



Dialogic[®] IMG 1004 Integrated Media Gateway Quick Start Guide

Copyright and Legal Notice

Copyright © 2005-2009 Dialogic Corporation. All Rights Reserved. You may not reproduce this document in whole or in part without permission in writing from Dialogic Corporation at the address provided below.

All contents of this document are furnished for informational use only and are subject to change without notice and do not represent a commitment on the part of Dialogic Corporation or its subsidiaries ("Dialogic"). Reasonable effort is made to ensure the accuracy of the information contained in the document. However, Dialogic does not warrant the accuracy of this information and cannot accept responsibility for errors, inaccuracies or omissions that may be contained in this document.

INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH DIALOGIC® PRODUCTS. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. EXCEPT AS PROVIDED IN A SIGNED AGREEMENT BETWEEN YOU AND DIALOGIC, DIALOGIC ASSUMES NO LIABILITY WHATSOEVER, AND DIALOGIC DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO SALE AND/OR USE OF DIALOGIC PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHT OF A THIRD PARTY.

Dialogic products are not intended for use in medical, life saving, life sustaining, critical control or safety systems, or in nuclear facility applications.

Due to differing national regulations and approval requirements, certain Dialogic products may be suitable for use only in specific countries, and thus may not function properly in other countries. You are responsible for ensuring that your use of such products occurs only in the countries where such use is suitable. For information on specific products, contact Dialogic Corporation at the address indicated below or on the web at <http://www.dialogic.com/>.

It is possible that the use or implementation of any one of the concepts, applications, or ideas described in this document, in marketing collateral produced by or on web pages maintained by Dialogic may infringe one or more patents or other intellectual property rights owned by third parties. Dialogic does not provide any intellectual property licenses with the sale of Dialogic products other than a license to use such product in accordance with intellectual property owned or validly licensed by Dialogic and no such licenses are provided except pursuant to a signed agreement with Dialogic. More detailed information about such intellectual property is available from Dialogic's legal department at 9800 Cavendish Blvd., 5th Floor, Montreal, Quebec, Canada H4M 2V9.

Dialogic encourages all users of its products to procure all necessary intellectual property licenses required to implement any concepts or applications and does not condone or encourage any intellectual property infringement and disclaims any responsibility related thereto. These intellectual property licenses may differ from country to country and it is the responsibility of those who develop the concepts or applications to be aware of and comply with different national license requirements.

Any use case(s) shown and/or described herein represent one or more examples of the various ways, scenarios or environments in which Dialogic® products can be used. Such use case(s) are non-limiting and do not represent recommendations of Dialogic as to whether or how to use Dialogic products.

Dialogic, Dialogic Pro, Brooktrout, Diva, Cantata, SnowShore, Eicon, Eicon Networks, NMS Communications, NMS (stylized), Eiconcard, SIPcontrol, Diva ISDN, TruFax, Exnet, EXS, SwitchKit, N20, Making Innovation Thrive, Connecting to Growth, Video is the New Voice, Fusion, Vision, PacketMedia, NaturalAccess, NaturalCallControl, NaturalConference, NaturalFax and Shiva, among others as well as related logos, are either registered trademarks or trademarks of Dialogic Corporation or its subsidiaries. Dialogic's trademarks may be used publicly only with permission from Dialogic. Such permission may only be granted by Dialogic's legal department at 9800 Cavendish Blvd., 5th Floor, Montreal, Quebec, Canada H4M 2V9. Any authorized use of Dialogic's trademarks will be subject to full respect of the trademark guidelines published by Dialogic from time to time and any use of Dialogic's trademarks requires proper acknowledgement.

Hardware Limited Warranty

Warranty for Hardware Products: Dialogic Corporation or its subsidiary that originally sold the hardware product to you ("Dialogic") warrants to the original purchaser ("Purchaser") of this hardware product ("Product"), that at the time of delivery the Product supplied hereunder will be free from defects in material and workmanship. This warranty is for the standard period for such Product set out on Dialogic's website at <http://www.dialogic.com/warranties> at the date of purchase, provided the Product remains unmodified, is operated under normal and proper conditions in accordance with its published specifications and documentation, and the system is not opened by unauthorized personnel. The warranty is also void if the defect has resulted from accident, misuse, abuse or misapplication. Any Product which becomes defective during the warranty period and is returned by Purchaser to Dialogic's Authorized Service Center shipping prepaid with a Return Material Authorization (RMA) number (which must be obtained from Dialogic before any return) within thirty (30) days after discovery of the defect, with a written description of the defect, will be repaired or replaced at Dialogic's option. Dialogic will not accept C.O.D. shipments. Dialogic reserves the right to refuse to repair or replace any Product which shows signs of abuse, misuse, neglect or has been altered in any way, including but not limited to Products which have been (i) used in environments which exceed operating tolerances such as supplied voltages and signals or (ii) stored under improper temperature or humidity conditions or (iii) used with equipment, software or interfacing not furnished by Dialogic or (iv) improperly packaged or shipped or (v) harmed by Purchaser or its agents' fault or negligence or (vi) repaired or modified without Dialogic's prior written consent. Purchaser must exercise proper electrostatic discharge (ESD) precautions and pack the Product and the other returned diagnostic information in the original Dialogic packaging, including the antistatic bag/container and an ESD foam-filled cardboard box. Purchaser may void the warranty if the Product is improperly packaged or shipped. Dialogic will bear the cost to return the repaired or replaced Product to the location specified on the Return Material Authorization (RMA) form by a method it chooses. If the Purchaser desires a specific form of conveyance, the Purchaser must bear the cost of shipment. All risk of loss shall be with the Purchaser during any and all shipments of the Product. Duties and import fees are the responsibility of the Purchaser.

Additional Exclusions: Dialogic will have no obligation to make repairs or replacements to the Product due to causes beyond the control of Dialogic, including, but not limited to, power or air conditioning failure, acts of God, improper interface with other units, or malfunction of any equipment or software used with the Dialogic Product(s). If Dialogic is requested and agrees to make repairs or replacements necessitated by any such causes, Purchaser will pay for such service or replacement at Dialogic's then prevailing rates.

No Other Warranties: DIALOGIC DISCLAIMS AND PURCHASER WAIVES ALL OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT AND FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY AGAINST LATENT DEFECTS, WITH RESPECT TO ANY DIALOGIC PRODUCT.

No Liability for Damages: IN NO EVENT SHALL DIALOGIC OR ITS SUPPLIERS BE LIABLE FOR ANY DAMAGES WHATSOEVER (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, INTERRUPTION OF ACTIVITIES, LOSS OF INFORMATION OR OTHER PECUNIARY LOSS AND DIRECT OR INDIRECT, CONSEQUENTIAL, INCIDENTAL, ECONOMIC OR PUNITIVE DAMAGES) ARISING OUT OF THE USE OF OR INABILITY TO USE ANY DIALOGIC PRODUCT.

Limitation of Liability: DIALOGIC'S MAXIMUM CUMULATIVE LIABILITY SHALL BE LIMITED TO THE AMOUNTS ACTUALLY PAID BY PURCHASER TO DIALOGIC FOR THE SPECIFIC PRODUCT BEING THE OBJECT OF THE CLAIM. PURCHASER RELEASES DIALOGIC FROM ALL AMOUNTS IN EXCESS OF THE LIMITATION. PURCHASER ACKNOWLEDGES THAT THIS CONDITION IS ESSENTIAL AND THAT DIALOGIC WOULD NOT SUPPLY TO PURCHASER IF IT WERE NOT INCLUDED. THIS WARRANTY EXPRESSLY DOES NOT APPLY TO ANYONE OTHER THAN PURCHASER.

Technical Support

Technical Support Number: 781-433-9600

Technical Support Fax: 781-449-9520

www.dialogic.com

IMPORTANT NOTE:

Please be aware that the following terminology and abbreviations are used throughout this document. Please also be sure to consult the legal notice for other important details.

When used herein, the term "IMG 1004" refers to the "Dialogic® IMG 1004 Integrated Media Gateway" product.

When used herein, the term "GCEMS" refers to the "Dialogic® Gate Control Element Management System"

Overview

This IMG 1004 Quick Start Guide is an abbreviated guide which explains how to connect power and network cabling. For more information on installation and setup, please reference the online documentation at <http://www.dialogic.com/manuals>.

Shipping Information

Review the packing list to check that all the items listed on the packing list have been sent. Should any discrepancies exist, contact your Dialogic Representative immediately.

Connecting AC Power

Power Specifications

The IMG 1004 is powered by an AC voltage. The AC input power must conform to the specifications in the table below. Insert one end of AC cord into rear of IMG 1004 and the other end into a grounded wall outlet, uninterruptible power supply (UPS), or surge protector.

	AC	Operating Range
Power	120 – 240 VAC / 1.5 - 3 Amps	90 – 240 VAC
Frequency	50 or 60 Hz	50-60 Hz

AC Power Module

Located on the rear of the IMG 1004 is an AC input power module with an integrated fuse, power switch, and standard three position female AC input connector. This connector allows the docking station to interface with all variations of AC outlets by simply using a standard power cable and compatible outlet plug.

For more information on connecting AC power see **IMG 1004-Installation and Setup Guide > IMG 1004-Hardware Installation** in online documentation.

Configuring Linux on GCEMS server

IMPORTANT: Please read and understand the IMG 1004 technical documentation prior to performing any setup or installation procedures. The documentation can be accessed through the following site: <http://www.dialogic.com/manuals>

If the IMG 1004 was purchased with the GCEMS Server then the Linux Red Hat Operating System and GCEMS application have already been installed. Downloading System Software to the IMG 1004 will be the next step. See paths below in Online Documentation.

- IMG 1004-Installation and Setup Guide > IMG 1004-Software Installation and Setup

If server was not purchased, then a server must be configured with Red Hat Enterprise Linux. The IMG 1004 supports Red Hat Enterprise Linux 3, Red Hat Enterprise Linux 4 and Red Hat Enterprise Linux 5. Refer to the individual topics located under each of the following headings in the Online Documentation for more information on configuring the Linux Server.

- IMG 1004-Installation and Setup Guide > IMG 1004-Linux Red Hat Installation
- IMG 1004-Installation and Setup Guide > IMG 1004-Software Installation and Setup
- IMG 1004-Installation and Setup Guide > IMG 1004-SD Card
- Configuring Services on GCEMS Server

Connecting and Configuring Network Management Port 'CTRL'

The information below will provide the user with a basic setup sequence for connecting and configuring the IMG 1004 along with the GCEMS server to download system software and start configuring the IMG 1004 using the ClientView GUI. On the rear of the IMG 1004 are the network interfaces. The first interface -CTRL - is a Fast Ethernet port dedicated to network management. This port is connected to the GCEMS server and allows the GCEMS server to access the IMG 1004.

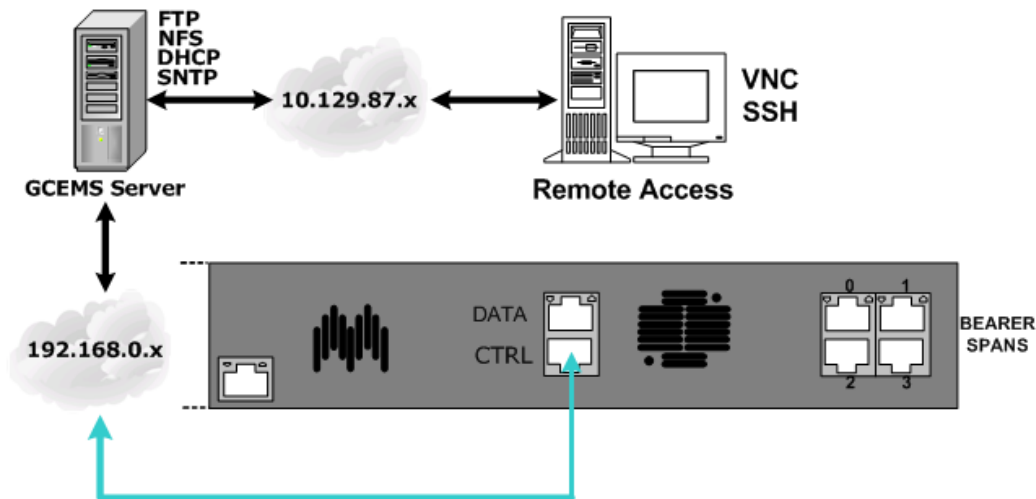
1. Connect up the cables as shown in the first figure below.
2. Once the cables are connected, configure FTP and DHCP on the GCEMS server. Locate the MAC address which is printed on a label located on the rear panel of the IMG 1004. This will be used in the dhcpd.conf file creation.

For more information on how to set up the services refer to the topics under the following sections in the Online Documentation

- IMG 1004-Installation and Setup Guide > IMG 1004-Software Installation and Setup

If setup requires using an SD card to load system software refer to the topics under the IMG 1004-SD Card heading below in Online Documentation.

- IMG 1004-Installation and Setup Guide > IMG 1004-SD Card



GCEMS software installation.

To take advantage of all new features, it is recommended that the latest version of GCEMS software be installed on the GCEMS Server. The most current software can be obtained from the Dialogic Technical Support website.

1. Go to the Dialogic Support Technical Website at <http://www.dialogic.com/support>
2. Select '**Downloads**'. You will require a logon username and password to access the downloads site. (A support contract is needed to access this site.) Within this site will be two software binary files with the following format. Download the latest version of these files.

- IMG_10.5.x.135.bin
- IMGUserInterface_10.5.x.135.bin

NOTE: If you do not have a support contract with Dialogic, then the software supplied to you on the Software CD can be used.

3. Refer to the topics under the following headings in the Online Documentation to install the GCEMS software

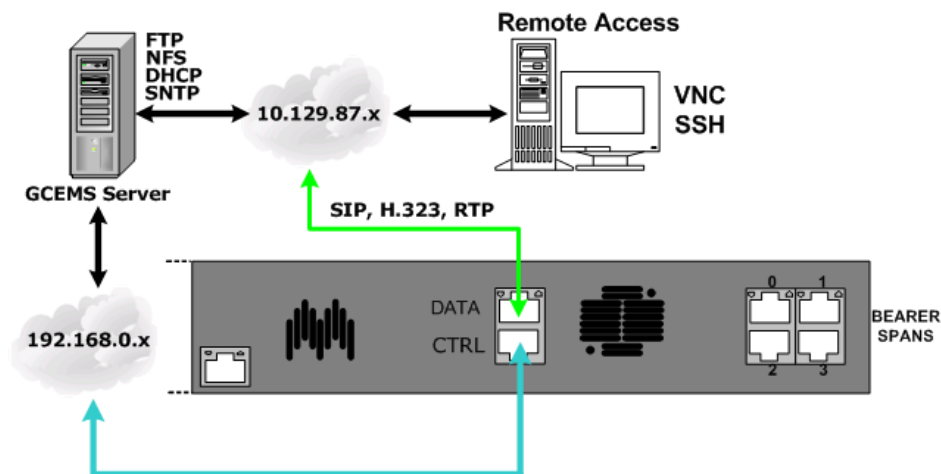
- IMG 1004-Installation and Setup Guide > IMG 1004-Software Installation and Setup

Connecting DATA Port

1. The port DATA that is located on the rear of the IMG 1004 is a 100 Mbit port and is dedicated to VoIP Bearer traffic. The DATA port can be on either the same IP network as the management network, or can be connected to a separate network. See the topics under the following headings in the Online Documentation for more information.

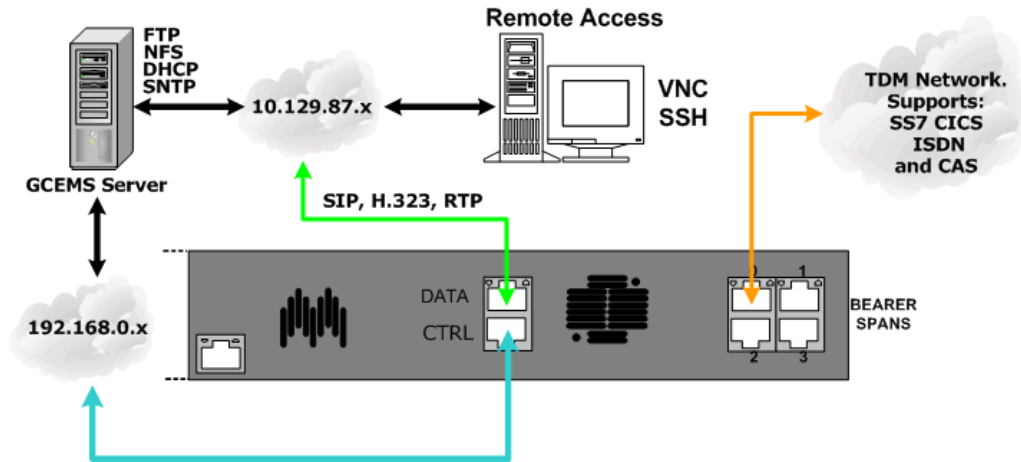
- IMG 1004-Installation and Setup Guide > IMG 1004-Hardware Installation

NOTE: The IP addresses for these ports will be assigned through the ClientView GUI. See the ClientView section below for more information.



Connecting TDM Signaling and Bearer Ports

- The Bearer ports (Interface Offsets) 0-4 are connected to the TDM network. Each Bearer Port can have signaling and bearer channels configured on it.
- ISDN D-channels and B-Channels are brought in over the Bearer Ports
- CAS signaling and voice channels are brought in over the Bearer Ports
- SS7 Links are brought in over Bearer Ports if IMG 1004 is going to terminate links.



Starting ClientView to start Configuring Switch

Once the IMG 1004 has software installed, the cabling is connected, and the GCEMS server has been configured, the ClientView application can be used to configure the system. Below are a few topics from the Online Documentation to get started on configuring the IMG 1004 through the ClientView GUI.

- Configuration > ClientView > (All topics under this book)
- Configuration > Introduction
- Configuration > Node Configuration Wizard
- Configuration > Basic Configuration

From here, the IMG 1004 can be configured for your network. Use the Online Manual for configuration, Clientview, and ClientView Pane sections to configure the IMG 1004.