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Preface

This document describes how to install the Intel LAN driver for the Hitachi Compute Blade CB2500 10GBase-SR 2-port LAN adapter in SUSE Linux Enterprise Server 11 SP3 or SUSE Linux Enterprise Server 12 environment.

This preface includes the following information:

- Intended Audience
- Document organization
- Release Notes
- Document Conventions
- Getting Help
- Comments

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 hardware installation of computer systems.
• 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.

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.

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 1, Outline</td>
<td>Describes how to update the LAN driver.</td>
</tr>
<tr>
<td>Chapter 2, Driver Installation</td>
<td>Describes how to use LAN Advanced Functions.</td>
</tr>
</tbody>
</table>

Release Notes

Release notes contain requirements and more recent product information that may not be fully described in this manual. Be sure to review the release notes before installation.
Document Conventions

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

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

This document uses the following typographic conventions:

<table>
<thead>
<tr>
<th>Convention</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bold</strong></td>
<td>Indicates text on a window, other than the window title, including menus, menu options, fields, and labels. Example: Click <strong>OK</strong>.</td>
</tr>
</tbody>
</table>
| *Italic*         | Indicates a variable, which is a placeholder for actual text provided by the user or system. Example: *copy source-file target-file*  
  **Note:** Angled brackets (< >) are also used to indicate variables. |
| **screen/code**  | Indicates text that is displayed on screen or entered by the user. Example: `# pairdisplay -q oradb` |
| < > angled brackets | Indicates a variable, which is a placeholder for actual text provided by the user or system. Example: `# pairdisplay -q <group>`  
  **Note:** 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. |
| **underline**    | Indicates the default value. Example: `[ a | b ]` |

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

<table>
<thead>
<tr>
<th>Icon</th>
<th>Meaning</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="warning.png" alt="WARNING" /></td>
<td>WARNING</td>
<td>This indicates the presence of a potential risk that might cause death or severe injury.</td>
</tr>
<tr>
<td><img src="caution.png" alt="CAUTION" /></td>
<td>CAUTION</td>
<td>This indicates the presence of a potential risk that might cause relatively mild or moderate injury.</td>
</tr>
<tr>
<td><img src="notice.png" alt="NOTICE" /></td>
<td>NOTICE</td>
<td>This indicates the presence of a potential risk that might cause severe damage to the equipment and/or damage to surrounding properties.</td>
</tr>
<tr>
<td><img src="note.png" alt="Note" /></td>
<td>Note</td>
<td>This indicates notes not directly related to injury or severe damage to equipment.</td>
</tr>
<tr>
<td><img src="tip.png" alt="Tip" /></td>
<td>Tip</td>
<td>This indicates advice on how to make the best use of the equipment.</td>
</tr>
</tbody>
</table>
Getting Help

The Hitachi Data Systems customer support staff is available 24 hours a day, seven days a week. If you need technical support log on to the Hitachi Data Systems Portal for contact information: https://hdssupport.hds.com.

Comments

Please send us your comments on this document: doc.comments@hds.com. Include the document title, number, and revision, and refer to specific sections and paragraphs whenever possible. All comments become the property of Hitachi Data Systems. Thank you!
Outline

This chapter contains an outline of Hitachi Compute Blade CB2500 10GBase-SR 2-port LAN adapter.

- Features
- Supported OS
Features

Compute Blade CB2500 10GBase-SR LAN adapter is installed in PCI Express slot of the system device. This product has the following features.

■ This adapter corresponds to 10GBase-SR. (IEEE802.3ae)
■ This adapter has two network ports.
■ This adapter is connected with Multi mode fibre cable.
■ This adapter can be installed in PCI Express x8 or x16 slot.

Supported OS

Compute Blade CB2500 10GBase-SR 2-port LAN adapter can be used with the following OS.

■ SUSE Linux Enterprise Server 11 SP3 (x86_64)
■ SUSE Linux Enterprise Server 12 (x86_64)
This chapter describes how to install the Intel LAN driver for Compute Blade CB2500 10GBase-SR LAN adapter in SUSE Linux Enterprise Server 11 SP3 environment.

- [Driver Installation for SUSE Linux Enterprise Server 11 SP3](#)
- [Driver Installation for SUSE Linux Enterprise Server 12](#)
Driver Installation for SUSE Linux Enterprise Server 11 SP3

To use the Hitachi Compute Blade CB2500 10GBase-SR 2-port LAN adapter (Product Code : GG-CN4NXG1X1-Y) in SUSE Linux Enterprise Server 11 SP3 environment, install the Intel LAN driver for SUSE Linux Enterprise Server 11 SP3. You can also update the already installed driver by the following steps.

1. Make sure that the SUSE Linux Enterprise Server 11 SP3 is already installed. Log in with the user name authorized as the root user.

2. Prepare the rpm package file listed in the table below to install the driver. The rpm package is contained in the directory "/Intel" in the "Driver&Utility for SUSE Linux CD-ROM" media.

<table>
<thead>
<tr>
<th>Architecture</th>
<th>Kernel version(X is a number)</th>
<th>Filename of rpm package</th>
</tr>
</thead>
<tbody>
<tr>
<td>x86_64</td>
<td>kernel 3.0.X-X</td>
<td>ixgbe-kmp-default-3_21_2_3_0_101_0_29-h1_x86_64.rpm</td>
</tr>
</tbody>
</table>

3. Execute the following command to check the installed driver:
   # rpm -qa | grep ixgbe

   If the rpm package is not installed, no messages are displayed. Then go to step 4.

   If the rpm package has already been installed, the following is displayed.

   ixgbe-kmp-default-X_X_X_X_X_X_X_X_x86_64
   (X is a number.)

   The above message indicates that the rpm package has already been installed.

   Uninstall the already-installed rpm package, by executing the following command:

   # rpm -e ixgbe-kmp-default-X_X_X_X_X_X_X_X_x86_64

4. Copy the rpm package in "/Intel/" directory in the "Driver&Utility for SUSE Linux CD-ROM" media to /tmp directory by executing the following command. This example assumes that the CD-ROM is mounted in the /media directory:

   # cp /media/Intel/ixgbe-kmp-default-3_21_2_3_0_101_0_29-h1_x86_64.rpm /tmp
5 Install the rpm package by executing the following command:

   # rpm -ivh /tmp/ixgbe-kmp-default-3_21_2_3_0_101_0_29-h1_x86_64.rpm

6 Restart the system by entering the following command:

   # reboot

7 When OS booting is complete, confirm the LAN driver version by executing the following command:

   # modinfo -F version ixgbe

If “3.21.2-h1” is displayed, the installation is complete.
Driver Installation for SUSE Linux Enterprise Server 12

To use the Hitachi Compute Blade CB2500 10GBase-SR 2-port LAN adapter (Product Code : GG-CN4NXG1X1-Y) in SUSE Linux Enterprise Server 12 environment, install the Intel LAN driver for SUSE Linux Enterprise Server 12. You can also update the already installed driver by the following steps.

1. Make sure that the SUSE Linux Enterprise Server 12 is already installed. Log in with the user name authorized as the root user.

2. Prepare the rpm package file listed in the table below to install the driver. The rpm package is contained in the directory “/Intel” in the "Driver&Utility for SUSE Linux CD-ROM" media.

<table>
<thead>
<tr>
<th>Architecture</th>
<th>Kernel version(X is a number)</th>
<th>Filename of rpm package</th>
</tr>
</thead>
<tbody>
<tr>
<td>x86_64</td>
<td>kernel 3.12.X_X</td>
<td>ixgbe-kmp-default-4.1.2_k3.12.28_4-h1.x86_64.rpm</td>
</tr>
</tbody>
</table>

3. Execute the following command to check the installed driver:

```bash
# rpm -qa | grep ixgbe
```

If the rpm package is not installed, no messages are displayed. Then go to step 4.

If the rpm package has already been installed, the following is displayed.

`ixgbe-kmp-default-X_X_X_X_X_X_X_X_x86_64`

(X is a number.)

The above message indicates that the rpm package has already been installed.

Uninstall the already-installed rpm package, by executing the following command:

```bash
# rpm -e ixgbe-kmp-default-X_X_X_X_X_X_X_X_x86_64
```

4. Copy the rpm package in “/Intel/” directory in the "Driver&Utility for SUSE Linux CD-ROM" media to /tmp directory by executing the following command. This example assumes that the CD-ROM is mounted in the /media directory:

```bash
# cp /media/Intel/ixgbe-kmp-default-4.1.2_k3.12.28_4-h1.x86_64.rpm /tmp
```
5 Install the rpm package by executing the following command:

   # rpm -ivh /tmp/ixgbe-kmp-default-4.1.2_k3.12.28_4-
h1.x86_64.rpm

6 Restart the system by entering the following command:

   # reboot

7 When OS booting is complete, confirm the LAN driver version by executing the following command:

   # modinfo -F version ixgbe

If “4.1.2-h1” is displayed, the installation is complete.
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