

XMedius XM Fax document in its most recent version may be found at <https://support.xmediusfax.com> (Sign In required)

- [1] XM Fax Installation and Maintenance Guide
- [2] XM Fax Administrator Guide – Web (Web interface)
- [3] XM Fax Administrator Guide – Windows (MMC Snap-In)
- [4] XM Fax User Guide

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