

VPD Update Procedure for xSeries Machines

The VPD information is changed by using the Flash Diskette, Flash CD, or a utility located on the Flash Diskette or Flash CD. Depending on which xSeries machine type will depend on whether you must use a utility or just boot from the Flash Diskette or Flash CD.

Below is a breakdown of what you need to use for what machine type:

Boot from the Flash Diskette or CD for machine types below to change VPD information:

Machine Type	Description	Media
8720	Bladecenter T	Diskette
8730	Bladecenter T	Diskette
8842	Bladecenter JS20	Diskette
8678	Bladecenter HS20	Diskette
8832	Bladecenter HS20	Diskette
8839	Bladecenter HS40	Diskette
8835	eServer 325	Diskette
8658	xSeries 230	Diskette
8668	xSeries 232	Diskette
8671	xSeries 235	Diskette
8664	xSeries 240	Diskette
8665	xSeries 250	Diskette
8685	xSeries 255	Diskette
8654	xSeries 330	Diskette
8674	xSeries 330	Diskette
8675	xSeries 330	Diskette
8676	xSeries 335	Diskette
8830	xSeries 335	Diskette
8656	xSeries 340	Diskette
8669	xSeries 342	Diskette
8670	xSeries 345	Diskette
8682	xSeries 350	Diskette
8686	xSeries 360	Diskette
8861	xSeries 365	Diskette
8862	xSeries 365	Diskette
8681	xSeries 370	Diskette
8687	xSeries 440	Diskette
8870	xSeries 445	Diskette
8688	xSeries 450	CD
8855	xSeries 455	CD

Use the 'Extrmdmi.exe' on the Flash diskette to change VPD on the machine types below:

Machine Type	Description
8478	xSeries 200
8479	xSeries 200
8481	xSeries 200
8480	xSeries 205
8482	xSeries 206 (see note below)
8645	xSeries 220
8646	xSeries 220
8647	xSeries 225
8649	xSeries 225
8672	xSeries 300
8836	xSeries 305 (see note below)

(Note: There currently is a CMVC case open on the xSeries 206 and 306 machines. Use the Extrmdmi.exe file from the xSeries 205 flash diskette to update the VPD info on the 206 and 306 machines.)

VPD Update Procedure for xSeries Machines

The procedure to update the system DMI information using 'extrmdmi.exe' is as follows:

- 1 Copy 'extrmdmi.exe' to a bootable diskette.
- 2 Insert the diskette created in step 1 into your IBM computer.
- 3 Power on your IBM system and boot from the floppy disk.
- 4 Type 'extrmdmi.exe' at the a: prompt.
- 5 Change Machine Type/Model Number.
Type "mtm XXXXYYY" and press **ENTER**,
where XXXX is the model type, YYY is the model number.
- 6 Change Serial Number.
Type "sn ZZZZZZZ" and press **ENTER**, where
ZZZZZZZ is the serial number.
- 7 Change asset tag.
Type "asset AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA" and press enter,
where AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA is the asset tag number.
- 8 Reboot the system.

Use the FRUSDR.exe file on the Flash Diskette of the xSeries 343 (8827, 8847):

- 1: Please make note of any settings you have changed in the configuration utility. They may have to be re-entered after updating the BIOS. Also note your BIOS and BMC revision levels.
- 2: Put the flash update diskette in the drive and power up the system. Five selections are offered.
 1. Full Update - This selection starts the Update Process for BMC, FRUSDR, and BIOS Code.
 2. Flash BMC - This selection starts the procedure to update the BMC Firmware.
 3. Flash FRUSDR - Update Serial and Model Numbers.
 4. Flash BIOS - This selection starts the procedure to Update the BIOS code.
 5. Exit - exits to DOS.

If you select "Full Update"

- You are notified that the Update process will take about 15 minutes, and that system will reboot after each update. Do not remove the floppy until you see the main menu again.
- Press a Key to Start the Update Process ...
- The BMC will now be updated to Current Level ...
- You are notified that Update of BMC was completed, and to "Press a key to reboot your system and update the FRU/SDR - After system reboots, You are ready to Update the FRU/SDR
- Three Selections are offered.
 1. Update FRUs and SDR Repository

VPD Update Procedure for xSeries Machines

2. Update Just the SDR Repository

3. Exit

- Select Option 1
- You are asked if you want to enter a Product Version (Machine Type/Model), and System Serial Number.
- If you answered "Y" to either one you are prompted to enter the data after the SDR has been Written.
- After you enter the data you are prompted to "Confirm String[Y/N]...
- After you have entered all the data, a message is displayed stating: "FRU FILE AREA(S) SUCCESSFULLY LOADED INTO FRU MEMORY"
- Now your BMC will reinitialize and start firmware transfer mode. Next message displayed is:

"SUCCESSFUL TERMINATION." of transfer mode, and "PRESS A KEY TO REBOOT YOUR SYSTEM" ...
- System will now reboot.
- A message is displayed stating: CURRENT LEVEL BIOS, UPDATE LEVEL, PLATFORM SUPPORTED, AND PROCESSOR SUPPORTED
- Strike a key when ready to start BIOS update.
- Do not reboot or power down until the update is completed.
- After BIOS has been successfully updated, your system will reboot automatically.
- When the main menu appears, you have successfully updated all firmware for your system.
- Select option 5 to "EXIT TO DOS".

3: The flash update is now complete. Remove the diskette first and then reboot the system. If console redirection is enabled, server will need to be powered down.

Use the FDR Load Utility for the xSeries 380 (8683):

Note: To view IBM-specific VPD data, the FRUSDR.ini file must be located in the same directory as the utility files. The FRUSDR.ini file is available from the web site <http://www.ibm.com/pc/support>.

The Field Replacement Unit (FRU) and Sensor Data Record (SDR) Load (FRUSDR) Utility (FRUSDR.EFI) is an Extensible Firmware Interface (EFI) program that updates or modifies the server management subsystem's product level FRU and SDR Repository.

You should run the FRUSDR Load Utility each time you upgrade or replace the hardware in your server; excluding add-in boards, hard drives, and RAM. The utility programs the sensors the server uses to monitor server management.

Using the FRUSDR Load Utility, you can do the following:

VPD Update Procedure for xSeries Machines

- Discover the product configuration based on instructions in a master configuration file.
- Display the FRU information.
- Update the non-volatile storage device associated with the baseboard management controller (BMC) that holds the SDR and FRU information.
- Generically handle FRU devices that might not be associated with the BMC.
- Supply command lines and interactive input through the standard input device.
- View and direct results to the standard output device.

Running the FRUSDR Load utility

Follow these steps to run the FRUSDR Load Utility:

1. Boot to the EFI Shell.
2. Copy the FRUSDR package to an LS120 disk or to the hard drive. You can find the FRUSDR package on the servicer CD.
3. Load the Intelligent Platform Manager Interface (IPMI) driver by typing the following command:

```
load ipmi.efi
```

Note: The IPMI driver file name might change independently of the FRUSDR Load Utility.

4. Run the utility by entering a frusdr command based on the following syntax:

```
frusdr [option] [/p]
```

The frusdr command accepts single options only. You can accompany any option with the /p switch to cause the output to pause between blocks of displayed output. For descriptions of the FRUSDR Load Utility command-line options, see "FRUSDR Load Utility command-line options".

Note: You can run the utility directly from the configuration software CDROM or from diskettes you create from the CDROM included in the Country Kit shipped with the system. If you choose to run the FRUSDR Load Utility from a diskette, you must copy the utility from the CDROM and follow the instructions in the included README.TXT file.

5. Use the FRUSDR Load Utility to manage server management subsystem's product level FRU and SDR repository.
6. Reboot the system by powering off and powering on the server. The reboot operation is necessary because the firmware must reload to properly initialize the Configuration sensors after programming and thus effect the changes you have made to the FRU and SDR repository.

FRUSDR Load Utility command-line options

The basic command line format is:

```
frusdr [/?] [/h] [/p] [/d {fru, sdr}] [/Cfg filename.cfg]
```

Where

VPD Update Procedure for xSeries Machines

<code>/?</code> or <code>/h</code>	Displays usage information.
<code>/d {FRU,SDR}</code>	Only displays requested area.
<code>/C fg filename.cfg</code>	Uses custom CFG file.
<code>/p</code>	Pause between blocks of data.

Display FRU information

The `/D FRU` displays the contents of a FRU. Any additional arguments Command specify the Address of the FRU to be displayed. If no Address is specified, the BMC FRU will be displayed. The arguments that make up the Address are the `NVS_TYPE`, `DEV_CNTR`, and `DEV_ID` -- which can be found in the FRU file header of each FRU file. Arguments must be specified in the order listed. If `DEV_CNTR` is specified it must start with `\'C\'`. If `DEV_CNTR` is not specified it defaults to `\'C20\'`.

Usage:

```
FRUSDR /D FRU [(NVS_TYPE) [DEV_CNTR] (DEV_ID)]
```

<code>FRUSDR /D FRU IMBDEVICE CC0 01</code>	Hot-Swap Backplane
<code>FRUSDR /D FRU IMBDEVICE C200D</code>	Processor Board
<code>FRUSDR /D FRU IMBDEVICE 10</code>	I/O Baseboard
<code>FRUSDR /D FRU</code>	BMC (Legacy board)
<code>FRUSDR -D FRU</code>	BMC (Legacy board)
<code>FRUSDR -D FRU imbdevice 11</code>	Sideplane
<code>FRUSDR -D FRU imbdevice 0E</code>	Memory board A
<code>FRUSDR -D FRU imbdevice 0F</code>	Memory board B
<code>FRUSDR -D FRU imbdevice 10</code>	I/O Baseboard
<code>FRUSDR -D FRU imbdevice 0D</code>	Processor board
<code>FRUSDR -D FRU imbdevice CC0 01</code>	Hot Swap Backplane
<code>FRUSDR -D FRU imbdevice CC0 00</code>	Docking plane

The configuration file may be used to load multiple FRU and SDR files. In the SDR file name must be called out. Additionally, each FRU area and field to be programmed must also be specified. The configuration file may be used to prompt or request information from the user, and to inquire from the user which FRU areas to program.

The pause command may be used with all other commands. It will cause the data being displayed on the screen to pause after a pre-determined amount is written. In some cases, if there isn't enough data being displayed to warrant a pause, then the pause command will be ignored.

VPD Update Procedure for xSeries Machines

Cleanup and exit

Finally, if any update was successfully performed, a single message will be displayed and the utility exits with an exit code of 0. If the utility fails, then it will exit with an error message and exit code.

Run the ldr.nsh batch file that comes with the FRU Planar for the x382(8834).