

# IPMI Firmware Update In WEB-GUI/EFI

## Firmware Updates in WEB-GUI:

1.1 Click < Firmware update > under Maintenance



1.2 Click <Enter Update Mode> to enter the update mode. A warning message will display. Warning: Once the server is in the firmware update mode, the device will be reset, and the server will reboot even if you cancel firmware updating.



1.3 Click <OK> to update your IPMI firmware. Once you've clicked OK to update the firmware, the Firmware Upload screen will display as shown on the next page. Press the Browse button to choose firmware file and then press the Upload Firmware button to start load

**SUPERMICRO** Critical Refresh Logout English

System Server Health Configuration Remote Control Virtual Media Maintenance Miscellaneous

### Firmware Upload

The device is now in Upgrade mode. Please wait until the percentage of the Firmware Image burning get 100 percent. After that, please just wait for system reboot. The web page will redirect to the Login page automatically.

Select Firmware to Upload:

Browse...

Upload Firmware Cancel

1.4 Make sure the firmware version is correct before you can press the “ Upload Firmware ” button for updating progress.

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### Firmware Upload

The device is now in Upgrade mode. Please wait until the percentage of the Firmware Image burning get 100 percent. After that, please just wait for system reboot. The web page will redirect to the Login page automatically.

Select Firmware to Upload:

C:\Documents and Setting Browse...

Upload Firmware Cancel

1.5 If Click <Cancel> to cancel firmware updates. Once you have clicked <Cancel > to update the IPMI Firmware, the following Firmware Upload screen will display as shown below.

**Windows Internet Explorer**

Are you sure to abort the firmware upgrade process? The device will have to be reset in order to go back to normal operating mode

OK Cancel

1.6 Click <Upload Firmware> to upload the selected firmware to the host server.

Warning! To properly update your firmware, do not interrupt the process until the process is completed. Once it is completed, the system will automatically reboot, and you will need to login to the server again.

The screenshot shows the SUPERMICR web interface. At the top, there is a navigation bar with tabs: System, Server Health, Configuration, Remote Control, Virtual Media, and Maintenance. Below this is a sub-navigation bar with tabs: Miscellaneous, Server Health, Configuration, Remote Control, Virtual Media, and Maintenance. The main content area is titled "Firmware Upload" and contains a message box stating: "The device is now in Upgrade mode. Please wait until the percentage of the Firmware Image burning get 100 percent. After that, please just wait for system reboot. The web page will redirect to the Login page automatically." Below this message, there is a status "LOADING" in a red box. Further down, it says "Uploading image...Please wait. This may take a while!". There is a section "Select Firmware to Upload:" with a text input field containing "C:\Documents and Setting" and a "Browse..." button. At the bottom of this section are two buttons: "Upload Firmware" and "Cancel".

**NOTE !!! Uncheck preserve configuration box during flashing (very important step for FW to work properly). All settings will be reset to default.**

The screenshot shows the same SUPERMICR web interface, but now the "Firmware Upload" section is active. It displays a table titled "Upgradeable Modules" with the following data:

Module Name	Existing Version	New Version
IPMI_FW	02.27	02.55

Below the table, there is a checkbox labeled "Preserve Configuration(Unchecking this option will restore the factory default setting of BMC.)". This checkbox is currently unchecked, and it is highlighted with a red box. Below the checkbox are two buttons: "Start Upgrade" and "Cancel". A red arrow points from the text "Uncheck first before Start Upgrade." to the unchecked checkbox.

1.7 Click < Start upgrade > to download the firmware.

The screenshot shows the Supermicro web interface. At the top, there is a navigation bar with the Supermicro logo on the left and links for Critical, Refresh, Logout, and English on the right. Below the navigation bar is a menu with tabs: System, Server Health, Configuration, Remote Control, Virtual Media, Maintenance, and Miscellaneous. The main content area is titled "Firmware Upload" and contains a message box stating: "The device is now in Upgrade mode. Please wait until the percentage of the Firmware Image burning get 100 percent. After that, please just wait for system reboot. The web page will redirect to the Login page automatically." Below the message box, the progress bar shows "Upgrade progress : 2%". A "LOADING..." indicator is visible in the top right corner of the main content area.

The screenshot shows the Supermicro web interface at the same "Firmware Upload" page. The progress bar now shows "Upgrade progress : 100%". A confirmation dialog box is displayed in the center of the screen, titled "The page at http://172.31.8.72 says:". The dialog box contains a yellow warning icon and the text "Upgrade complete: Please wait for 1 minute". Below the text is an "OK" button. The "LOADING..." indicator is still present in the top right corner of the main content area.

1.8 Click < OK > System will reboot after upgrade complete. The web page will redirect to the login page automatically.

## Firmware Update in EFI

Instructions on how to use Flash Tools and Flash Tools Utility supports firmware.

The Flash Tools utility provides a complete solution for firmware updates. The user can flash the firmware using EFI

### Using Flash Tools in the EFI Environment

To use the Flash Tools in EFI, follow the steps below:

1. Enter <AuUpdate.exe> and press <Enter>.
2. The information about the utility will be displayed. Follow the instructions given on the screen to configure the settings as shown in Figure 1.

```
FS0:\> AuUpdate.efi
*****
* ATEN Technology, Inc. *
*****
* FUNCTION   : IPMI FIRMWARE UPDATE UTILITY *
* VERSION    : 2.09 *
* BUILD DATE : Dec  3 2021 *
* USAGE      : *
*             (1)Update FIRMWARE : AdUpdate.exe -f filename.bin [OPTION] *
*             (2)Dump FIRMWARE   : AdUpdate.exe -d filename *
*             (3)Restore CONFIG  : AdUpdate.exe -c -f filename.bin *
*             (4)Backup CONFIG   : AdUpdate.exe -c -d filename.bin *
*****
* OPTION *
* -i the IPMI channel, currently, kcs and lan are supported *
* LAN channel specific arguments *
* -h remote BMC address and RMCP+ port, (default port is 623) *
* -u IPMI user name *
* -p IPMI password correlated to IPMI user name *
* -r Preserve Configuration (default is Preserve) *
*   n:No Preserve, reset to factory default settings *
*   y:Preserve, keep all of the settings *
* -c IPMI configuration backup/restore *
*   -f [restore.bin] Restore configurations *
*   -d [backup.bin] Backup configurations *
```

```

*****
* EXAMPLE                                                                 *
* we like to upgrade firmware through KCS channel                      *
* AdUpdate.exe -f fwuperade.bin -i kcs -r y                            *
* AdUpdate.exe -d fwdump.bin -i kcs -r y                                *
*                                                                       *
* we like to restore/backup IPMI config through KCS channel            *
* AdUpdate.exe -c -f restore.bin -i kcs -r y                            *
* AdUpdate.exe -c -d backup.bin -i kcs -r y                            *
*                                                                       *
* we like to upgrade firmware through LAN channel with                  *
* - BMC IP address 10.11.12.13 port 623                                *
* - IPMI username is usr                                                *
* - Password for alice is pwd                                           *
* - Preserve Configuration                                              *
* AdUpdate.exe -f fw.bin -i lan -h 10.11.12.13 623 -u usr -p pwd -r y   *
* AdUpdate.exe -d fwdump.bin -i lan -h 10.11.12.13 623 -u usr -p pwd -r y *
*                                                                       *
* we like to restore/backup IPMI config through LAN channel with        *
* - BMC IP address 10.11.12.13 port 623                                *
* - IPMI username is usr                                                *
* - Password for alice is pwd                                           *
* - Preserve Configuration                                              *
* AdUpdate.exe -c -f fw.bin -i lan -h 10.11.12.13 623 -u usr -p pwd    *
* AdUpdate.exe -c -d fwdump.bin -i lan -h 10.11.12.13 623 -u usr -p pwd *
*****

```

Figure 1: IPMI Firmware Updates Utility in EFI - Main Screen

The main screen of the IPMI Update Utility for EFI (above) displays the version and the built date of the utility currently used in the system. The EFI version of Flash Tools Utility allows the user to update or dump the firmware via KCS channels.

## Firmware Updating via KCS Channels

To update your firmware via KCS, type <AuUpdate.exe -f [filename.bin] -r y.> After entering this command, a screen will display as shown in Figure 2.

1. -f: Type <-f> to enter the file name of the firmware that you want to update.
2. -r: Type <-r> to preserve the configuration settings you've chosen. This feature is optional. The default setting is to "preserve" the configuration.
3. y: Type <y> for the BMC to keep all settings after the firmware is updated; otherwise, the BMC will reset all settings to factory default.

```

FS0:\> AuUpdate.efi -f BMC_X11AST2500-4101MS_20220427_01.74.04_STD.bin -r -y_
FS0:\> AuUpdate.efi -f BMC_X11AST2500-4101MS_20220427_01.74.04_STD.bin _

```

Figure 2: Examples of Firmware Updates with or without the "Preserved" Command



After you've entered the commands above, the Flash Tools will start to update the firmware. There are two phases in firmware updating.

1. Phase 1 is to transfer the FW image file to the BMC. In this phase, Flash Tools will transfer three parts to the BMC as shown in Figure 3, Figure 4 and Figure 5.

```
If the FW update fails,PLEASE TRY AGAIN
update part 0, the size is 0x6f0000 bytes
Transfer data .....164K bytes      3%
```

Figure 3: Transferring (Part 0)

```
If the FW update fails,PLEASE TRY AGAIN
update part 1, the size is 0x110000 bytes
Transfer data .....61K bytes      6%_
```

Figure 4: Transferring (Part 1)

```
If the FW update fails,PLEASE TRY AGAIN
update part 2, the size is 0x240000 bytes
Transfer data .....82K bytes      4%_
```

Figure 5: Transferring (Part 2)

2. Phase 2 is to flash the new firmware. The progress of firmware updating will be displayed as shown in (Figure 6). The BMC will reboot after the firmware is completely updated. Please wait for the BMC to complete system reboot (Figure 7).

```
If the FW update fails,PLEASE TRY AGAIN
update part 2, the size is 0x240000 bytes
Transfer data .....2304K bytes      100%

Programming Flash
Please wait....If the FW update fails. PLEASE WAIT 5 MINS AND REMOVE THE AC...
Update progress:2 %
```

Figure 6: Progress of Firmware Updating

```
If the FW update fails,PLEASE TRY AGAIN
update part 2, the size is 0x240000 bytes
Transfer data .....2304K bytes      100%

Programming Flash
Please wait....If the FW update fails. PLEASE WAIT 5 MINS AND REMOVE THE AC...
Update progress:100 %
Update Complete,Please wait for BMC reboot, about 1 min
```

Figure 7: Updates Completed