



# Hitachi Compute Blade 2000

Upgrade Guide for Logical partitioning manager Enterprise Model

## FASTFIND LINKS

[Document Organization](#)

[Getting Help](#)

[Contents](#)

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# Contents

<b>Preface</b> .....	<b>V</b>
Safety and Environmental Notices .....	vi
Intended Audience .....	vi
Registered Trademarks and Trademarks.....	vii
Important Notes.....	vii
Notes on Deleting Data when Disposing of or Transferring the System Equipment...viii	
Document Revision Level .....	ix
Document Organization .....	ix
Document Conventions.....	x
Utility Program.....	xii
Contents of Manuals .....	xiii
Getting Help .....	xiv
Attention.....	xiv
Comments.....	xiv
<b>Before Start Upgrade</b> .....	<b>1-1</b>
Necessary Devices .....	1-2
LPAR manager Support and License.....	1-2
<b>Upgrading Procedure</b> .....	<b>2-1</b>
Upgrading Procedure Flow .....	2-2
Obtaining HVM Utility CD.....	2-2
Creating HVM Utility CD.....	2-2
Obtaining LP License Key.....	2-3
Creating LP License Key CD .....	2-4
Preconditions .....	2-4
Performing LPAR manager Enterprise Model Upgrade .....	2-5

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# Preface

This preface includes the following information:

- [Safety and Environmental Notices](#)
- [Intended Audience](#)
- [Registered Trademarks and Trademarks](#)
- [Important Notes](#)
- [Notes on Deleting Data when Disposing of or Transferring the System Equipment](#)
- [Document Revision Level](#)
- [Document Organization](#)
- [Document Conventions](#)
- [Utility Program](#)
- [Contents of Manuals](#)
- [Getting Help](#)
- [Attention](#)
- [Comments](#)

# Safety and Environmental Notices

## Federal Communications Commission (FCC) statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

“EINE LEICHT ZUGÄNLICHE TRENN-VORRICHTUNG, MIT EINER KONTAKT-ÖFFNUNGSWEITE VON MINDESTENS 3mm IST IN DER UNMITTELBAREN NÄHE DER VERBRAUCHERANLAGE ANZUORDNEN (4-POLIGE ABSCHALTUNG).”

**Maschinenlärminformationsverordnung 3. GSGV, 18.01.1991:** Der höchste Schalldruckpegel beträgt 70 db(A) oder weniger gemäß ISO 7779.

## CLASS 1 LASER PRODUCT



**WARNING:** This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

**WARNUNG:** Dies ist ein Produkt der Klasse A. In nichtgewerblichen Umgebungen können von dem Gerät Funkstörungen ausgehen, zu deren Beseitigung vom Benutzer geeignete Maßnahmen zu ergreifen sind.

## Intended Audience

This document is intended for the personnel who are involved in planning, managing, and performing the tasks to prepare your site for Compute Blade installation and to install the same.

This document assumes the following:

- The reader has a background in installation and operation of software. (Firmware, Driver for Hardware, Operating System and Applications)
- The reader is familiar with the location where the Compute Blade will be installed, including knowledge of physical characteristics, power systems and specifications, and environmental specifications.

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## Important Notes

- 1 It is strictly forbidden to reprint or duplicate part or this entire manual without the permission of the publisher.
- 2 The contents of this manual are subject to change without notice.
- 3 Despite our meticulous care to ensure the accuracy of the contents, should you find any errors or questionable issues, or if you have opinions to share with us, please contact your dealer.
- 4 Note that we shall not be liable for the consequences of operating this product in ways not stated in this manual.
- 5 This product includes codes licensed from RSA Data Security.

## Notes on Deleting Data when Disposing of or Transferring the System Equipment

Personal computers and system equipment are used for various purposes at the office and home. Important data of customers are recorded in the hard disks in these computers and system equipment.

You must erase these important data contents when transferring or disposing of the system equipment.

However, it is not easy to erase data written on the hard disk.

When you “erase data”, you generally do one or more of the following:

- Discard data in the “Recycle Bin”.
- “Delete” data.
- Erase data by using the “Empty Recycle Bin” command.
- Perform initialization (formatting) of the hard disk by using software utilities.
- Recover the factory defaults by using a recovery CD.

The above operations only change the file management information of data recorded on the hard disk; actually the data is just blocked from view.

That is, although the data appears to have been erased, it was just made unavailable under an operating system such as Windows. The actual data remains on the hard disk and may be read by using special data recovery software. Consequently, important data on the hard disk of the system equipment can be read and used for unexpected applications by malicious people.

To avoid unauthorized access to important data on the hard disk when disposing of or transferring the system equipment, it is extremely important for you to erase all data recorded on the hard disk at your own risk. When you erase the data, we recommend that you purchase and use a dedicated software or service, or corrupt the data on the hard disk physically or magnetically by using a hammer or strong magnet to make it unreadable.

Transferring the system equipment without deleting software on the hard disk (operating system, applications, etc.) may be against software licensing agreements. Check your software licensing agreements carefully.



## Document Revision Level

Revision	Date	Description
MK-99BDS2K038-005	February 2013	

## Document Organization

The table below provides an overview of the contents and organization of this document. Click the chapter title in the left column to go to that chapter. The first page of each chapter provides links to the sections in that chapter.

Chapter	Description
<a href="#">Chapter 1</a>	Before Start Upgrade
<a href="#">Chapter 2</a>	Upgrading Procedure

## Document Conventions





This term "Compute Blade" refers to all the models of the Compute Blade, unless otherwise noted.

The Hitachi Virtualization Manager (LPAR manager) name has been changed to Hitachi logical partitioning manager (LPAR manager, or LP). If you are using LPAR manager based logical partitioning feature, substitute references to Hitachi logical partitioning manager (LPAR manager, or LP) with LPAR manager.

This document uses the following typographic conventions:

Convention	Description
<b>Bold</b>	Indicates text on a window, other than the window title, including menus, menu options, fields, and labels. Example: Click <b>OK</b> .
<i>Italic</i>	Indicates a variable, which is a placeholder for actual text provided by the user or system. Example: <i>copy source-file target-file</i> <b>Note:</b> Angled brackets (< >) are also used to indicate variables.
screen/code	Indicates text that is displayed on screen or entered by the user. Example: # pairdisplay -g oradb
< > angled brackets	Indicates a variable, which is a placeholder for actual text provided by the user or system. Example: # pairdisplay -g <group> <b>Note:</b> Italic font is also used to indicate variables.
[ ] square brackets	Indicates optional values. Example: [ a   b ] indicates that you can choose a, b, or nothing.
{ } braces	Indicates required or expected values. Example: { a   b } indicates that you must choose either a or b.
vertical bar	Indicates that you have a choice between two or more options or arguments. Examples: [ a   b ] indicates that you can choose a, b, or nothing. { a   b } indicates that you must choose either a or b.
<u>underline</u>	Indicates the default value. Example: [ <u>a</u>   b ]

This document uses the following icons to draw attention to information:

Icon	Meaning	Description
 <b>WARNING</b>	WARNING	Indicates the presence of a potential risk that might cause death or severe injury.
 <b>CAUTION</b>	CAUTION	Indicates the presence of a potential risk that might cause relatively mild or moderate injury.
<b>NOTICE</b>	NOTICE	Indicates the presence of a potential risk that might cause severe damage to the equipment or damage to surrounding properties.
 <b>Note</b>	Note	Indicates notes not directly related to injury or severe damage to the equipment.
 <b>Tip</b>	Tip	Indicates advice on how to make the best use of the equipment.

The following table shows abbreviations of logical partitioning manager and logical partition.

Term	Abbreviation
logical partitioning manager	LPAR manager or LP
logical partition	LPAR

## Utility Program

For the proper use of Compute Blade server blades, it is highly recommended to install all utilities provided with the product. If utilities are not properly installed, the system may not operate correctly and have trouble detecting or analyzing failures. Please be sure to install the utilities.

Installation manuals and utilities are shipped with devices and/or option cards.

Please refer to "*Remote Console Application User's Guide*" for the installation of the remote console utility.

Please see my corrections to this table from the LPAR manager Setup Guide document.

### Compute Blade Utility Program List

Utility Name	Function	Applicable OS
Blade Server Manager	Notifies faults; manages power supplies and resources.	Windows
Blade Server manager Plus	Manages N+1 cold standby and rack	Windows
Deployment Manager	Provides OS package; backups system disks.	Windows
CM2/Network Element Configuration	Manages network devices.	Windows
ServerConductor / Agent	Manages resources, operation, and faults of the system equipment.	Windows
ServerConductor / Advanced Agent	Controls power supplies in cooperation with ServerConductor/Agent.	Windows, Linux
MegaRAID Storage Manager	Watch, management, maintenance, and array construction of a disk array controller and physical, logical drive connected to the disk array controller	Windows, Linux
Hfcdutil Sets	various parameters and the persistent binding function into a target adapter.	Linux
HFCtools	Collects error logs for a target adapter.	Windows

# Contents of Manuals

## User's Guide and Software Guide List

Item	Contents
Logical partitioning manager User's Guide	
Introduction	LPAR manager summary and prerequisite information.
Function	Summary and mechanism of each functions.
Operation	LPAR manager operation and notes.
Logical partitioning manager Setup Guide	
Basic Configuration	LPAR manager setup procedure.
HVM Navigator User's Guide	
Getting Start	Introduction of HVM Navigator
LPAR Configuration	Usage of LPAR Configuration.
Monitoring	Usage of Monitoring.
Viewer	Usage of LPAR Viewer.
Migration	Usage of LPAR Migration.
Quick Reference	Quick referring for usage of HVM Navigator.
Installation Manual	Installation of prerequisite application of HVM Navigator
Reference	
HvmSh Command Operation Guide	Usage of HVM management command
<b>Model Up Guide</b>	<b>Modeling up procedure of LPAR manager.</b>
Version Upgrade / Revision Update Guide	LPAR manager version upgrade and revision update procedure.
OS Installation Guide	OS installation procedure on the LPAR manager.
Logical VGA Snapshot Guide	Usage of logical VGA snapshot.

## Getting Help

When you contact Hitachi Data Systems, please provide as much information about the problem as possible, including:

- The circumstances surrounding the error or the failure
- The exact content of any error message displayed on the host system Compute Blade
- The service information messages, including reference codes and severity levels, displayed and/or logged at the Compute Blade

The Hitachi Data Systems support staffs are available 24 hours a day, seven days a week. For technical support, visit the portal site at <https://portal.hds.com>.

## Attention

This manual describes "Hitachi Compute Blade" or "Compute Blade", which is the new brand name for BladeSymphony. However, there may be some windows and dialog boxes that indicate the old brand name "BladeSymphony" or its abbreviation "BS". In the case of using Hitachi Compute Blade, read "BladeSymphony" as "Hitachi Compute Blade" and "BS" as "CB". In the case of using BladeSymphony, read "Hitachi Compute Blade" as "BladeSymphony" and "CB" as "BS".

## Comments

Please send us your comments on this document, if any, by e-mail to: [doc.comments@hds.com](mailto:doc.comments@hds.com). Make sure that the e-mail includes the document title and number, revision, and section(s) and paragraph(s) whenever possible.

*Thank you!* (All comments become the property of Hitachi.)

## Before Start Upgrade

This chapter provides information you should know before upgrading Logical partitioning manager to LPAR manager Enterprise Model.

- [Necessary Devices](#)
- [LPAR manager Support and License](#)

## Necessary Devices

You need the following peripheral devices to upgrade LPAR manager:

- DVD-ROM drive
- HVM Utility CD
- CD-R

## LPAR manager Support and License

In order to upgrade your purchased copy of LPAR manager Essential Model to LPAR manager Enterprise Model, it is required "LPAR manager Support and License". Contact your dealer for details.



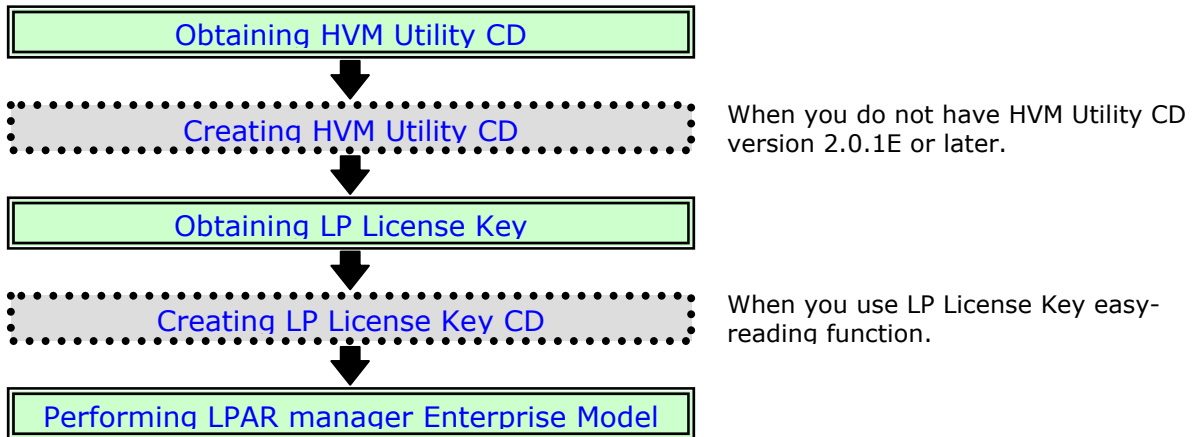
## Upgrading Procedure

This chapter describes procedure for upgrade between LPAR manager models, specifically from LPAR manager Essential Model to LPAR manager Enterprise Model.

- [Upgrading Procedure Flow](#)
- [Obtaining HVM Utility CD](#)
- [Creating HVM Utility CD](#)
- [Obtaining LP License Key](#)
- [Creating LP License Key CD](#)
- [Preconditions](#)
- [Performing LPAR manager Enterprise Model Upgrade](#)

## Upgrading Procedure Flow

This section describes a flow of the model upgrading.



## Obtaining HVM Utility CD

Obtain HVM Utility CD from your dealer. Upon receipt, ensure that the HVM Utility CD is applicable to your LP firmware for upgrading, according to the table below.

If you do not have the right version of HVM Utility CD for upgrading, obtain appropriate HVM Utility CD in ISO image format (either data or actual CD) from your dealer.

LP firmware version	Application of HVM Utility CD versions to LP firmware		
	57-02	2.0.1E	2.2.1E or later
57-0X or later	Not applicable	Applicable	Applicable

Note: Please use HVM Utility CD version 2.2.1E or later when reading LP License Key with LP License Key CD.

## Creating HVM Utility CD

If you obtained HVM Utility CD image data from your dealer, write the data onto a CD-R in ISO image format according to the table below.

CD title	File name
HVM Utility CD	HVM_Utility_CD_X.Y.Z.iso

X.Y.Z: HVM Utility CD version

## Obtaining LP License Key

LP License Key is provided from your dealer in exchange for your notification of the blade serial number of the server blade subject to upgrade from LPAR manager Essential Model to LPAR manager Enterprise Model. You can confirm the blade serial number by executing DF command to the management module as shown below. The screen image may partially differ depending on the firmware version of the management module.

```
SVP>DF ← Enter "DF"

<< DF - Show field replaceable unit information. >>

- Detail field replaceable unit information menu
  C. Server chassis.
  M. Management module.
  S. Server blade.
  I. I/O board module.
  SW. Switch module.
  PS. Power supply module.
  T. Show mass of modules.
  A. All module.
  Q. Quit.
(C,M,S,I,SW,PS,T,A,[Q]) : S ← Enter "S"
Select server blade (0-7,A=All,[Q=Quit]) : 0 ← Enter server blade number
-- Server blade ---
Slot          : 0

- Board information --
Manufacturer   : SUPERMICRO
Product Name   : X8DTE-HTC01
Serial Number  : 91200021

-- Product information --
Manufacturer    : HITACHI
Product Name    : BladeSymphony E55
Part/Model Number : GVAX55A1-3NNX14X
Product Version : 0020G55100
Serial Number   : 4600B60 T901000001 ← Confirm blade serial number

: (Subsequent display omitted)
```

Upon confirming the blade serial number, tell that number to your dealer and obtain the corresponding LP License Key in ISO image format (either data or actual CD) or text data.



Please obtain the License Key by ISO image format if you use License Key easy-reading function with LP License Key CD.

Note that the easy-reading function is available for HVM Utility CD version 2.2.1E or later.

Print the LP License Key onto paper when you obtained the License Key by text data for later reference.

## Creating LP License Key CD

If you obtained LP License Key by ISO image format data in [Obtaining LP License Key](#) above, write the data onto a CD-R in ISO image format according to the table below.

Item	File name
LP License Key	SSSSSSSSSSSSHVMYYYYMMDD.iso

SSSSSSSSSSSS: Service ID  
YYYYMMDD: Year/Month/Date

Or use the LP License Key included CD-R that you have got from your dealer.

## Preconditions

Prior to main part of LPAR manager Enterprise Model upgrade, perform the following actions:

1. If the subject server blade had been used LP mode, deactivate all LPARs according to "Shutdown Guest OS and Deactivate LPAR" in *Hitachi Compute Blade 2000 USER'S GUIDE*.
2. Shut down the subject server blade according to "Quit LPAR manager" in *Hitachi Compute Blade 2000 USER'S GUIDE*.
3. Set the OS mode to LP mode according to "LP Mode setting" in *Hitachi Compute Blade 2000 USER'S GUIDE*.
4. Set EFI of the server blade according to "EFI setting" in *Hitachi Compute Blade 2000 USER'S GUIDE*.

## Performing LPAR manager Enterprise Model Upgrade

To perform the main part of LPAR manager Enterprise Model upgrade, follow the steps below. The screen images may partially differ depending on the LP Maintenance Tool version.

1. Connect a USB DVD-ROM drive to the front panel USB port of the subject server blade. Set HVM Utility CD in the DVD-ROM drive. Ensure that the HVM Utility CD version is applicable to your LP firmware. For details, see [Obtaining HVM Utility CD](#) and [Creating HVM Utility CD](#).



Remote DVD function of remote console is not available for this procedure. Make sure to connect a USB DVD-ROM drive to the front panel USB port.

2. Turn on power of the subject server blade. With HVM Utility CD set in the DVD-ROM drive connected to the server blade, activation of LPAR manager caused by this power-on automatically starts LP Maintenance Tool.
3. In "LP Maintenance Tool" window opened, select the operation of "3. LP Model Upgrade" as illustrated below.

```
<< LP Maintenance Tool (Version X.X) >>
---- LP Firmware Information ----
Bank#  Version          Select
  0     VV-RR(TT-KK)     Active
  1     VV-RR(TT-KK)     Alternate
---- LP License Information ----
LP License  [Essential]

---- Menu ----
 1. Update LP Firmware
 2. Change LP F/W Active Bank
 3. LP Model Upgrade
 4. Show Verup License Key
 5. Recover LP Configuration
 Q. Quit and Reboot
Select : 3 ←————— Enter "3" to select LP Model Upgrade
```

4. A prompt for entering LP License Key appears as shown below.

**Option 1: Method with LP License Key CD (For HVM Utility CD 2.2.1E or later)**

- a. Press the Enter key in blank.

```
Enter LP Enable License Key : _ ←————— Enter
```

- b. Change the CD in DVD-ROM drive to LP License Key CD which created in [Creating LP License Key CD](#) and press Enter key.

```
Exchange for CD with Enable License Key.  
Ready?[y] : _ ←————— Enter
```

- c. Change the CD in DVD-ROM drive to HVM Utility CD and press Enter key.

```
Exchange for CD with LP MaintenanceTool.  
Ready?[y] : _ ←————— Enter
```

**Option 2: Method without LP License Key CD**

- a. Referring to the hardcopy which obtained in [Obtaining LP License Key](#), enter the LP License Key excluding spaces.

```
Enter LP Enable License Key : XXXXXXXX ← Enter the License Key
```

- Statuses of LP License before and after entering the License Key appear as shown below, followed by a confirmation prompt. Enter "Y" in the prompted confirmation field. (Entering "N" revert the screen display back to Step 3.)

```

<Before>
LP License [Essential]

<After>
LP License [Enterprise]

Confirm? (Y/[N]) : Y ←————— Enter "Y"

```

- If successful, the completion code "0000" in brackets followed by a completion message appears as shown below. Press the Enter key to continue.

```

[0000] LP Model Upgrade is successfully finished.
*** HIT ENTER KEY ***

```

If an error message appears, take actions according to the table below.

Completion code	Meaning	Action
0001	LP License Key authentication failed.	Obtain LP License Key from your dealer and create LP License Key CD again. Retry the operation in "LP Maintenance Tool" window. If the error persists with several retries, contact your dealer.
0002	LP License Key may be wrong.	Obtain LP License Key from your dealer again and retry the operation in "LP Maintenance Tool" window. If the error persists with several retries, contact your dealer.
FFFF	LPAR manager Model Upgrade operation failed.	Contact your dealer.

7. Ensure that the LP License status in the resulting display is changed to "Enterprise" as shown below. Enter "Q" to select the operation of "Q. Quit and Reboot" for quitting LP Maintenance Tool.

```
<< LP Maintenance Tool (Version X.X) >>
---- LP Firmware Information ----
Bank#  Version          Select
  0     VV-RR(TT-KK)    Active
  1     VV-RR(TT-KK)    Alternate
---- LP License Information ----
LP License  [Enterprise] ← Confirm LP License status changed to "Enterprise"

---- Menu ----
  1. Update LP Firmware
  2. Change LP F/W Active Bank
  3. LP Model Upgrade
  4. Show Verup License Key
  5. Recover LP Configuration
  Q. Quit and Reboot
Select : Q ← Enter "Q" to quit LP Maintenance Tool
```

8. A confirmation prompt for quitting LP Maintenance Tool appears as shown below. Eject the HVM Utility CD from the DVD-ROM drive and disconnect the DVD-ROM drive from the front panel USB port of the subject server blade. When ready, type "Y" at the "Quit LP Maintenance Tool? (Y/[N])" prompt and press [Enter] for rebooting the server blade. (Entering "N" revert the screen display back to Step 3.)

```
<< Quit and Reboot >>
Quit LP Maintenance Tool? (Y/[N]) : Y ← Enter "Y"
```



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