Dialogic®

Dialogic® Host Media Processing Software Release 3.0WIN

Administration Guide

June 2008

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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
05-2509-002	June 2008	Made global changes to reflect Dialogic brand and changed title to "Dialogic® Host Media Processing Software Release 3.0WIN Administration Guide." Obtaining a License: Revised procedure in Obtaining an Evaluation (Demo) License section. Activating a License: Added a note in the Requirements section about using the number of resources allocated by the license you purchased. Corrected procedure in Activating a License with the Intel VTune Performance Analyzer Installed (IPY00042591). Troubleshooting: Added new section, Errors Using Dialogic® HMP Software with RealSpeak 4.0.
05-2509-001	August 2006	Global: Changed "Lock Code" to "Host ID" (MAC address). Changed "locked to a machine" to "locked to a Host ID (MAC address)." Obtaining a License: Revised Preparations to change from Lock Code to Host ID (MAC address). Updated Table 1, "License Types" and examples of license file names. Revised procedure in Obtaining a License File that is Locked to a Host ID (MAC address). Activating a License: Updated Figure 1, "License Manager GUI with Sample Data." In Using the License Manager GUI, added steps about restoring device defaults and updated Figure 2, "After License Activation." Added a step to the procedure in Using the Command Line Interface (CLI). Switching to a Different License: In Using the License Manager GUI, added steps about the "Assign Firmware File" dialog. Added a step to the procedure in Using the Command Line Interface (CLI). Starting and Stopping Dialogic® HMP Software: In Stopping Dialogic® HMP Software, added paragraph and two notes explaining what happens when you perform this action. Dialogic® HMP Software License Manager GUI Reference: Revised Options to include Show MAC Address(es) button, remove Lock Code, and add Host ID. Updated figures showing GUI. Troubleshooting: In System Fails to Start Because of Licensing, changed procedure for running LMTOOLS in Step 2. Removed the step about the Assign Firmware File dialog. Removed this section: System Fails to Start on Boardless System, License Does Not Work.
05-2509-001-01	May 2006	Initial version of document.Much of the information contained in this document was previously published in the *Intel NetStructure® Host Media Processing Release 2.0 for Windows Administration Guide*, document number 05-2483-002.

About This Publication

The following topics provide information about this publication:

- Purpose
- Applicability
- Intended Audience
- How to Use This Publication
- Related Information

Purpose

This publication describes how to perform the various tasks related to obtaining and activating Dialogic® Host Media Processing (HMP) Software license files. The licensing tasks are performed with a licensing application, which can be used via a GUI or command line interface. Other administration tasks, such as starting and stopping Dialogic® HMP Software and changing the default IP address, can be performed using the Dialogic® Configuration Manager (DCM).

Applicability

This document version (05-2509-002) is published for Dialogic® Host Media Processing Software Release 3.0WIN.

Intended Audience

This publication is intended for:

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

How to Use This Publication

The information in this publication is organized as follows:

- Chapter 1, "Administration Overview" provides an overview of the common tasks and administrative tools used to obtain a license.

- Chapter 2, "Obtaining a License" describes the process for obtaining a Verification, Evaluation, Trial, or Purchased license.
- Chapter 3, "Activating a License" describes the process for activating a license using either the License Manager GUI or the command line interface (CLI).
- Chapter 4, "Switching to a Different License" provides instructions for switching from one license to another.
- Chapter 5, "Transferring a License to a Different Host" provides instructions for switching a license from one host to another.
- Chapter 6, "Displaying and Changing the Dialogic® HMP Software Default IP Address" describes how to change the default IP address to a new IP address. This particularly applies to systems that have multiple network interface cards (NICs).
- Chapter 7, "Starting and Stopping Dialogic® HMP Software" describes the process for starting and stopping the Dialogic HMP Software using the DCM.
- Chapter 8, "Dialogic® Configuration Manager Reference" provides information about using the DCM utility to perform certain administrative tasks.
- Chapter 9, "Dialogic® HMP Software License Manager GUI Reference" describes the License Manager GUI.
- Chapter 10, "LMTOOLS Reference" provides information about starting and using the LMTOOLS utility to activate license or switch to a different license.
- Chapter 11, "Command Line Interface (CLI) Reference" describes the utilities and options available in the CLI to perform basic licensing activities.
- Chapter 12, "Troubleshooting" provides informaton about resolving problems associated with the licensing process.

Related Information

See the following for additional information:

- *http://www.dialogic.com/manuals/* (for Dialogic® product documentation)
- *http://www.dialogic.com/support/* (for Dialogic technical support)
- *http://www.dialogic.com/* (for Dialogic® product information)

Administration Overview 1

This chapter provides an overview of the tasks and tools involved in obtaining and using Dialogic®
Host Media Processing (HMP) Software licenses:

1.1   Common Administration Tasks

Before you use the Dialogic® HMP Software and (optionally) the supported Dialogic® DNI or DSI
boards, you must obtain a license file containing Dialogic® HMP Software license data. You can
obtain a license file either before or after you install the Dialogic® HMP Software and supported
boards, but you need to obtain a license file before you can proceed with using the Dialogic® HMP
Software and supported boards.

Note: 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 the installation guide for the Dialogic® HMP Software).

Once you have installed the Dialogic® HMP Software and (optionally) the supported boards and
downloaded a license file to your computer, you must activate the license on the target system
using a license manager application.

Following are the administrative tasks described in this document. Click on a task to go to the
chapter that describes it.

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've obtained a license, you must activate it using the license manager application.

Switching to a Different License
    If you have more than one license, you can switch from one to the other.

Transferring a License to a Different Host
    If you are using the supported Dialogic® DNI or DSI boards, you can transfer a license that is
    locked to a given board to a different host by moving the license file and its associated board to
    that host.

Displaying and Changing the Dialogic® HMP Software Default IP Address
    The default IP address is the IP address Dialogic® HMP Software will use for its media traffic
    if no IP address is specified for use by the application.

    However, if you plan to use a different network card for IP telephony, you must change the
    Dialogic® HMP Software IP address. You can use the Dialogic® Configuration Manager
    (DCM) utility to specify an IP address other than the default. You can also later remove

(discontinue use of) the user-specified IP address, which switches the system back to using the default IP address (if it is still available).

Starting and Stopping Dialogic® HMP Software

After you install the Dialogic® HMP Software, you start the Dialogic® HMP Software system as described in Section 7.2, "Starting Dialogic® HMP Software", on page 41. There are cases when Dialogic® HMP Software needs to be started automatically (without user assistance). If you set the startup mode to autostart, when the system is rebooted, Dialogic® HMP Software restarts automatically. Refer to Section 7.3, "Setting Autostart Mode", on page 42. If you need to stop Dialogic® HMP Software, refer to Section 7.4, "Stopping Dialogic® HMP Software", on page 42.

1.2   Administration Tools

To use Dialogic® HMP Software and (optionally) the supported boards, you need a license file. License files can be generated for a customized combination of features (refer to Chapter 2, "Obtaining a License"). The license file provides the configuration for the Dialogic® HMP Software system. The license manager application allows you to activate these license files.

The license manager application can be used with either of two graphical user interfaces (GUIs) (License Manager or LMTOOLS) or a command line interface (CLI). These interfaces are described in the chapters listed below. Click on the chapter to go to it.

> *Note:* LMTOOLS is a product of Macrovision Corporation (http://www.macrovision.com).

Chapter 9, "Dialogic® HMP Software License Manager GUI Reference"

This GUI interface allows you to activate a license, switch from one license to another, and find out the MAC address of the computer (which you'll need if you are getting a license for a boardless system). This GUI also provides a convenient way to view details about the active license and view all available licenses. This GUI was developed specifically for Dialogic® HMP Software. It can be accessed from the Start menu.

Chapter 10, "LMTOOLS Reference"

This GUI interface also allows you to activate a license and switch from one license to another. However, the LMTOOLS graphical user interface (GUI) was developed by a third party and is not specifically designed for use with Dialogic® HMP Software. A limited portion of the LMTOOLS screens are used for Dialogic® HMP Software licensing tasks, so you must closely follow the procedures provided in this chapter when performing licensing tasks for the Dialogic® HMP Software. The default location for the LMTOOLS GUI is `C:\Program Files\Dialogic\HMP\bin`.

Chapter 11, "Command Line Interface (CLI) Reference"

The CLI interface allows you to activate or switch licenses by typing in commands and options for those commands in a command prompt window.

The DCM utility allows you to start and stop Dialogic® HMP Software and change the default IP address. This tool is described in a reference chapter, Chapter 8, "Dialogic® Configuration Manager Reference". Use of this tool is described in the following chapters:

- Chapter 6, "Displaying and Changing the Dialogic® HMP Software Default IP Address"
- Chapter 7, "Starting and Stopping Dialogic® HMP Software".

Obtaining a License 2

This chapter describes the types of licenses available for Dialogic® Host Media Processing (HMP) Software and how to get them. This chapter also describes how to find out your computer's Host ID (MAC address), which is required when requesting some licenses.

2.1   Preparations

Before you use the Dialogic® HMP Software and (optionally) the supported Dialogic® DNI or DSI boards, you must obtain a license file containing Dialogic® HMP Software license data. A Dialogic® HMP Software license is a file containing authorizations for a combination of call control and media processing features. You can obtain a license file either before or after you install the Dialogic® HMP Software and supported boards, but you need to obtain a license file before you can proceed with using the Dialogic® HMP Software and supported boards.

Note: 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 the installation guide for the Dialogic® HMP Software).

If you are using only the Dialogic® HMP Software, the license will be associated with the host machine via its MAC address (or one of its MAC addresses, if more than one is available), which is referred to as the Host ID. If you are using one or more of the supported Dialogic DNI or DSI boards, the license will be associated with one of the boards (your choice). Locking the license to a board allows you to transfer a license to another host by moving the board to that host. (For more information about this, refer to Chapter 5, "Transferring a License to a Different Host".)

After you install the Dialogic® HMP Software and (optionally) one or more of the supported DNI or DSI boards, you must activate the license on the target system using a license management tool and the Dialogic® Configuration Manager (DCM).

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 verification, evaluation, or trial license before you purchase a permanent, production license from Dialogic. If a license file is lost or damaged, you can obtain a replacement for it. 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 Web site[2]	no
Trial (free)	any supported channel component combination	expires in 45 days	Dialogic authorized distributor or account manager[3]	yes - supply Host ID (MAC address) or Board Serial Number when ordering
Purchased	any supported channel component combination	no	Dialogic authorized distributor or account manager[3]	yes - supply Host ID (MAC address) or Board Serial Number when ordering
Replacement	replaces a "Purchased" license	no	Dialogic authorized distributor or account manager[3]	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 the installation guide for the Dialogic HMP Software).
2. An evaluation license is available from http://www.dialogic.com/support/helpweb/dxall/HMPWin/hmp30/default.htm
3. For a list of authorized distributors, go to: http://www.dialogic.com/purchase.

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.

Table 2. License Type Abbreviations

License Type	Abbreviation
Replacement (Emergency)	eme
Evaluation	eva
Purchased	pur
Trial	tri
Verification	ver

Table 3. License Mechanism Abbreviations

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

Table 4. Feature Descriptions and Abbreviations

Feature	Abbreviation	Description
Conferencing	c	Conferencing parties with advanced features such as coach/pupil mode, tone clamping, and active talker notification. You can select up to 500 conferencing resources. Conferencing resources require RTP G.711.
T.38 and V.17 Fax Termination	f	T.38 and V.17 fax origination and termination sessions. You can select up to 120 fax resources. Fax requires RTP G.711.
IP Call Control	i	Supports third party IP call control. 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.
RTP (basic)	r	
Enhanced RTP	e	Adds to the "basic" RTP (G.711) resource the capability of streaming voice over RTP using the G.723.1, G.729a, and G.729b coders. Select up to 120 resources.
Speech Integration (Continuous Speech Processing)	s	Speech integration capabilities that enable you to integrate the Dialogic HMP Software product with speech engines for Automatic Speech Recognition (ASR) and Text-To-Speech (TTS) support using the Continuous Speech Processing APIs. You can select up to 240 speech integration resources.
Voice	v	Basic voice ports that allow you to control volume, record with Automatic Gain Control (AGC), and DTMF and user-defined tone detection, including RFC 2833 and H.245 UII. You can select up to 500 basic voice ports. Each port of voice requires an RTP G.711 port.

Following are some examples of license filenames:

- **Purchased License Example** – A purchased license with 120 RTP ports, 120 voice ports, 5 enhanced RTP ports, 2 conferencing ports, 120 speech integration ports, and 8 T.38 fax origination/termination ports would have the following filename if locked to a computer: *120r120v5e2c120s8f0i0m_host_pur.lic*. If a purchased license with the same resources was locked to a Board Serial Number, the filename would be *120r120v5e2c120s8f0i0m_hib_pur.lic*.

- **Replacement License Example:** – A replacement ("emergency") license with 60 RTP ports, 60 voice ports, 40 enhanced RTP ports, 40 conferencing ports, and 24 speech integration ports would have the following filename if locked to a computer: *60r60v40e40c24s0f0i0m_host_eme.lic*. If a replacement license with the same resources was locked to a Board Serial Number, the filename would be *60r60v40e40c24s0f0i0m_hib_eme.lic*.

- **Trial License Example:** – A trial license with 14 RTP ports, 14 voice ports, 14 enhanced RTP ports, 8 conferencing ports, 10 speech integration ports, and 8 T.38 fax origination/termination ports would have the following filename if locked to a computer: *14r14v14e8c10s8f0i0m_host_tri.lic*. If a trial license with the same resources was locked to a Board Serial Number, the filename would be *14r14v14e8c10s8f0i0m_hib_tri.lic*.

2.2   Obtaining a 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 Dialogic® HMP Software installation was successful. Verification consists of running a demo. This is described in the installation guide for the Dialogic® HMP Software.

2.3   Obtaining an Evaluation (Demo) 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/support/helpweb/dxall/HMPWin/hmp30/default.htm

2. Scroll down to and then click **Download Evaluation (Demo) License**.

3. The **File Download** dialog box appears. Click **Save**.

4. A **Save As** dialog box appears. Save the license file onto the computer on 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 *Program Files\Dialogic\HMP\data*, but you can use a different location.

Now that you have obtained a license file, you must activate it. Refer to Chapter 3, "Activating a License".

2.4   Obtaining a Trial, Purchased, or Replacement 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.

- If you are **not** using boards in your system, use the procedure in Obtaining a License File that is Locked to a Host ID (MAC address).
- If you **are** using boards in your system, use the procedure in Obtaining a License File that is Locked to a Board.

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

channel component combination for a trial license. Because of this customization, you will need to request this license from an Dialogic authorized dealer and supply a Host ID (MAC address) or Board Serial Number.

Purchased License

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

Replacement License

In some situations, you might need to get a replacement license. For example, if you need to move the Dialogic® HMP Software application to a different system due to a hardware failure, you will need a replacement license. To obtain a replacement license, you must contact the Dialogic authorized distributor or Dialogic account manager from whom you requested the original license.

Obtaining a License File that is Locked to a Host ID (MAC address)

If you are **not** using boards in your system, follow this procedure to obtain a trial, purchased, or replacement license from an Dialogic authorized distributor or Dialogic account manager. For a list of authorized distributors, go to http://www.dialogic.com/purchase.

Note: This host-based licensing procedure ties the license to the machine's MAC address.

1. Install the Dialogic® HMP Software and reboot (refer to the Installation Guide for the Dialogic® HMP Software).

2. Invoke the License Manager graphical user interface (GUI) from the Start menu (**Start > Programs > Dialogic HMP > HMP License Manager**).

3. Click the **Show MAC Address(es) button**. This will open a window listing all the MAC addresses available on the targeted computer, including a description.

4. Record the MAC address for which you need a license. If multiple MAC addresses are available, you will have to choose one: for example, the MAC address of a card that is least likely to be removed. This MAC address will be known as the Host ID.

5. Contact a Dialogic authorized distributor and supply the MAC address of the computer on which you are installing the Dialogic® HMP Software when you request the license.

6. When you receive a license from your supplier, save the license file onto the computer on which the Dialogic® HMP Software was installed, in any directory.

    Note: When you activate the license, you will have to specify this directory. The default directory for licenses is the *data* subdirectory. The License Manager application will look in this directory by default but give you the option of changing to another directory. So it is easiest to put the license file in the default directory.

Once you obtain the license, you must activate it. Refer to Chapter 3, "Activating a License".

Caution: Do *not* modify the license file. You do not have any license to, and do not have the rights to, modify the license file in any way. Also, if you modify the license file, the Dialogic® HMP Software will not work. Do *not* move the license file after you activate it. The license file must remain in the location where it was activated.

Notes: **1.** The license file must be stored and activated on the computer having the Host ID (MAC address) that was specified when the license was obtained.

2. A license that is locked to a Host ID (MAC address) will not work if a Dialogic DNI or DSI board is physically in the system (even if the DNI or DSI board software is not installed). You must remove the board(s) before you can use a license that is locked to a Host ID (MAC address).

Caution: A license locked to a Host ID (MAC address) will become invalid if the MAC address is not available in the system.

Obtaining a License File that is Locked to a Board

If you are using one or more of the supported DNI or DSI boards in your system, follow this procedure to obtain a trial, purchased, or replacement license from a Dialogic authorized distributor or Dialogic account manager:

1. Locate and note the serial number of the Dialogic® HMP Software-compatible board you are going to use (refer to the Release Guide for a list of these boards). If you have more than one board, you can pick any board and use its serial number.

   Note: To obtain the serial number, look on the sticker that is on the board or use DCM to get the serial number (refer to Section 8.6, "Obtaining a Board's Serial Number", on page 48).

   Note: If you have more than one board, it does not matter which board's serial number you use, as long as you record which board was used to provide the input data for the license. Since the license is locked to the board, if you move the board to another chassis, Dialogic® HMP Software will no longer function on the original chassis and you will have to move the board's associated license file to the other chassis so that Dialogic® HMP Software will function there. For more information about this, refer to Chapter 5, "Transferring a License to a Different Host".

2. Contact a Dialogic authorized distributor to request a license and provide the board's serial number.

   Note: You can do this before or after Step 3.

3. Install the Dialogic® HMP Software-compatible boards and Dialogic® HMP Software and reboot (refer to the Quick Install Card provided with each board and the Installation Guide for the Dialogic® HMP Software). It does not matter whether you install the boards or software first as long as the boards have been installed before you start the Dialogic® HMP Software system.

4. After receiving your license file from the Dialogic authorized distributor, copy the license file to the *Data* subdirectory, or to where you want to store your .*lic* files.

Once you obtain the license, you must activate it. Refer to Chapter 3, "Activating a License".

Caution: Do *not* modify the license file. You do not have any license to, and do not have the rights to, modify the license file in any way. Also, if you modify the license file, the Dialogic® HMP Software will not work.

Note: The license file must be stored and activated on the computer having the board with the serial number you provided when ordering the license. If you want to move the license file to another host, refer to Chapter 5, "Transferring a License to a Different Host".

2.5 Upgrading a License

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

Activating a License   3

This chapter describes how to activate a license using the License Manager graphical user interface (GUI) or a command line interface (CLI). The following sections are included:

3.1   Requirements

Following are requirements for performing this procedure:

- This procedure assumes you have already installed the Dialogic® Host Media Processing (HMP) Software and rebooted and that you have (optionally) installed the supported Dialogic® DNI and/or DSI boards. If you haven't done this, refer to the Installation Guide for the Dialogic® HMP Software and the Quick Install Cards for the boards.

- Before you can activate a license, you must first obtain a license. Refer to Chapter 2, "Obtaining a License" for instructions.

Notes: *1.*   A license that is locked to a Host ID (MAC address) will not work if a Dialogic DNI or DSI board is physically in the system (even if the Dialogic DNI or DSI board software is not installed). You must remove the board(s) before you can use a license that is locked to a Host ID (MAC address).

       2.   Due to additional license checking, you may encounter issues requiring you to upgrade your license. Be sure you are using the number of resources allocated by the license you purchased.

3.2   Using the License Manager GUI

To activate a license using the License Manager GUI, follow this procedure. It is possible to have multiple license files stored on a computer but only one license file at a time can be active.

Note: Another GUI (LMTOOLS) is also available for performing this task. Refer to Chapter 10, "LMTOOLS Reference". If you would prefer to use a command line interface, refer to Section 3.3, "Using the Command Line Interface (CLI)", on page 24

1. If the Dialogic® HMP Software License Manager GUI is not open on your screen, access it via the Dialogic® HMP Software program folder in the Start menu.

     Note: You can put the License Manager icon on your desktop so that you don't have to access it from the Start menu (but keep in mind that this shortcut will not be removed if you uninstall the Dialogic® HMP Software).

2. On the License Manager GUI screen (Figure 1), enter the name of the license file you want to use. (You can use the **Browse** button to browse for the file.)

> *Note:* Figure 1 shows sample data for a purchased license locked to the host.

Figure 1. License Manager GUI with Sample Data
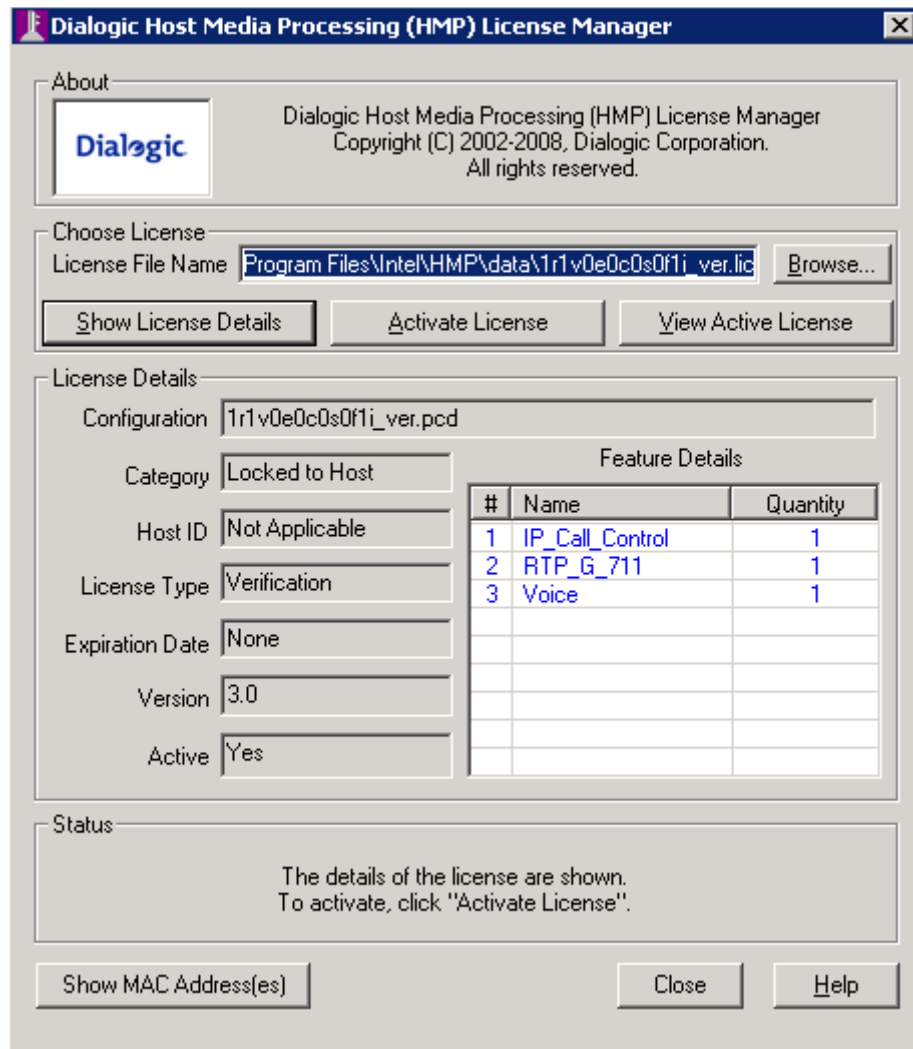
3. Click on the **Show License Details** button to make sure the license you have selected has the features you want.

4. If you are satisfied with the license details as shown, click the **Activate License** button. The license you specified is now active. A dialog will appear (Figure 2), telling you what to do next (the same instructions are also shown in the Status field at the bottom of the License Manager screen). Click **OK**.

Figure 2. After License Activation
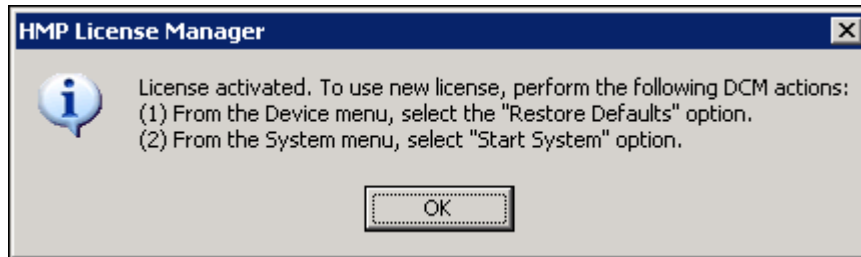
5. From the Dialogic® Configuration Manager (DCM) Main Window, right click on the **HMP_Software** device and select **Restore Defaults** from the **Device** submenu.

6. A dialog will appear, telling you what will happen when you perform the Restore Defaults action and gives you the opportunity to exit from this action. However, in this case you can click **Yes**.

7. The Assign Firmware File screen appears, which has a list of PCD files (see Figure 3). Select the PCD file (from the list in the Available Firmware box) that corresponds to your license file and then click **OK**.

   Note: You cannot select a PCD file that is of lower density than your active license. You must select the explicit PCD file generated by the corresponding license file. The resources provided by the PCD file are described in the Firmware Description box. The name of the license file corresponds to the licensed resources. For information about how license files are named, refer to Section 2.1, "Preparations", on page 13.

Figure 3. Select PCD File

8. Start the system using DCM. To do this you can either click the button with the green arrow on the far left of the DCM toolbar or use the System drop-down menu (**System > Start System**). See Figure 5.

The status message at the bottom of the DCM Main Window will tell you when the system has started.

9. Click **Close** to exit the License Manager.

3.3   Using the Command Line Interface (CLI)

This section describes how to activate a license using the CLI. If you would prefer to use a GUI, refer to Section 3.2, "Using the License Manager GUI", on page 21.

Using the CLI, the procedure for activating a license is as follows:

1. Use this command:

```
net stop "Dialogic HMP License Manager"
```

2. Use this command:

```
"C:\Program Files\Dialogic\HMP\bin\installs.exe" -r -n "Dialogic
        HMP License Manager"
```

3. Use this command:

```
"C:\Program Files\Dialogic\HMP\bin\installs.exe" -e
        "C:\Program Files\Dialogic\HMP\bin\lmgrd.exe" -c "[license
        file]" -l "C:\Program Files\Dialogic\HMP\log\Flex.dl" -n
        "Dialogic HMP License Manager" -k "-local"
```

where "`[license file]`" includes the path to the license file, such as
"`C:\Program Files\Dialogic\HMP\data\60r60v40e40c24s00mf_hib_pur.lic`".

4. Use this command:

```
net start "Dialogic HMP License Manager"
```

5. Once you have activated the license, restore device defaults as described in Section 8.5, "Restoring Defaults", on page 47.

For more information about the commands and their options, see Chapter 11, "Command Line Interface (CLI) Reference". For more information about the DCM, see Chapter 8, "Dialogic® Configuration Manager Reference".

3.4 Activating a License with the Intel VTune Performance Analyzer Installed

This section describes how to activate a license if you already have the Intel VTune performance analyzer installed on your system. VTune is a file-based license and this procedure is just an example of how you can get Dialogic® HMP Software and another licensed application working on the same machine. If you are not using the VTune performance analyzer, this procedure can provide guidance for a similar setup. For more information about FLEXnet licensing, see http://www.macrovision.com.

Follow these steps to get VTune and Dialogic® HMP Software working on the same machine:

1. Install VTune, following the instructions provided with the product. For more information about VTune, go to http://www.intel.com/cd/software/products/asmo-na/eng/340814.htm.

2. Run VTune to verify that it has been installed properly, following the instructions provided with the product.

3. Install Dialogic® HMP Software Release 3.0WIN, following the instructions in the Software Installation Guide provided with the product.

4. Stop any Dialogic® HMP Software application that is running and then stop the Dialogic® HMP Software services using the DCM utility. To do this, you can either click the button with the square on it or use the System drop-down menu (**System > Stop system**).

5. Open a DOS command prompt window and execute the following command:

   ```
   C:\>lmutil lmpath -status
   ```

   You will see something like the following:

   ```
   lmutil - Copyright (c) 1989-2004 by Macrovision Corporation. All rights reserved

   .Known Vendors:
   ———————————

   intel:        C:\Program Files\Common Files\Intel\Licenses\vt.lic
   ———————————

   Other Vendors:
   ————————————

                  C:\flexlm\license.dat
   ```

6. Delete the existing PCD, FCD, and Config files. They are in the *\data* subdirectory. The file extensions are *.pcd*, *.fcd*, and *.config*.

   Only the PCD, FCD, and Config files should be deleted. **The hardware/board PCD, FCD, and Config files should not be deleted.** The hardware/board PCD, FCD, and Config files begin with one of the following:

   – *hmp_ssb_default*

   – *hmp_dsb_default*

   – *hmp_qsb_default*

   The names of the PCD, FCD, and Config files that **should be deleted** will start with one of the following:

   – *1r1v0e0c0s0f_ver*

   – another string with
   <number>r<number>v<number>e<number>c<number>s<number>f_ver

   – the name of the file into which you pasted the contents of the HMP Software license file

   This will be the file listed by the `lmutil lmpath -status` command.

7. Start the LMTOOLS utility from the DOS command prompt: **C:\Program Files\Dialogic\HMP\bin\lmtools.exe**. On the initial Service/License File screen, Figure 11, check that **Configuration using Services** is selected and Dialogic® HMP Software License Manger is selected in the box.

   Note: For more information about using the LMTOOLS utility, refer to Chapter 10, "LMTOOLS Reference".

8. Click the **Start/Stop/Reread** tab to display the Start/Stop/Reread screen.

9. Click the **Stop Server** button (changes status to Stopping Server).

   Note: If this message does not clear in a few seconds, proceed to the next step.

10. Click the **Start Server** button.

11. Cut and paste the Dialogic® HMP Software license into the VTune license, which is located at *c:\Program Files\Common Files\Dialogic\Licenses\vt.lic*.

12. Delete the following PCD/FCD/Config files: *vt.pcd*, *vt.fcd*, and *vt.config*.

13. On the LMTOOLS GUI, click the **Config Services** tab to display the Config Services screen.

14. Browse to and select the VTune license file.

15. Click the **Start/Stop/Reread** tab to display the Start/Stop/Reread screen. When you click the tab, a Save Settings dialog box will then appear.

16. Click **Yes** to save the new license file selection.

17. Click the **Stop Server** button (changes status to Stopping Server).
    Note: If this message does not clear in a few seconds, proceed to the next step.

18. Click the **Start Server** button.

19. From the DCM Main Window, right click on the HMP_Software device and select **Restore Defaults** from the **Device** submenu.

20. The Assign Firmware File screen appears, which has a list of PCD files. Select the *vt.pcd* and *vt.fcd* files and then click **OK**.

21. Start the system using the DCM. To do this you can either click the button with the green arrow on the far left or use the System drop-down menu (**System > Start System**).

22. Run VTune to verify that the license is still good.

Switching to a Different License   4

This chapter provides the overall procedure for switching from using one Dialogic® Host Media Processing (HMP) Software license to another using the License Manager graphical user interface (GUI) or a command line interface (CLI). This chapter contains the following sections:

4.1   Requirements

After you use a Dialogic® HMP Software license for a while, there may come a time when you need to use a new license that offers additional or different features. It is possible to have more than one Dialogic® HMP Software license stored on a computer, but only one can be actively used at a time. This procedure assumes that you have already activated a license and have another license stored on your system that you want to use. If you only have one license stored on your system, you must obtain an additional license as described in Chapter 2, "Obtaining a License".

Caution: If you switch from using one license to using another license that has the same name, make sure that each license is located in a different directory or the system will fail to start.

Note: A license that is locked to a Host ID (MAC address) will not work if a Dialogic® DNI or DSI board is physically in the system (even if the Dialogic DNI or DSI board software is not installed). You must remove the board(s) before you can use a license that is locked to a Host ID (MAC address).

4.2   Using the License Manager GUI

This section describes how to switch to a different license using the License Manager GUI.

Note: Another GUI (LMTOOLS) is also available for performing this task. Refer to Chapter 10, "LMTOOLS Reference". If you would prefer to use a command line interface, refer to Section 4.3, "Using the Command Line Interface (CLI)", on page 30

To switch to another license using the License Manager GUI, follow this procedure:

1. If the Dialogic® HMP Software License Manager GUI is not open on your screen, access it via the Dialogic® HMP Software program folder in the Start menu.

   Note: You can put the License Manager icon on your desktop so that you don't have to access it from the Start menu (but keep in mind that this shortcut will not be removed if you uninstall the Dialogic® HMP Software).

2. On the License Manager GUI screen (Figure 1), enter the path to and name of the license file that you want to use. (You can use the **Browse** button to browse for the file.)

3. Click on the **Show License Details** button to make sure the license you have selected has the features you want.

4. If you are satisfied with the license details as shown, click the **Activate License** button.

5. Invoke the Dialogic® Configuration Manager (DCM) GUI. From the Start menu, select **Configuration Manager-DCM** from the Dialogic® HMP Software program folder.

6. If you have not started the system yet, follow the instructions in Section Section 7.2, "Starting Dialogic® HMP Software", on page 41. If Dialogic® HMP Software is already running, go to the next step.

7. Stop Dialogic® HMP Software. On the DCM Main Window (Figure 6) click the **Stop System** option from the **System** pull-down menu or click the **Stop all enabled devices** icon (a red square).

8. From the DCM **Device** pull-down menu, click **Restore Defaults**.

9. A dialog will appear (Figure 3), telling you what will happen when you perform the Restore Defaults action and gives you the opportunity to exit from this action. However, in this case you can click **Yes**.

10. The Assign Firmware File screen appears, which has a list of PCD files (see Figure 3). Select the PCD file (from the list in the Available Firmware box) that corresponds to your license file and then click **OK**.

    Note: You cannot select a PCD file that is of lower density than your active license. You must select the explicit PCD file generated by the corresponding license file. The resources provided by the PCD file are described in the Firmware Description box. The name of the license file corresponds to the licensed resources. For information about how license files are named, refer to Section 2.1, "Preparations", on page 13.

11. Start the system using the DCM. To do this you can either click the button with the green arrow on the far left or use the System drop-down menu (**System > Start System**). See Figure 5.

    The status message at the bottom of the DCM main window will tell you when the system has started.

12. Click **Close** to exit the License Manager.

4.3   Using the Command Line Interface (CLI)

This section describes how to activate a license using the CLI. If you would prefer to use a GUI, refer to Section 4.2, "Using the License Manager GUI", on page 29 or Chapter 10, "LMTOOLS Reference".

Using the CLI, the procedure for switching to a new license is as follows:

1. Use this command:

   ```
   net stop "Dialogic HMP license manager"
   ```

2. Use this command:

   ```
   "C:\Program Files\Dialogic\HMP\bin\installs.exe" -r -n "Dialogic
        HMP License Manager"
   ```

3. Use this command:

   ```
   "C:\Program Files\Dialogic\HMP\bin\installs.exe" -e
        "C:\Program Files\Dialogic\HMP\bin\lmgrd.exe" -c "[new
        license file]" -l "C:\Program
        Files\Dialogic\HMP\log\Flex.dl" -n "Dialogic HMP License
        Manager" -k "-local"
   ```

   where "`[new license file]`" includes the path to the license file you are switching to (for example:
   "`C:\Program Files\Dialogic\HMP\data\60r60v40e40c24s00mf_hib_pur.lic`").

4. Use this command:

   ```
   net start "Dialogic HMP License Manager"
   ```

5. Once you have activated the license, restore device defaults as described in Step 5 through Step 11 of Section 4.2, "Using the License Manager GUI", on page 29.

For more information about the commands and their options, see Chapter 11, "Command Line Interface (CLI) Reference".

Transferring a License to a Different Host   **5**

This chapter describes how to transfer a license from one host to another.

This procedure is applicable if you are using the supported Dialogic® DNI or DSI boards with Dialogic® Host Media Processing (HMP) Software. If you are using supported boards with Dialogic® HMP Software, you must provide a Board Serial Number from one of the boards to obtain a Dialogic® HMP Software license (see Obtaining a License File that is Locked to a Board in Chapter 2, "Obtaining a License"). Since the license is locked to the board, if you move the board to another chassis, Dialogic® HMP Software will no longer function on the original chassis and you will have to move the board's associated license file to the other chassis so that Dialogic® HMP Software will function there.

While it is possible to obtain a license for each board on a particular host, it is not necessary since you only need one license per host and only one license can be used at a time. In other words, if a host had multiple boards and each board had its own license, the only way you could use all the licenses simultaneously would be to move each board and associated license file to a separate host.

To use this procedure, Dialogic® HMP Software must be installed on each host and the license you are transferring from one host to the other must be locked to the board you are moving. In addition, please consider the following:

- A Dialogic® HMP Software license is a file containing authorizations for a combination of call control and media processing features. So when you transfer a license from one host to another, you are moving a specific combination of associated features from one host to another. If you need a different combination of features, you must request a new license (see Chapter 2, "Obtaining a License").

- The new host must have sufficient processing power, memory, and bus speed to handle the transferred licensed feature set. So the system you transfer the license to must be equivalent to or better than the system on which it was originally used.

To transfer a license from one host system to another, follow this procedure:

1. On the system containing the board and license you want to transfer, stop the Dialogic® HMP Software system if it is running. To do this, open the Dialogic® Configuration Manager (DCM) from the Start menu (**Start > Program Files > Dialogic HMP > Configuration Manager - DCM**) and then either click the button with the square on it or use the System drop-down menu (**System > Stop system**).

2. Shut down the system's power.

3. Remove the board to which the license you want to transfer is locked.

4. Using the DCM as described in Step 1, stop the Dialogic® HMP Software system (if it is running) on the system to which you are transferring the board and license.

5. Shut down the system's power.

6. Install the board you removed from the first host system into the chassis of the new host system.

7. Turn on the power for both systems.

8. Reboot both systems.

9. On the system in which you installed the transferred board, you should see the "Found New Hardware Wizard." Set the "Found New Hardware Wizard" to search for and load the drivers automatically, and click **Next**. When the process is complete, click **Finish**.

   Note: If the "Found New Hardware Wizard" does not appear and/or the board is not shown on the DCM main screen, refer to Board Detection Fails When a Board is Installed After Dialogic® HMP Software in Chapter 12, "Troubleshooting".

10. Transfer the license file from the first host system to the new host system. Take note of the directory in which you put the transferred license file since you will need to know the license file's location for the next step.

11. Now that the board has been installed and the license file has been transferred, you need to get the new host system to recognize the license locked to the board. To do so, follow the procedure in Chapter 4, "Switching to a Different License".

Displaying and Changing the 6
Dialogic® HMP Software Default
IP Address

This chapter describes how to display and change the Dialogic® Host Media Processing (HMP) Software default IP address and contains the following sections:

6.1 Introduction

The IP address configurator, which is part of the Dialogic® Configuration Manager (DCM), assigns an available IP address to the Dialogic® HMP Software server as its default IP address. In this case, "available IP address" means any IP address that has been assigned to the Dialogic® HMP Software host via a non-Dialogic® HMP Software means (for example, the operating system or Dynamic Host Configuration Protocol (DHCP) might assign the IP address). The "default IP address" is the IP address that is used to transmit and receive media streams. The Dialogic® HMP Software uses the default IP address for all media sessions unless overridden by the application.

The Dialogic® HMP Software will retain the default IP address through a Dialogic® HMP Software host shutdown and startup sequence. In other words, turning the host off and on again won't change the value of the default IP address unless that address is no longer valid (for example, DHCP assigns a different value when the host is restarted).

If the Dialogic® HMP Software detects at startup that its current default IP address is not available for use, it will pick a new default IP address, which will be the new IP address allocated to the network interface card (NIC) that had the original default IP address. However, if that network controller is no longer accessible in the machine, it will pick the first IP address of the first NIC as the new default IP address. The Dialogic® HMP Software will log this as an event and you can see it using the Windows® Event Viewer. This is intended to make the operational problem clear (that is, the previous assigned IP address is no longer available).

Notes: 1. On systems that have multiple NICs with multiple IPs, it is possible that the default IP address picked by the Dialogic® HMP Software system may not be the IP address best suited for your purposes. Therefore, **after installation and before starting the Dialogic®** HMP Software, you should check the default IP address and change it, if necessary, to suit your specific needs. The system will remember the selected default IP address and associated NIC controller so you do

not need to check the address on subsequent reboots unless you want to assign a different default IP address.

2. If the local loopback address is the **only** address available on a given computer (no other IP address is available), the local loopback address will **not** be selected as the default IP. In this case, the Default IP Address page (Figure 5) will show the loopback address but it will not be selected and when you try to start the system, it will fail with the error "No default IP address selected" (this error will appear in the Windows Event Viewer).

Caution: If changes are made to the network configuration of the computer on which you have installed the Dialogic® HMP Software (such as IP address changes or Domain Naming System [DNS] changes), you must reboot the computer. This is necessary to ensure that all the Dialogic® HMP Software stacks get properly reconfigured with the new configuration details. Note that IP addresses may be changed without user intervention – a host whose IP address is assigned by DHCP, for instance, may have its address changed for some reason by the DHCP server without any user action on that host.

6.2   Requirements

Following are requirements for performing this procedure:

- This procedure assumes you have already installed the Dialogic® HMP Software and rebooted. If you haven't done this, refer to the Installation Guide for the Dialogic® HMP Software for instructions.

- Before you can change the current Dialogic® HMP Software default IP address, you must first obtain and activate a license. Refer to Chapter 2, "Obtaining a License" and Chapter 3, "Activating a License" for instructions.

6.3   Displaying the Dialogic® HMP Software Default IP Address

This section describes how to use the DCM to display the Dialogic® HMP Software default IP address.

To display the default IP address, follow this procedure:

1. Stop the Dialogic® HMP Software system if it is running. Follow the procedure in Section 7.4, "Stopping Dialogic® HMP Software", on page 42.

2. On the main window of the DCM, click on the Dialogic® HMP Software virtual board to highlight it (see Figure 4).

Figure 4. Select Dialogic® HMP Software on the DCM Main Window
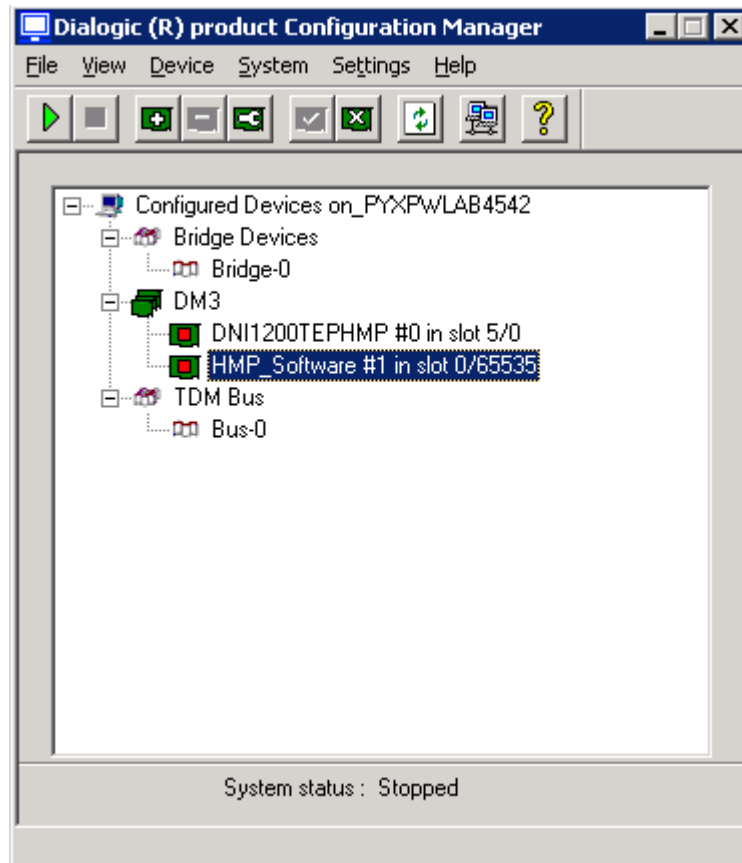
3. Select Configure Device from the Device pull-down menu on the DCM Main Window or click the icon for "configure device" (a wrench on a green box) in the DCM toolbar.

4. The **Configure Device** option opens the Property sheet dialog box with various parameter pages. Click the **Default IP Address** tab. The Default IP Address page is displayed (see Figure 5).

Figure 5. Example of a Default IP Address Page in DCM
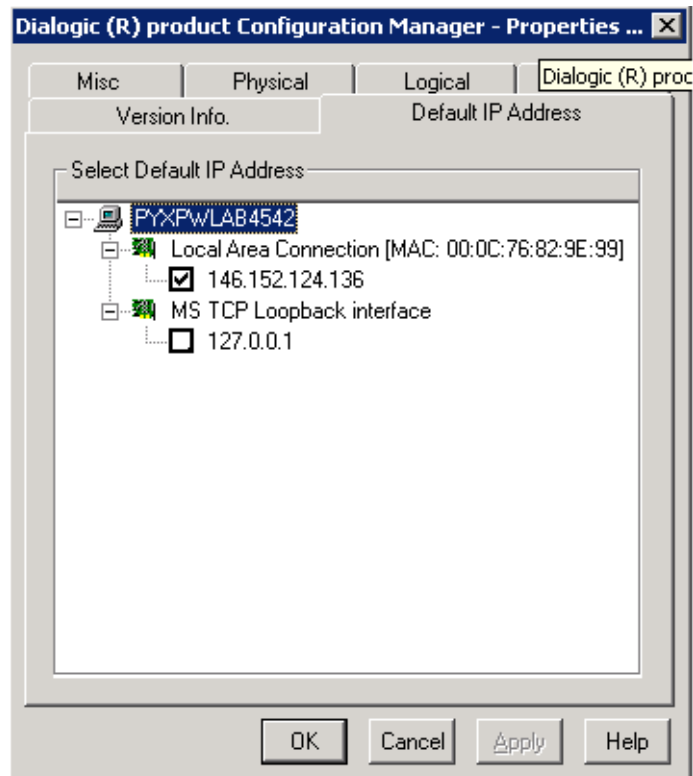
The default IP address has a check in the box next to it to show that it is the one being used and to allow you to deselect it if you want to change the default IP address. Note that in this example (Figure 5), the only other choice available is the local loopback address, which should only be used for testing or debugging purposes. A local loopback address does not allow RTP data to be sent out on the network.

6.4 Changing the Dialogic® HMP Software Default IP Address

This section describes how to use the DCM to change the Dialogic® HMP Software default IP address. You must use an IP address that is already assigned to the Dialogic® HMP Software host.

To change the Dialogic® HMP Software default IP address, perform the following:

1. Follow the procedure given in Section 6.3, "Displaying the Dialogic® HMP Software Default IP Address", on page 36 so that the Default IP Address is displayed (Figure 5).

2. Click the box next to the IP address you want to use to select it.

   Note that you should **not** select the local loopback address unless you need to do so for testing or debugging purposes. **A local loopback address does not allow RTP data to be sent out on the network.** If you try to select the local loopback address, a message will appear asking you if you are sure you want to make this selection.

   When the message appears, click **Yes** if you want to select the local loopback address for testing or debugging purposes. Click **No** if you don't want to choose the local loopback address. If you click **No**, the selection on the IP address screen will revert back to what was selected before you tried to select the local loopback address.

3. When you are satisfied with your selection, click **OK**.

6.5   Restoring the Original Default IP Address

If the default IP address has been changed and you want to restore the original default IP address, you can follow this procedure. However, it is possible that the original default IP address will no longer be available. If this is the case, an available IP address will be assigned to the Dialogic® HMP Software server as its default IP address. For more details, refer to Section 6.1, "Introduction", on page 35.

To restore the original default IP address, perform the following:

1. Stop the Dialogic® HMP Software system if it is running. Follow the procedure in Section 9.4, "Stopping HMP", on page 43.

2. On the main window of the DCM, click on the Dialogic® HMP Software virtual board to highlight it (see Figure 4).

3. Click on the **Device** pull-down menu and select **Restore Defaults**. This will restore all default settings, including the original default IP address (if it is still available).

4. The Restore Device Defaults dialog will appear. Click **Yes** to proceed.

5. Restart the Dialogic® HMP Software system by clicking the **Start System** option from the DCM **System** pull-down menu (**System > Start System**) or click the **Start all enabled devices** icon (a green arrow triangle; the first button on the left) on the DCM Main Window toolbar.

Starting and Stopping Dialogic®   **7**
HMP Software

This chapter contains the following information about starting stopping the Dialogic® Host Media Processing (HMP) Software:

7.1   Preparations

After you install the Dialogic® HMP Software, you can start the system if you want to try running the verification demo (Dialogic® IP Media Server Demo) to confirm that the Dialogic® HMP Software was successfully installed (refer to the verification procedure in the Software Installation Guide). To do anything else with the Dialogic® HMP Software and supported boards, you must first obtain and activate a license on the target system. Refer to Chapter 2, "Obtaining a License" and Chapter 3, "Activating a License" for more information about this.

The license file must be installed and activated on the computer having the Host ID (MAC address) or board with the Board Serial Number that was specified when the license was obtained. If the license file is not located on the local machine (target system), when you start the Dialogic® HMP Software (as described in Section 7.2, "Starting Dialogic® HMP Software", on page 41), it will fail and generate an error message similar to one of the following (the error message can be viewed in the Windows® Event Viewer):

```
General fault: MC_ERROR_INTERPRET_LICENSE: Failed to interpret the license key.

General fault: MC_ERROR_LICENSE_KEY_GET: Failed to obtain the license key.
```

7.2   Starting Dialogic® HMP Software

This procedure describes how to use the Dialogic® Configuration Manager (DCM) to start the Dialogic® HMP Software on the target system:

1. If DCM has not already been started, start the utility as described in Section 8.3, "Starting the Dialogic® Configuration Manager (DCM)", on page 45.

2. To start the Dialogic® HMP Software, click the **Start System** option from the DCM **System** pull-down menu (**System > Start System**) or click the **Start all enabled devices** icon (a green arrow triangle; the first button on the left) on the DCM Main Window toolbar.

   The DCM displays a progress bar in the upper right corner of the screen during the wait time. When the system starts, the **System status** indicator at the bottom of the DCM Main Window indicates **Running**.

   The progress bar is normally displayed until the Dialogic® HMP Software is started. However, when connected to a remote node, for example, the time to start the Dialogic® HMP Software could be extended because of network latency.

   If the progress bar is no longer displayed but the **System status** indicator does not indicate the **Running** state yet, this does not necessarily indicate a problem. Click the **Refresh** icon on the DCM Main Window periodically to update the **System status** indicator. Eventually, it should indicate **Running**. If not, check the Windows® Event Viewer to see if an error occurred.

   Note: You cannot start the Dialogic® HMP Software system while the Dialogic® HMP Software virtual device is disabled. You also cannot start the system from the Control Panel and then open DCM. If you need to detect devices, use DCM's **System** pull-down menu options to stop the Dialogic® HMP Software system and initiate device detection.

7.3 Setting Autostart Mode

There are cases when Dialogic® HMP Software needs to be started automatically (without user assistance). If you set the startup mode to autostart, when the system is rebooted, Dialogic® HMP Software restarts automatically. Users with administrative privileges can set the autostart option in one of the following ways:

- Select **System/Device > Start System** from the DCM **Settings** pull-down menu.
- Set the mode programmatically using the Dialogic® Native Configuration Manager (NCM) API (see the *Dialogic® NCM API Library Reference* and *Programming Guide* for more information).

Notes: **1.** If you set the startup mode to autostart, and you want to reconfigure the Dialogic® HMP Software virtual device through the DCM after rebooting the computer, you should use the DCM to stop the system and then perform the normal operations through the DCM.

2. Also of interest to administrators is the *Dialogic® SNMP Agent Software for Host Media Processing Software Administration Guide*.

7.4 Stopping Dialogic® HMP Software

This procedure describes how to use the DCM to stop the Dialogic® HMP Software on the target system:

1. If the DCM graphical user interface (GUI) is not open on your screen, open it (**Start > Programs > Dialogic HMP > Configuration Manager - DCM**).

2. On the DCM Main Window (Figure 6) select the **Stop System** option from the **System** pull-down menu or click the **Stop all enabled devices** icon (a red box).

When the Dialogic® HMP Software is stopped via the DCM, the Dialogic® System Service (DSS) and all other Dialogic® services will be stopped. When the Dialogic® HMP Software is started again via the DCM, the DSS and all other Dialogic services will be started automatically.

Notes: **1.** The Boardserver service (*BoardServer.exe* service for the SNMP Agent Software functionality) is not a part of the DCM start-up sequence. If the Boardserver service was running prior to stopping the Dialogic® HMP Software, Boardserver must be restarted manually. If the Boardserver service is set to start automatically when the system starts, it will start automatically for the new session.

         2. The **NCM_StopSystem()** function should not be used to stop Dialogic services. This function is intended to stop the Dialogic® HMP Software virtual device or a physical device.

Dialogic® Configuration Manager Reference   8

This chapter provides the following information about the Dialogic® Configuration Manager (DCM):

8.1   Description

The DCM is used to perform some Dialogic® Host Media Processing (HMP) Software administration tasks such as starting the system and configuring the Dialogic® HMP Software IP address. The DCM utility has a graphical user interface (GUI) and is accessed from the Start menu. Online help for the utility is available by pressing the **F1** key.

8.2   Guidelines

To use the DCM, you must have administrative privileges on your local computer and on any remote computer you connect to. Contact your network administrator to set up administrative privileges as required.

You can put the DCM icon on your desktop so that you don't have to access it from the Windows® Start menu (but keep in mind that this shortcut will not be removed if you uninstall the Dialogic® HMP Software).

8.3   Starting the Dialogic® Configuration Manager (DCM)

To access the DCM from the Windows® Start menu, select **Configuration Manager-DCM** from the HMP program folder (**Start > Programs > Dialogic HMP > Configuration Manager-DCM**).

The DCM Main Window appears (Figure 6). The top line of the display, Configured Devices on_, shows the name of the computer you connected to. The local computer name is displayed by default. If you want to connect to a remote computer, refer to Section 8.4, "Connecting to a Remote Computer", on page 46.

Figure 6. DCM Main Window
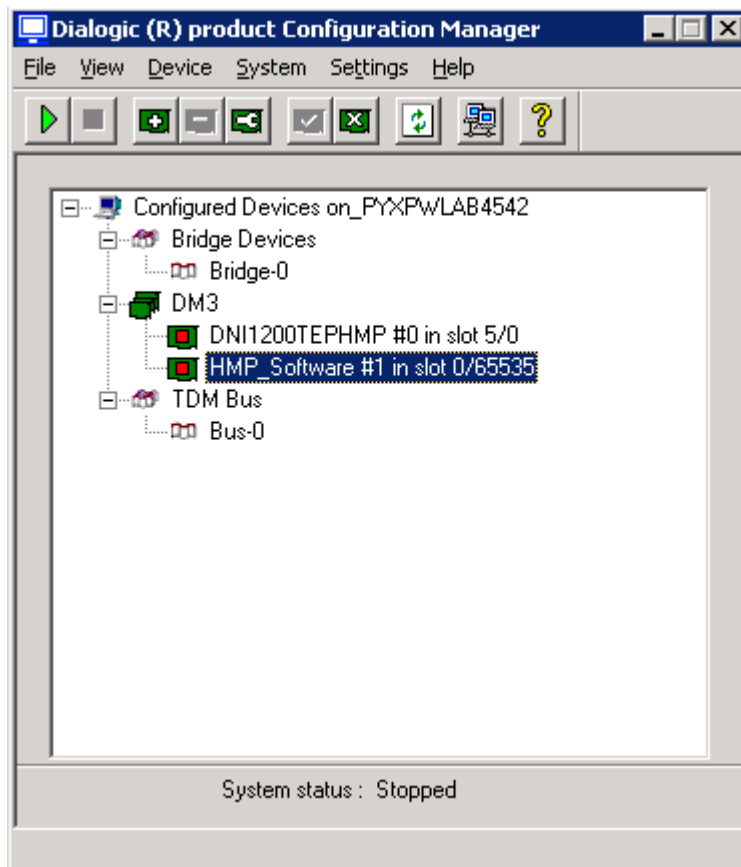
In the display on the DCM Main Window, the Dialogic® HMP Software product appears as "HMP_Software #1" under the Dialogic® DM3 board family, along with the Dialogic® DNI boards. The display also shows the TDM bus, which refers to the resource bus used to carry information between boards.

8.4 Connecting to a Remote Computer

When you start the DCM, the local computer name is displayed by default. If you want to connect to a remote computer, perform the following:

1. Access the Computer Name dialog box by selecting the **Connect** option from the **File** pull-down menu or by clicking the **Connect** icon on the DCM Main Window.

2. On the Computer Name dialog box (Figure 7), select the **Remote** radio button, enter the remote computer name, and click **Connect**. For TCP/IP networks, you can enter the IP address instead of the remote computer name.

   *Note:* Dialogic® HMP Software uses DCOM objects to run Dialogic® HMP Software on remote computers. Remote DCM Dialogic® HMP Software internally sets up the DCOM security level programmatically. Do not use the Windows DCOM configuration utility *dcomcnfg.exe* to change the security settings. If you do, the Dialogic® HMP Software may not work properly.

After you connect to a computer, a window will appear indicating that the DCM detection routine is running. DCM will detect the Dialogic® HMP Software and automatically find the licensed configuration settings.

Figure 7. Computer Name Dialog Box
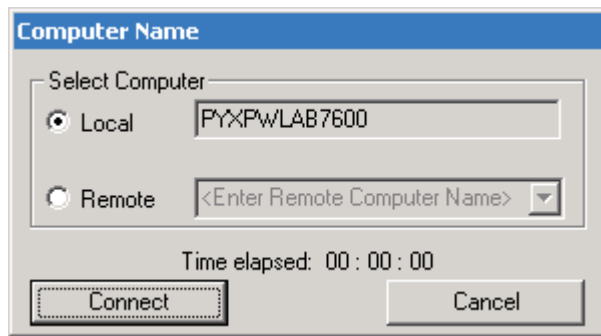
8.5 Restoring Defaults

In some situations, such as when you want DCM to recognize a new license, you must run **Restore Defaults** from the **Device** menu. To do so, perform the following:

1. Access the DCM from the Dialogic® HMP Software program folder (**Start > Programs > Dialogic HMP > Configuration Manager-DCM.**

2. Stop the Dialogic® HMP Software system if it is running. On the DCM Main Window (Figure 6) select the **Stop System** option from the **System** pull-down menu or click the **Stop all enabled devices**.

3. On the DCM Main Window, click on the Dialogic® HMP Software virtual board or one of the supported boards to highlight it.

4. From the Device drop-down menu, select **Restore Defaults**.

5. The Restore Defaults dialog box will appear. Click **Yes** to proceed.

   Note: In addition to enabling the DCM to recognize a new license, restoring the defaults will also restore the original default IP address (if it is still available).

6. The Assign Firmware File screen appears, which has a list of PCD files (see Figure 8). Select the PCD file (from the list in the Available Firmware box) that corresponds to your license file and then click **OK**.

Note: You cannot select a PCD file that is of lower density than your active license. You must select the explicit PCD file generated by the corresponding license file. The resources provided by the PCD file are described in the Firmware Description box. The name of the license file corresponds to the licensed resources. For information about how license files are named, refer to Section 2.1, "Preparations", on page 13.

Figure 8. Select PCD File
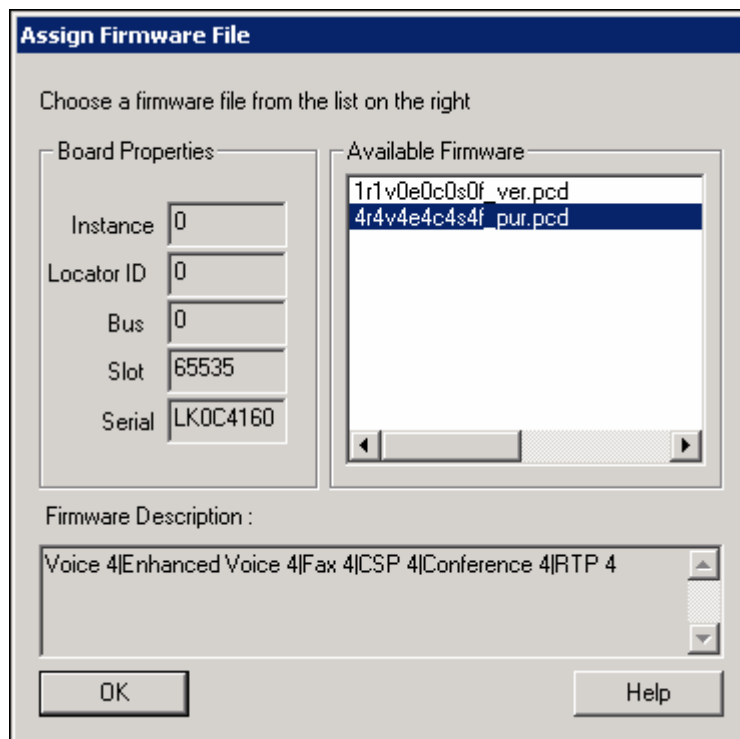
7. Start the system using the DCM. To do this you can either click the button with the green arrow on the far left of the DCM toolbar or use the System drop-down menu (**System > Start System**).

The status message at the bottom of the DCM main window will tell you when the system has started.

8.6   Obtaining a Board's Serial Number

A board's serial number is printed on the sticker on the board, but if you need to obtain the serial number using DCM, follow this procedure:

1. Access DCM as described in Section 8.3, "Starting the Dialogic® Configuration Manager (DCM)", on page 45.

2. On the DCM Main Window, click on the board to highlight it.

3. From the device drop-down menu, select **Configure Device**.

4. Click the **Physical** tab.

5. Scroll down to the serial number (see Figure 9).

Figure 9. Board Serial Number Shown in DCM
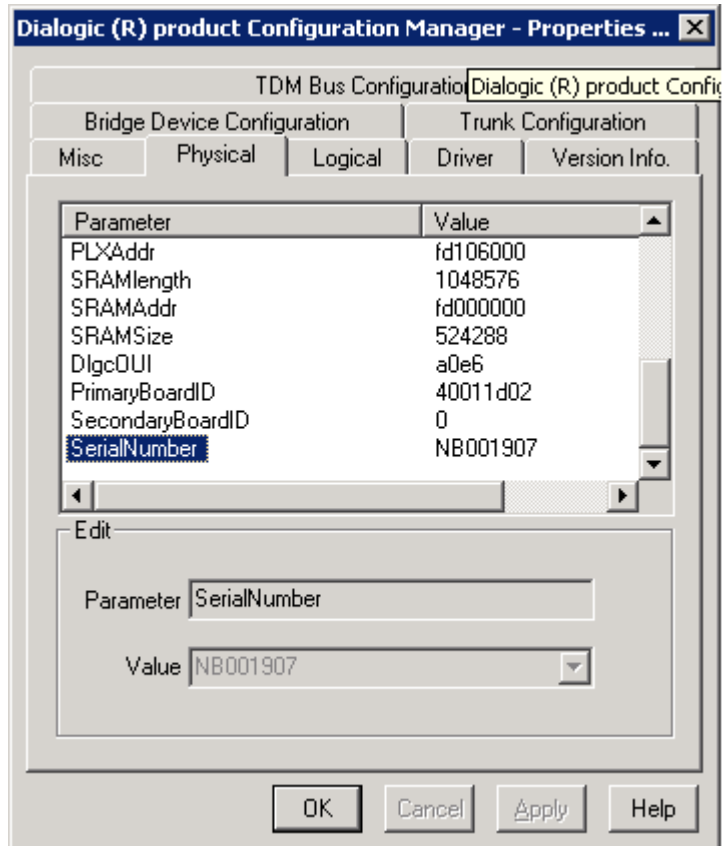
Dialogic® HMP Software License   9
Manager GUI Reference

This chapter describes the Dialogic® Host Media Processing (HMP) Software License Manager graphical user interface (GUI) and how to access it:

9.1   Description

The Dialogic® HMP Software License Manager GUI allows you to activate and display information about a Dialogic® HMP Software license. If there is an active license, then the name of the active license is displayed and the other parts of the window show details for that license. If not, the "Status" message at the bottom of the window will say that you do not have a license.

For more information about Dialogic® HMP Software licenses and obtaining them, refer to Chapter 2, "Obtaining a License". To find out how to activate licenses, refer to Chapter 3, "Activating a License".

Note: You can also activate a license using the LMTOOLS GUI. However, the LMTOOLS GUI was developed by Macrovision Corporation and it is not specifically designed for use with Dialogic® HMP Software. A limited portion of the LMTOOLS screens are used for Dialogic® HMP Software licensing tasks, so you must closely follow the procedures provided in Chapter 10, "LMTOOLS Reference" when using LMTOOLS.

9.2   Accessing the License Manager GUI

You can access the License Manager GUI from the Start menu (**Start > Programs > Dialogic HMP > License Manager**).

9.3   Options

This section describes the fields and buttons on the License Manager GUI. Figure 10 shows the License Manager GUI with sample data.

License File Name
> This edit box displays the path and file name of a license. If there is an active license, then the name of the active license is displayed here. You can enter the path and name of the license file you want to use. You also can click the **Browse** button to find the path and name.

Browse

> Click this button to browse for the location and name of the license file you want to use. License files should be saved to the *data* directory of your Dialogic® HMP Software installation.

Figure 10. Dialogic® HMP Software License Manager GUI with Sample Data
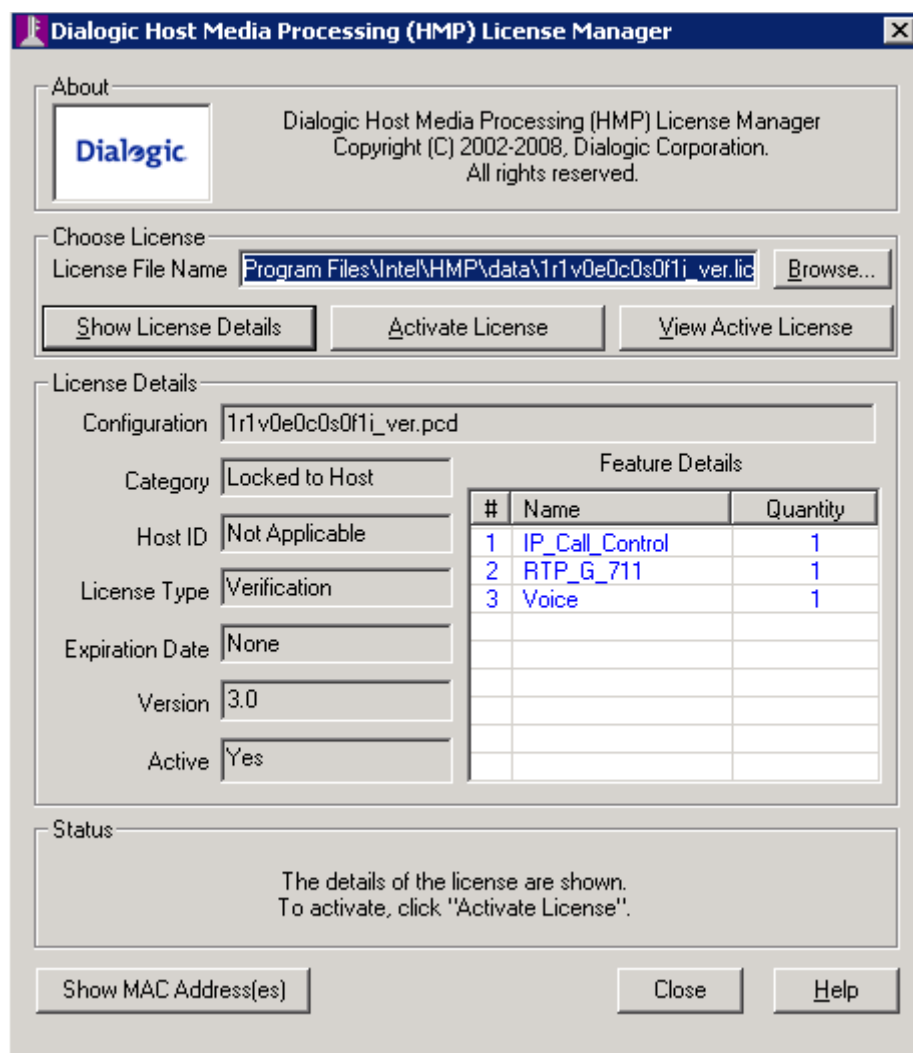
Show License Details

> Click this button to display the details of the license named in the License File name field above it. License details include Configuration, Category, Host ID (MAC address), License Type, Expiration Date, Version, Active, and Feature Details.

Activate License

> Click this button to activate the license named in the License File Name field above. After you activate a license, you can use the DCM configuration manager to start the Dialogic® HMP Software system.

Choose Active License

Although you might have multiple license files stored in your license file directory, only one of them can be active at a time. Click this button to choose the active license.

Configuration

This field identifies the licensed configuration. It is associated with the software components your system will use.

Category

This field identifies the license as one of the following: Locked to Board, Locked to Node, and OEM. Information about the first two categories is provided in Chapter 2, "Obtaining a License". Information about OEM licensing is available from your Dialogic authorized distributor or Dialogic account manager.

Host ID (MAC address)

This field shows the MAC address that was used to obtain the Dialogic® HMP Software license. This field applies only to licenses that are locked to a node as described in Chapter 2, "Obtaining a License". To obtain a license for a boardless system, you must use the License Manager GUI's **Show MAC Address(es)** button to get a MAC address, which you give to your Dialogic authorized distributor or Dialogic account manager when you request a license. This host-based licensing procedure ties the license to the machine's MAC address.

License Type

This field shows whether the selected license is a verification, evaluation, or purchased license.

Expiration Date

This field shows the date on which the selected license will expire (if applicable).

Version

This refers to the version of Dialogic® HMP Software for which the license was generated. At this time, you cannot use a license from a previous version of Dialogic® HMP Software, but in the future, this may be allowed.

Active

If the license named in the License File Name field and described in the License Details fields is the license that is currently active in your Dialogic® HMP Software system, this displays "Yes." Otherwise, "No" is shown.

Feature Details

This field gives the name and quantity of the features provided by the license.

Status

This read-only section of the window displays a message that tells you the current status of the Dialogic® HMP Software License Manager and any actions you take on this screen.

Show MAC Address(es)

Click this button to show the MAC address(es) available on this computer. You will need the MAC address when you request a new license. You can click on a MAC address to copy it. If multiple MAC addresses are available, you will have to choose one: for example, the MAC address of a card that is least likely to be removed. Provide this MAC address to your Dialogic authorized distributor or Dialogic account manager when requesting a license.

Close

Click this button to close the Dialogic® HMP Software License Manager application. You can return to this application from the Start menu.

Help

Clicking this button brings you to the GUI's online help screen.

LMTOOLS Reference **10**

This chapter provides the following information about the LMTOOLS utility:

10.1 Description

LMTOOLS is a graphical user interface (GUI) to the license server manager tools that enables you activate a license.

The LMTOOLS GUI was developed by Macrovision Corporation and is not specifically designed for use with Dialogic® Host Media Processing (HMP) Software. A limited portion of the LMTOOLS screens are used for Dialogic® HMP Software licensing tasks, so you must closely follow the procedures provided in this chapter when performing licensing tasks for Dialogic® HMP Software.

Note: You can also activate a license using the Dialogic® License Manager GUI described in Chapter 9, "Dialogic® HMP Software License Manager GUI Reference". The License Manager GUI was developed specifically for Dialogic® HMP Software and can be accessed from the Start menu.

10.2 Guidelines

The information in this chapter only covers the screens and functionality necessary to activate a license and switch from one license to another.

For more information about LMTOOLS and FLEXnet licensing, refer to the *FLEXnet Licensing End User Guide,* which is available at:
http://www.macrovision.com/support/by_catagory/Software_Licensing.shtml.

10.3 Turning DEP Off for the LMTOOLS Utility (Windows® XP SP2 Only)

The LMTOOLS utility may fail on systems running Windows® XP with Service Pack 2 if the System Settings tab is selected. To avoid this, use the following procedure to turn Data Execution Prevention (DEP) off:

1. Select **System** from the Windows Control Panel. The System Properties dialog box will appear.

2. Select the **Advanced** tab.

3. In the Performance region, click the **Settings** button. The Performance Options dialog box will appear.

4. Select the **Data Execution Prevention** tab in the Performance Options dialog box.

5. Choose **Turn on DEP for all programs and services except those I select:**.

6. Click the **Add...** button. The Open dialog box will appear.

7. Browse and select the executable file for your application (**LMTOOLS utility**).

8. Click the **Open** button. The file you selected will then be displayed in the Performance Options dialog box.

9. Click the **Apply** button at the bottom of the Performance Options dialog box.

10. Click the **OK** button at the bottom of the System Properties dialog box.

11. Reboot the system.

10.4 Starting LMTOOLS

To use the LMTOOLS GUI, locate and run the *lmtools.exe* file. The default location for *lmtools.exe* is *C:\Program Files\Dialogic\HMP\bin*.

The LMTOOLS GUI will appear (Figure 11), with the Service/License File tab selected by default.

Figure 11. LMTOOLS: Service/License File Tab
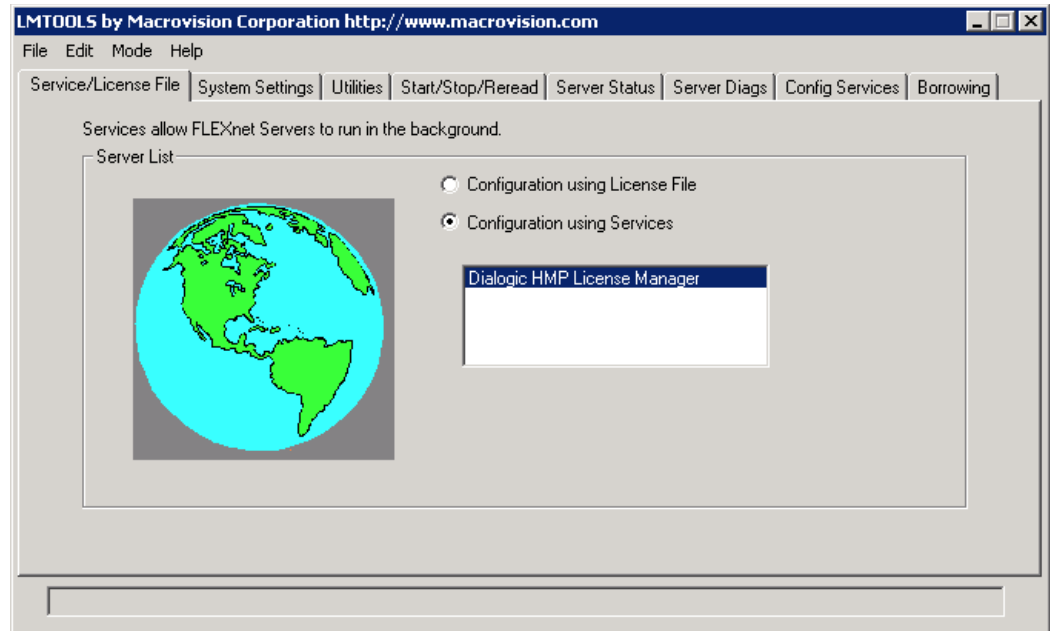
10.5 Config Services Tab

You will use the Config Services tab (Figure 12) when you want to select a license file to activate. If you want to switch from one license to another, you will use this tab to activate the new license.

Figure 12. LMTOOLS: Config Services Tab
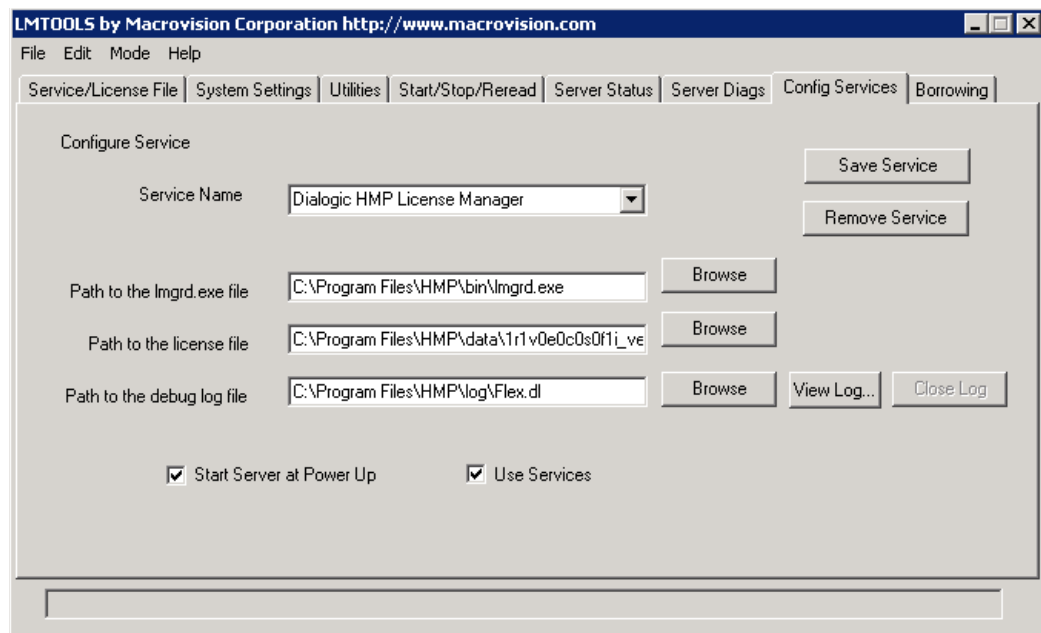
To select a license to activate or a new license to switch to, click the **Browse** button next to the **Path to the License file** box, navigate to the license file you want, and click **Open**.

10.6   Start/Stop/Reread

You will use the functionality of the Start/Stop/Reread tab (Figure 13) to stop and restart the server and create the PCD/FCD/Config files.

Figure 13. LMTOOLS: Start/Stop/Reread Tab
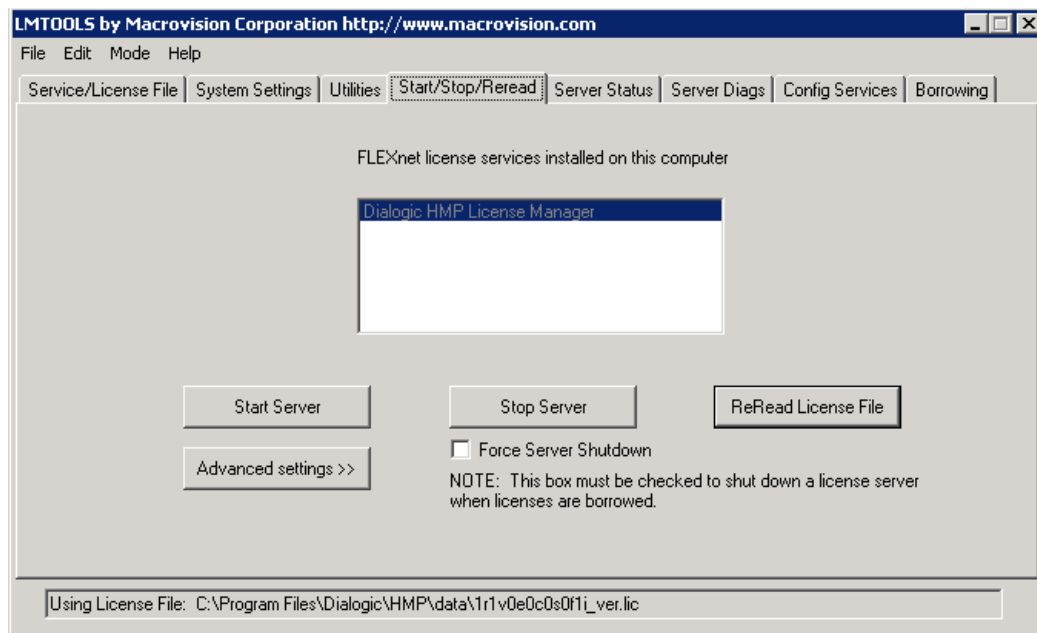
The buttons used on this screen are as follows:

Start Server
    Starts the server

Stop Server
    Stops the server

ReRead License file
    Recreates the PCD/FCD/Config files.

> *Note:* During normal license activation you do not need to click the **ReRead** button. You would use the **ReRead** button only if you wanted to forcefully recreate PCD/FCD/Config files. For example, if you want to recreate PCD/FCD/Config files in their original default state for the same currently active license, you can issue a Reread after deleting, moving, or renaming one or all of the previously generated PCD/FCD/Config files.

10.7   Activating a License Using LMTOOLS

This section describes how to activate a license using the LMTOOLS utility.

Note: Another GUI (License Manager) is also available for performing this task. Refer to Section 3.2, "Using the License Manager GUI", on page 21. If you would prefer to use a command line interface, refer to Section 3.3, "Using the Command Line Interface (CLI)", on page 24. For more information about FLEXnet licensing, refer to the *FLEXnet Licensing End User Guide,* which is available at: http://www.macrovision.com/support/by_catagory/Software_Licensing.shtml.

Caution: You will only need to use three tabs on the LMTOOLS utility: Service/License File, Config Services, and Start/Stop/Reread. On those three tabs, use only the fields and buttons specified in the procedure. **Do not use ANY fields or buttons on the following tabs: System Settings, Utilities, Server Status, Server Diags, and Borrowing** or problems may occur.

Using the LMTOOLS utility, the procedure for activating a license is as follows:

Note: Steps 1 and 2 are required only if the Dialogic® HMP Software system is already started.

1. If the Dialogic® Configuration Manager (DCM) is not open, open it from the Start menu (**Start > Program Files > Dialogic HMP > Configuration Manager - DCM**).

2. Stop the system using the DCM. To do this, you can either click the button with the square on it or use the System drop-down menu (**System > Stop system**).

3. Start the LMTOOLS utility from the Start Menu (**Start > Program Files > Dialogic HMP > Licensing Toolkit Utilities**). On the initial Service/License File screen, Figure 14, check that Configuration using Services is selected and Dialogic® HMP Software License Manger is selected in the box.

Figure 14. LMTOOLS Service/License File Screen
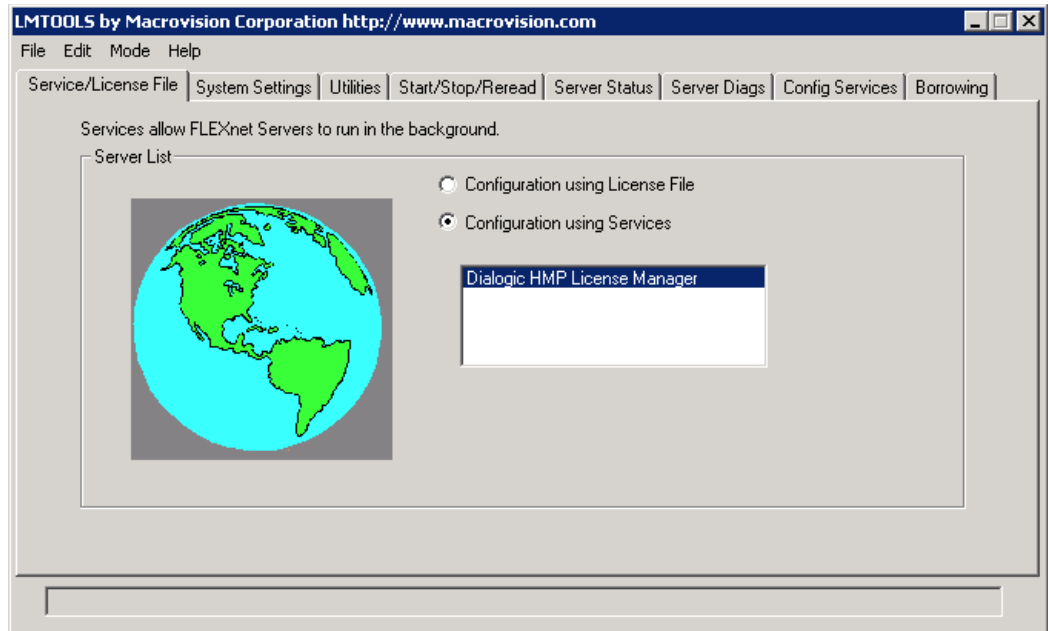
4. Click the **Config Services** tab to display the Config Services screen, Figure 15.

Figure 15. Config Services Screen
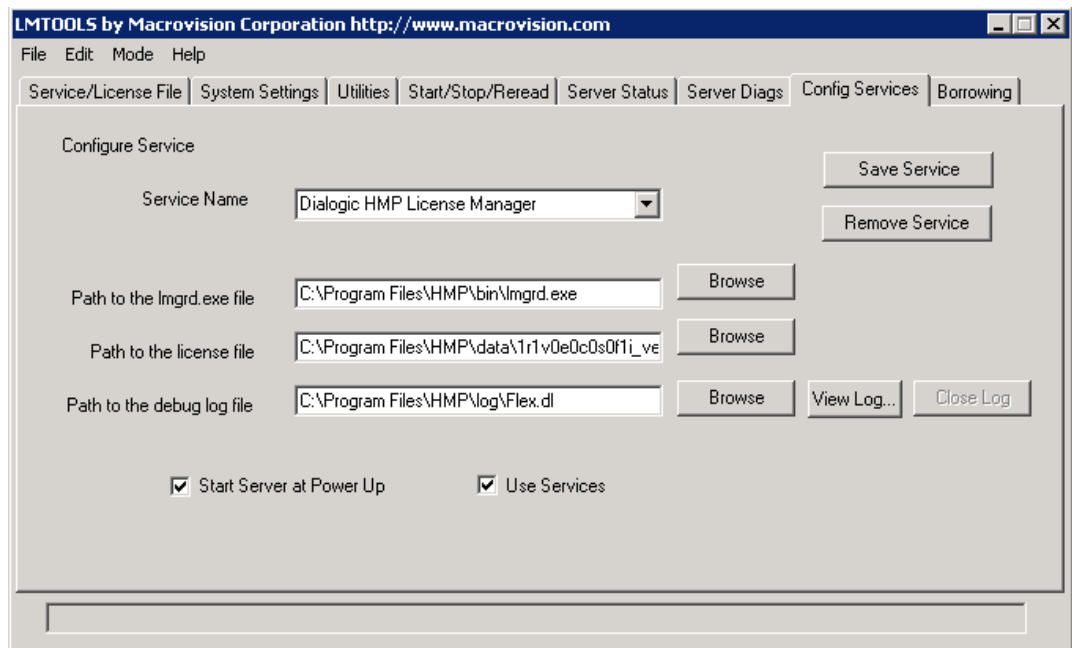
5. Use the **Browse** button for the **Path to the license file** box to navigate to your license file and then open the license file you wish to use. The path to your license file will appear in the **Path to the license file** box.

6. Click the **Start/Stop/Reread** tab to display the Start/Stop/Reread screen, Figure 16. When you click the tab, a Save Settings dialog box will then appear. Click **Yes** to save the new license file selection.

Figure 16. Start/Stop/Reread Screen
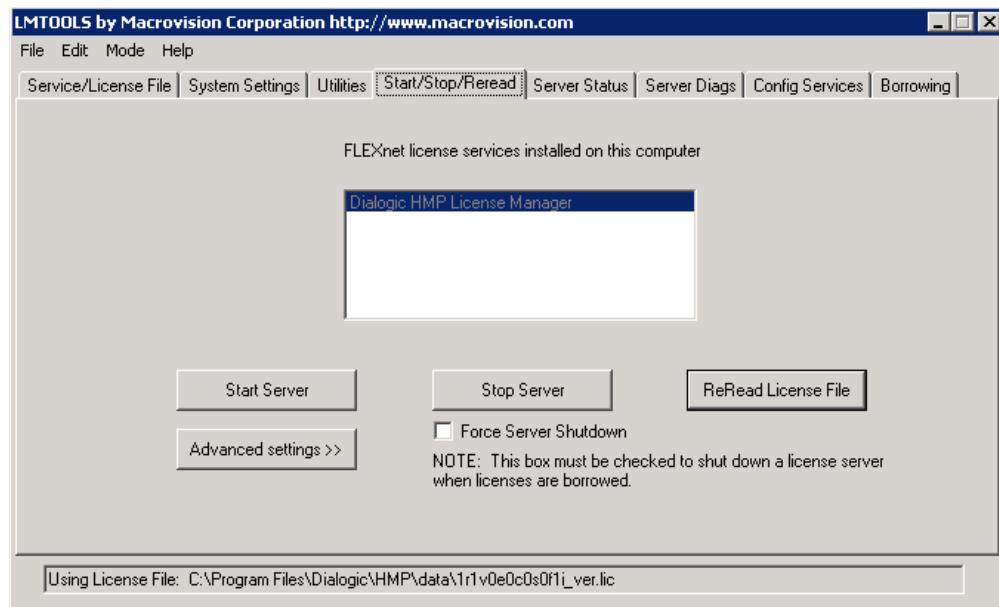
7. Click the **Stop Server** button (Changes status to Stopping Server).

   Note: If this message does not clear after a few seconds, proceed to the next step.

8. Click the **Start Server** button. A status message (Server successfully started) tells you when this action has been completed.

   Note: Normally, you do not need to click the **ReRead** button. You would use the **ReRead** button only if you wanted to forcefully recreate PCD/FCD/Config files. For example, if you want to recreate PCD/FCD/Config files in their original default state for the same currently active license, you can issue a Reread after deleting, moving, or renaming one or all of the previously generated PCD/FCD/Config files.

9. From the DCM Main Window, right click on the **HMP_Software** device and select **Restore Defaults** from the **Device** submenu.

10. The Restore Device Defaults dialog box will appear, telling you what will happen when you perform the Restore Defaults action and gives you the opportunity to exit from this action. However, in this case you can click **Yes**.

11. The Assign Firmware File screen appears, which has a list of PCD files (see Figure 17). Select the PCD file (from the list in the Available Firmware box) that corresponds to your license file and then click **OK**.

> *Note:* You cannot select a PCD file that is of lower density than your active license. You must select the explicit PCD file generated by the corresponding license file. The resources provided by the PCD file are described in the Firmware Description box. The name of the license file corresponds to the licensed resources. For information about how license files are named, refer to Section 2.1, "Preparations", on page 13.

Figure 17. Select PCD File
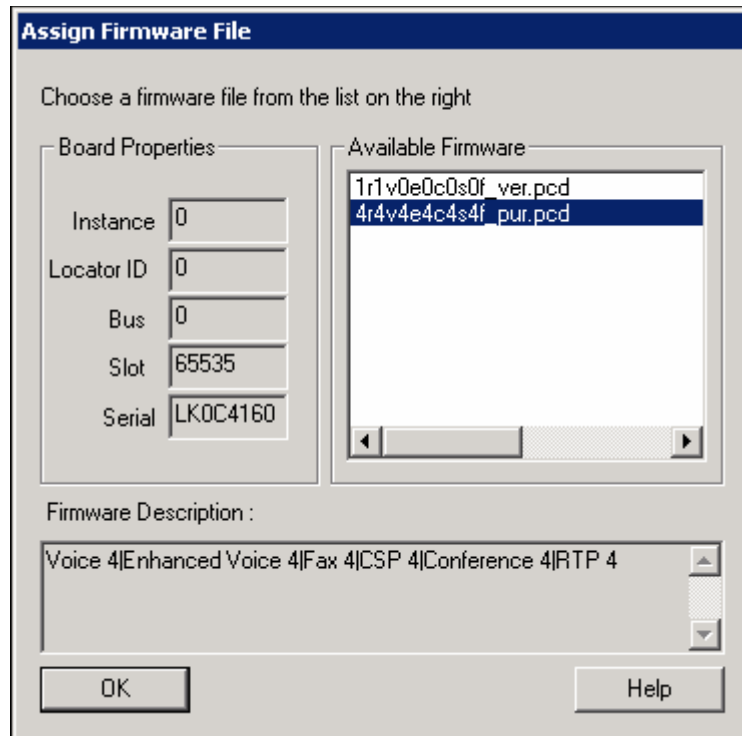
12. Start the system using the DCM. To do this you can either click the button with the green arrow on the far left in the Toolbox or use the System drop-down menu (**System > Start System**).

The status message at the bottom of the DCM main window will tell you when the system has started.

10.8   Switching to a Different License Using LMTOOLS

This section describes how to switch to a different license using the LMTOOLS utility.

Note: Another GUI (License Manager) is also available for performing this task. Refer to Section 4.2, "Using the License Manager GUI", on page 29. If you would prefer to use a command line interface, refer to Section 4.3, "Using the Command Line Interface (CLI)", on page 30. For more information about FLEXnet licensing, refer to the *FLEXnet Licensing End User Guide,* which is available at: http://www.macrovision.com/support/by_catagory/Software_Licensing.shtml.

Caution: You will only need to use three tabs on the LMTOOLS utility: Service/License File, Config Services, and Start/Stop/Reread. On those three tabs, use only the fields and buttons specified in the procedure. **Do not use ANY fields or buttons on the following tabs: System Settings, Utilities, Server Status, Server Diags, and Borrowing** or problems may occur.

The process for switching to a different license using the LMTOOLS utility is as follows:

1. Stop any Dialogic® HMP Software application that is running and then stop the Dialogic® HMP Software services using the DCM. To do this, you can either click the button with the square on it or use the System drop-down menu (**System > Stop system**).

   Note: If you activate another license while the Dialogic® HMP Software services are running, the Dialogic® HMP Software services will automatically be stopped.

2. Start the LMTOOLS utility from the Start Menu (**Start > Program Files > Dialogic HMP > Licensing Toolkit Utilities**). On the initial **Service/License File** screen, Figure 18, check that **Configuration using Services** is selected and the Dialogic® HMP Software License Manger is selected in the box.

Figure 18. LMTOOLS Service/License File Screen
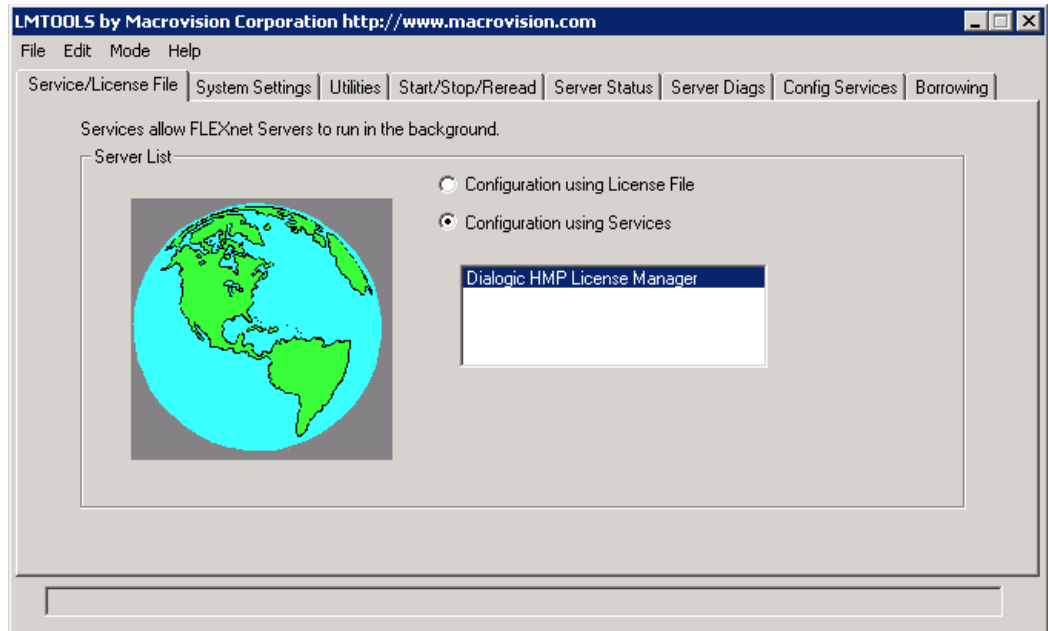
3. Click the **Config Services** tab to display the Config Services screen, Figure 19.

Figure 19. Config Services Screen
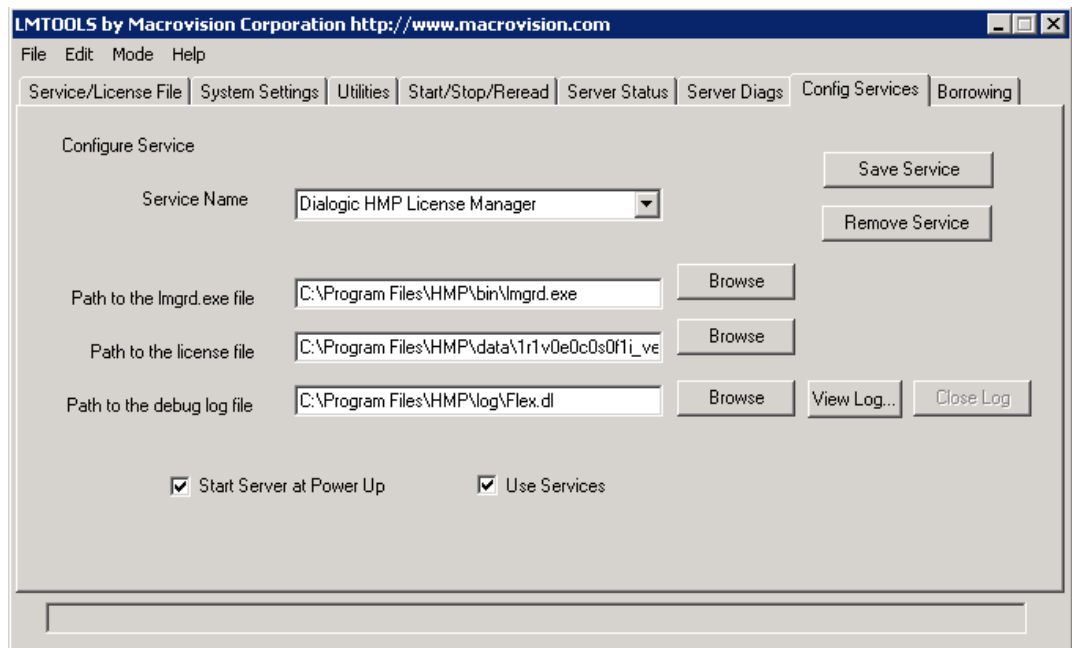
4. Use the **Browse** button for the **Path to the license file** box to navigate to your license file and then open the license file you wish to use. The path to your license file will appear in the **Path to the license file** box.

5. Click the **Start/Stop/Reread** tab to display the Start/Stop/Reread screen, (Figure 20). When you click the tab, a Save Settings dialog box will then appear. Click **Yes** to save the new license file selection.

Figure 20. Start/Stop/Reread Screen
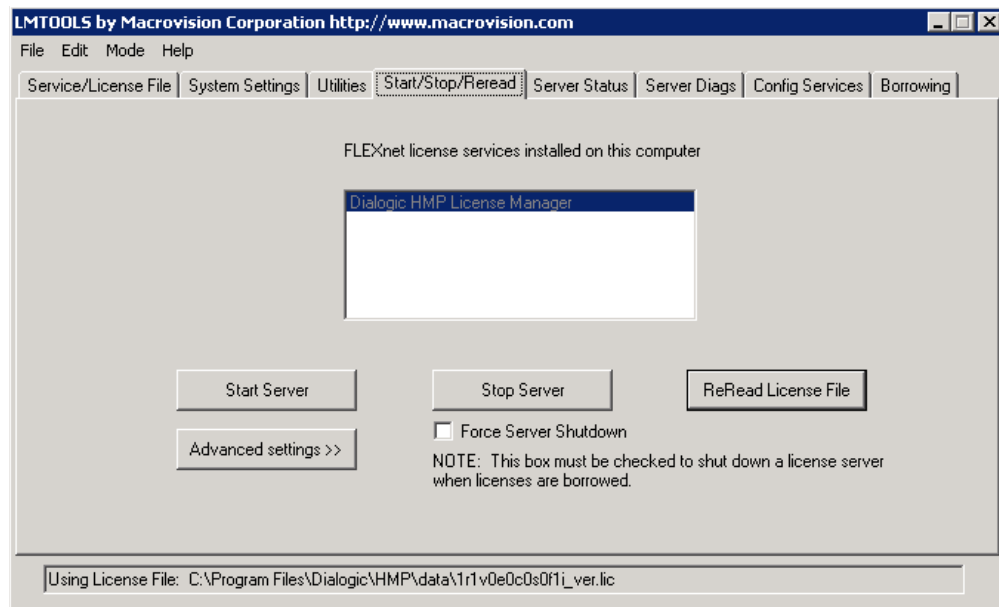
6. Click the **Stop Server** button (changes status to Stopping Server).

  Note: If this message does not clear in a few seconds, proceed to the next step.

7. Click the **Start Server** button.

  Note: Normally, you do not need to click the **ReRead** button. You would use the **ReRead** button only if you wanted to forcefully recreate PCD/FCD/Config files. For example, if you want to recreate PCD/FCD/Config files in their original default state for the same currently active license, you can issue a Reread after deleting, moving, or renaming one or all of the previously generated PCD/FCD/Config files.

8. From the DCM Main Window, right click on the **HMP_Software** device and select **Restore Device Defaults** from the **Device** submenu.

9. The Restore Device Defaults dialog box will appear, telling you what will happen when you perform the Restore Defaults action and gives you the opportunity to exit from this action. However, in this case you can click **Yes**.

10. The Assign Firmware File screen appears, which has a list of PCD files (see Figure 21). Select the PCD file (from the list in the Available Firmware box) that corresponds to your license file and then click **OK**.

   Note: You cannot select a PCD file that is of lower density than your active license. You must select the explicit PCD file generated by the corresponding license file. The resources provided by the PCD file are described in the Firmware Description box. The name of the license file corresponds to the licensed resources. For information about how license files are named, refer to Section 2.1, "Preparations", on page 13.

Figure 21. Select PCD File
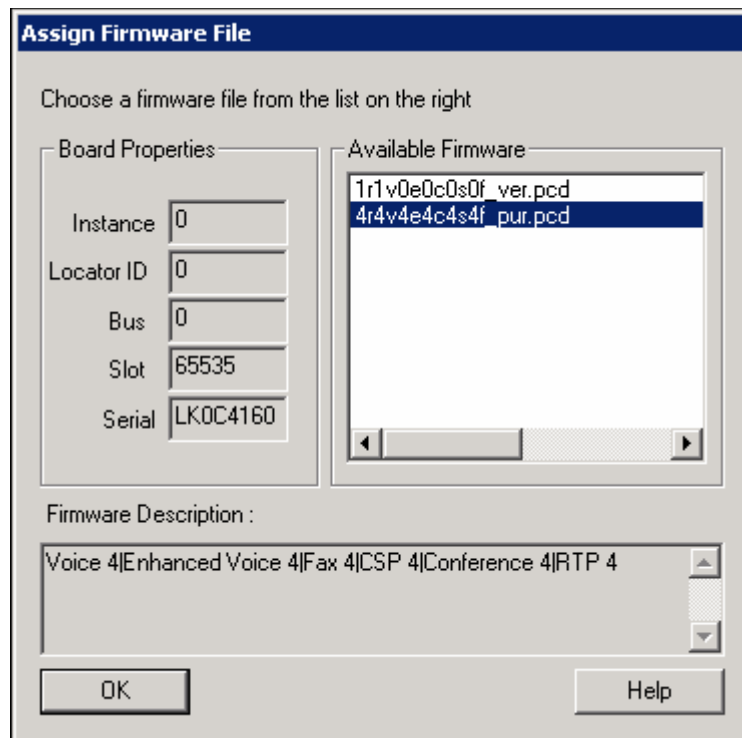
11. Start the system using the DCM. To do this you can either click the button with the green arrow on the far left in the Toolbox or use the System drop-down menu (**System > Start System**).

The status message at the bottom of the DCM Main Window will tell you when the system has started.

Command Line Interface (CLI) Reference **11**

This chapter describes the utilities and options for the command line interface (CLI) procedures.

11.1   Description

The license server manager (lmgrd) is one of two FLEXnet Licensing components which comprise a license server system (the other is the vendor daemon). The license server manager handles the initial contact with FLEXenabled applications, passing the connection on to the appropriate vendor daemon. The purpose of the lmgrd is to:

- Start and maintain all the vendor daemons listed in the VENDOR lines of the license file.
- Refer application checkout (or other) requests to the correct vendor daemon.

A newer lmgrd can be used with an older vendor daemon or FLEXenabled application, but a newer vendor daemon or FLEXenabled application might not work properly with an older lmgrd. Always use the newest version of lmgrd possible; it is available for download from *www.macrovision.com*.

This chapter describes only the utilities and options used to provide a means of performing basic licensing activities via the command line (Activating a License and Switching to a Different License). For more information, refer to Macrovision's documentation at: *http://www.macrovision.com/services/support/*. The same tasks can be performed using the License Manager graphical user interface (GUI) described in Chapter 9, "Dialogic® HMP Software License Manager GUI Reference" or the LMTOOLS GUI described in Chapter 10, "LMTOOLS Reference".

11.2   installs.exe Utility

The installs.exe utility is provided by the FLEXnet Licensing toolkit in the platform directory. The installs.exe utility can be used as a command line utility to manually install the service, or can be embedded in your end-user installation procedure to automatically install the service on behalf of the user at installation time.

Usage is as follows:

```
installs -c license_file_path \
         -e lmgrd_location \
         -l log_file_path \
```

```
-n service_name \
[-k lmgrd parameters]
```

To remove `lmgrd` as a service, use this command:

```
installs -r -n service_name
```

where:

`-c license_file_path`
Location of the license file. Path names with embedded spaces need to be enclosed in double quotes.

`-e lmgrd_location`
Location of lmgrd.exe on your system. Path names with embedded spaces need to be enclosed in double quotes.

`-l log_file_path`
Location for the debug log file. Path names with embedded spaces need to be enclosed in double quotes. The default location for the debug log file when lmgrd is started as a service is the *c:\winnt\System32* folder. To specify a different location, make sure you specify a fully qualified path.

`-n service_name`
The service name. If not specified, FLEXlm License Manager is used by default. Service names with embedded spaces need to be enclosed in double quotes.

`-k lmgrd parameters`
Used to pass additional command line arguments to lmgrd each time it is started as a service. A string of parameters with embedded spaces needs to be enclosed in double quotes. One or more of the following can be specified:

- `-local` - Restricts the lmdown command to be run only from the same machine where lmgrd is running.
- `-x lmdown` - Disables the lmdown command (no user can run lmdown).
- `-x lmremove` - Disables the lmremove command (no user can run lmremove).

See "lmgrd Command-Line Syntax" for more information on these three arguments. Other lmgrd parameters are not supported here.

`-r`
Remove service_name service.

After installs.exe is run successfully, lmgrd is installed as a Windows® service and will be started automatically each time the system is booted. If you wish to customize the installs program, the source code is included in the file *machind\installs.c*.

Troubleshooting 12

This chapter includes the following information about troubleshooting:

General Troubleshooting Information

Solutions to many problems can be found on the Dialogic Support Web site at http://www.dialogic.com/support/default.asp. In addition, check the online Release Update for the latest information about any issues, restrictions, or limitations that may affect the installation.

Problems on initial startup are typically caused by licensing/configuration errors. Hardware related problems are also a possibility. The following sections provide some information for troubleshooting these problems.

In addition, refer to the *Dialogic® Host Media Processing (HMP) Software Installation Guide* and check that all of the necessary procedures were performed.

Checking Which Features Are Installed

Ensure that you installed all the features that you need. For a list and description of all Dialogic® Host Media Processing (HMP) Software features, refer to the Dialogic® HMP Software Installation Guide.

Checking the Dialogic® HMP Software License

You must have an appropriate license for your system and setup. Review the instructions in Chapter 2, "Obtaining a License" and Chapter 3, "Activating a License" to ensure that you have followed the procedures properly.

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

The license file must be installed and activated on the computer having the Host ID (MAC address) or board with the Board Serial Number that was specified when the license was obtained. If the license file is not located on the local machine (target system), when you start the Dialogic® HMP Software (as described in Section 7.2, "Starting Dialogic® HMP Software", on page 41), it will fail and generate an error message similar to one of the following (the error message can be viewed in the Windows® Event Viewer):

```
General fault: MC_ERROR_INTERPRET_LICENSE: Failed to interpret the license key.

General fault: MC_ERROR_LICENSE_KEY_GET: Failed to obtain the license key.
```

Using Both License Management GUIs Together

Two license management graphical user interfaces (GUIs) are available for use with the Dialogic® HMP Software: the License Manager GUI and the LMTOOLS GUI. You should not, however, use both of these license management GUIs at the same time. If you do, you may experience synchronization issues.

Windows® Event Viewer

Check the Windows® Event Viewer for error and event messages. The Event Viewer can be accessed through the Dialogic® Configuration Manager (DCM).

From the DCM Main Window, click the **Log File** option from the **View** dropdown menu to display the Event Viewer. On the Event Viewer, highlight **System Log** to display the Dialogic® HMP Software system error and event messages.

Checking Hardware

Check the Release Guide to make sure that you are using boards supported by the Dialogic® HMP Software release. Ensure that each board is securely installed in its slot. Check that the correct cables are used and that they are connected properly. The Quick Install Card supplied with each board describes how to install it.

Board Detection Fails When a Board is Installed After Dialogic® HMP Software

Normally, if you install a board on a system that already has Dialogic® HMP Software installed, the "Found New Hardware Wizard" will appear after you install the board and reboot the system. In this case, all you have to do is set the "Found New Hardware Wizard" to search for and load the drivers automatically, and click **Next** and then **Finish**.

However, if the "Found New Hardware Wizard" does not appear and/or the board is not shown on the DCM main screen, you must perform the following:

1. Right click on the **My Computer** icon on your desktop.

2. Select **Properties** from the menu that appears.

3. Select the **Hardware** tab.

4. Click the **Device Manager** button.

5. On the Device Manager screen, the board that is not being detected will be shown with a (?) or (!).

6. Right click on this board and select **Update Driver** on the menu that appears.

7. The Hardware Update Wizard appears. Select "Install the Software Automatically" and click **Next** and then **Finish**.

You should now be able to detect the board using the DCM.

System Fails to Start

If you try to start the Dialogic® HMP Software and the system fails to start, then try to start the system again. If the Dialogic® HMP Software still fails to start, reboot the computer and try starting the system again.

Procedures for starting the system are given in Chapter 7, "Starting and Stopping Dialogic® HMP Software" and within the procedure for activating a license described in Chapter 3, "Activating a License".

System Fails to Start Because of Licensing

If you try to start the Dialogic® HMP Software and the system fails to start because of licensing, then perform the following:

1. Delete the existing PCD, FCD, and Config files. They are in *c:\Program Files\Dialogic\hmp\data*. The file extensions are *.pcd*, *.fcd*, and *.config*.

2. Start the LMTOOLS utility by running *lmtools.exe*, which is located in *c:\Program Files\Dialogic\hmp\bin*. On the initial Service/License File screen, Figure 11, check that

Configuration using Services is selected and Dialogic® HMP Software License Manger is selected in the box.

3. Click the **Start/Stop/Reread** tab to display the Start/Stop/Reread screen.

4. Click the **Stop Server** button (changes status to Stopping Server).

   Note: If this message does not clear in a few seconds, proceed to the next step.

5. Click the **Start Server** button.A status message (Server successfully started) tells you when this action has been completed.

6. Click the **ReRead** button.

   Note: During normal license activation, you do not need to click the **ReRead** button. However, in this case you are using the **ReRead** button to forcefully recreate PCD/FCD/Config files.

7. From the DCM Main Window, right click on the **HMP_Software** device and select **Restore Device Defaults** from the **Device** submenu.

8. The Restore Device Defaults dialog box will appear, telling you what will happen when you perform the Restore Defaults action and gives you the opportunity to exit from this action. However, in this case you can click **Yes**.

9. Start the system using the DCM. To do this you can either click the button with the green arrow on the far left or use the System drop-down menu (**System > Start System**). See Figure 21.

License Fails with Boards

If the license you are using fails with the supported Dialogic® DNI or DSI boards in your system, then perform the following:

1. Check license file to make sure there is a supported Dialogic DNI or DSI board included.

2. Run

   ```
   lmutils lmpath -status
   ```

3. If there are files listed, then you need to follow a procedure similar to the one given in Section 3.4, "Activating a License with the Intel VTune Performance Analyzer Installed", on page 25. The next few steps in this procedure summarize what to do and provide the steps specific to this problem, but you can find more details in the VTune procedure.

4. Cut and paste Dialogic® HMP Software license into first file in ilmpath list.

5. Delete the existing PCD, FCD, and Config files. They are in *c:\Program Files\Dialogic\hmp\data*. The file extensions are *.pcd*, *.fcd*, and *.config*.

6. Start the LMTOOLS utility from the DOS command prompt: **C:\Program Files\Dialogic\HMP\bin\lmtools.exe**. On the initial Service/License File screen, Figure 11,

check that Configuration using Services is selected and Dialogic® HMP Software License Manger is selected in the box.

7. Click the **Start/Stop/Reread** tab to display the Start/Stop/Reread screen.

8. Click the **Stop Server** button (changes status to Stopping Server).

   Note: If this message does not clear in a few seconds, proceed to the next step.

9. Click the **Start Server** button.A status message (Server successfully started) tells you when this action has been completed.

10. Click the **ReRead** button.

    Note: During normal license activation, you do not need to click the **ReRead** button. However, in this case you are using the **ReRead** button to forcefully recreate PCD/FCD/Config files.

11. Verify that a license is tied to the board. The keyword "HEB" needs to be in the HOSTID fields of the license file; that is, "`HOSTID=HEB=...`".

System Starts But Voice Does Not Work

On a system that includes one or more supported boards, if you are able to start the Dialogic® HMP Software, but voice does not work, then perform the following:

1. If the DCM is not open, open it from the Start menu (**Start > Program Files > Dialogic HMP > Configuration Manager - DCM**).

2. On the DCM Main Window, highlight the supported Dialogic DNI or DSI board and select **Configure device** from the **Device** drop-down menu (or click the button with.the wrench shape on it).

3. Select the **Bridge Device Configuration** tab.

4. Check the **BridgeDeviceStatus** parameter on the Bridge Device Configuration property page. Make sure that the **BridgeDeviceStatus** parameter either "Started" or "HMPClockMaster."

5. If the parameter is not "Started" or "HMPClockMaster", try starting the system again.

System Fails to Start After Switching to New License with Same Name

If you switch from using one license to using another license that has the same name, make sure that each license is located in a different directory or the system will fail to start.

The DebugView tool located at http://www.sysinternals.com/Utilities/DebugView.html shows an error message if the identically named license files are in the same directory and you try to switch from one to the other and then start the system. Here is an example of an error message:

```
checkout() threw CLicenseException: Error: 11075584: FlexLM Function
'lc_checkout()' returned error: (-9) Invalid host.
```

LMTOOLS Utility Fails on Windows® XP Service Pack 2 Systems.

The LMTOOLS utility may fail on systems running Windows® XP with Service Pack 2 if you select the System Settings tab. To avoid this problem, you must turn Data Execution Prevention (DEP) off as described in Section 10.3, "Turning DEP Off for the LMTOOLS Utility (Windows® XP SP2 Only)", on page 56.

Hostid Cannot be Verified by LMTOOLS Diagnostics

When you click the **Perform Diagnostics** button on the **Server Diags** tab of the LMTOOLS utility (see Figure 22), one of the messages that appears says that there is something wrong with the hostid, even when the license is valid. Valid licenses still check out and Dialogic® HMP Software starts as expected, and bad licenses still fail to start; only this diagnostic is wrong. Because the hostid is vendor-specific from the point of view of the LMTOOLS diagnostic utility, the LMTOOLS diagnostic utility cannot validate the hostid.

Figure 22. Server Diags Tab of LMTOOLS Utility
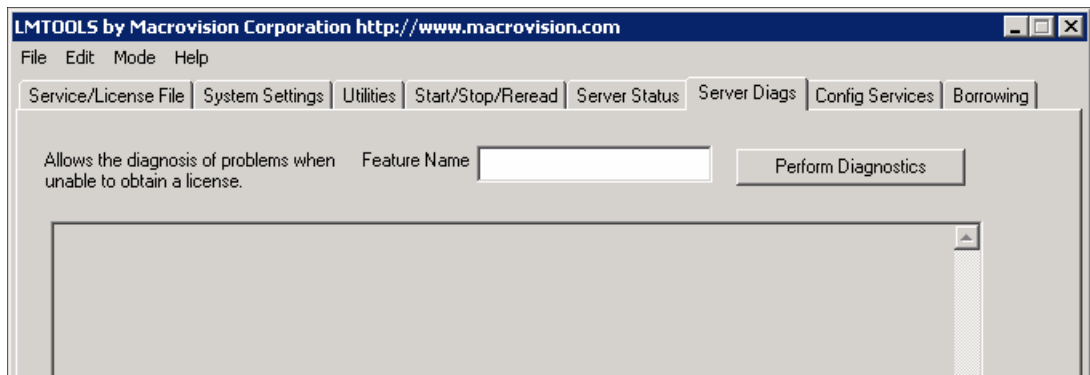
Error Message: ["[1220] <DSS> RunProgsInKey : CreateProcess FATAL ERROR : ClusterPkg.exe -LClusterPkg.log"]

If you get the following error message:

```
["[1220] <DSS> RunProgsInKey : CreateProcess FATAL ERROR : ClusterPkg.exe
-LClusterPkg.log"]
```

then reboot the computer because a possible time slot leak caused the time slots to run out.

DebugView Log Messages to Ignore

You can ignore the following DebugView log messages:

```
[FATAL_UTIL_EDD] eed.c 368: EED: PoolId not found size:80000
```

```
[2668] NCMMgr::checkDSSstate - OpenEvent on PnPDetection Event failed,
last error = 5

[3004] [DM3Config](5036): Parse Arguments: Invalid argument: <t>
[3004] [DM3Config](5036): Parse Arguments: Failure in parsing arguments

IoGetDeviceObjectPointer() failed with status = 0xc0000034

  openNetDeviceAndGrabMACAddress() failed with status = 0xc0000034  for
dev

KMBC.SYS:  ERROR - KMBC_BRIDGE_STATUS Failed (pos=2,status=0xc000000d).

KMBC.SYS:  CLOCK STATE CHANGE (KMBC_CLOCK_MASTER --> KMBC_CLOCK_FAILED).

KMBC.SYS:  commandq_Push
(index=2,aid=KMBC_ACTION_MASTER_FAILED,bid=50002).

KMBC.SYS:  commandq_Pop (aid=KMBC_ACTION_MASTER_FAILED, bid=50002).

KMBC.SYS:  Processing Action (KMBC_ACTION_MASTER_FAILED).

KMBC.SYS:  CLOCK STATE CHANGE (KMBC_CLOCK_FAILED -->
KMBC_CLOCK_INTERNAL).
```

Errors Using Dialogic® HMP Software with RealSpeak 4.0

Using Dialogic® HMP Software and RealSpeak 4.0 software in the same chassis may result in an error because both products use the FLEXnet Licensing System from Macrovision Corp. Because the port IDs are not specified for each system, the FLEXnet Licensing System automatically uses the first available TCP/IP port in the range of 27000 – 27009. An error results because Dialogic® HMP Software and RealSpeak 4.0 systems are assigned to use the same first 27000 port.

To avoid this problem, modify the Dialogic® HMP Software licensing file to assign an alternative TCP/IP port explicitly for Dialogic® HMP Software licensing. The following example shows the modified licensing file. Notice that the first line specifies a 27007 port number, which will be used for the Dialogic® HMP Software licensing.

```
SERVER this_host ANY 27007
VENDOR Dialogic
FEATURE Voice Dialogic 3.0 permanent 60 \
VENDOR_STRING=LIC_TYPE=Purchased,APP=HMP,HOSTID=3000E0C2DE3F6 \
HOSTID=000e0c2de3f6 vendor_info=Vendor_Info TS_OK \
SIGN=E23EFAF66198
FEATURE Enhanced_RTP Dialogic 3.0 permanent 60 \
VENDOR_STRING=LIC_TYPE=Purchased,APP=HMP,HOSTID=3000E0C2DE3F6 \
HOSTID=000e0c2de3f6 vendor_info=Vendor_Info TS_OK \
SIGN=474711B09D54…
```

Glossary

Board Serial Number: The serial number of a Dialogic® Host Media Processing (HMP) Software compatible board is used to lock the Dialogic® HMP Software license to a system with boards in it. If you are ordering a permanent, trial, or replacement license, you must provide a Board Serial Number to the Dialogic authorized dealer from whom you purchase the license. If there are multiple Dialogic® HMP Software compatible boards in a system, only one of the serial numbers is used – it does not matter which one. For boardless systems, a Host ID (MAC address) is used. See Host ID for details.

DHCP: Dynamic Host Configuration Protocol

Dynamic Host Configuration Protocol: A TCP/IP protocol that enables PCs and workstations to get temporary or permanent IP addresses from centrally-administered servers. DHCP allows a server to dynamically assign IP addresses to workstations on the fly.

Evaluation License: See HMP Software License for general information. An evaluation 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

HMP: Host Media Processing

HMP Software License: HDialogic® HMP Software is licensed using an industry-standard model in which a Host ID (MAC address) or Board Serial Number is used to node-lock the software to a particular computer. Before you use the Dialogic® HMP Software, you must obtain a license file containing Dialogic® HMP Software license data. A Dialogic® HMP Software license is a file containing a combination of call control and media processing channels. You can obtain a license file either before or after you install the Dialogic® HMP Software, but you need to obtain a license file before you can proceed with using the Dialogic® HMP Software. The types of licenses are defined individually: evaluation, purchased, trial, verification, and replacement.

Host ID: The MAC address used to obtain a license is referred to as the Host ID. If your Dialogic® HMP Software system has no boards in it and you want to order a purchased, trial, or replacement license, you must provide the MAC address of the computer on which you plan to install the Dialogic® HMP Software. See MAC Address.

Host Media Processing: Dialogic® Host Media Processing Software performs media processing tasks on general-purpose servers based on Dialogic® architecture without the use of specialized hardware. When installed on a system, the software looks like a Dialogic® board with Dialogic® DM3 architecture to the customer application, but all media processing takes place on the host processor.

MAC Address: A unique 48-bit number programmed into each network interface card when it is manufactured. This number is required when you request a trial or purchased license.

Network Interface Card: A board in a computer that provides a physical connection to a network.

NIC: Network Interface Card

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

Replacement License: See the Dialogic® HMP Software License for general information. In some situations, you might need to get a replacement license. For example, if you need to move the Dialogic® HMP Software application to a different system due to a hardware failure, you will need a replacement license. To obtain a replacement license, you must contact the Dialogic authorized distributor or Dialogic account manager from whom you requested the original license.

Simple Network Management Protocol: A a standard IP network mechanism for exchanging management information between an SNMP agent and an SNMP manager. SNMP was designed to manage routers, switches and other network devices. SNMP provides an industry standard protocol for fault and monitoring support.

SNMP: Simple Network Management Protocol

SNMP Agent: The SNMP agent provides remote (or local) monitoring and limited control of Dialogic® devices over an IP network. The SNMP agent resides on an IP stack and responds to SNMP "gets" and "sets" from an SNMP manager and the SNMP agent sends SNMP traps.

SNMP Component Manager: The SNMP manager is the management application that monitors and/or administers a remote system. management application, you must use a third-party product such as HP OpenView or any other SNMP-compliant network management application.

Trial License: See the Dialogic® HMP Software License for general information. Like an evaluation license, a trial license is free, expires after a specified time period, 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 channel component combination. Because of this customization, you will need to request this license from a Dialogic authorized dealer and supply a Host ID (MAC address) or Board Serial Number.

Verification License: See the Dialogic® HMP Software License for general information. 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. Verification consists of running a demo (IP Media Server Demo).

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