



**Dialogic<sup>®</sup> Brooktrout<sup>®</sup> SR140 Fax Software with  
Dialogic<sup>®</sup> 2000 Media Gateway (DMG2000)  
Installation and Configuration Integration Note**

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## 1. Scope

This document is intended as a general guide for configuring a basic installation of the **Dialogic® 2000 Media Gateway (DMG2000)** when used to interface between a Public Branch Exchange (PBX) and the **Dialogic® Brooktrout® SR140 Fax over IP (FoIP) software platform**. For the purpose of this integration note, the system was configured for general use and not for automatic (i.e. DID) fax routing. The interoperability includes **SIP** call control and T.38/T.30 media.

This document is not intended to be comprehensive, and thus should not and does not replace the **Dialogic®** detailed configuration documentation. Users of this document should already have a general knowledge of how to install and configure the **Dialogic® Media Gateway and the Dialogic® Brooktrout® SR140**.

The sample configuration shown and/or referred in the subsequent sections was used for lab validation testing by Dialogic. Therefore, it is quite possible that the sample configuration will not match an exact configuration or versions that would be present in a deployed environment. However, the sample configuration does provide a possible starting point to work with the equipment vendor for configuring your device. Please consult the appropriate manufacturer's documentation for details on setting up your specific end user configuration.

## 2. Configuration Details

The following systems were used for the sample configuration described in the document.

### 2.1 Dialogic® DMG2000 Gateway

Vendor	<b>Dialogic</b>
Model	<b>Dialogic® 2000 Media Gateway (DMG2000)</b>
Software Version	<b>5.1 SU1.1 (5.1.118_N) or higher</b>
PSTN Device	<b>Dialogic® Brooktrout® TR1034 T1 Fax Board</b>
Protocol to PSTN Device	<b>T1 CAS</b>
IP Device	<b>Dialogic® Brooktrout® SR140 Fax Software</b>

For ease of reference, the Dialogic® Brooktrout® SR140 Fax Software and Dialogic® Brooktrout® TR1034 Fax Boards will sometimes be denoted herein, respectively, as SR140 and TR1034, and the Dialogic® 2000 Media Gateway will be denoted herein as DMG2000, or some other form thereof. All references to the SDK herein refer to the Dialogic® Brooktrout® Fax Products SDK.

## 2.2 Dialogic® Brooktrout® SR140 Fax Software

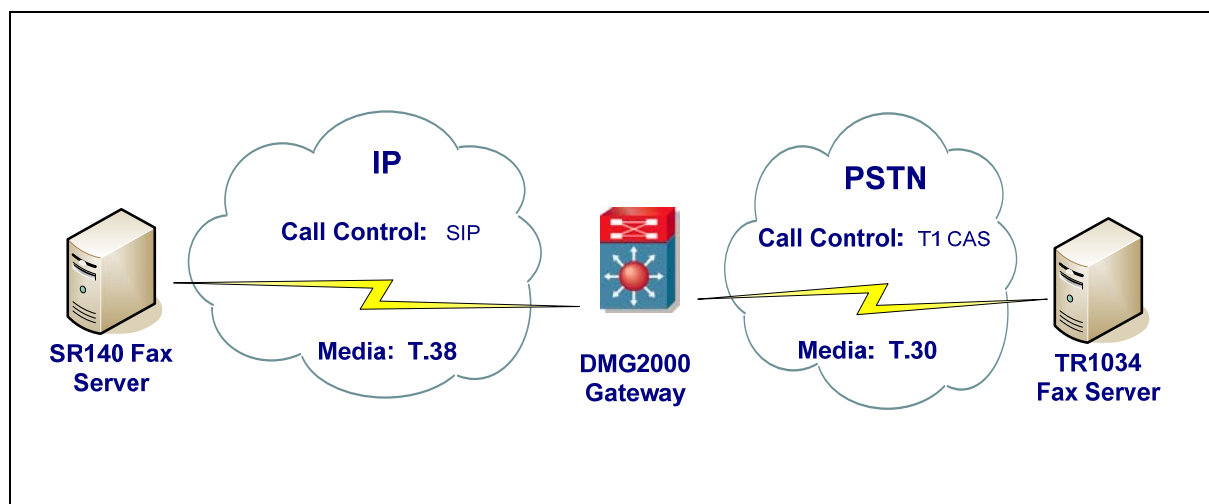
Vendor	<b>Dialogic</b>
Model	<b>Dialogic® Brooktrout® SR140 Fax Software</b>
Software Version	<b>SDK 5.2.1</b>
Protocol to Gateway or Call Manager	<b>SIP</b>
callctrl.cfg file	<b>All defaults</b>

## 2.3 Dialogic® Brooktrout® TR1034 Fax Board

Vendor	<b>Dialogic</b>
PSTN Device	<b>Dialogic® Brooktrout® TR1034 Fax Board</b>
Software Version	<b>SDK 5.2.1 was used for testing</b>
Protocol to PSTN Device	<b>T1 CAS</b>
callctrl.cfg file	<b>All defaults</b>

## 2.4 Network System Configuration

The diagram below details the sample configuration used in connection with this document.



### Diagram Notes:

- SR140 Fax Server = Fax Server including Dialogic® Brooktrout® SR140 Fax Software and third party fax application
- TR1034 Fax Server = Fax Server including Dialogic® Brooktrout® TR1034 Fax Board and third party fax application

### 3. Prerequisites

No special requirements to note.

### 4. Summary of Limitations

TCP cannot be used as a SIP transport because the SR140 software does not support SIP over TCP. The G.711 coder must be used.

### 5. Dialogic® Brooktrout® SR140 Fax Software Setup Notes

For the sample test configuration, the SR140 was configured using the default values, consult the Dialogic® Brooktrout® Fax Products Installation and Configuration Guide for details.

The Installation & Configuration Guides for SDK 5.2.x, 6.0.x, and 6.1.x are available from the site below:

<http://www.dialogic.com/manuals/brooktrout/default.htm>

### 6. Dialogic® Brooktrout® TR1034 Fax PSTN Setup Notes

For the sample test configuration, the TR1034 was configured using the default values, consult the Dialogic® Brooktrout® Fax Products Installation and Configuration Guide for details.

### 7. Dialogic® Media Gateway Setup Notes

During the initial setup of the gateway using the serial port, you must:

- Assign the gateway a unique IP address, subnet mask and network gateway address (if the latter is required).
- Configure the gateway to use the SIP VoIP protocol.
- Configure the gateway as needed to connect to your TDM interface.

During the solution-specific setup of the gateway using the web interface, you must:

- Configure the gateway with at least a single IP endpoint.
- Set the Voice coder to be G.711.
- Set the SIP Transport as UDP.
- Set the Fax Transport mode to be T.38.
- Set the Fax/Modem tone relay to either In-band or RFC2833.

## 8. PBX Setup Notes

Refer to the appropriate gateway configuration guide based on the TDM interface used:

- analog
- T1/E1
- digital station set

The guides are available from the site below:

<http://www.dialogic.com/support/helpweb/mg/integration.aspx>

Basic configuration requires that the TDM interface is configured to match the setting selected on the gateway. The PBX should be configured with a centralized method of call distribution between all of the configured channels using either a hunt group or port-to-port forwarding configuration. This centralized call distribution method offers a single point of entry to where all faxes can be directed.

In this configuration, the gateway is not making use of any DID routing capabilities so specialized numbering configuration is not required on the PBX-side of the connection.

## 9. Frequently Asked Questions

- *"I'm configured as near as possible to this the sample configuration described in this document, but calls are still not successful; what is my next step?"*
  - ➔ Provide this document to your gateway support.
  - ➔ Ensure T.38 is enabled on the gateway.
  - ➔ Confirm that basic network access is possible by pinging the gateway.
- *"How do I obtain Wireshark traces?"*
  - ➔ The traces can be viewed using the Wireshark network analyzer program, which can be freely downloaded from <http://www.wireshark.org>.
  - ➔ To view the call flow in Wireshark, open the desired network trace file and select "Statistics->VoIP Calls" from the drop down menu. Then highlight the call and click on the "Graph" button.