Factory Image Restoration Procedures

Technical Reference

Interaction Application Server

Customer Interaction Center® (CIC™) Packaged Server

Interaction Media Server™ Packaged Server

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

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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 CenterPlatform, 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 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:

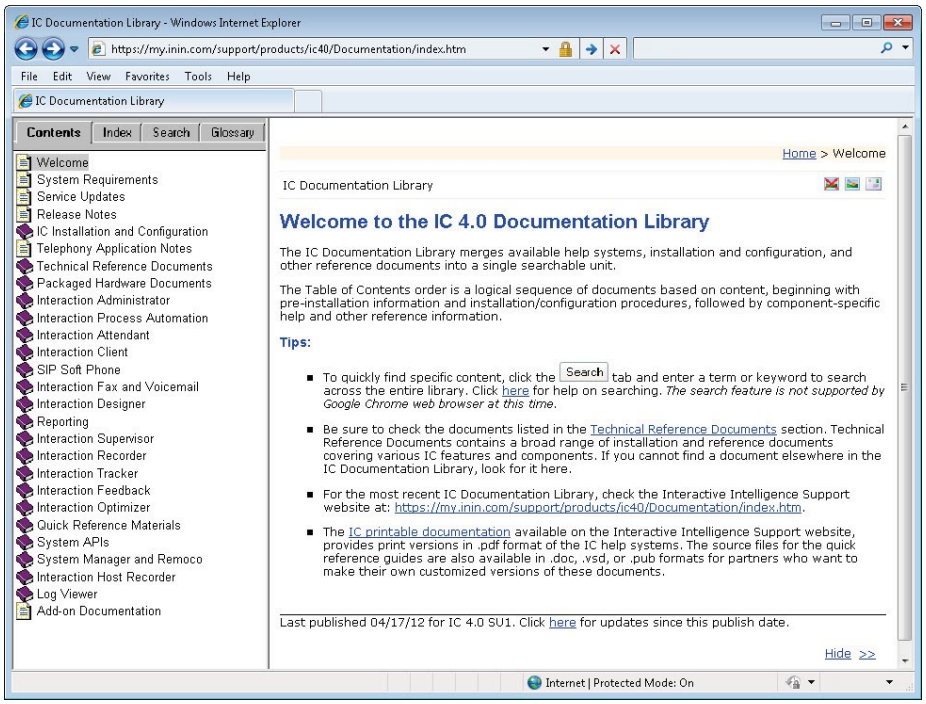
Packaged Server	Part Number
Interaction Media Server 4.0 Small Appliance	SY-014-4.0-MSAS-B01
Interaction Media Server 4.0 Medium Appliance	SY-014-4.0-MSAM-B01
Interaction Media Server 4.0 Large Appliance	SY-014-4.0-MSAL-B01
Customer Interaction Center Packaged Server 4.0	TH-900-4.0-HPIAS360L-B01
Interaction Application Server 120 4.0	TH-900-4.0-HPIAS120-B01
Interaction Application Server 360 2-Drive 4.0	TH-900-4.0-HPIAS360M-B01
Interaction Application Server 360 4-Drive 4.0	TH-900-4.0-HPIAS360L-B01
Interaction Application Server 380 4.0	TH-900-4.0-HPIAS380-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 must temporarily modify the System BIOS boot sequence to start from the internal flash drive. Once the system has been recovered, boot sequence settings are changed back.

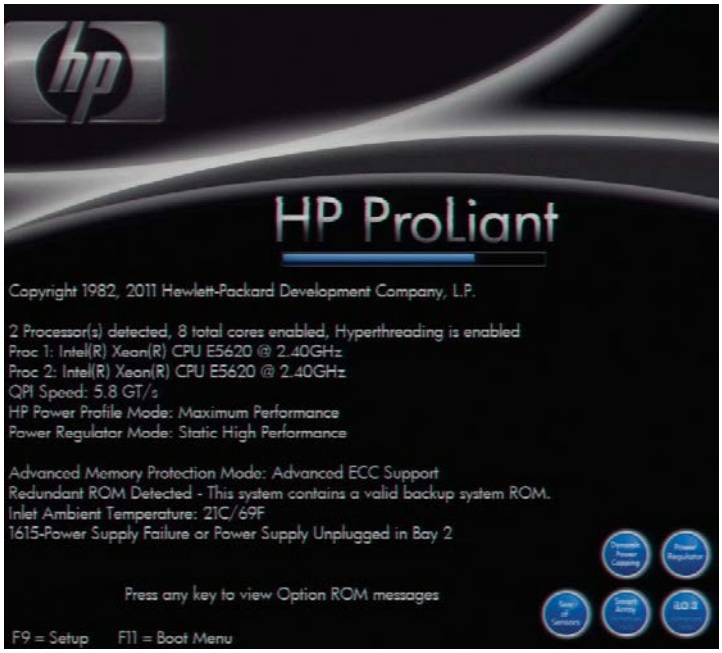
Procedures for each task follow. All procedures apply to **G7 4.0 platforms** only. To obtain hardware specifications for your packaged server, contact GlobalLogistics@genesys.com.

Verify RAID configuration

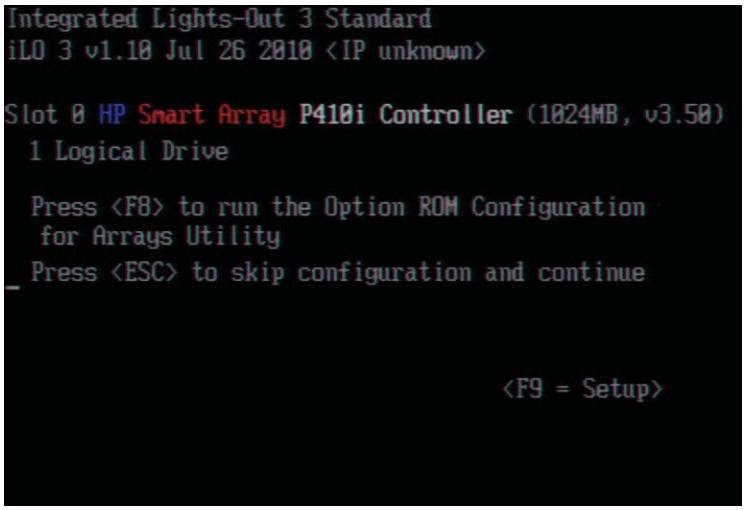
Before you reimage a server, ensure the server's RAID configuration matches the default configuration required to restore factory settings.

To confirm RAID configuration:

1. Boot the device. The *Power On Self-Test* (POST) begins. When prompted, press any key to view Option ROM messages.



2. When prompted, press **F8** to run **Option ROM Configuration for Arrays Utility**. 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 the RAID configuration matches the settings required for the device, accordingto your server's configuration requirements listed in the table below.

<table>
<tr><th>Device Type</th><th colspan="2">RAID Configuration Requirements</th></tr>
<tr><td>Interaction Application Server</td><td colspan="2">Based upon 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 refine array configuration.</td></tr>
<tr><td></td><td>Model</td><td>RAID Configuration</td></tr>
<tr><td></td><td>120 G7</td><td>None</td></tr>
<tr><td></td><td>360 G7 2-Drive</td><td>Single RAID 1+0 logical drive, consisting of 2 HDDs</td></tr>
<tr><td></td><td>360 G7 4-Drive</td><td>Single RAID 1+0 logical drive, consisting of 4 HDDs</td></tr>
<tr><td></td><td>380 G7</td><td>Single RAID 1+0 logical drive, consisting of 8 HDDs</td></tr>
</table>

<table>
<tr><th>Device Type</th><th colspan="2">RAID Configuration Requirements</th></tr>
<tr><td>Interaction Media Server™</td><td colspan="2">Based upon 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 refine array configuration.</td></tr>
<tr><td></td><td>Model</td><td>RAID Configuration</td></tr>
<tr><td></td><td>Small (120 G7)</td><td>None</td></tr>
<tr><td></td><td>Medium (360 G7)</td><td>Single RAID 1+0 logical drive, consisting of 2 HDDs</td></tr>
<tr><td></td><td>Large (360 G7)</td><td>Single RAID 1+0 logical drive, consisting of 4 HDDs</td></tr>
<tr><td>Customer Interaction Center® (CIC™)</td><td colspan="2">Based upon 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 refine array configuration.</td></tr>
<tr><td></td><td>Model</td><td>RAID Configuration</td></tr>
<tr><td></td><td>360 G7</td><td>Single RAID 1+0 logical drive, consisting of 4 HDDs</td></tr>
</table>

<table>
<tr><th>Device Type</th><th colspan="2">RAID Configuration Requirements</th></tr>
<tr><td>SQL Server</td><td colspan="2">Verify the existence of two RAID 1+0 logical drives, the first containing 2 HDDs and the second, 6 HDDs.
If two RAID 1+0 logical drives already exist and their status is "OK", no further configuration is needed. Proceed to Restore Factory Defaults.
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.</td></tr>
<tr><td></td><td>Model</td><td>RAID Configuration</td></tr>
<tr><td></td><td>380 G7</td><td>One RAID 1+0 logical drive consisting of 2 HDDs, and one RAID 1+0 logical drive consisting of 6 HDDs</td></tr>
</table>

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 the function key that deletes an existing drive array.

> **Note**: This key varies between drive controllers, but is identified on-screen. 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).

<table>
<tr><th>Device Type</th><th colspan="2">RAID Configuration Steps</th></tr>
<tr><td>Interaction Application Server</td><td colspan="2">Recreate logical drives to match the RAID configuration for the model you are using:</td></tr>
<tr><td></td><td>Model</td><td>RAID Configuration</td></tr>
<tr><td></td><td>120 G7</td><td>None</td></tr>
<tr><td></td><td>360 G7 2-Drive</td><td>Single RAID 1+0 logical drive, consisting of 2 HDDs</td></tr>
<tr><td></td><td>360 G7 4-Drive</td><td>Single RAID 1+0 logical drive, consisting of 4 HDDs</td></tr>
<tr><td></td><td>380 G7</td><td>Single RAID 1+0 logical drive, consisting of 8 HDDs</td></tr>
</table>

Device Type	RAID Configuration Steps
	1. Create the required Logical Drive Array by selecting its physical drives with an [**X**]. 2. Press **TAB** to select *RAID Configuration.* Choose **RAID 1+0**. 3. Press **Enter** to save changes. Then press the function key assigned by the drive controller to save a configuration. This key is identified on screen. When you are finished, the configuration should match the RAID Configuration for the model you have.

<table>
<tr><th>Device Type</th><th colspan="2">RAID Configuration Steps</th></tr>
<tr><td rowspan="4">Interaction Media Server™</td><td colspan="2">Recreate logical drives to match the RAID configuration for the model you are using:</td></tr>
<tr><td>Model</td><td>RAID Configuration</td></tr>
<tr><td>Small (120 G7)
Medium (360 G7)
Large (360 G7)</td><td>None
Single RAID 1+0 logical drive, consisting of 2 HDDs
Single RAID 1+0 logical drive, consisting of 4 HDDs</td></tr>
<tr><td colspan="2">1. Create the required Logical Drive Array by selecting its physical drives with an [X].
2. Press TAB to select RAID Configuration. Choose RAID 1+0.
3. Press Enter to save changes. Then press the function key assigned by the drive controller to save a configuration. This key is identified on screen.
When you are finished, the configuration should match the RAID Configuration for the model you have.</td></tr>
<tr><td rowspan="4">Customer Interaction Center® (CIC™)</td><td colspan="2">Recreate logical drives to match the RAID configuration for the model you are using:</td></tr>
<tr><td>Model</td><td>RAID Configuration</td></tr>
<tr><td>360 G7</td><td>Single RAID 1+0 logical drive, consisting of 4 HDDs</td></tr>
<tr><td colspan="2">1. Create the required Logical Drive Array by selecting its physical drives with an [X].
2. Press TAB to select RAID Configuration. Choose RAID 1+0.
3. Press Enter to save changes. Then press the function key assigned by the drive controller to save a configuration. This key is identified on screen.
When you are finished, the configuration should match the RAID Configuration for the model you have.</td></tr>
</table>

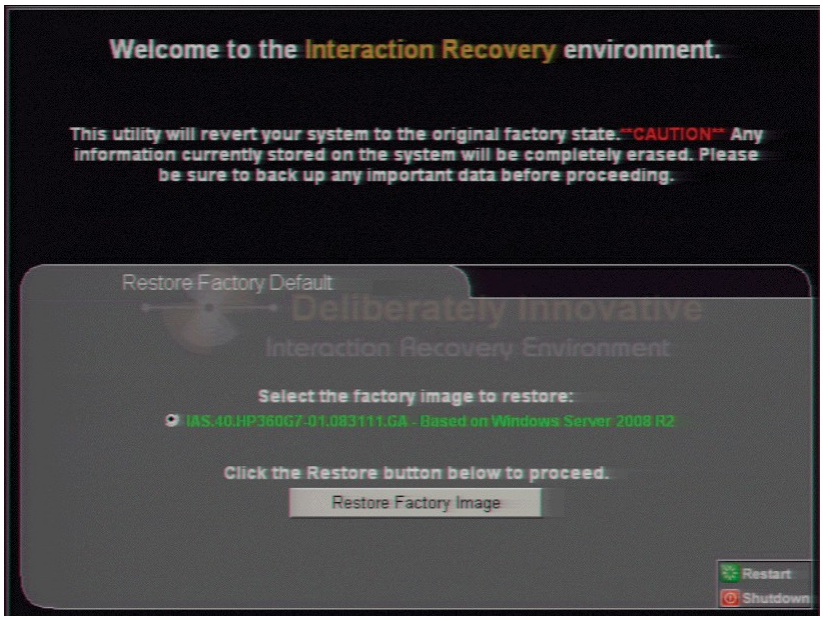
<table>
<tr><th>Device Type</th><th colspan="2">RAID Configuration Steps</th></tr>
<tr><td rowspan="3">SQL Server</td><td colspan="2">Recreate logical drives to match the RAID configuration for the model you are using:</td></tr>
<tr><td>Model</td><td>RAID Configuration</td></tr>
<tr><td>380 G7</td><td>One RAID 1+0 logical drive consisting of 2 HDDs, and one RAID 1+0 logical drive consisting of 6 HDDs.</td></tr>
<tr><td colspan="2">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.
Press TAB to select RAID Configuration. Choose RAID 1+0.
Press Enter to save changes. Then press the function key assigned by the drive controller to save a configuration. This key is identified on screen.</td></tr>
</table>

Device Type	RAID Configuration Steps
	When you are finished, the configuration should match the RAID Configuration for the model you have.

Restore factory defaults

If the RAID is configured appropriately, the device can be restored to factory settings. The reimaging software resides on an internal USB flash drive. To access the internal drive, you must modify the BIOS boot sequence to boot from the USB drive instead of from RAID.

1. Press **ESC** to resume the HP ProLiant Power-On Self-Test (POST), or reboot the device. During POST, press **F9** to enter the *System BIOS* menu.
2. To change the boot sequence, select **Standard Boot Order (IPL)** and press **Enter**. (See Appendix A, Figure 5).
3. Select the **USB DriveKey** drive and press **Enter**.
4. Select **Set the Device IPL Boot Order to 1** and press **Enter** to direct the server to boot from the flash drive.
5. Press **ESC** twice to save the new boot sequence.
6. Exit the utility by pressing **F10** (or equivalent). When the system restarts, the *Recovery Welcome* screen appears.



7. Select the Restore Factory Default tab and click Restore Factory Image.
8. The system requests confirmation of the recovery operation. Click Confirm to proceed.
9. Wait while the device is reset to factory defaults. This can take several minutes. The process is complete when "Factory reversion complete." appears.
10. Click Restart in the lower right corner of the page. Select Yes to confirm the restart.
11. When the system enters POST, press F9 to enter the *System BIOS* menu.
12. Modify the boot sequence to start from the RAID storage controller.

> **Note**: If you do not modify the boot sequence, the system will boot from the USB drive:

a. Select Standard Boot Order (IPL) and press Enter.
b. Select the primary logical drive from which this system normally boots (in most cases, this is Hard Drive C) and press Enter.
c. Select Set the Device IPL Boot Order to 1 and press Enter.
d. Press the Esc key twice to save the new boot sequence.
e. Press F10 (or equivalent) to exit the utility. When the system reboots this time, default factory settings will be in effect.

Appendix A: Screen Examples

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

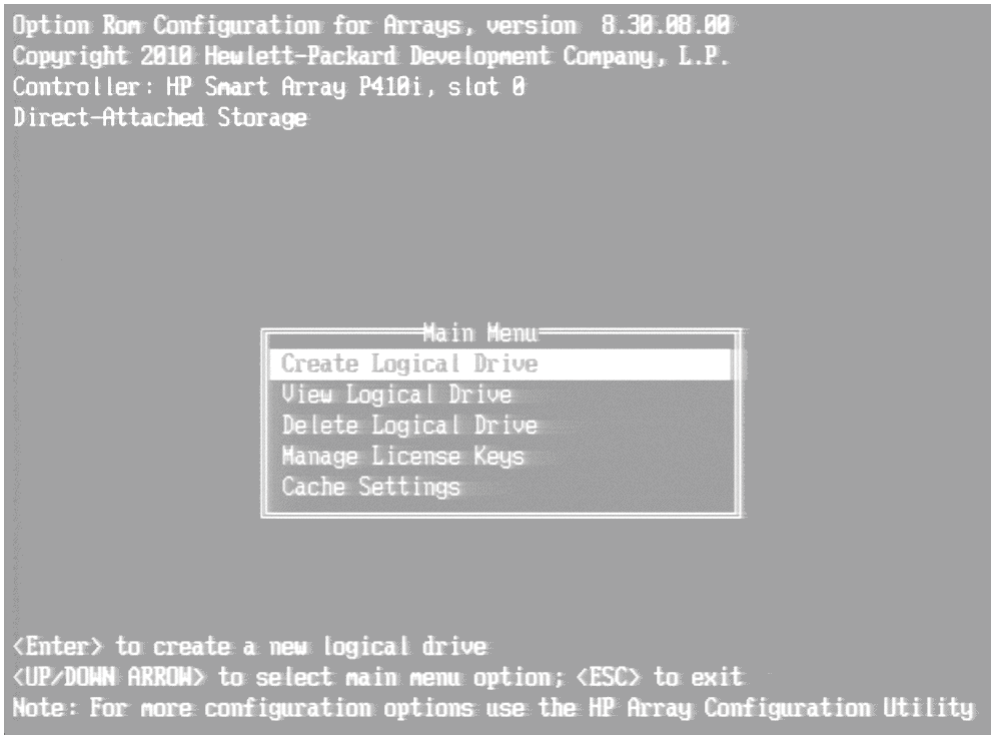


Figure 1: RAID BIOS Main Menu

Figure 2: View Logical Drives in RAID BIOS

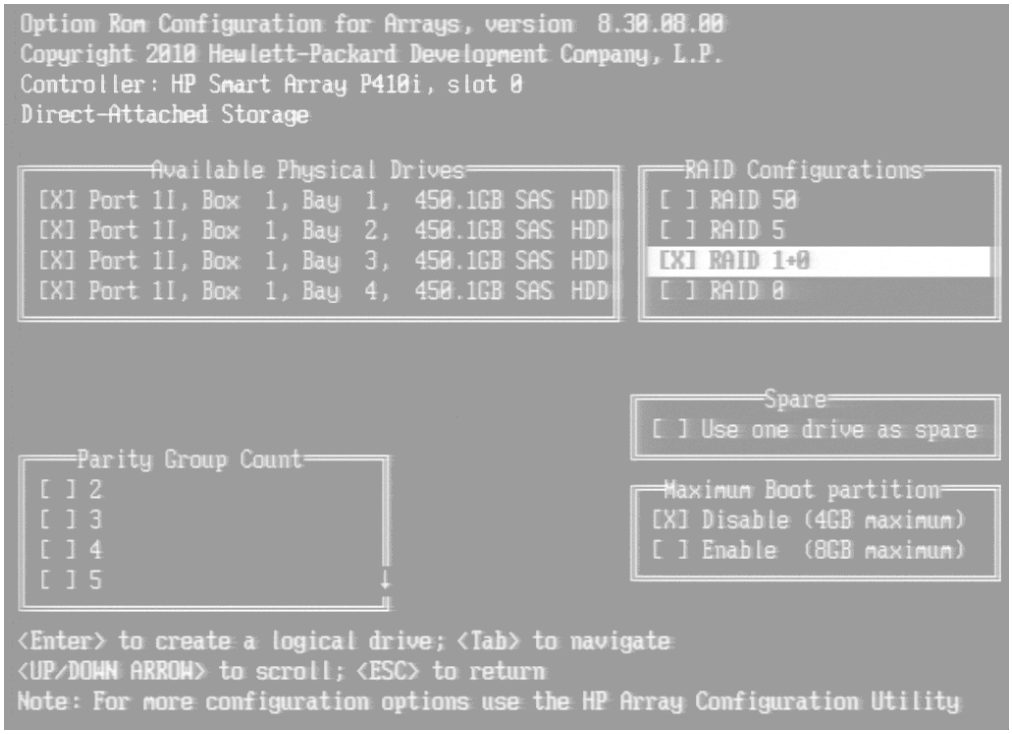


Figure 3: Create Logical Drive in RAID BIOS

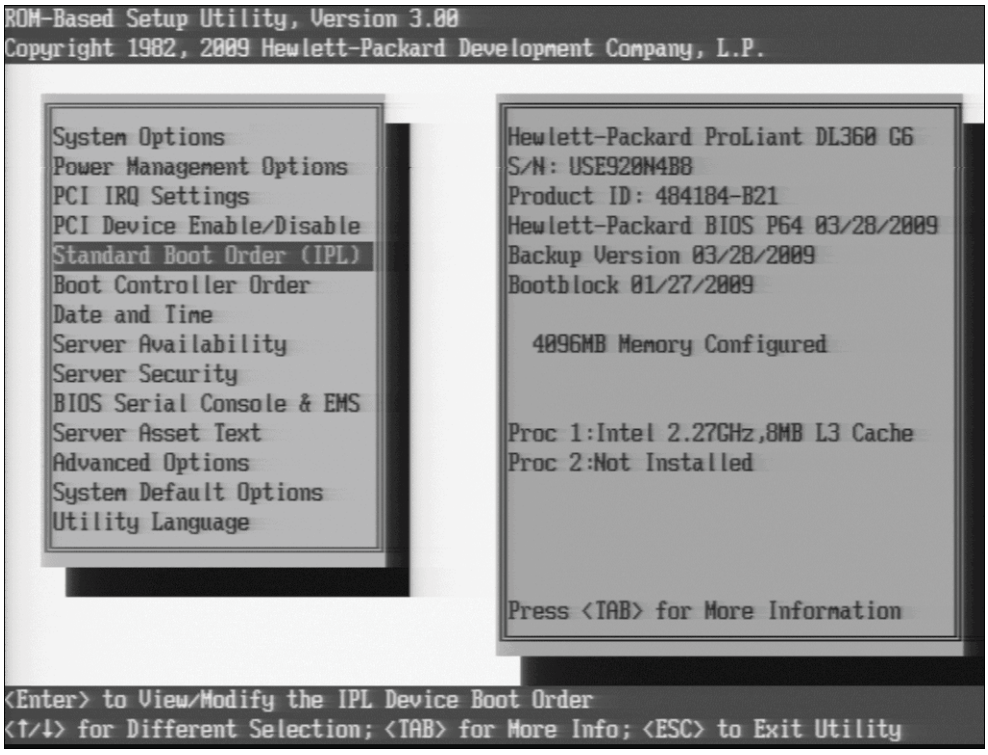


Figure 4: System BIOS Setup Utility

Figure 5 shows how to boot from RAID drives. To boot from the internal flash drive, USB DriveKey would appear in the IPL:1 position.

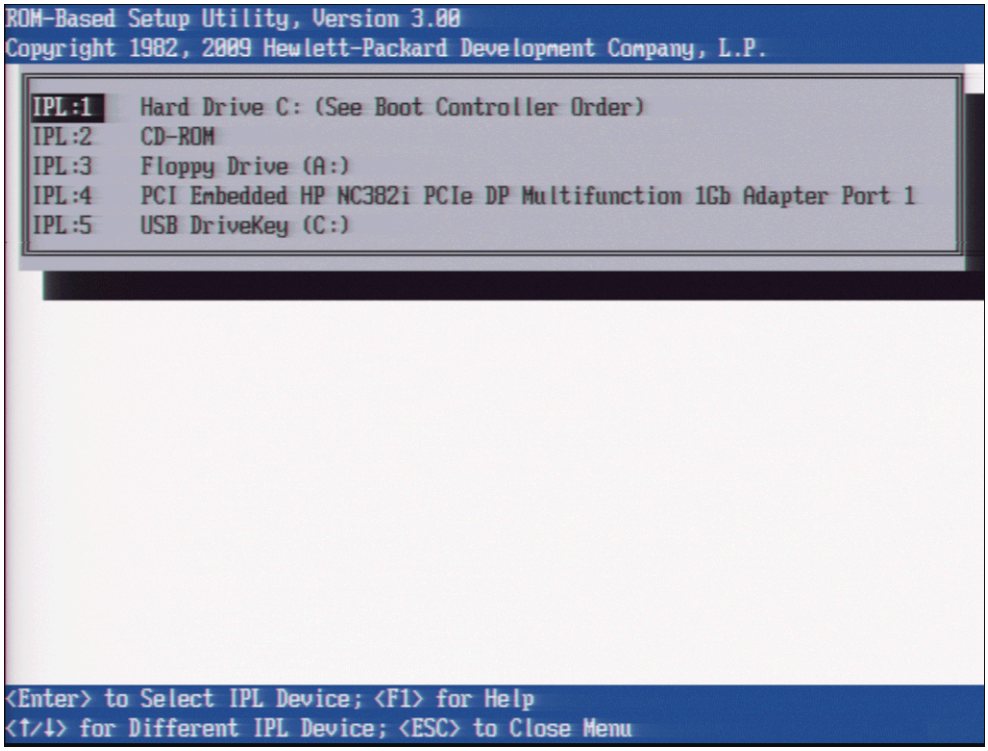


Figure 5: Standard Boot Order

Appendix B: Interaction Recovery Messages

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

Successful restore message

The successful restore message is:

Factory reversion complete. Click 'Restart' to restart the machine.

This message indicates that Interaction Recovery ran successfully. When POSTresumes, change the System BIOS boot sequence to the RAID HDD to prevent it from rebootingfrom the flash drive.

Unsuccessful restore messages

If the restore process was unsuccessful, the "**There was an error while trying torestore the factory image"** appears, followed by text that describes the error. Possible error conditions are:

- The error code returned was: **208 - IRERR**. This usually indicates a faultyInteraction Recovery module configuration.
- The error code returned was: **209 - PARTERR**. This usually indicates avariation between the detected and required array configurations.
- The error code returned was: **210 - BSGERR**. This usually indicates a variationbetween the detected and required array configurations.
- The error code returned was: **211 - IMGERR**. This usually indicates a faultyInteraction Recovery module configuration.
- The error code returned was: **212 - DICAERR**. This usually indicates a faultyInteraction Recovery module configuration.

Change Log

Change	Date
This is the initial **CIC 4.0 GA** release distributed with CIC 4.0 package servers.	September 22, 2011
• Added packaged servers and part numbers to which these Factory Image Restoration procedures apply. • Provided additional resource information, including documentation and test lab website locations. • Updated copyright statement and corrected part number.	July 27, 2012
Rebranded to Genesys.	Mary 4, 2018

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