

# Software License and Instructions for Driver Recompile

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for

Intel® Server Management IPMI Driver Source Code for Red Hat\* Linux

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# IPMI Linux Driver Build Instructions

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Intel® Server Management software is used to monitor the health of Intel server systems and to report on changes in the health condition. To do this, the software uses a driver (also known as the IPMI driver) to communicate with server hardware. Under Red Hat\* Linux versions 7.3, Advanced Server (AS) 2.1 or 8.0, a driver is shipped from Intel that works under the standard kernel versions. Any change in the basic kernel will render Intel Server Management software inoperable. To address this issue, Intel provides the driver source code so that users who needed to recompile their Red Hat Linux 7.3, AS2.1 or 8.0 kernel will be able to recompile the Intel Server Management driver as well.

The following instructions may be used to recompile the Intel Server Management software driver under a different Red Hat Linux kernel. This driver recompile will allow Intel Server Management to report system health and alert users to changes in system status.

## **Important Notes:**

- Intel believes this recompile process should produce a functional IPMI Linux driver in most cases. However the user should note that some kernel versions or user environments might not recompile the IPMI driver as expected. Subject to the Software License Agreement above, Intel cannot support this driver source recompile.
- The instructions in this License and Readme.pdf apply only to Intel Server Management v5.x software and the Auto-configuration utility when installed on Red Hat Linux v7.3, 8.0 and AS2.1. A separate License and Readme.pdf is available to provide the instructions for installing to Intel Server Control v3.5.x.
- The kernel used for recompiling the Intel Server Management driver must be exactly the same as the kernel on the system where Intel Server Management will be installed. No variation is permitted. For example, 2.4.9-31 and Linux version 2.4.9-31 Enterprise Edition are not the same kernel and may result in high memory usage and unreliable health condition reporting. For the best results, the driver recompile should be done on the same server system that will have Intel Server Management software installed. It is also important to uninstall any previously installed version of Intel Server Management before recompiling the new driver. See below.
- To build the IPMI driver on a Linux system, you must have Red Hat Linux 7.3, AS2.1 or 8.0 installed. The kernel headers RPM and kernel sources RPM must be installed as well. Make sure that you will see right kernel sources directory under /usr/src directory. And also make sure that /usr/src/linux-2.4 has the symbolic link to the new kernel source directory under /usr/src.
- You must login as root in order to build the driver rpm. Please make sure the system used to build the new Intel Server Management driver does not have a previous IPMI driver rpm installed. Use the command 'rpm -qa | grep ipmi' to check for a previous installation. If an IPMI driver is located, uninstall it using the 'rpm -e' command.

## **Installation Instructions:**

Please follow the steps as described below to build the Linux IPMI driver:

### Step 1:

- i) Mount the resource CD: 'mount /mnt/cdrom'. Change directories to the IPMI source on the CD: 'cd /mnt/cdrom' and:
- ii) For TSRT2, 'cd ISC/Software/linux/IPMI\_source'. For TIGPR2U, 'cd ism/Software/linux/IPMI\_source'.
- iii) Create two directories on the hard drive: 'mkdir /usr/local/src' and 'mkdir /usr/local/src/ipmi'
- iv) Copy the IPMI driver file using the command: 'cp linuxdrv.tar /usr/local/src/ipmi/linuxdrv.tar'
- v) Enter the command 'cd /usr/local/src/ipmi' to change directories.
- vi) Extract the IPMI driver file using the command: 'tar xvf linuxdrv.5.5.x.tar'
- vii) Change directories by entering the command:  
'cd linux-drvr/src' (two levels below the current location)

### **Note:**

For Red Hat Linux AS 2.1 versions of the kernel please do the following extra step.

"cp /usr/local/src/ipmi/linux-drvr/src/imb/makefile.as21 /usr/local/src/ipmi/linux-drvr/src/imb/makefile"

## **Build the new driver rpm**

Step 1: Run the following command:

```
./package
```

This command causes the ipmidrvr-2.4.18.14smp-1.i386.rpm for v8.0 to be placed in linux-drvr/src/install/iscinstall directory. (/usr/local/src/ipmi/linux-drvr/src/install/iscinstall) This package name is an example only. The new driver rpm created will be named similar to the kernel in use.

Step 2: The new driver rpm file may now be used for either running with Intel Server Management or the open source Auto-Configuration tool. If the driver is to be used for the Auto-Configuration tool, go to Step 3. Otherwise, continue by completing the Intel Server Management installation of the DMI Service Provider, SNMP packages, server Instrumentation, and HPI utilities. You must install all of these features (including the new IPMI driver) using the automated ISC install from the Resource CD's linux\_menu script (/mnt/cdrom/linux\_menu). Execute /mnt/cdrom/linux\_menu and select #2 if want to use the newly created IPMI driver or, select #1 if you want to use the IPMI driver on the Resource CD.

Step 3: Install the driver built in Step 1. If you are installing the drive only to be used with the Auto-Configuration tool, this is your last step. Change to the /usr/local/src/ipmi/linux-drvr/src/install/iscinstall directory and execute the following command: (Do not execute the 'installme' script described in the Intel Server Management Installation & User Guide)

```
rpm -i ipmidrvr-2.4.18.14smp-1.i386.rpm (change the package name appropriately for the driver you created based on the kernel version)
```

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