



Dialogic[®] Host Media Processing Software Release 3.1LIN

Software Installation Guide

January 2009

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Publication Date: January 2009

Document Number: 05-2598-002

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Revision History

This revision history summarizes the changes made in each published version of this document.

Document No.	Publication Date	Description of Revisions
05-2598-002	January 2009	<p>Installing the Software and Uninstalling the Software: Removed mention of the “lsb-dialogic-hmp-oooc” package since the Orbacus CORBA Support Package is obsolete. (IPY00079130)</p> <p>License Resources: Added a Note with regard to 3G-324M resources and MSML support. (IPY00079129) Also, removed the “Acceptable Range” column from the table and inserted a note to reference the <i>Dialogic® Host Media Processing Software Release 3.1LIN Release Guide</i> for acceptable channel density ranges.</p>
05-2598-001	August 2007	Initial version of this document.

About This Publication

This preface provides the following information about this document:

- [Purpose](#)
- [Intended Audience](#)
- [How to Use This Publication](#)
- [Related Information](#)

Purpose

This publication describes how to install Dialogic® Host Media Processing (HMP) Software Release 3.1LIN. Information about running a demo to confirm proper installation, troubleshooting the installation, and uninstalling the software is also included.

Intended Audience

This publication is intended for:

- System Integrators
- Toolkit Developers
- Independent Software Vendors (ISVs)
- Original Equipment Manufacturers (OEMs)

How to Use This Publication

Following are some guidelines for using this publication:

- To get an overall understanding of the install process, refer to [Chapter 1, “Installation Overview”](#).
- The complete installation procedure, including prerequisites, system configuration procedures, and instructions for running the verification demo, is provided in [Chapter 2, “Installing the Software”](#).
- Refer to [Chapter 3, “License Administration”](#) for information about performing the various tasks related to obtaining, activating, and otherwise working with Dialogic® HMP Software license files.
- If you need to uninstall the Dialogic HMP Software, refer to [Chapter 4, “Uninstalling the Software”](#).
- If you have problems while installing the Dialogic HMP Software, refer to [Chapter 5, “Troubleshooting”](#).

- To navigate through all the information, use the Contents and internal links.

Related Information

The following documents and web sites provide more information:

- *Dialogic® Host Media Processing Software Release 3.1LIN Release Guide* - This document provides information about the release such as product features, system requirements, and user documentation. Locate this document at <http://dialogic.com/manuals/>.
- *Dialogic® Host Media Processing Software Release 3.1LIN Release Update* - This document addresses release issues such as known problems and documentation updates. Locate this document at <http://dialogic.com/manuals/>.
- For technical support, go to <http://dialogic.com/support/>.
- For information about Dialogic Host Media Processing software products, go to http://www.dialogic.com/products/ip_enabled/hmp_software.htm.
- For information about Dialogic® products, go to <http://www.dialogic.com/>.

This chapter provides the following information about installing Dialogic® Host Media Processing (HMP) Software Release 3.1LIN.

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1.1 Major Installation Steps

Following are the major installation steps:

1. Before installing the Dialogic® Host Media Processing (HMP) Software, make sure that the system meets the hardware and software “System Requirements” as described the *Dialogic® Host Media Processing Software Release 3.1LIN Release Guide*.
2. To install the software, you must have local administrative privileges. Contact your network administrator to set up administrative privileges as required.
3. Uninstall any existing Dialogic® System Release. Refer to [Chapter 4, “Uninstalling the Software”](#) for details.
4. Obtain a Dialogic® HMP Software license. You can do this before or after you install the HMP Software. A verification license supplied with the software will allow you to run the verification demo to confirm that you have installed the Dialogic® HMP Software properly. However, its features are limited and you may want to obtain another license. Refer to [Chapter 3, “License Administration”](#) for more information about obtaining and activating licenses.
5. Install the Dialogic® Host Media Processing (HMP) Software Release 3.1LIN software and start the verification license. Refer to [Section 2.3, “Installing the Dialogic® HMP Software”](#), on page 11.
6. Run the verification demo to verify proper installation of the Dialogic® HMP Software. Refer to [Section 2.4, “Running the Verification Demo”](#), on page 14.
7. Activate a Dialogic® HMP Software license. This is considered a configuration activity and can be done immediately after installing the software. Refer to [Section 3.2, “Activating a License”](#), on page 22.

1.2 Dialogic® HMP Software Licenses

Before you use the Dialogic® HMP Software, you must obtain a license file containing Dialogic Software license data. A Dialogic HMP license is a file containing authorizations for a combination of call control and media processing resources. You can obtain a license file from your authorized Dialogic distributor.

Dialogic® HMP Software licensing supports host-based licensing. The license is associated with a particular machine based on the machine's MAC address (Host ID). Board-based licensing is also supported. If you are using one or more of the supported Dialogic® HMP Interface Boards, the license can be associated with one of the boards in the system based on the board's serial number. Locking the license to a board allows you to transfer the license to another host by moving the board to that host.

- Notes:**
1. The license can only be tied to eth0 when using host-based licensing.
 2. If you have a board in the system, then a host-based license will not work. Board-based licensing has a higher priority than host licensing.

Once you have installed the Dialogic® HMP Software and downloaded a license on your machine, you must activate the license. Dialogic HMP Software licenses are configured and managed using the Command Line Interface (CLI) or SNMP. Both CLI and SNMP provide remote management capability. Refer to [Chapter 3, "License Administration"](#) for detailed information about obtaining and using license files.

You can try out the Dialogic HMP Software with a verification, evaluation, or trial license before you purchase a permanent, production license from Dialogic. Refer to the License Types table in [Chapter 3, "License Administration"](#) for types of licenses available for use with Dialogic HMP Software.

This chapter provides procedures for installing and licensing Dialogic® Host Media Processing Software Release 3.1LIN. This information is contained in the following sections:

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- Order of Procedures 11
- Installing the Dialogic® HMP Software 11
- Running the Verification Demo 14
- Performing a Silent Install 15

2.1 Assumptions and Prerequisites

The following are basic requirements to install and run the Dialogic® HMP software:

- The appropriate version of Linux must be installed and the system must meet all the hardware and software “System Requirements” as described in the *Dialogic® Host Media Processing Software Release 3.1LIN Release Guide*.
- To install the software, you must have local administrative privileges. Contact your network administrator to set up administrative privileges as required.
- If you have Dialogic® HMP Software Release 1.5 or any Dialogic® System Release on your machine, you must uninstall it. However, if you have an earlier version of Dialogic® HMP Software Release 3.1LIN, you do not have to uninstall it. It will be upgraded when you install the new version. To uninstall versions other than Dialogic® HMP Software Release 3.1LIN, refer to [Chapter 4, “Uninstalling the Software”](#).

The Dialogic® HMP software has three install scripts:

- One in the redistributable-runtime directory, which installs runtime components. This install script does not contain header files. Use this install to run precompiled Dialogic® applications.
- One in the sdk directory, which installs header files for application development. Run this install to compile Dialogic applications.
- One at the top level which installs both runtime components as well as header files. Run this install to compile and run your applications on the same computer system.

Note: For purposes of this document, only the top level install is explained which shows both the redistributable-runtime install and the SDK install.

The name of the install script for each level is `install.sh`.

2.2 Order of Procedures

This section describes the order in which the installation procedures must be performed.

Before you use the Dialogic® HMP software, you must obtain a license file containing HMP license data. You can obtain a license before or after you install the software. The verification license supplied with the software will allow you to run the verification demo to confirm that you have installed the Dialogic® HMP software properly. Note that the features of the supplied license are limited and you may want to obtain another license. For more information, refer to [Chapter 3, “License Administration”](#).

If you wish to automate the software installation or integrate it into another setup program, follow the procedures in [Section 2.5, “Performing a Silent Install”](#), on page 15.

The basic order of the installation process is as follows:

1. Install the Dialogic® HMP Software Release 3.1LIN software as described in [Section 2.3, “Installing the Dialogic® HMP Software”](#), on page 11.
2. Manually start Dialogic® Services using the `dlstart` command.
3. Run the verification demo to verify proper installation of the Dialogic® HMP software (refer to [Section 2.4, “Running the Verification Demo”](#), on page 14).

2.3 Installing the Dialogic® HMP Software

The Dialogic® HMP Software Release 3.1LIN software can be downloaded from the <http://www.dialogic.com/support/helpweb/dxall/> website. When you select this link, you will be asked to either LOGIN or JOIN.

After downloading the software, use the following procedure to install Dialogic® HMP Software Release 3.1LIN software. If a silent installation is desired, refer to [Section 2.5, “Performing a Silent Install”](#), on page 15:

1. Log in to the Linux system as root.
2. Copy the `.tgz` file downloaded from the website to its own directory and use the `tar` command to uncompress it.

```
tar -xvzf <3.1LINfilename>.tgz
```

3. Enter the following command to start the install script:

```
./install.sh
```

Messages similar to the following are displayed:

```
Installing Dialogic(r) HMP Release 3.1LIN
Redistributable Runtime
Please wait, installation is in progress...

Initializing install, please wait .....
```

Installing the Software

```
=====
Dialogic(r) HMP Release 3.1LIN
Redistributable Runtime
INSTALLATION
```

You will now have the opportunity to install software packages.

After the menu is displayed, enter the package number(s) of the desired packages, separated by a space. Enter A for all packages, Q to quit.

Package dependencies will be automatically resolved during installation. For example, selecting a single package will automatically install all packages required for that selection.

4. Press ENTER to display the menu of packages.

```
Item   Package Description
-----
 1     Dialogic(r) Host Media Processing Software (143 MB)
 2     Dialogic(r) DNI Boards & HMP Software (193 MB)
 A     Install All (193 MB)
 Q     Quit Installation
Enter the packages you want to install, separated by a space, or [A,a,Q,q]:
```

5. Enter the packages you want to install, separated by a space, or [A,a,Q,q].

Select 1 for an IP-only configuration. This option installs the Dialogic® HMP Software only (no PSTN, board support).

Select 2 for an IP and PSTN configuration. This option installs the Dialogic HMP Software and supports Dialogic® HMP Interface Boards.

For this example, 1 is selected.

```
Enter the packages you want to install, separated by a space, or [A,a,Q,q]:1
Package installation order (including dependencies):
  lsb-dialogic-hmp-com
  lsb-dialogic-hmp-dmdev
  lsb-dialogic-hmp-hmp
  lsb-dialogic-hmp-lic
Enter the packages you want to install, separated by a space, or [A,a,Q,q]:
```

For this second example, a is selected.

Note: Licensing is automatically installed when Item 1, Item 2, or Item A is selected.

```
Enter the packages you want to install, separated by a space, or [A,a,Q,q]: a
Package installation order (including dependencies):
  lsb-dialogic-hmp-com
  lsb-dialogic-hmp-dmdev
  lsb-dialogic-hmp-hmp
  lsb-dialogic-hmp-t1e1
  lsb-dialogic-hmp-lic
Checking for previously installed packages:
  None found.
Checking for sufficient disk space (need 193 MB): OK
After installation, the filesystem containing the Dialogic(r) Software will be 9% full.
Installing or upgrading 6 needed packages:
Preparing... ##### [100%]
 1:lsb-dialogic-hmp-lic ##### [ 17%]
 2:lsb-dialogic-hmp-com ##### [ 33%]
 3:lsb-dialogic-hmp-dmdev ##### [ 67%]
```

```

4:lsb-dialogic-hmp-hmp ##### [ 83%]
5:lsb-dialogic-hmp-tle1 ##### [100%]
Building the ctimod and merced drivers...
Installation successful.
Press ENTER to continue:

```

6. Press **ENTER** to continue.

```

Item      Package Description
-----
 1      Dialogic(r) Host Media Processing Software (143 MB)
 2      Dialogic(r) DNI Boards & HMP Software (193 MB)
 A      Install All (193 MB)
 Q      Quit Installation
Enter the packages you want to install, separated by a space, or [A,a,Q,q]:

```

7. If you have finished selecting packages, enter **q** to quit and complete the installation process. The following messages are displayed:

```

Installation of Dialogic(r) HMP Release 3.1LIN Redistributable Runtime was
successful.

Do you wish to install the Software Development Kit [y/n] ?

```

8. If applicable, enter **y** to install the Software Development Kit.

```

Installing Dialogic(r) HMP Release 3.1LIN Software Development Kit

Preparing... ##### [100%]
1:lsb-dialogic-hmp-sdk ##### [100%]
Installation of Dialogic(r) HMP Release 3.1LIN Software Development Kit was successful.

Do you wish to configure the SNMP Agent Listening Port (default is 161) [y/n] ?

```

9. If applicable, configure the SNMP Agent Listening Port.

```

Do you wish to configure the CLI Agent Telnet Port (default is 23) [y/n] ?

```

10. If applicable, configure the CLI Agent Telnet Port. Selecting **n** at this prompt completes the installation process. Messages similar to the following are displayed:

```

Installation of HMP Release 3.1LIN successfully completed.

-----
--
-- NOTE:
--
-- (1) The default Verification License has been automatically installed. --
-- (2) The Dialogic(r) system services will automatically start --
-- every time the system is rebooted. To start and stop system --
-- services manually, use the dlstop and dstart scripts found in --
-- /usr/dialogic/bin.
-- (3) For administration via SNMP, use any SNMP browser, library or tools--
-- (4) For administration via CLI, use the telnet command --
-- (5) For details, refer to documentation --
--
-- NEXT STEPS:
-- You need to do the following before using the product:
-- (1) The Dialogic(r) system services must be started. To start system --
-- services manually, use the d lstart script found in --
-- /usr/dialogic/bin.
-- (2) Before using the software, you must also ensure that the --
-- environment variables are set by performing the following action: --
-- - Logout and login
-- (3) Configure an appropriate license (higher density) via SNMP or CLI --
--
-----
After installing the Dialogic HMP Software Release 3.1LIN software, it is not necessary to
reboot the system. However, you must set the environment variables after installing the
software. To set the environment variables, enter the following command:

source /etc/profile.d/ct_intel.sh

```

Alternatively, you can log out and then log in as root.

Installing the Software

11. After installation, you must start the Dialogic® Services using `dlstart`. Log in as root and use the following command sequence:

```
dlstart
```

The following messages are displayed:

```
STARTING DIALOGIC SERVICES...
Starting RTF Logging Server: [ OK ]
Starting Error Logger : [ OK ]
Starting Device Mapper : [ OK ]
Starting Timeslot Doler : [ OK ]
Starting Telephony System Monitor :[ OK ]
Starting ssp_x86Linux_boot: [ OK ]
Starting CloCking Server :[ OK ]
Starting Board Manager Service : [ OK ]
Starting SNMP Agent Service : [ OK ]
Starting CLI Agent Service : [ OK ]
STARTING DIALOGIC MEDIA

. . . . .
Dialogic Media is ACTIVE
STARTING DIALOGIC SERVICES COMPLETE.
```

12. Proceed to [Running the Verification Demo](#) to verify that the Dialogic® HMP Software has been set up properly.

Note: A verification license is installed with the Dialogic® HMP Software. This license is intended to be used for verifying that the installation was successful. To fully utilize the Dialogic® HMP Software, you **must** obtain and activate a license. Refer to [Chapter 3, “License Administration”](#) for details.

2.4 Running the Verification Demo

It is recommended that you run the verification demo to verify that you have set up the Dialogic® HMP Software properly. This demo simply receives an IP call to let you know that the installation and configuration were successful.

To run the verification demo, perform the following:

1. If you have not already done so, run `dlstart`.
2. Change to the directory containing the verification demo or set it as the working directory:
`/usr/dialogic/demos/Verification/VerificationDemo/Release`.
3. Run the demo using the `VerificationDemo` executable. When you run the demo, you will see output similar to the following:

```
Welcome to the HMP Demonstration Program

The purpose of this demo is to establish a basic level
of functionality after installing and configuring the
Dialogic Host Media Processing Software.
This application will perform some sanity checking and
then wait for a Voice Over Internet Protocol (VOIP) call
to be placed into the system using a SIP or H.323 VOIP
phone configured to use the G.711 codec. After connecting
a message prompt will be played out to the calling party.
Press ENTER to continue.....
```

```
Checking that the HMP service is running.....
Getting the host IP address for eth0.....
Opening Prompt File.....
Opening Voice Device.....
Opening Global Call IP Device.....
Starting the Global Call subsystem.....
```

```
The system is initialized and ready for a call.
Place a SIP or H.323 call to the IP address of eth0
```

Note: At this time, place a Voice Over Internet Protocol (VOIP) call to the IP address of the system using a SIP or H.323 VOIP phone configured to use the G.711 codec.

If you need to restart Dialogic® Services, refer to [Section 2.3, “Installing the Dialogic® HMP Software”](#), on page 11.

Before you use the Dialogic® HMP Software you **must** obtain and activate a license. Refer to [Chapter 3, “License Administration”](#) for details.

2.5 Performing a Silent Install

A silent installation is recommended when no user interaction is intended. It allows you to predefine the answers that you would normally supply to the setup program interactively.

Before you begin a silent install, you must meet the prerequisites given in [Section 2.1, “Assumptions and Prerequisites”](#), on page 10. The silent install can only be used with `install.sh` in the `redistributable-runtime` directory or with the `install.sh` in the `sdk` directory. The silent install for the `sdk` can be run by simply entering the following command from the `sdk` directory. (Note that no output is printed.)

```
./install.sh --install
```

The silent install for the `redistributable-runtime` can be run using the following procedure:

1. Follow steps 1 through 2 in [Section 2.3, “Installing the Dialogic® HMP Software”](#), on page 11.
2. Display a list of the package names that can be silently installed by entering the following command from the `redistributable-runtime` directory:

```
./install.sh --silent
```

The following messages are displayed:

```
./install.sh --silent <PKG1> <PKG2> ... <PKGn>
Initializing install, please wait .....
Valid package selections are:
Package Name  Package Description
-----
lsb-dialogic-hmp-hmp  Dialogic(r) Host Media Processing Software (143 MB)
lsb-dialogic-hmp-t1e1  Dialogic(r) DNI Boards & HMP Software (193 MB)
ALL                All available packages (193 MB)
```

Installing the Software

3. Enter the silent install command with the packages you want to install. For example, if you want to install the Dialogic® HMP Software and the Dialogic® HMP Interface (DNI) boards, use the following command:

```
./install.sh --silent lsb-dialogic-hmp-t1e1
```

or

```
./install.sh --silent ALL
```

4. After installing the Dialogic® HMP Software Release 3.1LIN software, it is not necessary to reboot the system. However, you must set the environment variables after installing the software. To set the environment variables, enter:

```
source /etc/profile.d/ct_intel.sh
```

or, alternatively: log out and then log in.

Note: It is recommended that you run the verification demo to verify that you have set up the Dialogic® HMP software properly. Refer to [Section 2.4, “Running the Verification Demo”](#), on page 14, for details.

5. Activate an HMP software license file as described in [Section 3.2, “Activating a License”](#), on page 22.

Note: A verification license is installed with the Dialogic® HMP software. This license is intended to be used for verifying that the installation was successful. To fully utilize the Dialogic® HMP software, you **must** obtain and activate a license. Refer to [Chapter 3, “License Administration”](#) for details. Once the new license is activated, you must start Dialogic® Services in order to use it.

2.6 Dialogic® Services

Note: Any time you reboot your system, the Dialogic® Services will be automatically started.

After you install the Dialogic® HMP Software, you must first run `dlstart` to start the Dialogic HMP Software configuration tools. After this initial start, you may again need to stop or start Dialogic Services. If you need to do this, it is recommended that you use the `ipmedia start` and `ipmedia stop` commands, rather than the `dlstart` and `dlstop` commands.

The `dlstart` command starts all the Dialogic® Services, including OAM services, and also starts, initializes, and downloads Dialogic® HMP Software and any applicable boards. The `ipmedia start` command is a subset and only starts, initializes, downloads Dialogic HMP Software and any applicable Dialogic boards.

Previously, `dlstart` and `dlstop` were the only way available to start and stop Dialogic® Services. The `dlstop` command will stop the SNMP and CLI agents in addition to services. As a result, the user has no way to configure licenses because the ability to telnet into the CLI or run an SNMP MIB browser to configure through SNMP is not available.

With this release, the `ipmedia start` and `ipmedia stop` commands are preferable when starting and stopping Dialogic® Services. The advantage being that `ipmedia start/stop` is faster than `dlstart/dlstop` because it does not start and stop all services.

To start and stop Dialogic® Services, enter the following command at the CLI prompt:

```
cli> conf system ipmedia stop
```

```
cli> conf system ipmedia start
```

Before you use the Dialogic® HMP Software, you must obtain a license file¹ containing Dialogic® HMP Software license data. A Dialogic HMP Software license is a file containing a combination of call control and media processing resources. You can obtain a license file either before or after you install the software, but you need to obtain a license file before you can proceed with using the Dialogic® HMP Software.

Once you have installed the Dialogic® HMP Software, and downloaded a license file, you must activate the license on the target system using either SNMP or CLI. Remote management capability is also available using SNMP or CLI. CLI can be accessed by using telnet. On the local machine, use `telnet localhost` or from a remote machine, use `telnet <server_ip>`.

The following are the common administrative tasks performed for Licensing.

Obtaining a License

You need to decide which type of license you want and get it. This chapter describes the various types of licenses and how to get each type.

Activating a License

Once you have obtained a license, you must activate it using either SNMP or CLI.

Dialogic® Services

After you install the Dialogic® HMP Software, you start the Dialogic® services as described in [Section 2.6, “Dialogic® Services”](#), on page 16. After that, any time you reboot your system, Dialogic® services will be automatically started. However, if you need to manually stop and start the services, you can use the procedure in that section.

3.1 Obtaining a License

This section describes the types of licenses available for Dialogic® HMP Software and how to get them.

Licenses can be obtained from your authorized Dialogic distributor. For host based licenses, be prepared with the MAC Address of the NIC card. For board-based licenses, be prepared to enter the Serial Number of the board to which you want to lock the license. For OEM licenses, contact your vendor for details.

Note: The MAC address must correspond to eth0 when using host-based licensing. Dialogic® HMP Software will not work with a license that uses any other NIC's (eth1, eth2) MAC address.

Before you obtain a license, you must understand the types of licenses available and decide which type of license you want to obtain. You can try out the Dialogic® HMP Software with a

-
1. A verification license is installed with the software, activated and ready to use, but this license is only intended to be used for verifying that the software installation was successful, refer to [Section 2.4, “Running the Verification Demo”](#), on page 14 for information about the verification demo.

verification, evaluation, or trial license before you purchase a permanent, production license. Table 1 shows the types of licenses available for use with Dialogic HMP Software, where to get each type of license, and whether you need to supply a Host ID (MAC address) or Board Serial Number.

Note: You cannot use old licenses from a previous Dialogic HMP Software release. You must obtain a new license for the current release.

Table 1. License Types

License Type	Features	Expires?	Where to get license?	Host ID (MAC address) or Board Serial Number required?
Verification (free)	1 channel for RTP and Voice	no	included with Dialogic HMP Software ¹	no
Evaluation (free)	4 channels for all components	expires in 45 days	Available from www.dialogic.com ³	no
Trial (free)	any supported channel component combination	expires in 45 days	Dialogic authorized distributor ²	yes - supply Host ID (MAC address) or Board Serial Number when ordering
Purchased	any supported channel component combination	no	Dialogic authorized distributor ²	yes - supply Host ID (MAC address) or Board Serial Number when ordering

1. A verification license is installed with the Dialogic[®] HMP Software, activated and ready to use, but this license is only intended to be used for verifying that the Dialogic[®] HMP Software installation was successful (see [Running the Verification Demo](#)).

2. For a list of authorized distributors, go to: www.dialogic.com.

3. Refer to [Section 3.1.2, "Obtaining an Evaluation License"](#), on page 21.

The names of the license files identify the license type, license mechanism, included resources, and quantity of resources. The following tables and examples will help you understand this naming scheme.

- Trial license - 120r120v60e120c120s60f120i60m60a60u60n60g_host_tri.lic
- Purchased license - 6r6v6e6c6s6f6i6m6a6u6n6g_host_pur.lic

Table 2. License Type Abbreviations

License Type	Abbreviation
Evaluation	eva
Purchased	pur
Trial	tri
Verification	ver

License Administration

Table 3. License Mechanism Abbreviations

License Mechanism	Abbreviation
Locked to a computer	host
Locked to a board serial number	hib

Table 4. License Resources

Feature	Description
Voice	Voice resources that allow for voice record and play functions. Includes record with Automatic Gain Control, DTMF and user-defined tone detections, RFC 2833 and H.245 UII.
Basic RTP Streaming	Basic RTP streaming to support hairpinning and transcoding. Required for using supported coders.
G.711, G.726 Coder	Resources for transcoding of G.711 and G.726 coders. Requires Basic RTP streaming.
G.729, G.723 Coder	Resources for transcoding G.729ab, G.723.1 voice coders. Requires Basic RTP streaming.
Native Play/Record	Resources for Native Record and Play for a supported coder in its native format. Requires Basic RTP streaming.
Conferencing	Conferencing resources with advanced features such as coach/pupil mode, tone clamping, and active talker notification.
Fax	Fax resources for T.38 and V.17 fax termination.
Multimedia	Multimedia resources at half duplex. Audio and video resource for multimedia messaging. Supports play, record, and synchronization of voice and video in a multimedia stream. Includes video I-frame detection to trigger start of record as well as transmit-of-tone notification when recording begins. Requires Basic RTP streaming.
Speech Integration	Speech integration resources enabling Dialogic HMP software integration with speech engines for ASR and TTS support using the Continuous Speech Processing APIs. Requires voice resource.
IP Call Control	IP call control resources. Supports First party or Third party call control enables one entity to create, modify, or terminate a media session between two or more endpoints. Call control signaling and media exchange are independently managed.
AMR-NB Coder	AMR-NB codec resources. Requires a License from Voice Age. Please contact www.Voiceage.com .
3G-324M	Provides synchronization between voice and video streams for playback on IP video phones and video-enabled soft clients and connection to a 3G network. Note: MSML is not supported on licenses with 3G-324M resources.
Note: Refer to the <i>Dialogic® Host Media Processing Software Release 3.1LIN Release Guide</i> for acceptable channel density ranges for each feature.	

3.1.1 Using the Verification License

A verification license is installed with the Dialogic[®] HMP Software, activated and ready to use, but this license is only intended to be used for verifying that the software installation was successful. Verification consists of running a demo. This is described in [Section 2.4, “Running the Verification Demo”](#), on page 14.

3.1.2 Obtaining an Evaluation License

This license is free, provides four channels for all feature components, and expires in 45 days. This license is intended to allow you to evaluate the Dialogic[®] HMP Software. You do not need to supply a Host ID (MAC address) or Board Serial Number to get this license.

To obtain an evaluation license, follow this procedure:

1. Go to http://www.dialogic.com/eprise/main/dialogic/home/products/ip_enabled/download/hmp_download.htm.
2. Scroll down to **Enabling Dialogic HMP**.
3. In the list of demo licenses, click on the license appropriate for the release of the Dialogic[®] HMP Software you are using.
4. Follow the instructions/prompts for downloading the license file (save the license file to the machine onto which you installed the Dialogic[®] HMP Software). Note the directory where you put the license file. You will need to know where the license file is stored when you activate it. The default location for license files is `/usr/dialogic/data`, but you can use a different location. Now that you have obtained a license file, you must activate it. Refer to [Section 3.2, “Activating a License”](#), on page 22.

3.1.3 Obtaining a Trial or Purchased License

If you want to obtain one of these licenses, you must provide a Host ID (MAC address) or Board Serial Number to your Dialogic authorized distributor when you request them.

Here is a description of each of these licenses:

Trial License

Like an evaluation license, a trial license is free, expires after a specified time period (see Table 1), and will allow you to try out the Dialogic[®] HMP Software before you purchase a license. Unlike an evaluation license, the trial license can be customized. The evaluation license provides four channels for all feature components, but you can request any supported resource component combination for a trial license. Because of this customization, you will need to request this license from a Dialogic authorized distributor and supply a Host ID (MAC address) or Board Serial Number.

License Administration

Purchased License

You can request any supported resource component combination and this license does not expire. You must request this license from a Dialogic authorized distributor and supply a Host ID (MAC address) or Board Serial Number.

Now that you have obtained a license file, you must activate it. Refer to [Section 3.2, “Activating a License”](#), on page 22.

3.1.4 Upgrading a License

You can request that a license be upgraded to include additional resources for configuration features. Contact the Dialogic authorized distributor from whom you requested the original license.

3.2 Activating a License

Configuring the system consists of activating a Dialogic[®] HMP Software license. You can activate the verification license supplied with the software or another license you have obtained. Either SNMP or CLI can be used to activate a license. For more information on SNMP and CLI, see the *Dialogic[®] Host Media Processing Software Release 3.1LIN Configuration Guide*.

This section shows how to use the CLI to activate a license. To begin, you must be logged in to the CLI as administrator. The administrator user name is root and the password is public. CLI can be accessed by using telnet on the local machine (telnet localhost) or from a remote machine (telnet <server_ip>).

1. At the prompt, enter

```
# telnet localhost
```

The following messages are displayed:

```
Trying 127.0.0.1...
Connected to localhost.localdomain (127.0.0.1).
Escape character is '^]'.
+-----+
| ..::: Dialogic(R) HMP Software Release 3.1LIN ..::: |
| ..::: ..::: |
| For HELP: |
| Use '?' at command prompt |
| Use '-h' within commands |
+-----+

Login :root

Password :*****

CLI>
```

2. *Dialogic[®]* services must be stopped before activating a license. At the CLI prompt, enter the following command to stop services:

```
CLI> conf system ipmedia stop
```

```
updated- This action can take a few minutes to complete. Please wait
CLI>
EVENT--SYSTEM Run State [Shutdown]

CLI>
EVENT--SYSTEM Run State [Inactive]

CLI>
EVENT--SYSTEM [not ready]

CLI>
IPMedia stop complete

CLI>
```

3. At the CLI prompt, enter the `conf license directory` command and specify the path to the license file (the directory where you downloaded the license). For example:

```
CLI>conf license directory /testing/license

updated
CLI>
```

4. At the CLI prompt, enter the `conf license activate` command and specify the license file name. For example:

```
CLI> conf license activate
240r240v120e240c240s120f240i120m120a120u120n240g_hib_pur.lic

CLI>
```

Configuring a license file from the CLI involves the license file validation. It may take a few seconds to complete. Upon successful completion, a message similar to the following is displayed:

```
CLI>License verification is in progress. Please wait
updated - will be effective on the next ipmedia start"
```

In case of an invalid license, the following error message is displayed:

```
"License activation failed. Reverted to last selected license"
```

To view the current selected license file name, enter the command:

```
CLI> show license
```

5. At the CLI prompt, enter the following command to start media services:

```
CLI> conf system ipmedia start

updated- This action can take a few minutes to complete. Please wait
CLI>
EVENT--SYSTEM Run State [Initializing]

CLI>
EVENT--SYSTEM Run State [Active]

CLI>
EVENT--SYSTEM [ready]

CLI>
IPMedia start complete

CLI>
```

6. Exit the CLI using the `logout` command or open another terminal and use your new license.

Uninstalling the Software

4

This chapter describes how to uninstall the Dialogic® Host Media Processing (HMP) Software Release 3.1LIN software.

Note: Before uninstalling the software, close all telephony applications that are currently running in the system and stop the Dialogic® services.

1. To stop Dialogic® services, enter following command at the prompt:

```
dlstop
```

You will see several screen messages scrolling. The services have successfully stopped when the prompt returns.

2. To uninstall the Dialogic® HMP Software Release 3.1LIN software, enter the following command at the prompt:

```
dlguninstall.sh
```

The message below is displayed:

```
=====
Dialogic(r) HMP Release 3.1LIN
UNINSTALL

Before you uninstall the software, you may wish to save certain configuration files that
you have modified based upon the configuration of your system.

If you wish to save these configuration files, answer Y at the prompt below to quit the
uninstall. You may then manually back up any files located under /usr/dialogic.

Once this has been done, re-run this script to uninstall the software.

Quit the uninstall and back up your configuration files now [y/n] ?
```

Note: It is recommended that you create a backup directory to save your configuration data. From the root, create a backup directory by entering the command `mkdir /backup`. Go to the `/usr/dialogic/data` directory (the default directory for license files) or whatever directory contains your license files. Using the copy command, `cp`, copy all instances of the active license file (with all extensions: `.lic`, `.pcd`, `.fcd`, `.config`) to the backup directory.

3. Enter **y**, to stop the uninstall process and to back up data, or enter **n** to continue. If you enter **n**, the following messages are displayed:

```
The Dialogic(r) Software will now be uninstalled.

Stopping Dialogic(r) software ...Successful
lsb-dialogic-hmp-com... successfully removed lsb-dialogic-hmp-com
lsb-dialogic-hmp-dmdev... successfully removed lsb-dialogic-hmp-dmdev
lsb-dialogic-hmp-hmp... successfully removed lsb-dialogic-hmp-hmp
lsb-dialogic-hmp-lic... successfully removed lsb-dialogic-hmp-lic
lsb-dialogic-hmp-sdk... successfully removed lsb-dialogic-hmp-sdk
lsb-dialogic-hmp-t1e1... successfully removed lsb-dialogic-hmp-t1e1

To complete the removal of the Dialogic(r) software, the following action is required:

- Logout and login

NOTE: A reboot is not required to complete the uninstall process.
```


Uninstalling the Software

4. After uninstalling the Dialogic[®] HMP Software Release 3.1LIN software, it is not necessary to reboot the system. However, you must log out and log in to restore the environment settings. Log out, and then log in again to restore the environment setting.

This chapter provides the following information about troubleshooting problems encountered when installing the Dialogic® Host Media Processing Software Release 3.1LIN:

- [Checking the Installation](#) 26
- [Understanding the Install Error Messages](#) 27

5.1 Checking the Installation

After the Dialogic® HMP software has been installed as described in [Chapter 2, “Installing the Software”](#), you can enter the following commands to confirm what has been installed:

1. To check which packages were installed, enter:

```
rpm -qa lsb-dialogic-hmp-\*
```

The names of the installed packages are listed.

See [Table 5](#) for the software packages that are installed for each menu selection, and see [Table 6](#) for a description of each package.

2. To list the contents of the `/usr/dialogic` directory, enter:

```
ls /usr/dialogic
```

See [Table 7](#) for a description of the directories under `/usr/dialogic`.

Table 5. Software Packages Installed

Menu Selection	Packages Installed
Dialogic® Host Media Processing (HMP) Software	lsb-dialogic-hmp-com, lsb-dialogic-hmp-dmdev, lsb-dialogic-hmp-hmp, lsb-dialogic-hmp-lic
Dialogic® HMP Interface (DNI) Boards & Dialogic HMP Software	lsb-dialogic-hmp-com, lsb-dialogic-hmp-dmdev, lsb-dialogic-hmp-hmp, lsb-dialogic-hmp-t1e1, lsb-dialogic-hmp-lic
Install All	lsb-dialogic-hmp-com, lsb-dialogic-hmp-dmdev, lsb-dialogic-hmp-hmp, lsb-dialogic-hmp-t1e1, lsb-dialogic-hmp-lic
See Table 6 for a description of each package.	

Table 6. Software Package Descriptions

Package Name	Package Description
lsb-dialogic-hmp-com	Core Host Software for Linux
lsb-dialogic-hmp-dmdev	Dialogic® DM3 Architecture Development Software
lsb-dialogic-hmp-hmp	Dialogic® Host Media Processing (HMP) Software

Table 6. Software Package Descriptions (Continued)

Package Name	Package Description
lsb-dialogic-hmp-t1e1	Dialogic® HMP Interface (DNI) Boards
lsb-dialogic-hmp-lic	Licensing software
lsb-dialogic-hmp-sdk	Dialogic® Software Development Kit

Table 7. File Locations under /usr/dialogic

Directory	Contents
bin	All Dialogic® executables
cfg	Configuration related files that can be viewed and modified by users. (Some configuration files are also in the <i>data</i> directory.)
data	Contains <i>.pcd</i> , <i>.fcd</i> , and <i>.config</i> files. The data directory typically contains <i>.lic</i> files.
demos	Demonstration programs (in separate subdirectories according to the feature)
docs	Documentation
drivers	Drivers
inc	Header files (symbolically linked into <i>/usr/include</i>) - exists only when SDK is installed
init.d	System startup scripts
lib	Library files (symbolically linked into <i>/usr/lib</i>)
log	Log files that should be checked by users
qscript	QScript tools. These tools are described in the <i>Diagnostic Guide</i> .
sctools	Files for SCbus routing convenience functions

5.2 Understanding the Install Error Messages

This section describes the error messages that can appear during installation. For convenience, the error messages have been grouped as follows:

- [Installation Prerequisites \(OS, Kernel, Disk Space\)](#)
- [Packages and Package Managers](#)

Installation Prerequisites (OS, Kernel, Disk Space)

Following is a list of error messages and what must be done to correct the error condition. The error is in bold type and an explanation follows it:

This program requires you to be a Superuser.

Log in as root and re-run the install.

This software requires a kernel upgrade. The current kernel version is [VERSION]. Please upgrade the kernel to at least version [SUPPORTED_KERNEL].

Upgrade to the requested kernel and rerun the install.

Troubleshooting

The current kernel version [VERSION] is later than the version currently supported by this software [SUPPORTED_KERNEL].

Install the supported kernel and rerun the install.

Insufficient free disk space is available on the filesystem containing [DLGCROOT] to install the selected software. Need 1 MB, but only have [SPACE_AVAILABLE] MB.

You must free up at least 1 MB of disk space before installing the HMP Software.

ERROR: check_diskspace_dlgrroot_filesystem(): number of bytes must be > 0

You must free up disk space before installing the Dialogic[®] HMP software.

Unable to determine the specific distribution of Linux you are running.

Make sure you are running the distribution of Linux specified in the *Dialogic[®] Host Media Processing Software Release 3.1LIN Release Guide*.

Distributions from [OS DISTRIBUTOR] are not supported.

Make sure you are running the distribution of Linux specified in the *Dialogic[®] Host Media Processing Software Release 3.1LIN Release Guide*.

[OS DESCRIPTION] is not supported.

Make sure you are running the distribution of Linux specified in the *Dialogic[®] Host Media Processing Software Release 3.1LIN Release Guide*.

Unable to determine the OS version

Make sure you are running the distribution of Linux specified in the *Dialogic[®] Host Media Processing Software Release 3.1LIN Release Guide*.

Packages and Package Managers

Following is a list of error messages and what must be done to correct the error condition. The error is in bold type and an explanation follows it:

You have selected an invalid package.

Review the list of packages again (in the install menu) and make sure you select one or more of the packages shown in the menu.

[PKGNUM] is obsolete and will be removed

This message lets you know that the install has found an obsolete package and is deleting it.

Invalid Response.

When entering your selection(s) from the install menu, you entered something other than the valid numbers and letters shown on the menu.

ERROR: Invalid package name [PACKAGE NAME].

You specified an invalid package from the command line (silent install). Check the package names listed in [Section 5.1, "Checking the Installation"](#), on page 26.