



Factory Image Restoration Procedures

Technical Reference

Interaction Application Server

Customer Interaction Center® (CIC™) Packaged Server

Interaction Media Server™ Appliance

SQL Server (HP ProLiant Gen8)

Version 4.0

Last updated May 4, 2018

(See [Change Log](#) for summary of changes made to this document since GA.)

Abstract

This document describes the procedures required to restore the factory image (operating system and/or any PureConnect software) using the Interaction Recovery Environment from a USB flash drive embedded inside the system. DC-900-4.0-RESTPROC-03

Table of Contents

Interaction Center Platform® Statement.....	3
How do I know if I have a documented feature?	3
Factory Image Restoration Procedures.....	4
Packaged Servers Available for Factory Image Restoration	4
Additional Information.....	4
PureConnect Documentation Library	4
PureConnect Testlab Site	5
Recovery Tasks	5
Verify RAID configuration.....	5
Delete and redefine array configuration.....	7
Restore factory defaults.....	9
Capture and Restore a Configured State	11
Capture the Current System State	11
Restore a Captured System State.....	14
Appendix A: Screen Examples	16
Appendix B: Interaction Recovery Messages	18
Successful restore or capture messages	18
Unsuccessful restore or capture messages.....	18
Change Log	19
Copyright and Trademark Information.....	20

Interaction Center Platform® Statement

This document may describe Interaction Center (IC) features that are not available or licensed in your IC product. Multiple products are based on the Interaction Center Platform, and some features are disabled or unavailable in some products.

Products based on the PureConnect Platform include:

- Customer Interaction Center® (CIC)
- Messaging Interaction Center™ (MIC™)

Since these products share some common features, this document is intended for use with all IC products, unless specifically stated otherwise on the title page or in the context of the document.

How do I know if I have a documented feature?

Here are some indications that the documented feature is not currently licensed or available in your version:

- The menu, menu item, or button that accesses the feature appears grayed-out.
- One or more options or fields in a dialog box appear grayed-out or do not appear at all.
- The feature is not selectable from a list of options.

If you have questions about feature availability, contact your vendor regarding the feature set and licenses available in your version of this product.

Factory Image Restoration Procedures

This technical reference explains how to restore packaged server devices to factory default settings using Interaction Recovery software stored on a USB drive embedded in the server case. This internal USB flash drive replaces System Recovery discs previously distributed for this purpose. Bundling USB media inside the system ensures that the software is always available, should the system need to be recovered.

Several situations may impact the need to restore factory defaults. For example, you might want to start with a clean software configuration before repurposing or extensively overhauling the configuration of a server. Or, recovery may be necessary due to replacement of hard drives, or recommended by a support associate.

If possible, back up your license files before recovering the server. You may also want to make copies of logs and recordings before recovering, if those are pertinent to a support case.

Packaged Servers Available for Factory Image Restoration

The Factory Image Restoration procedures outlined in this document are available for the following packaged servers:

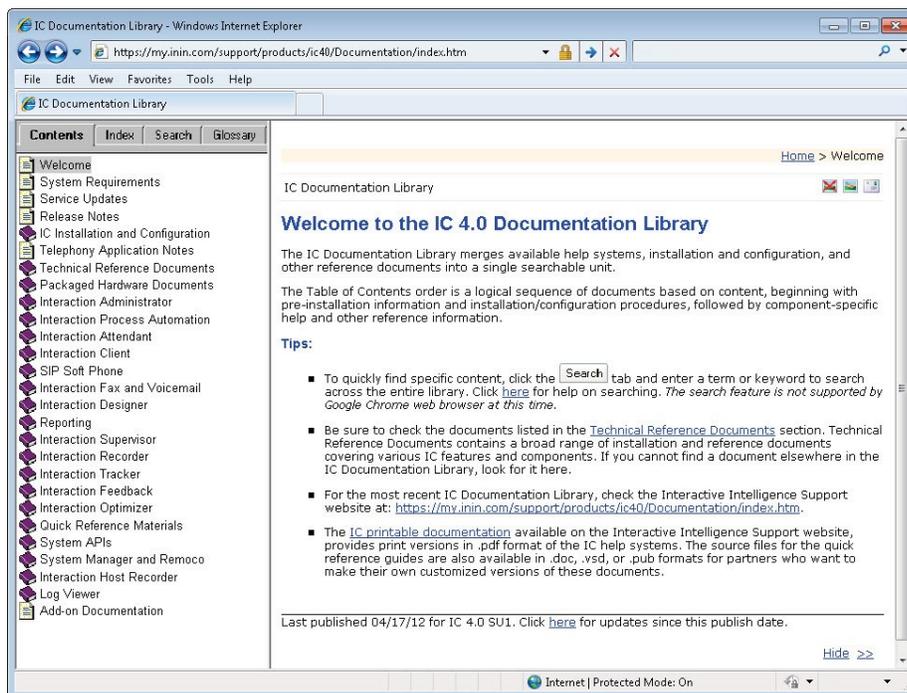
Packaged Server	Part Number
Interaction Application Server 360 Medium	TH-900-4.0-HPIAS3608M-CP-B01
Interaction Application Server 360 Large	TH-900-4.0-HPIAS3608L-CP-B01
Interaction Application Server 380	TH-900-4.0-HPIAS3808-CP-B01
Interaction Media Server 4.0 Medium Appliance	SY-014-4.0-MSAM8-CP-B01
Interaction Media Server 4.0 Large Appliance	SY-014-4.0-MSAL8-CP-B01
SQL Server	SY-014-4.0-SQLXL-CP-B01
Customer Interaction Center Packaged Server 4.0	TH-900-4.0-CICL-CP-B01

Additional Information

For more information about Factory Image Restoration Procedures and related packaged servers, see the documents and website pages listed in this section.

PureConnect Documentation Library

The PureConnect Documentation Library merges all help systems and documentation installed on the CIC server into a single searchable unit. You can view or search the entire documentation set for a document title, topic, term, or keyword. Factory Image Restoration Procedures and related packaged server installation and configuration guides are located in the Packaged Hardware Documents section of the PureConnect Documentation Library at: https://help.genesys.com/cic/desktop/welcome_page.html.



PureConnect Testlab Site

The PureConnect Testlab site at <http://testlab.inin.com/> is a resource for tracking hardware and software components recommended for use with PureConnect products, tested and approved by Genesys.

Recovery Tasks

Recovering factory default settings involves three tasks:

1. Confirm the device's RAID configuration matches the factory settings. This task is particularly important if drives have been replaced.
2. If necessary, delete and redefine the disk array configuration.
3. Restore factory defaults by running the Interaction Recovery utility. To perform this task, you may perform a one-time boot override or modify the BIOS boot sequence to boot from the USB drive instead of RAID.

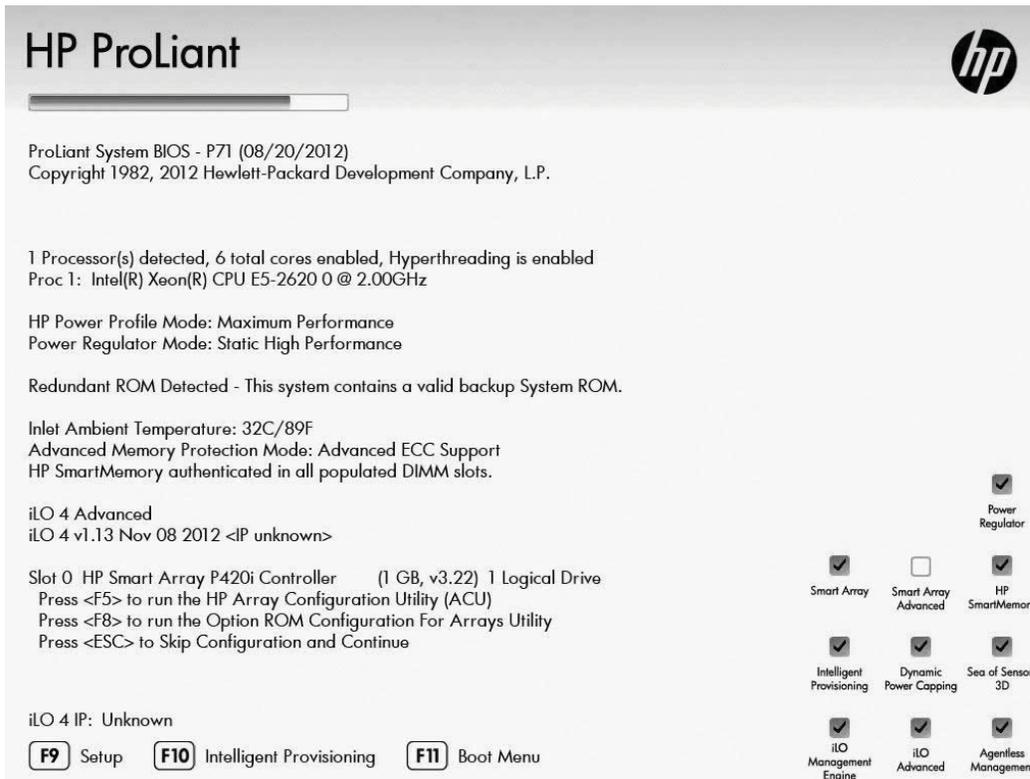
Procedures for each task follow. All procedures apply to **Gen8 4.0 platforms** only. To obtain hardware specifications for your packaged server, contact GlobalLogistics@genesys.com.

Verify RAID configuration

Before you reimagine a server, ensure the server's RAID configuration matches the default configuration required to restore factory settings.

To confirm RAID configuration:

1. Boot the device. The HP ProLiant Power-On Self-Test (POST) begins. When prompted, press **F8** to run the **Option ROM Configuration For Arrays Utility**.



2. The RAID BIOS Main Menu opens (see Appendix A, Figure 1).
3. Select **View Logical Drive** and press **Enter** (See Appendix A, Figure 2).
4. Verify that the RAID configuration matches the settings required for the device, according to your server's configuration requirements listed in the table below.

Device Type	RAID Configuration Requirements	
Interaction Application Server	Based on your server model, verify the existence of the logical drive on the device. If the required logical drive exists, and the status is OK, no further configuration is needed.	
	Proceed to Restore Factory Defaults .	
	If the required logical drive configuration does not exist, or the status is not OK, you must delete the current array configuration and recreate it. Proceed to Delete and redefine array configuration .	
	Model	RAID Configuration
	360 Gen8 Medium	Single RAID 1+0 logical drive, consisting of 4 HDDs
360 Gen8 Large	Single RAID 1+0 logical drive, consisting of 4 HDDs	
380 Gen8	Single RAID 1+0 logical drive, consisting of 8 HDDs	

Device Type	RAID Configuration Requirements	
Interaction Media Server™	<p>Based on your server model, verify the existence of the logical drive on the device. If the required logical drive exists, and the status is OK, no further configuration is needed.</p> <p>Proceed to Restore Factory Defaults.</p> <p>If the required logical drive configuration does not exist, or the status is not OK, you must delete the current array configuration and recreate it. Proceed to Delete and redefine array configuration.</p>	
	Model	RAID Configuration
	360 Gen8 Medium	Single RAID 1+0 logical drive, consisting of 4 HDDs
360 Gen8 Large	Single RAID 1+0 logical drive, consisting of 4 HDDs	
Customer Interaction Center® (CIC™)	<p>Based on your server model, verify the existence of the logical drive on the device. If the required logical drive exists, and the status is OK, no further configuration is needed.</p> <p>Proceed to Restore Factory Defaults.</p> <p>If the required logical drive configuration does not exist, or the status is not OK, you must delete the current array configuration and recreate it. Proceed to Delete and redefine array configuration.</p>	
	Model	RAID Configuration
	360 Gen8	Single RAID 1+0 logical drive, consisting of 4 HDDs
SQL Server	<p>Verify the existence of two RAID 1+0 logical drives, the first containing 2 HDDs and the second, 6 HDDs.</p> <p>If two RAID 1+0 logical drives already exist and their status is "OK", no further configuration is needed. Proceed to Restore Factory Defaults.</p> <p>If one or both of the RAID 1+0 logical drives do not exist or the status is not "OK," you must delete the current array configuration and recreate it. Proceed to Delete and redefine array configuration.</p>	
	Model	RAID Configuration
	380 Gen8	One RAID 1+0 logical drive consisting of 2 HDDs, and one RAID 1+0 logical drive consisting of 6 HDDs

Delete and redefine array configuration

To delete and redefine an existing RAID because its configuration is invalid or does not match required settings:

1. Select **Delete Logical Drive** from the RAID BIOS Main Menu and press **Enter**.
2. Select an existing drive array, and then press **F8** to delete it. Press **F3** to confirm.

Note: Once you confirm the delete operation, all data will be removed from the logical drive. No data can be recovered after this operation.

3. Repeat the procedure to delete all drive arrays.
4. When all arrays have been deleted, you can redefine them. Select **Create a Logical Drive** from the RAID BIOS Main Menu and press **Enter**.
5. Follow the steps in the table below, using the configuration requirements for your particular server, to recreate the array configuration required by the device (see Appendix A, Figure 3).

Device Type	RAID Configuration Steps	
Interaction Application Server	Recreate logical drives to match the RAID configuration for the model you are using:	
	Model	RAID Configuration
	360 Gen8 Medium	Single RAID 1+0 logical drive, consisting of 4 HDDs
	360 Gen8 Large	Single RAID 1+0 logical drive, consisting of 4 HDDs
	380 Gen8	Single RAID 1+0 logical drive, consisting of 8 HDDs
<ol style="list-style-type: none"> 1. Create the required Logical Drive Array by selecting its physical drives with an [X]. 2. Press TAB to select <i>RAID Configuration</i>. Choose RAID 1+0. 3. Press Enter to save changes. Then press the function key (F8) assigned by the drive controller to save a configuration. This key is identified on screen. <p>When you are finished, the configuration should match the RAID Configuration for the model you have</p>		

Device Type	RAID Configuration Steps	
Interaction Media Server™	Recreate logical drives to match the RAID configuration for the model you are using:	
	Model	RAID Configuration
	360 Gen8 Medium	Single RAID 1+0 logical drive, consisting of 4 HDDs
	360 Gen8 Large	Single RAID 1+0 logical drive, consisting of 4 HDDs
	<ol style="list-style-type: none"> 1. Create the required Logical Drive Array by selecting its physical drives with an [X]. 2. Press TAB to select <i>RAID Configuration</i>. Choose RAID 1+0. 3. Press Enter to save changes. Then press the function key (F8) assigned by the drive controller to save a configuration. This key is identified on screen. <p>When you are finished, the configuration should match the RAID Configuration for the model you have.</p>	
Customer Interaction Center®	Recreate logical drives to match the RAID configuration for the model you are using:	

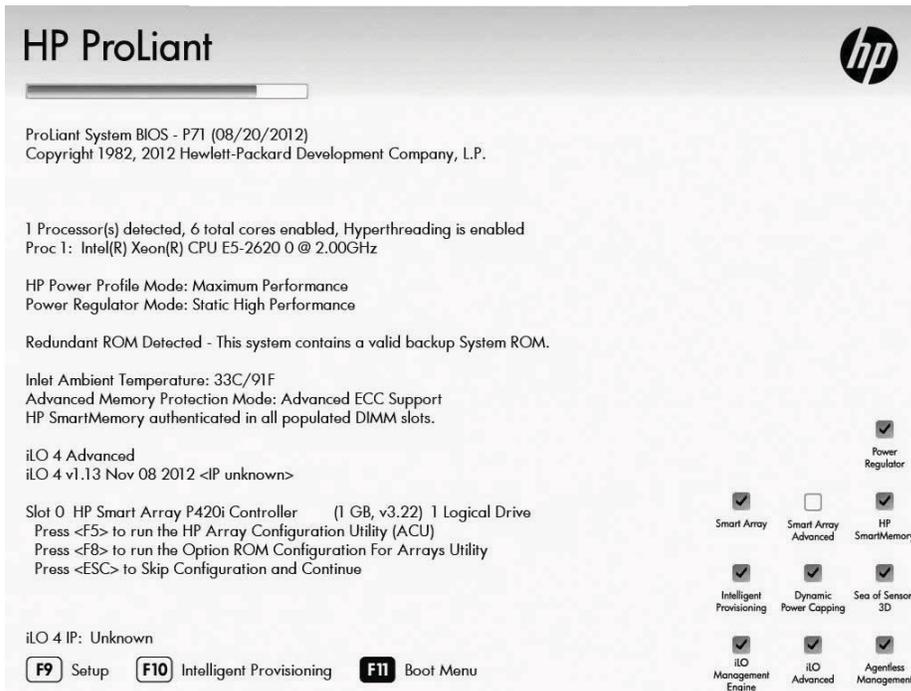
Device Type	RAID Configuration Steps	
(CIC™)	Model	RAID Configuration
	360 Gen8	Single RAID 1+0 logical drive, consisting of 4 HDDs
	<ol style="list-style-type: none"> 1. Create the required Logical Drive Array by selecting its physical drives with an [X]. 2. Press TAB to select <i>RAID Configuration</i>. Choose RAID 1+0. 3. Press Enter to save changes. Then press the function key (F8) assigned by the drive controller to save a configuration. This key is identified on screen. <p>When you are finished, the configuration should match the RAID Configuration for the model you have.</p>	
SQL Server	Recreate logical drives to match the RAID configuration for the model you are using:	
	Model	RAID Configuration
	380 Gen8	One RAID 1+0 logical drive consisting of 2 HDDs, and one RAID 1+0 logical drive consisting of 6 HDDs.
<ol style="list-style-type: none"> 1. Create each required Logical Drive Array by selecting its physical drives with an [X]. Unselect all other physical drives by selecting them and pressing the space bar. 2. Press TAB to select <i>RAID Configuration</i>. Choose RAID 1+0. 3. Press Enter to save changes. Then press the function key (F8) assigned by the drive controller to save a configuration. This key is identified on screen. <p>When you are finished, the configuration should match the RAID Configuration for the model you have.</p>		

Restore factory defaults

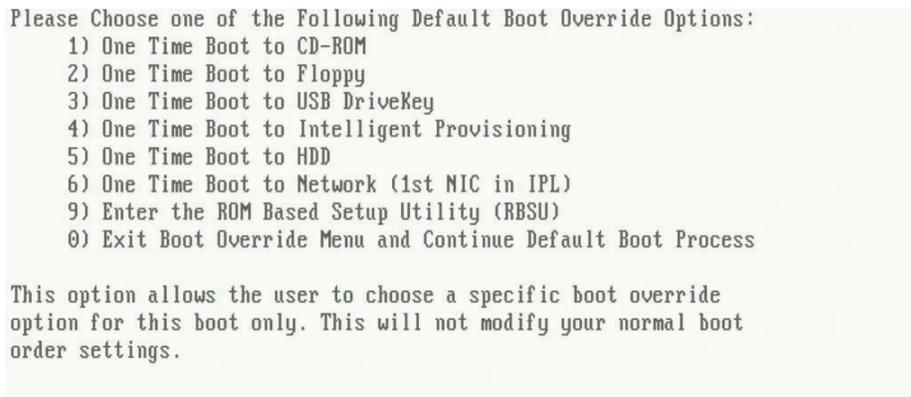
If you properly configured the RAID, you can restore the device to factory settings. The reimaging software resides on an internal USB flash drive. To access the internal drive, modify the BIOS boot sequence to boot from the USB drive instead of RAID, or perform a one-time boot override described in the following steps.

To restore factory defaults

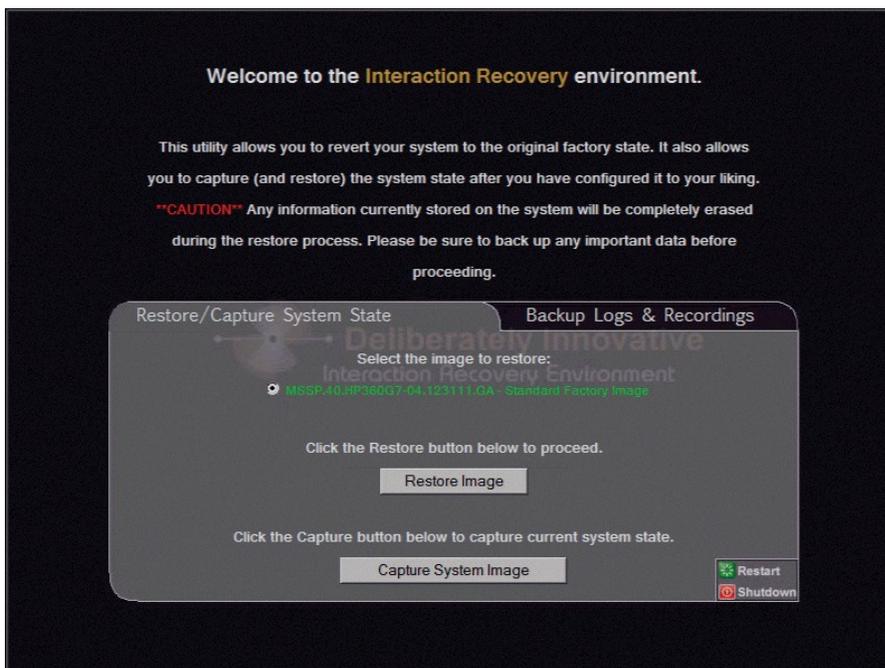
1. Reboot your machine. The HP ProLiant Power-On Self-Test (POST) runs. Press **F11** to enter the **Boot Menu**.



2. Select 3) One Time Boot to USB DriveKey.



3. Wait for the system to boot. When the system completes the restart process, the **Welcome to the Interaction Recovery Environment** screen appears.



4. Ensure that the **Standard Factory Image** is selected and then click **Restore Image**.
5. The system requests confirmation of the recovery operation. Click **Confirm** to proceed.
6. Wait while the device is reset to factory defaults. This can take several minutes. The process is complete when "**Factory reversion complete.**" appears.
7. Click **Restart** in the lower right corner of the page.
8. Select **Yes** to confirm that you want to restart.

Capture and Restore a Configured State

Depending on your server model, you can capture and restore a system state after you have a working configuration in place. Use the **Capture System Image** feature to create an image of the current system state, excluding recordings and logs, and save it on the internal USB flash drive. It is recommended to capture a system image immediately after you have a working configuration in place.

Capture the Current System State

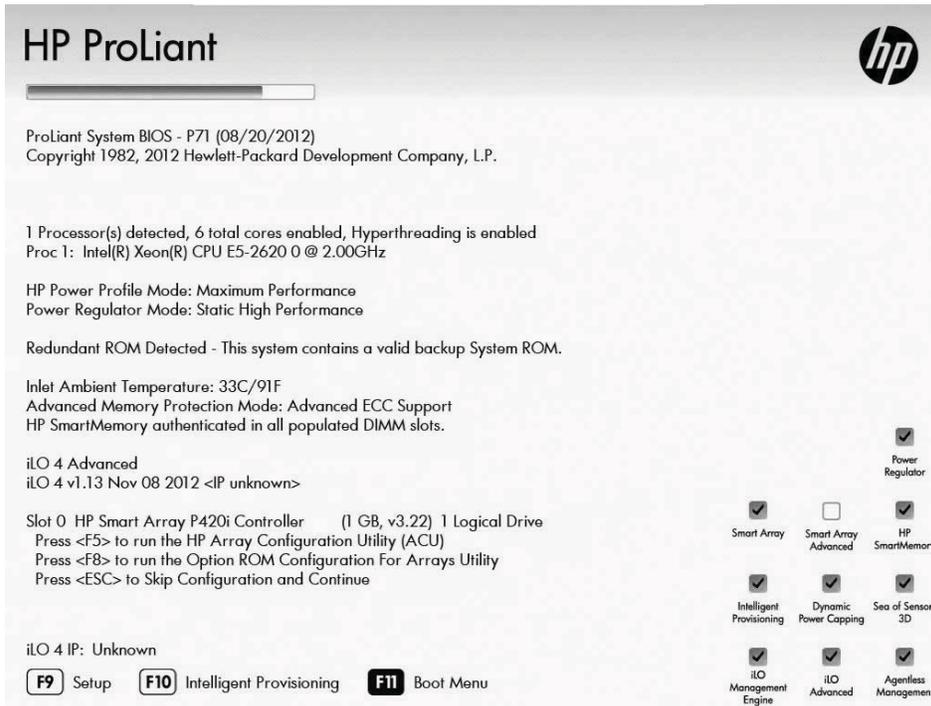
Note For Interaction Media Server and Customer Interaction Center Server: The capture process does NOT save recordings and logs; therefore, we strongly recommend that you back up your recordings and logs before you capture a system image.

Note For Interaction Application Server and SQL Server: The capture process saves the OS partition ONLY; therefore, we strongly recommend that you backup any data which might be needed after restoring this user-configured image in the future.

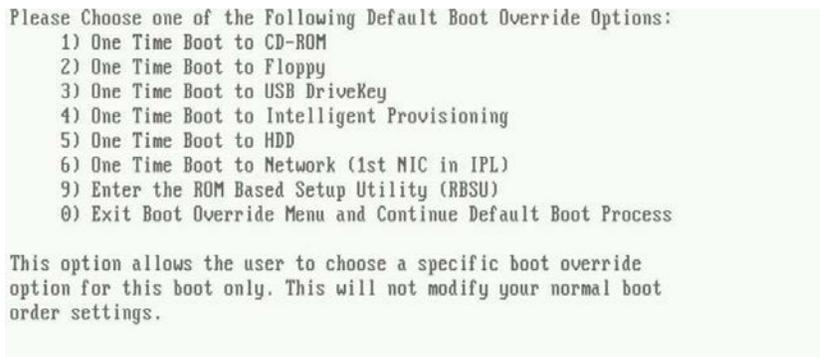
Note: The capture process saves only ONE system state capture. Capturing the current system state will overwrite any previous system state captures.

To capture the current system state:

1. Reboot your machine. The HP ProLiant Power-On Self-Test (POST) runs. Press **F11** to enter the **Boot Menu**.



2. Select 3) One Time Boot to USB DriveKey.

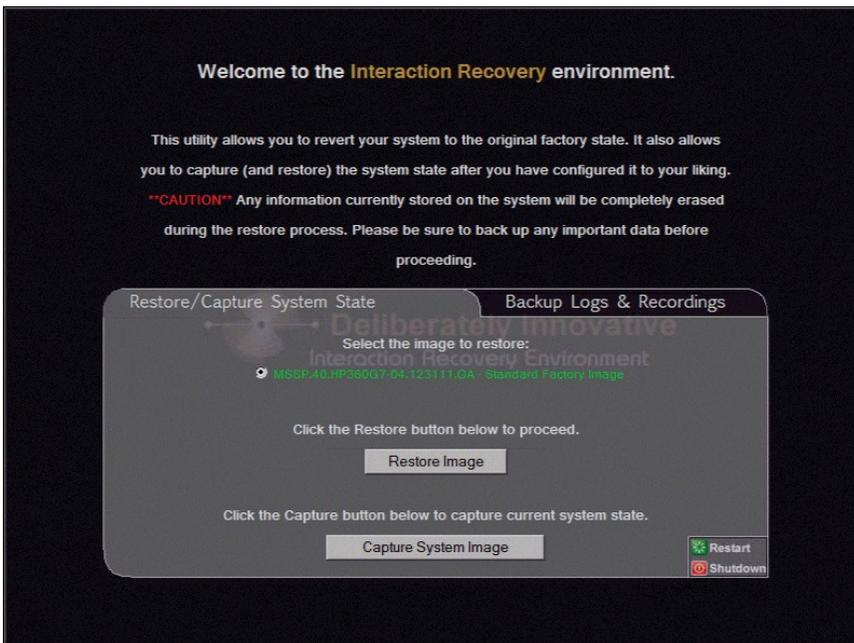


3. Wait for the system to boot. When the system completes the restart process, the

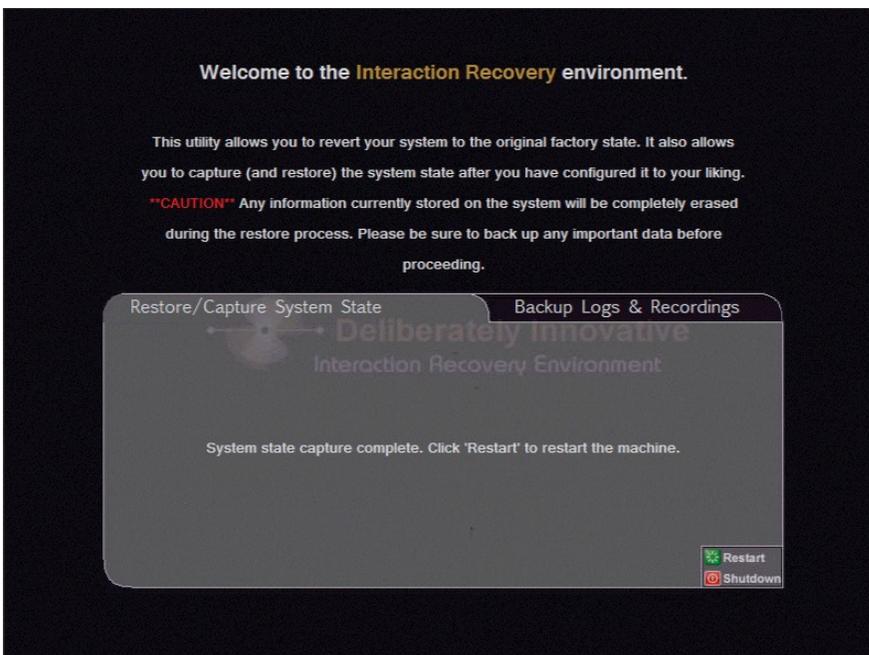
Welcome to the Interaction Recovery Environment screen appears.

Note For Interaction Media Server and Customer Interaction Center Server: The capture process does NOT save recordings and logs; therefore, we strongly recommend that you back up your recordings and logs before you capture a system image.

Note For Interaction Application Server and SQL Server: The capture process saves the OS partition ONLY; therefore, we strongly recommend that you back up any data which might be needed after restoring this user-configured image in the future.



4. Click **Capture System Image** and follow the prompts on the screen to save the current configuration.
5. The system requests confirmation of the system image capture operation. Click **Confirm** to proceed.
6. Wait while the current system state is captured. This can take a while.



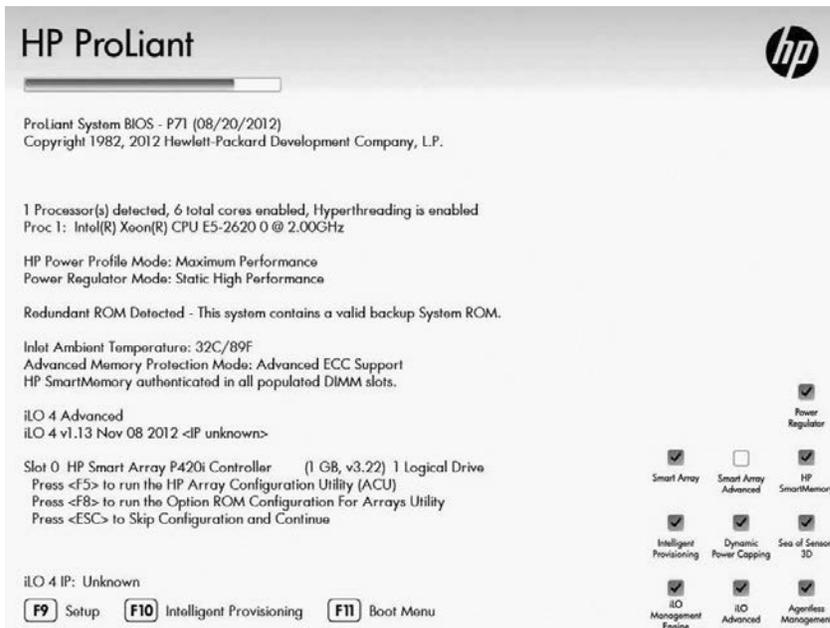
7. When the System state capture complete. Click "Restart" to restart the machine message appears, click **Restart** to reboot your machine and complete the process.
8. Select **Yes** to confirm that you want to restart.

Restore a Captured System State

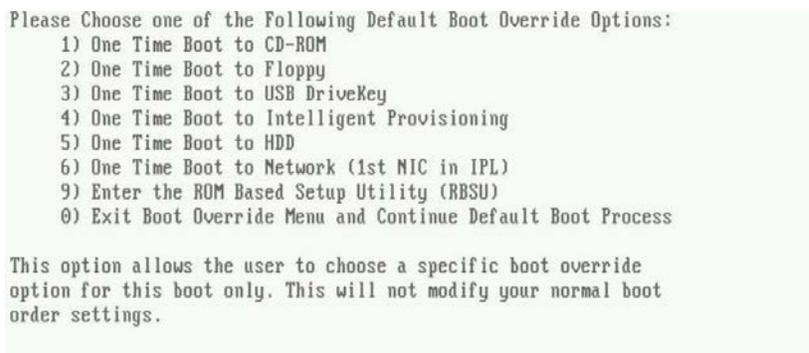
Note: The restore process erases **ALL** information currently stored on the server; therefore we strongly recommend you back up recordings, logs, and other critical files before you restore a system image (if possible).

To restore a previously captured state:

1. Reboot your machine. The HP ProLiant Power-On Self-Test (POST) runs. Press **F11** to enter the **Boot Menu**.



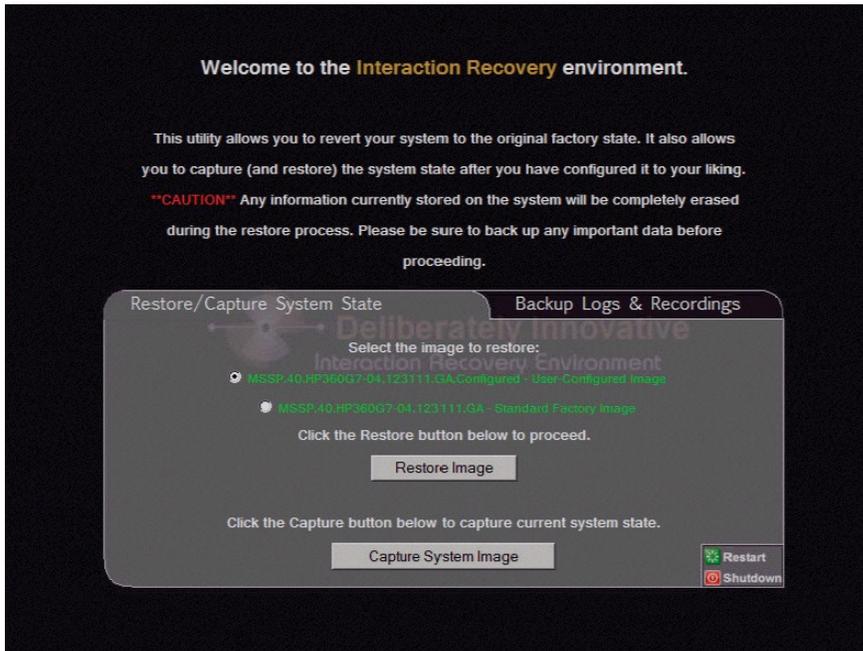
2. Select 3) One Time Boot to USB DriveKey.



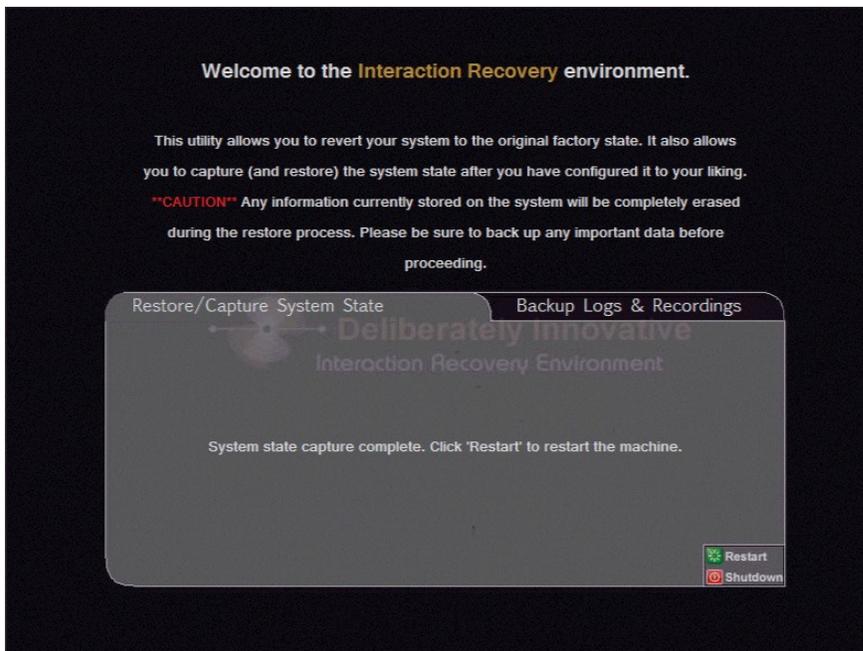
3. Wait for the system to boot. When the system completes the restart process, the

Welcome to the Interaction Recovery Environment screen appears.

Note: The restore process erases **ALL** information currently stored on the server; therefore we strongly recommend you back up recordings, logs, and other critical files before you restore a system image (if possible).



4. In the **Select the image to restore** area, select the **User Configured Image** to which you want to restore the computer and then click **Restore Image**.
5. The system requests confirmation of the image restore operation. Click **Confirm** to proceed.
6. Wait while the user configured image is restored. This will take several minutes.
7. When the System state capture complete. Click "Restart" to restart the computer.
8. message appears, click **Restart** to reboot your computer and complete the process.



9. Select **Yes** to confirm that you want to restart.

Appendix A: Screen Examples

This appendix shows example screens from various steps in the recovery process.

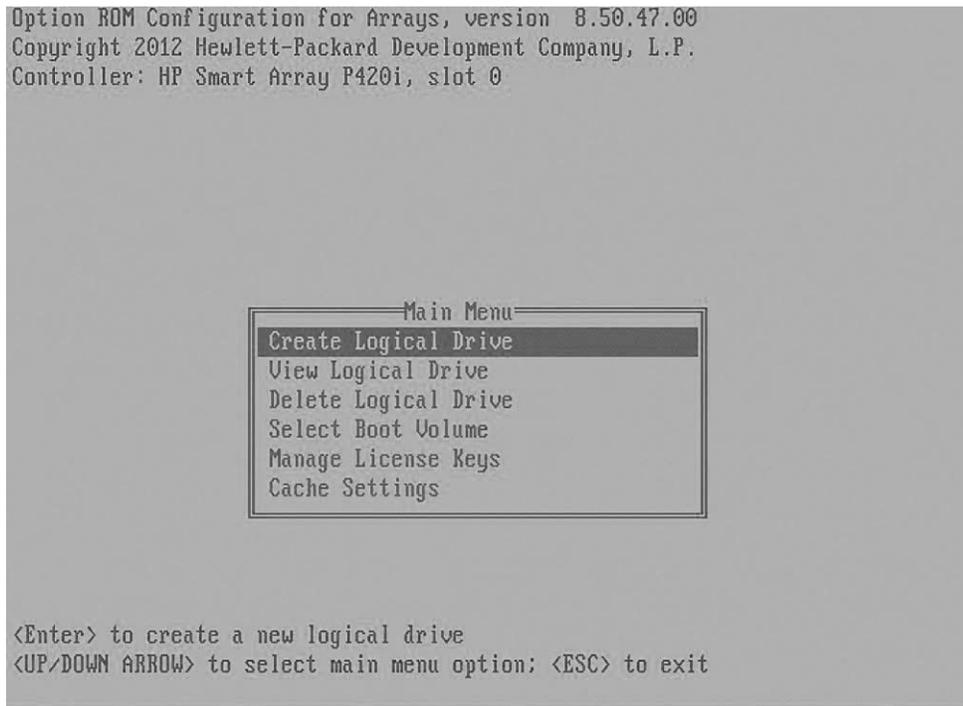


Figure 1: RAID BIOS Main Menu

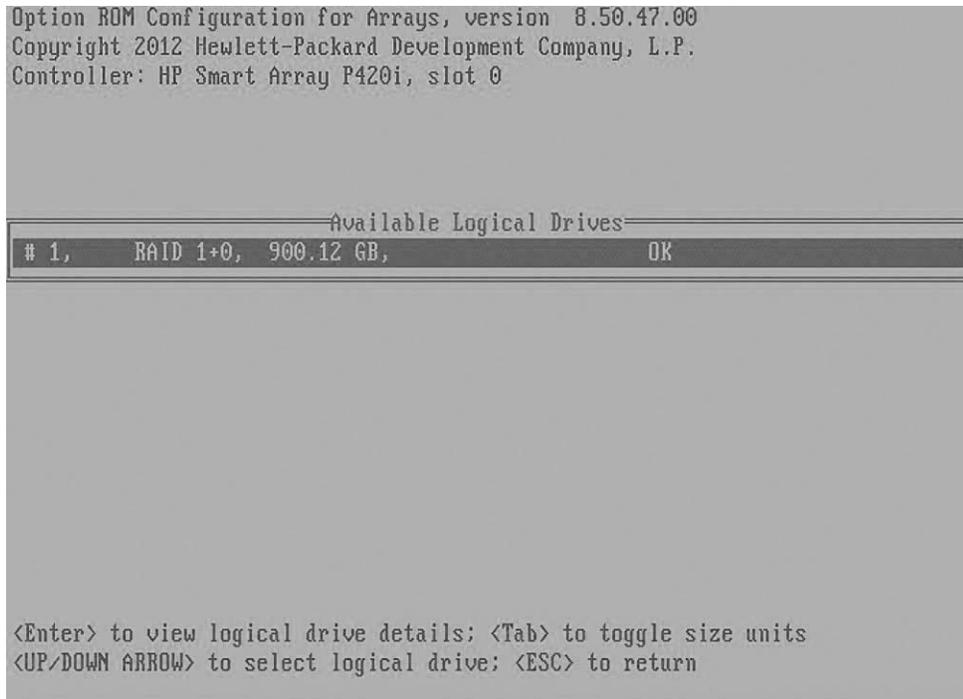


Figure 2: View Logical Drives in RAID BIOS

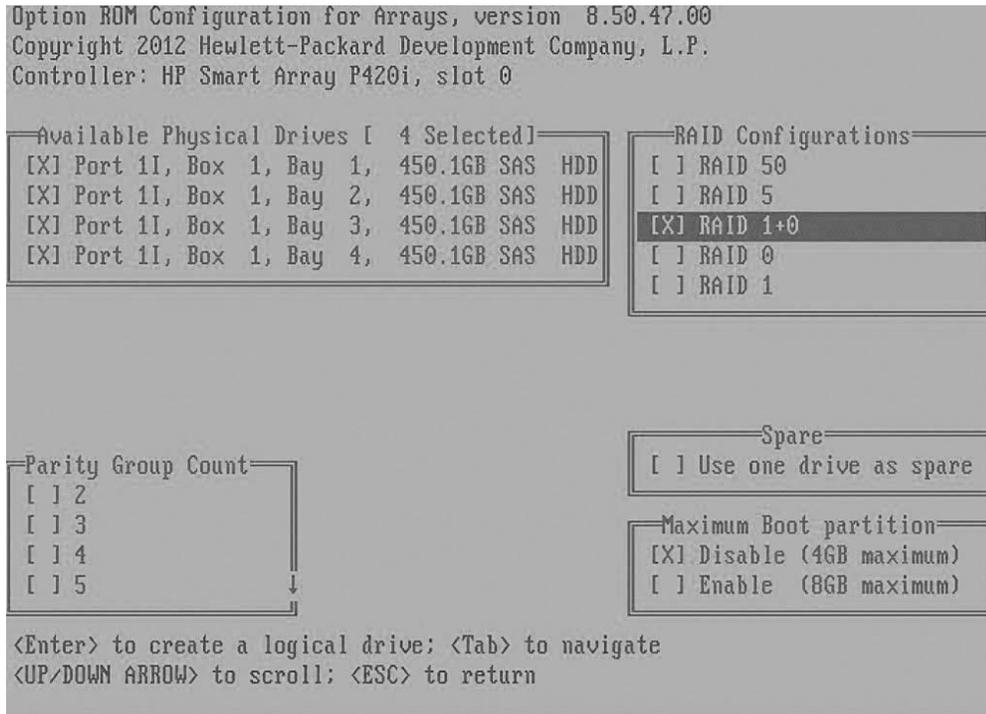


Figure 3: Create Logical Drive in RAID BIOS

Appendix B: Interaction Recovery Messages

Interaction Recovery displays messages to indicate success or an error condition. The color of the message is significant. White text indicates success. Red text denotes an error.

Successful restore or capture messages

The successful restore or capture messages include:

- Factory reversion complete. Click 'Restart' to restart the machine.
- System restore complete. Click 'Restart' to restart the machine.
- System state capture complete. Click 'Restart' to restart the machine.

Note: These messages indicate that Interaction Recovery restore/capture process ran successfully. When POST resumes, verify that the System BIOS boot sequence is set to the RAID HDD to prevent it from rebooting from the flash drive.

Unsuccessful restore or capture messages

If the restore or capture process was unsuccessful, the “**There was an error while trying to restore the factory image**” appears, followed by text that describes the error.

Possible error conditions are:

- The error code returned was: **208 - IRERR**. This error usually indicates a faulty Interaction Recovery module configuration.
- The error code returned was: **209 - PARTERR**. This error usually indicates a variation between the detected and required array configurations.
- The error code returned was: **210 - BSGERR**. This error usually indicates a variation between the detected and required array configurations.
- The error code returned was: **211 - IMGERR**. This error usually indicates a faulty Interaction Recovery module configuration.
- The error code returned was: **212 - DICAERR**. This error usually indicates a faulty Interaction Recovery module configuration.
- The error code returned was: **213 - CAPTERR**. An error occurred while trying to capture the current system state. This error usually indicates a faulty Interaction Recovery module configuration.
- The error code returned was: **214 - RESTERR**. An error occurred while trying to restore the previously saved system state. This error usually indicates a faulty Interaction Recovery module configuration.
- The error code returned was: **215 - RESTERR**. An error occurred while trying to restore the previously saved system state. This error usually indicates a variation between the detected and required disk configuration.
- The error code returned was: **216 - DPARTERR**. An error occurred while trying to restore the previously saved system state. Click the **Restore/Capture** tab to try again.

Change Log

Change	Date
<ul style="list-style-type: none"> • Updated Title page, Copyright page, and Platform Statement page. • Updated document part number. 	July 27, 2012
<ul style="list-style-type: none"> • Outlined procedures to capture and restore a configured image, in addition to the previous capability of restoring a system to the factory image state. • Added Interaction Recovery Error messages to Appendix B. • Added applicable server models and part numbers. • Provided more resource information, including documentation and test lab website locations. • Updated copyright statement. 	May 8, 2012
<ul style="list-style-type: none"> • Updated Title page, Copyright page, and Platform Statement page. • Updated document part number. • Updated content to comply with Gen8 servers, which replace the G7 models. 	February 11, 2013
Rebranded to Genesys.	May 4, 2018

Copyright and Trademark Information

Interactive Intelligence, Interactive Intelligence Customer Interaction Center, Interaction Administrator, Interaction Attendant, Interaction Client, Interaction Designer, Interaction Tracker, Interaction Recorder, Interaction Mobile Office, Interaction Center Platform, Interaction Monitor, Interaction Optimizer, and the "Spirograph" logo design are registered trademarks of Genesys Telecommunications Laboratories, Inc. *Customer Interaction Center, EIC, Interaction Fax Viewer, Interaction Server, ION, Interaction Voicemail Player, Interactive Update, Interaction Supervisor, Interaction Migrator, and Interaction Screen Recorder* are trademarks of Genesys Telecommunications Laboratories, Inc. The foregoing products are ©1997-2018 Genesys Telecommunications Laboratories, Inc. All rights reserved.

Interaction Dialer and Interaction Scripter are registered trademarks of Genesys Telecommunications Laboratories, Inc. The foregoing products are ©2000-2018 Genesys Telecommunications Laboratories, Inc. All rights reserved.

Messaging Interaction Center and MIC are trademarks of Genesys Telecommunications Laboratories, Inc. The foregoing products are ©2001-2018 Genesys Telecommunications Laboratories, Inc. All rights reserved.

Interaction Director is a registered trademark of Genesys Telecommunications Laboratories, Inc. *e-FAQ Knowledge Manager and Interaction Marquee* are trademarks of Genesys Telecommunications Laboratories, Inc. The foregoing products are ©2002-2018 Genesys Telecommunications Laboratories, Inc. All rights reserved.

Interaction Conference is a trademark of Genesys Telecommunications Laboratories, Inc. The foregoing products are ©2004-2018 Genesys Telecommunications Laboratories, Inc. All rights reserved.

Interaction SIP Proxy and Interaction EasyScripter are trademarks of Genesys Telecommunications Laboratories, Inc. The foregoing products are ©2005-2018 Genesys Telecommunications Laboratories, Inc. All rights reserved.

Interaction Gateway is a registered trademark of Genesys Telecommunications Laboratories, Inc. *Interaction Media Server* is a trademark of Genesys Telecommunications Laboratories, Inc. The foregoing products are ©2006-2018 Genesys Telecommunications Laboratories, Inc. All rights reserved.

Interaction Desktop is a trademark of Genesys Telecommunications Laboratories, Inc. The foregoing products are ©2007-2018 Genesys Telecommunications Laboratories, Inc. All rights reserved.

Interaction Process Automation, Deliberately Innovative, Interaction Feedback, and Interaction SIP Station are registered trademarks of Genesys Telecommunications Laboratories, Inc. The foregoing products are ©2009-2018 Genesys Telecommunications Laboratories, Inc. All rights reserved.

Interaction Analyzer is a registered trademark of Genesys Telecommunications Laboratories, Inc. *Interaction Web Portal and IPA* are trademarks of Genesys Telecommunications Laboratories, Inc. The foregoing products are ©2010-2018 Genesys Telecommunications Laboratories, Inc. All rights reserved.

Spotability is a trademark of Genesys Telecommunications Laboratories, Inc. ©2011-2018. All rights reserved.

Interaction Edge, CaaS Quick Spin, Interactive Intelligence Marketplace, Interaction SIP Bridge, and Interaction Mobilizer are registered trademarks of Genesys Telecommunications Laboratories, Inc. *Interactive Intelligence Communications as a ServiceSM and Interactive Intelligence CaaSSM* are trademarks or service marks of Genesys Telecommunications Laboratories, Inc. The foregoing products are ©2012-2018 Genesys Telecommunications Laboratories, Inc. All rights reserved.

Interaction Speech Recognition and Interaction Quality Manager are registered trademarks of Genesys Telecommunications Laboratories, Inc. *Bay Bridge Decisions and Interaction Script Builder* are trademarks of Genesys Telecommunications Laboratories, Inc. The foregoing products are ©2013-2018 Genesys Telecommunications Laboratories, Inc. All rights reserved.

Interaction Collector is a registered trademark of Genesys Telecommunications Laboratories, Inc. *Interaction Decisions* is a trademark of Genesys Telecommunications Laboratories, Inc. The foregoing products are ©2013-2018 Genesys Telecommunications Laboratories, Inc. All rights reserved.

Interactive Intelligence Bridge Server and Interaction Connect are trademarks of Genesys Telecommunications Laboratories, Inc. The foregoing products are ©2014-2018 Genesys Telecommunications Laboratories, Inc. All rights reserved.

The veryPDF product is ©2000-2018 veryPDF, Inc. All rights reserved.

This product includes software licensed under the Common Development and Distribution License (6/24/2009). We hereby agree to indemnify the Initial Developer and every Contributor of the software licensed under the Common Development and Distribution License (6/24/2009) for any liability incurred by the Initial Developer or such Contributor as a result of any such terms we offer. The source code for the included software may be found at <http://wplocalization.codeplex.com>.

A database is incorporated in this software which is derived from a database licensed from Hexasoft Development Sdn. Bhd. ("HDSB"). All software and technologies used by HDSB are the properties of HDSB or its software suppliers and are protected by Malaysian and international copyright laws. No warranty is provided that the Databases are free of defects, or fit for a particular purpose. HDSB shall not be liable for any damages suffered by the Licensee or any third party resulting from use of the Databases.

Other brand and/or product names referenced in this document are the trademarks or registered trademarks of their respective companies.

DISCLAIMER

GENESYS TELECOMMUNICATIONS LABORATORIES (GENESYS) HAS NO RESPONSIBILITY UNDER WARRANTY, INDEMNIFICATION OR OTHERWISE, FOR MODIFICATION OR CUSTOMIZATION OF ANY GENESYS SOFTWARE BY GENESYS, CUSTOMER OR ANY THIRD PARTY EVEN IF SUCH CUSTOMIZATION AND/OR MODIFICATION IS DONE USING GENESYS TOOLS, TRAINING OR METHODS DOCUMENTED BY GENESYS.

Genesys Telecommunications Laboratories, Inc.
2001 Junipero Serra Boulevard
Daly City, CA 94014
Telephone/Fax (844) 274-5992
www.genesys.com