# MITEL - SIP CoE

# Technical Configuration Notes

# Configure the Mitel 5000CP for use with GFI FaxMaker

SIP CoE 12-4940-00224



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# **Overview**

This document provides a reference to Mitel Authorized Solutions providers for configuring the Mitel 5000CP and GFI FaxMaker. This document covers a basic setup with required option setup.

# **Interop History**

Version	Date	Reason
1	November 8, 2012	Initial Interop with Mitel 5000CP and GFI FaxMaker 15.0

### **Interop Status**

The Interop of GFI FaxMaker has been given a Certification status. This service provider or trunking device will be included in the SIP CoE Reference Guide. The status GFI FaxMaker application achieved is:



# Software & Hardware Setup

This was the test setup to generate a basic SIP call between GFI FaxMaker and Mitel 5000CP.

Manufacturer	Variant	Software Version
Mitel	Mitel 5000CP	5.1 PR3
Mitel	Minet sets: 5340, 5220, 5330	04.01.01.05
GFI Software	GFI FaxMaker	15.0

# **Tested Features**

This is an overview of the features tested during the Interop test cycle and not a detailed view of the test cases. Please see the SIP Trunk Side Interoperability Test Plans (08-4940-00034) for detailed test cases.

Feature	Feature Description	Issues		
T.38 Faxing	Fax transmission with protocol T.38	<ul> <li>✓</li> </ul>		
G.711 Faxing	Fax transmission with codec G.711U	<ul> <li>✓</li> </ul>		
Fallback from T.38 to G.711Fax transmission with fallback from T.38 to G.711		X		
$\vec{\mathbb{V}}$ - No issues found $\times$ - Issues found, cannot recommend to use $\triangle$ - Issues four				

## **Device Limitations and Known Issues**

This is a list of problems or not supported features when the GFI FaxMaker is connected to Mitel 5000CP.

Feature	Problem Description
Outgoing FAX Failover to G.711	Mitel MCD interrupts fax transmission (it sends BYE) on 2-nd page of the fax.
FaxMaker -to-modem	This happened because FaxMaker failed to respond (ACK) on 200OK from Mitel.
	<b>Recommendation:</b> Do not select option " <b>T.38 with fallback to G.711</b> <b>pass-through</b> " under T.38 Parameter tab in Brooktrout Configuration Tool.
Incoming FAX Failover to G.711	FaxMaker drops the call (it sends BYE) as soon as Mitel rejected T.38 faxing.
Modem-to-FaxMaker	It should fallback to G.711 instead.
	<b>Recommendation:</b> Do not select option " <b>T.38 with fallback to G.711</b> <b>pass-through</b> " under T.38 Parameter tab in Brooktrout Configuration Tool.

# Network Topology

This diagram shows how the testing network is configured for reference.



Figure 1 – Network Topology

# **Configuration Notes**

This section is a description of how the SIP Interop was configured.

Disclaimer: Although Mitel has attempted to setup the interop testing facility as closely as possible to a customer premise environment, implementation setup could be different onsite. YOU MUST EXERCISE YOUR OWN DUE DILIGENCE IN REVIEWING, planning, implementing, and testing a customer configuration.

## Mitel 5000 Communications Platform Configuration Notes

The following steps show how to program Mitel 5000 Communications Platform to interconnect with GFI FaxMaker server.

#### Network Requirements

- There must be adequate bandwidth to support the voice over IP. As a guide, the Ethernet bandwidth is approx 85 Kb/s per G.711 voice session and 29 Kb/s per G.729 voice session (assumes 20ms packetization). As an example, for 20 simultaneous SIP sessions, the Ethernet bandwidth consumption will be approx 1.7 Mb/s for G.711 and 0.6Mb/s for G.729. Almost all Enterprise LAN networks can support this level of traffic without any special engineering. Please refer to the 5200 Engineering guidelines for further information.
- For high quality voice, the network connectivity must support a voice-quality grade of service (packet loss <1%, jitter < 30ms, one-way delay < 80ms).

#### Assumptions for the Mitel 5000 Communications Platform Programming

The SIP signaling connection was configured to use UDP on Port 5060.

#### Licensing and Option Selection - SIP Licensing

Ensure that the Mitel 5000 is equipped with enough SIP Trunks licences for the connection to GFI FaxMaker server. This can be verified within the Software License form (see **Figure 2**).

Check the total number of licenses in the SIP Trunk Licences field. This is the maximum number of SIP trunk sessions that can be configured in the Mitel 5000 to be used with all service providers and applications.

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😋 🚭 🎓 🌗 Recent 🔹 🌗 5000 CP 🔸 Software Lic	ense	
🖃 🎍 5000 CP 🛛 🔼	Software License Feature	Value
🕀 📙 System Accounts	🕼 System Type	5000 CP
Software License	💯 ACD Hunt Group	Yes
	💯 Additional T1/E1/PRI Ports	3
Dystein (	💯 Agent Help	Yes
	💯 Analog Voice Mail Hunt Group	Yes
Conference-Related Information	💯 Category 'A' Phones	32
🖃 🍌 Devices and Feature Codes	💯 Category 'B' Phones	32
표 🍌 Assistants	💯 Category 'C' Phones	32
🕀 温 Extension Lists	양편 Category 'D' Phones	32
I Eeature Codes	💯 Category 'E' Phones	16
	생편 Category 'F' Phones	16
	💯 Desktop Interface	Yes
IP Connections	양된 Dynamic Extension Express	Yes
🕀 🍌 Modems	Services File-Based MOH Sources	5
표 📙 Network Groups	💯 Hot Desking	Yes
🕀 🛺 Node IP Connection Groups	IP Networking	Unlimited
I Nodes	State Conferencing	Yes
Dage Darks	🖓 Remote ACD Hunt Groups	Yes
	SIP Trunks	32
🗄 🌆 Page Zones	양부 SIP Voice Mail Ports	32
표 🕌 Phantoms & Hot Desk Profiles	System Health Report	Yes
🖃 🍌 Phones	System OAI Events	Yes
🕀 🛄 Local	양희 System OAI Third Party Call Control	Yes
III III 97001	양의 Voice Processor Messaging Networking	Yes
CO Truck Groups	양객 Unified Voice Messaging Ports	16
The second secon	양부 Unified Voice Messaging Blackberry® Integration	Yes
🖽 🏭 Node Trunk Groups	에 Unified Voice Messaging E-mail Synchronization	Yes
🖃 퉳 SIP Peers 🧔	⊗ª User web Portal	Yes
Node 3 - Local PBX Online 5000 CP North America	Dot56 192.168.101.56	

Figure 2: Example of SIP Licensing

#### Creating and Configuring a SIP Peer Trunk Group

To support SIP trunks through a SIP trunk service provider, the SIP Trunk Groups folder was added to the SIP Peers folder in DB Programming.

To create a SIP Trunk Group for GFI FaxMaker server, navigate to System->Device and Feature Codes->SIP Peers->SIP Trunk Groups and right click in the right hand pane. Then select "Create SIP Trunk Group". (See **Figure 3**)

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😋 😂 🎓 🔒 Recent	• 🔒 5000 CP 🔸 System 🕠	Devices and F	Feature Codes 🕠 S	IP Peers 🔸 SIP Trun	k Groups	
🕀 퉲 Assistants		Extension	Description	Username		
표 퉬 Extension	Lists	111 92002	3300	3300		
표 🍌 Feature C	odes	ttt 92005	gamma	gamma		
🕀 퉲 Hunt Grou	ips 🗧	HI 92006	Frontier	Frontier		
🗉 📙 IP Connec	tions	HI 92007	banuwiuun	banuwiuch		
표 🕌 Modems		1113 92000 *** 92009	bandtel	bandtel		
🗉 🚺 Network G	iroups	### 92010	gamma ac	gamma ac		
🕀 📕 Node IP C	onnection Groups	### 92011	paetec	paetec		
🕀 🔟 Nodes		111 92012	Test	Test		
E Bage Port	c	ttt) 92014	HIPCOM	HIPCOM		
Rage Zone	2 	ttt 92015	WCI	WCI		
		ttt] 92016	allstream	allstream		
🗄 🌆 Phantoms	& Hot Desk Profiles	fff 92017	Opal	SIP trunk		
🖃 🌆 Phones		HI 92018	Level 3	Level 3		
🕀 📕 Local		HI 92019	Level 3 DID2	Levels		
표 🍶 97001						
🗄 퉬 CO Trunk	Groups		Create SIP Trunk Gro	up	1	
표 퉲 Node Trun	ik Groups	-	Create SIP Trunk Gro	up from Template	1	
🖃 🕌 SIP Peers		L			-	
🗉 🌗 SIP Ph	ione Groups					
💻 🕌 SIP Tr	unk Groups					
H 🍌 92	2002					
III 🔒 92	2005					
🖃 📕 92	2006					
(H)	Configuration					
•	Trunk Group Configuration					
ode 3 - Local PBX	Online 5000 CP North America	Dot56	192.168.10	.56		

Figure 3: Example of Create SIP Trunk Group

When Trunk group for GFI FaxMaker server is been created, we have to configure parameters in Configuration and Trunk Group Configuration nodes.

### Programming the Configuration settings

**Registrar**: This is an internal SIP trunk and it does not require registration. So, set Enable Registration option to **No** as shown in **Figure 4**.

😢 Dot56 - Mitel DB Programming					
Elle View Operations Icols Favorites Help					
😋 🚭 🎓 🎉 Recent 🝷 🍑 5000 CP 🔸 System	,	Devices and Feature Codes	SIP Peers + SIP Trunk Groups + 92006 + Configuration		
🕀 퉲 Nodes	^	Name	Value		
표 🍌 Page Ports		Enable Registration	No		
표 📙 Page Zones		Registrar IP Address	255.255.255.255		
표 📙 Phantoms & Hot Desk Profiles		Registrar IP Port	5060		
🖃 퉲 Phones		Registrar FQUN	900		
🖽 📙 Local		Initial Retry Interval	60		
😠 🌗 97001		Maximum Registration Retries	5		
표 📙 CO Trunk Groups					
표 🕕 Node Trunk Groups					
🖃 🝌 SIP Peers					
😠 📕 SIP Phone Groups	1111				
🖃 🌗 SIP Trunk Groups					
😠 📙 92002					
II 🍌 92005					
🖃 퉲 92006	23				
🖃 🌗 Configuration					
🕌 Registrar					
Jack Authentication					
腸 Keep-Alive					
腸 NAT Settings					
🍌 Alternate IP/FQDN List					
표 🌗 Route Sets					
🗷 腸 Trunk Group Configuration					
III 🍌 92007					
🕀 🍌 92008	~				
Node 3 - Local PBX Online 5000 CP North America		Dot56 192.168.10	01.56		

Figure 4: Example of Registrar form

#### Authentication:

In this form, make sure that Authentication is disabled and Username and Password fields are blank as shown in **Figure 5**.



Figure 5: Example of Authentication form

- **Keep-Alive**: The Keep-Alive option keeps refreshing the NAT bindings for any Firewall/NAT in the path. It also helps in determining whether the SIP peer is reachable or not. We have set Enabling Pinging to **Yes** and leave the default values there.
- **NAT Settings**: Specifies the NAT address type. The default is "No NAT or SIP-Aware NAT" (for systems that are using a SIP-aware firewall). If you are not using a SIP-aware firewall, you must change the setting to "Non SIP-Aware NAT". Leave the default values here.
- Alternate IP/FQDN List: There is no need to configure any alternative IP addresses or FQDNs.
- **Route Sets**: Since this is internal SIP trunk, we don't need to configure any additional routes to get to this trunk.

Click Configuration node (see Figure 6)

- IP Address: Configure the IP address of your GFI FaxMaker server here. Typically, this
  is the local IP address of the computer where GFI FaxMaker's software is running.
- Port Number: Indicates the port that the system listens on the system for SIP peer messages. The range is 0–65535. Leave the default value of 5060.
- **Fully Qualified Domain Name**: Indicates the domain name of the SIP peer trunk group. In our test environment, we do not use FQDN. Therefore, leave it blank.



Figure 6: Example of Configuration form

• **Call Configuration**: Enter the call configuration number in Value field that you want to use with this trunk group.

Double clicking **Call Configuration** takes you to the Call Configuration folder where you can add a new call configuration profile or configure the existing profile(s) (e.g. codecs for voice and faxing, DTMF settings, etc. See section <u>Call Configurations</u>). (System->IP-Related Information->Call Configurations-><*call configuration number*>).

- Operating State: Indicates the current operating state of the SIP peer. If required, the status could be changed to "Out-of-Service – Maintenance".
- Maximum Number of Calls: Indicates the maximum number of concurrent calls that are been permitted towards the SIP peer. This number is not configurable in here and depends on number of trunks added at System->Device and Feature Codes->SIP Peers->SIP Trunk Groups-><*SIP Trunk group #*>->Trunk Group Configuration->Trunks (see section Programming the Trunks in Trunk Group Configuration Folder for details)

- Use ITU-T E.164 Phone Number: If set to Yes, the Mitel 5000 handles ITU-T E.164 formatted phone numbers as part of the incoming SIP INVITE messages from the SIP peer.
- **Static Binding**: It specifies whether a static binding exist for the corresponding SIP Peer. If set to Yes, then IP address and listening port for the SIP Peer must be configured. Leave this setting to Yes.
- Use Peer Address In From Header: In our test environment, we set it to No.

#### Programming the Trunk Group Configuration properties

To program the Trunk Group Configuration properties, navigate to System->Device and Feature Codes->SIP Peers->SIP Trunk Groups-><*SIP Trunk group #*>->Trunk Group Configuration:

As per Figure 7, we need to configure several parameters:

- Day and Night Ring-In Type in our test environment we configured Collected Digits ring-in type. Because this SIP trunk is terminated at GFI FaxMaker server, any incoming call will be answered there independently what was dialed over the trunk.
- **Calling Party Number** and **Name** is the default calling party number, which 5000CP presents to the SIP trunk. These Name and Number do not block anything and serving for the information only. So, enter some meaningful data here.

For the rest of the settings, refer to the DB Programming Help for trunk programming



Figure 7: Example of Trunk Group Configuration

#### Programming the Trunks in Trunk Group Configuration Folder

The number of SIP trunks that we create in here will appear as **Maximum Number of Calls** in the Configuration screen (see **Figure 6**).

Create the SIP peer trunks as follows:

- Navigate to System->Device and Feature Codes->SIP Peers->SIP Trunk Groups-><SIP Trunk group #>->Trunk Group Configuration->Trunks
- Right-click the right pane and the select **Create SIP Peer Trunk**. The Create SIP Peer Trunk dialog box appears (see **Figure 8**).
- Select the extension number you want to use for the item in the Starting Extension field. The recommended range is 94001–94999;
- Indicate the number of extensions you want to create in the Number of Extensions field. If the system is set to have more than one extension, the new trunks will be assigned sequentially to the next available numbers.
- Click OK. For the SIP trunk for GFI FaxMaker server, 3 extensions were created, See Figure 8. The number of available SIP Trunks licenses restricts the number of SIP peer trunks.



Figure 8: Example of SIP Trunks creation

#### **Call Configurations**

Call configurations define the settings that IP phones and gateways use when connected to calls. You can assign multiple devices to a specific call configuration.

By default, all IP devices are being placed in Call Configuration 1, which is programmable. You can program up to 25 different Call Configurations.

Because fax transmission shows better results when using T.38 faxing, we would recommend enabling T.38 protocol for faxing (see **Figure 9** for details).

Change Fax Detection Sensitivity to 2 or 3.

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😋 🚭 🏂 🔒 Recent 👻 🍑 5000 CP 🔸 Syst	em  IP-Related Information  ICall Configura	ations 🕨 1		
🗉 퉳 Echo Profiles 🛛 🔼	Name	Value	Extended Value	Column (dB)
📙 E-mail Gateway	Phones			
😠 🛄 File-Based MOH	퉲 Trunks			
Elans	🕌 SIP Phone Groups			
	🍌 SIP Trunk Groups			
	Les SIP Voice Mails			
IP-Related Information	Audio Diagnostics Sampling Period	5		
Call Configurations	Audio Diagnostics Samplings	12		
🗏 📜 1	🕮 Audio Frames/IP Packet	2		
Phones	Average In Time Frame Percentage Threshold	60		
Trunks	Werage In Time Frame Timer	5		
SIP Phone Groups	Minimum Playback Time	20		
	Transmit DIMF Level	North America	-9	-7
	Consult Foresting	RFC 2833		
SIP Voice Mails	Speech Encoding Setting	G./II MU-Law		
🕀 🍌 2	Pax Control-Messages Redundancy Count	3		
🕀 🍌 3	Pax Page-Data Redundancy Counc	0		
🕀 🌗 4	Ex East Encoding Setting (East Transmission)	7.29		
🕀 🔒 5	EX Eax Maximum Connection Speed	No Limit		
<b>H B</b> 6	Supports RTP Redirect	No		
<b>H I 7</b>		140		
	2			
				2
Node 3 - Local PBX Online 5000 CP North Ameri	a Dot56 192.168.101.56			

**Figure 9: Call Configuration Options** 

To view and move SIP Trunk Groups to the Call Configuration:

- Navigate to System->IP-Related Information->Call Configurations-><call configuration number>
- Click SIP Trunk Groups
- Right click in right hand pane and select Move to SIP Trunk Groups List
- Select the type, e.g. SIP Trunk Group and click Next
- Select the required trunk group that you want to move and click **Move Items** button
- Click Finish

#### Programming call routing for incoming PSTN calls

Some configurations of Mitel 5000CP assume having two SIP trunks: SIP trunk to the public telephone network (PSTN) and the SIP trunk to GFI FaxMaker (see example in **Figure 10**).

As per **Figure 10**, we would like to give the configuration example on how to program call routing from PSTN SIP trunk to GFI FaxMaker server (e.g. for number 613-555-2101).



Figure 10 – The configuration with two SIP trunks

Generally saying, we simply need to set SIP Trunk Group number (92006) and as a destination for the PSTN SIP Trunk Group 92016.

However, by default, in the Normal programming mode, you can not make such an assignment in Mitel 5000CP. We have to enable On-Line Monitor (OLM) mode first.

Navigate to the View menu as shown in **Figure 11** and select On-Line Monitor. Click OK to confirm your selection.

File Viev	Operations Tools Favori	ites Help			
<b>O</b>	'oolbar itatus Bar	SIP Trunk Groups 🔸 92016			
	ack orward collapse All collapse All col	Groups k Profiles	Name  Tranks  Multiple Ring-In  Emergency Outgoing Access  Utgoing Access  Toll Restriction  Audio for Calls Camped onto this Device  Music-On-Hold  Audio on Transfer to Ring Audio on Transfer to Hold  Audio on Hold for Transfer Announcement  Day Ring-In Type Night Ring-In Type Night Ring-In Type Send Station Extension/Username to Attached PBX Propagate Original Caller ID Calling Party Number Calling Party Number Force Trunk Group Calling Party Name and Number	Value File-Based MOH File-Based MOH Ringback File-Based MOH File-Based MOH Yes Single Single No No	Extended Value (2) 3 (2) 3 (2) 3 (2) 92006 (2) 92006 (2) 92006
<					

#### Figure 11 – OLM enabling

After OLM enabling, navigate to the Trunk Group Configuration of your PSTN SIP trunk (trunk number 92016 in this example).

Configure Day Ring-in Type with "Single" value.

For Extended value, right click in the corresponding field and select Change Extended Value. Then select "SIP Trunk Group" from the list and indicate the SIP Trunk Group leading to FaxMaker (92006 in this configuration) as the value. See example in **Figure 12**.

Do the same assignment to Night Ring-in Type.



#### Figure 12 – Extended Value assignment

Make sure to set option "Echo Trunk Number" to "Yes".

Eventually, the settings for your PSTN SIP trunk should look like in Figure 13.

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🌀 💿 🎓 🌗 Recent 🔹 🕌 5000 CP 🔸 System 🔸 Devices and Feature Codes 🔸 SIP Peers 🔸 SIP Trunk Groups 🔸 92016							
92006 🔼	Name	Value	Extended Value				
Configuration  Confi	Trunks Multiple Ring-In Emergency Outgoing Access Value for Calls Camped onto this Device Music-On-Hold Audio on Transfer to Ring Audio on Transfer to Hold Audio on Hold for Transfer Announcement Echo Trunk Number Day Ring-In Type Noth Ring-In Type Send Station Extension/Username to Attached PBX Propagate Original Caller ID Calling Party Name Calling Party Number Force Trunk Group Calling Party Name and Number	File-Based MOH File-Based MOH Ringback File-Based MOH File-Based MOH File-Based MOH Yes Single Single No No No	<ul> <li>Extended value</li> <li>(a) 3</li> <li>(b) 3</li> <li>(c) 3</li></ul>				
Reference Clock List							
Node 3 - Local PBX Online 5000 CP North Ameri	ca Dot56 192.168.101.56 (	DLM					

Figure 13 – Ring-in Type settings

# **GFI FaxMaker Configuration**

The following steps show how to configure GFI FaxMaker to interconnect with the Mitel 5000CP.

The configuration settings below are the main reference points and by any means could not be considered as the comprehensive configuration instructions.

We strongly recommend contacting the application' manufacturer – GFI Software for more detailed instructions and manuals (<u>http://support.gfi.com/manuals/</u>).

We assume that initial installation of the GFI FaxMaker software was complete and successful. Depending on your configuration and available hardware, GFI FaxMaker could be configured for several line types.

As in our tests, we use Brooktrout SR140 SIP lines to interconnect GFI FaxMaker with Mitel 5000CP. **NOTE:** Installation files and licensing of Brooktrout SR140 (by Dialogic) are available through GFI Software.

In GFI FaxMaker Configuration, we have to create/add new Brooktrout' lines.

Launch GFI FaxMaker Configuration, select Lines/Devices and then click Properties. Click Add button to add Brooktrout' line as shown in **Figure 14**.



Figure 14 – Add a Brooktrout SR140' line

Upon adding the line, select newly created Brooktrout' line in GFI FaxMaker Configuration, and click Properties. Configure the line's properties as shown in **Figure 15**.

**NOTE:** Since we have only one user in our test environment, we don't need to configure any DID capabilities in FaxMaker. That's why the "Line capabilities" in **Figure 15** is set to None.



Figure 15 – Configuration settings for Brooktrout SR140' line

In GFI FaxMaker Configuration, create a new user:

- select Licensed users node;
- In right pane, click on New licensed user/group
- Enter the user's data as shown in Figure 16.

**NOTE:** Actually, GFI FaxMaker does not reject the incoming calls because of not matching numbers. It answers on any incoming call received from the SIP trunk. As such, Fax No value in User's form (6135552101) is required rather for correct faxes' distribution among the FaxMaker' users.

GFI FaxMaker Configuration			
File Action View Help			
← → 🗈 🗙 🗗 🗟 😫			
Console Root GFI FaxMaker Configuration (Local) Licensed users Routing Coverpages SMS NetPrintQueue2Fax Billing Archiving Sending/Receiving Options Email2FAXGateway Advanced Fax administrators Dialling Printers Transmission reports Header/Footer/Stamping OCR Junk fax filter Call blocking HPDS/SAP Text-API/XMLAPI Public Contacts Miscellaneous Console Root Coverpages Coverpag	Licensed users 1 user(s) (if Configure all users that will be able to send and receive faxes with GFI FaxMaker. New licensed user/group Add a new licensed SF FaxMaker user or group Poperties Opens property sheet for the current selectio	And and an and an and an and an	ation Login Login test_user  test_user  Test User  test_user@sipcoe.mitel.com  Test Last name: User  Mitel Inc.  6135552101 Voice No: test_user@sipcoe.mitel.com
	\ GFI FaxMaker Licensed		OK Cancel Apply

Figure 16 – User configuration settings

# **Brooktrout SR140 Configuration**

As we mentioned earlier, in our testing, we use Brooktrout SR140 SIP lines to interconnect GFI FaxMaker with Mitel 5000CP.

After successful installation and license registration, launch Brooktrout Configuration Tool and select Advanced Mode (see **Figure 17**).

Brooktrout Configuration Tool	- Wizard Mode 🛛 🛛 🔀	
	Welcome to the Brooktrout Configuration Wizard	
Dialogic.	This wizard will help you configure your Dialogic Brooktrout hardware and software to communicate with the networks in which they are deployed. There are two ways to run the configuration tool:	
	The tool will guide you through the configuration, prompting you for the minimal information needed to get your product up and running. Wizard mode uses default values that will work in most situations.	
	Advanced Mode	
	This mode is for users with a strong knowledge of the network parameters needed for the particular deployment. This mode lets you modify the default parameters set in the Wizard Mode and gives access to parameters not usually needed. If you enter Advanced Mode, you can only switch back to the Wizard Mode by restarting the tool.	
	Context Sensitive Help - The Configuration Tool provides context sensitive help for parameters. To access the context sensitive help, hold the cursor over the parameter input area to see a brief parameter description, or right-click the parameter and select "What's this?" from the drop-down box to get a more complete definition.	
	Click Next to continue in Wizard Mode or switch mode by clicking Advanced Mode.	
Advanced Mode	Help <u>Kack</u> Cancel	

#### Figure 17 – Select Advanced Mode for Brooktrout Configuration Tool

In Advanced Mode, select SIP node and then navigate to IP Parameters tab in the right pane (see **Figure 18**).

In this pane:

- Enter Primary Gateway IP address this is the IP address on Mitel 5000CP;
- Enter **From Value** (optional) to identify FaxMaker correctly in the SIP messages, we would suggest that From Value needs to be configured;
- Enter **Contact IPv4 Address** this is IP address of the computer where GFI FaxMaker and Brooktrout SR140 software are running. If you leave zeros there, like in this example, then the local host' IP address will be used.

A Brooktrout Configuration Tool - Ad	vanced Mode			
File View Options Help				
Image: Constraint of the state     Image: Constraint of the state     Image: Constraint of the state       Home     Back     Next     Save     Apply	😂 🧣 License Help			
<ul> <li>Brooktrout (Boston Host Service - Running)</li> <li>Driver Parameters (All boards)</li> </ul>	General Information IP Parameters 7.38 Parameters RTP Parameters			
BTCall Parameters (All boards)	Maximum SIP Sessions:	256		
Module 0x41: SR140	Primary Gateway:	192.168.101.56 : 5060		
IP Call Control Modules	Primary Proxy Server:	:0		
	Additional Proxy Server #2:	:0		
	Additional Proxy Server #3:	:0		
	Additional Proxy Server #4:			
	Primary Registrar Server URL:	:]0		
	Additional Registrar Server #2:	0		
	Additional Registrar Server #3:	0		
	Additional Registrar Server #4:	:0		
	From Value:	GFI FaxMaker <sip:5555@192.168.101.148></sip:5555@192.168.101.148>		
	Contact IPv4 Address:	0.0.0.0		
	Username:			
	Session Name:	no_session_name		
	Session Description:			
	Description URI:	GFI FaxMaker		
	Email Address:			
	Phone Number:			
		Show Advanced >>		

Figure 18 – IP Parameters' settings for Brooktrout SR140

Navigate to T.38 Parameters tab in the right pane (see Figure 19).

Set the Fax Transporting Protocol to either "T.38 only" or "G.711 pass-through only".

**NOTE:** We DO NOT recommend selecting option "**T.38 with fallback to G.711 pass-through**" because our tests revealed that faxing send/receive fails at the very beginning or don't start at all when this option is selected.

If required, change the setting for Maximum Bit Rate (we used the default value of 14400).

**NOTE:** When changes to IP Parameters or/and T.38 Parameters are completed, you have to Save them and Apply. Normally, when applying the changes, the Windows' service named "**GFI FaxMaker Fax Server**" should be restarted. We have noticed however that often this service fails restarting and FaxMaker just does not answer the calls. If this is the case, open Windows Services mmc console and start "**GFI FaxMaker Fax Server**" service manually.

Description Tool - Adv	vanced Mode	
File View Options Help		
Image: Constraint of the state     Image: Constraint of the state     Image: Constraint of the state       Home     Back     Next     Save     Apply	🔊 🤋 License Help	
Brooktrout (Boston Host Service - Running)     Driver Parameters (All boards)     BTCall Parameters (All boards)     Call Control Parameters     Module 0x41: SR140     IP Call Control Modules     IP Call Control Modules	General Information IP Parameters T.38 Parameters Fax Transporting Protocol: Generate CED tone over RTP: Maximum Bit Rate, bps: Media Passthrough Timeout Inbound, msec: Media Passthrough Timeout Outbound, msec:	RTP Parameters G.711 pass-through only T.38 only G.711 pass-through only T.38 with fallback to G.711 pass-through T.38
	Media Renegotiate Delay Inbound, msec: Media Renegotiate Delay Outbound, msec: T30 Fast Notify: UDPTL Redundancy Depth Control: UDPTL Redundancy Depth Image:	1000         .1         No         5       0         5       0         2       0         5       2         Show Advanced >>

Figure 19 – T.38 Parameters' settings for Brooktrout SR140



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