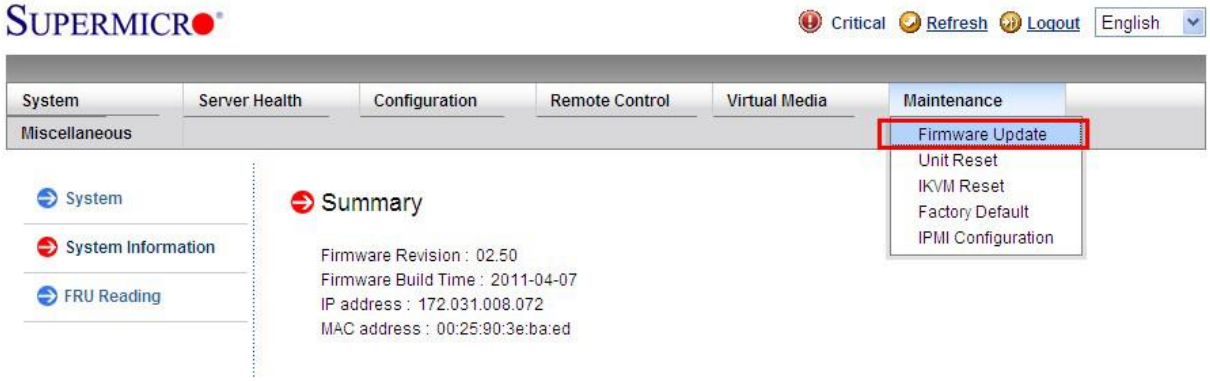
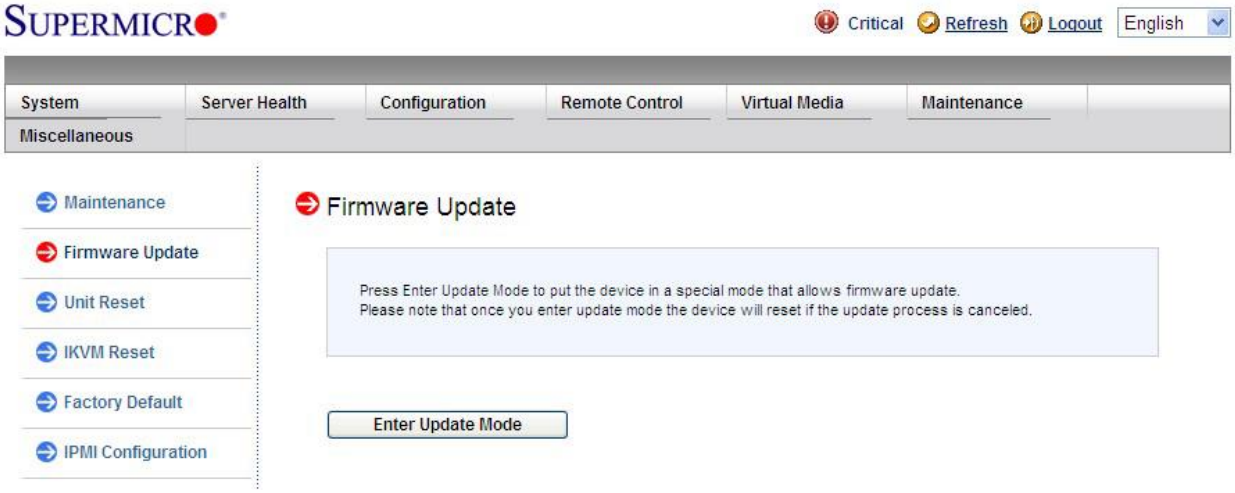
IPMI Firmware Update
In WEB-GUI/EFI

Firmware Updates in WEB-GUI:

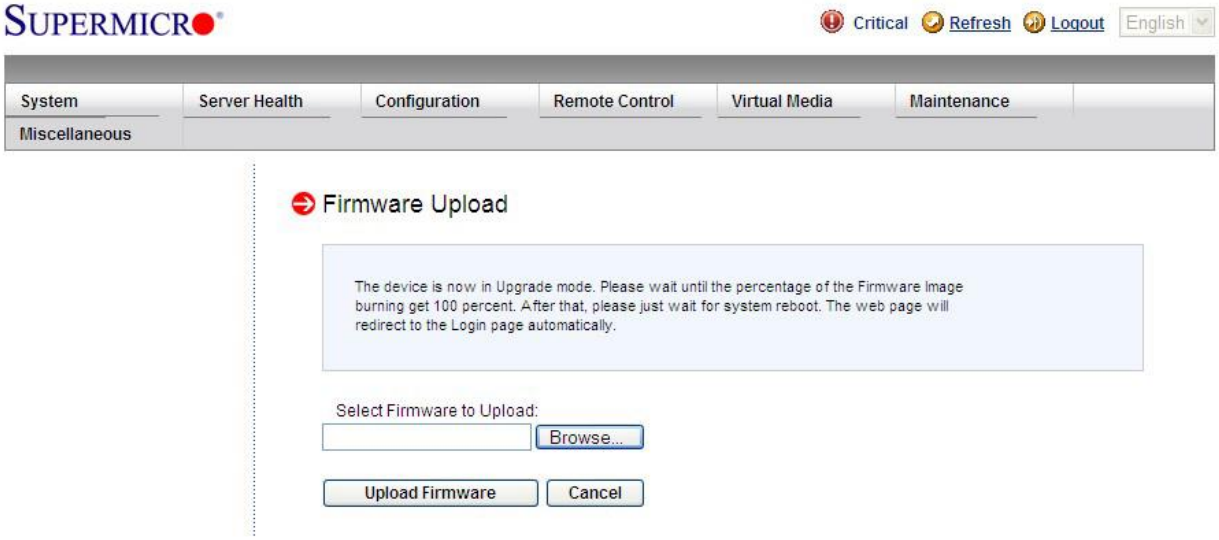
1.1 Click < Firmware update > under Maintenance



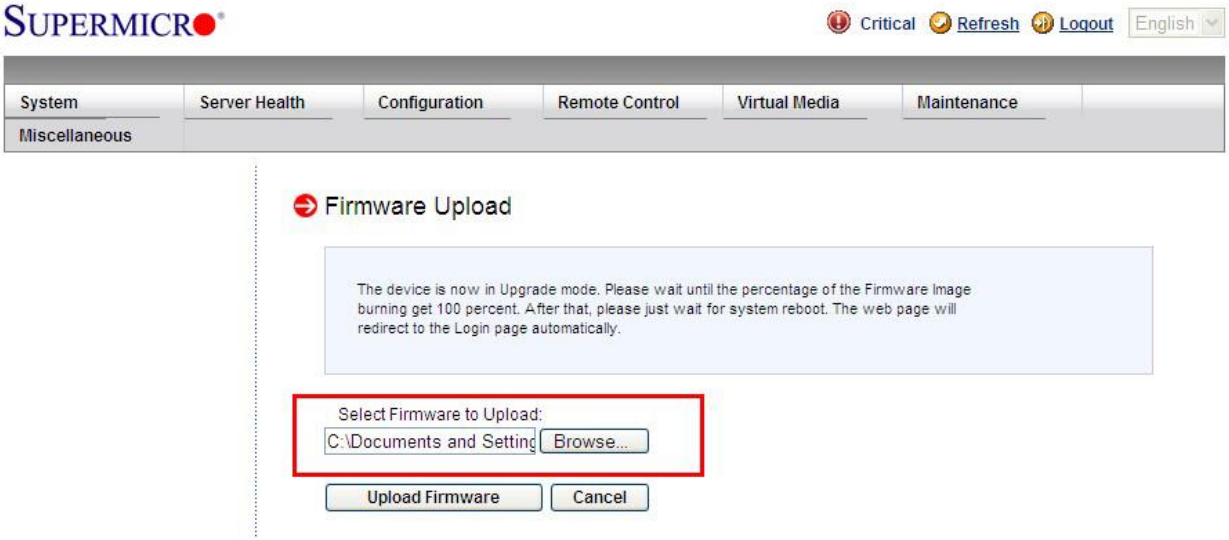
1.2 Click <Enter Update Mode> to enter the update mode. A warning message will display. Warning: Once the server is in the firmware update mode, the device will be reset, and the server will reboot even if you cancel firmware updating.



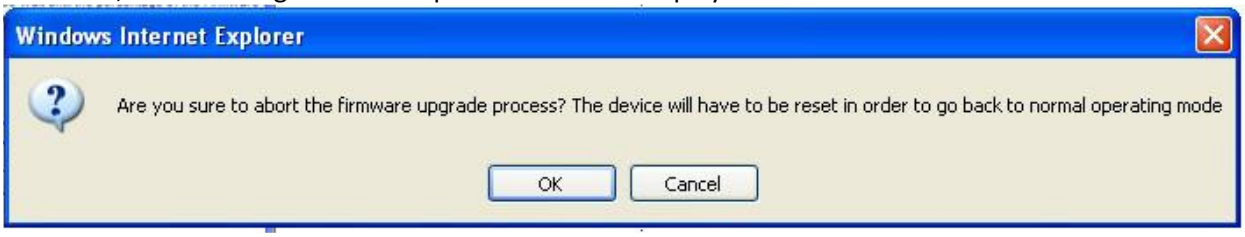
1.3 Click <OK> to update your IPMI firmware. Once you've clicked OK to update the firmware, the Firmware Upload screen will display as shown on the next page. Press the Browse button to choose firmware file and then press the Upload Firmware button to start load



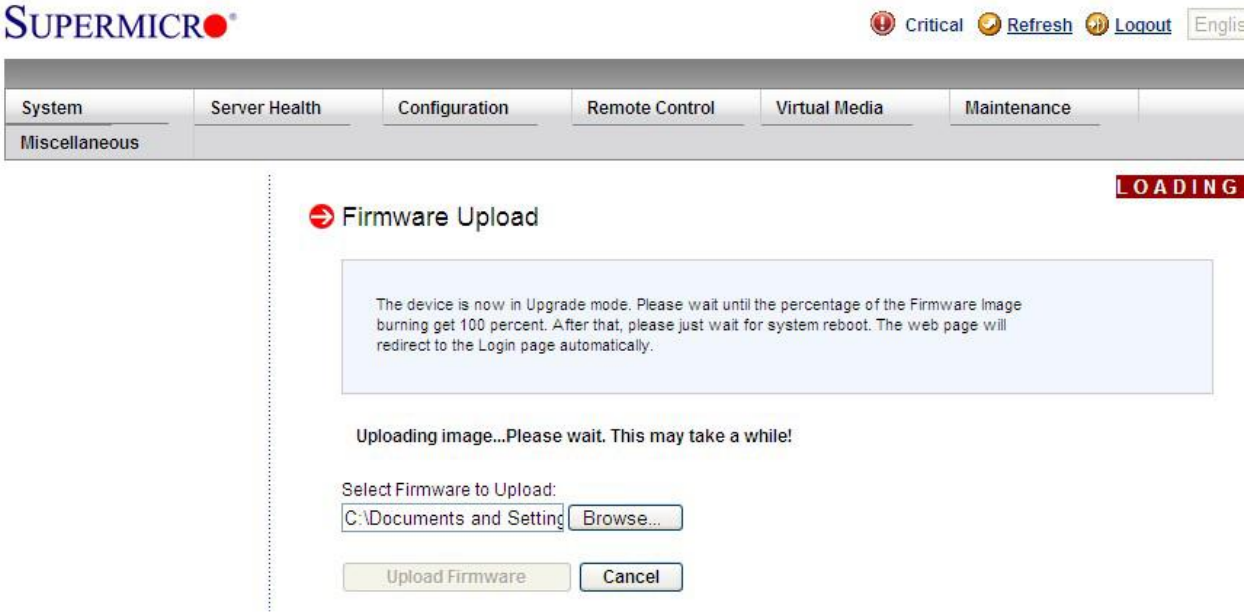
1.4 Make sure the firmware version is correct before you can press the " Upload Firmware " button for updating progress.



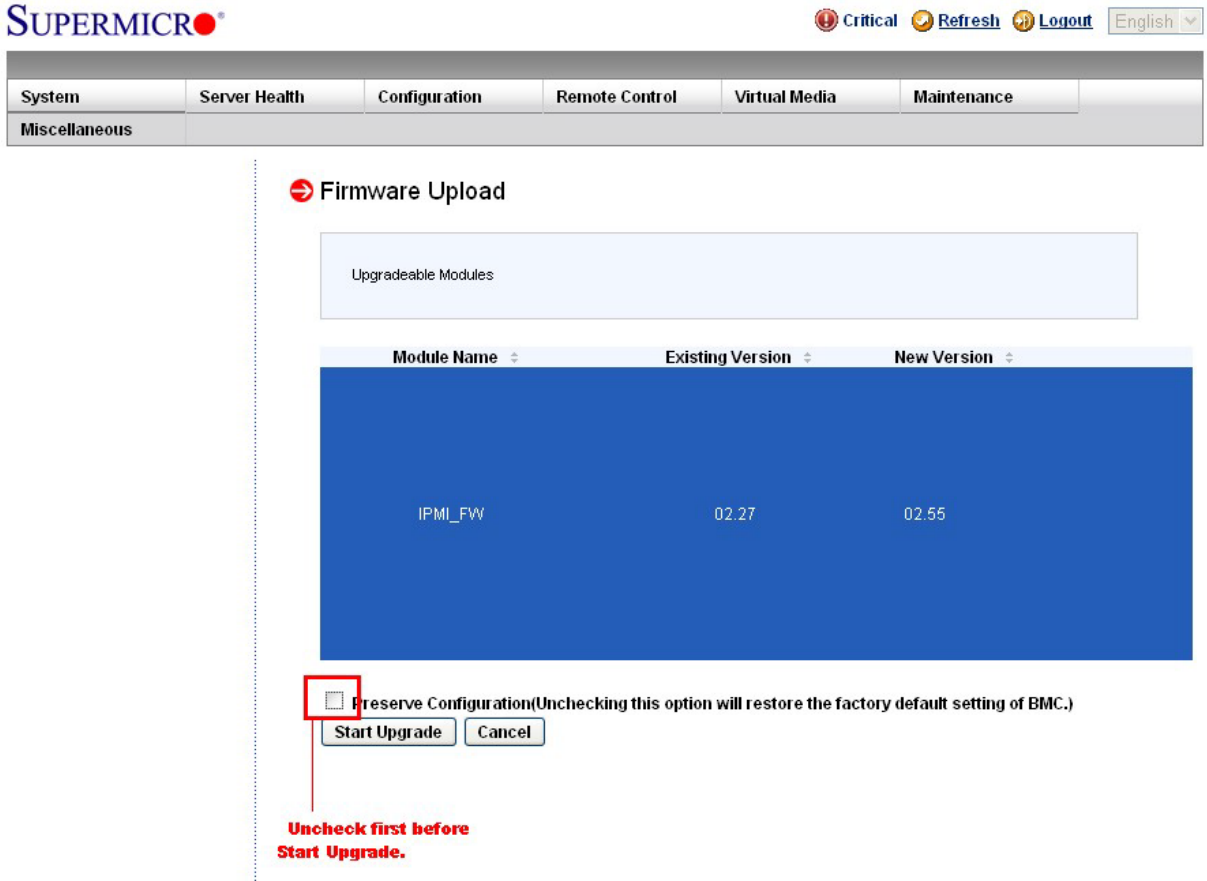
1.5 If Click <Cancel> to cancel firmware updates. Once you have clicked <Cancel > to update the IPMI Firmware, the following Firmware Upload screen will display as shown below.



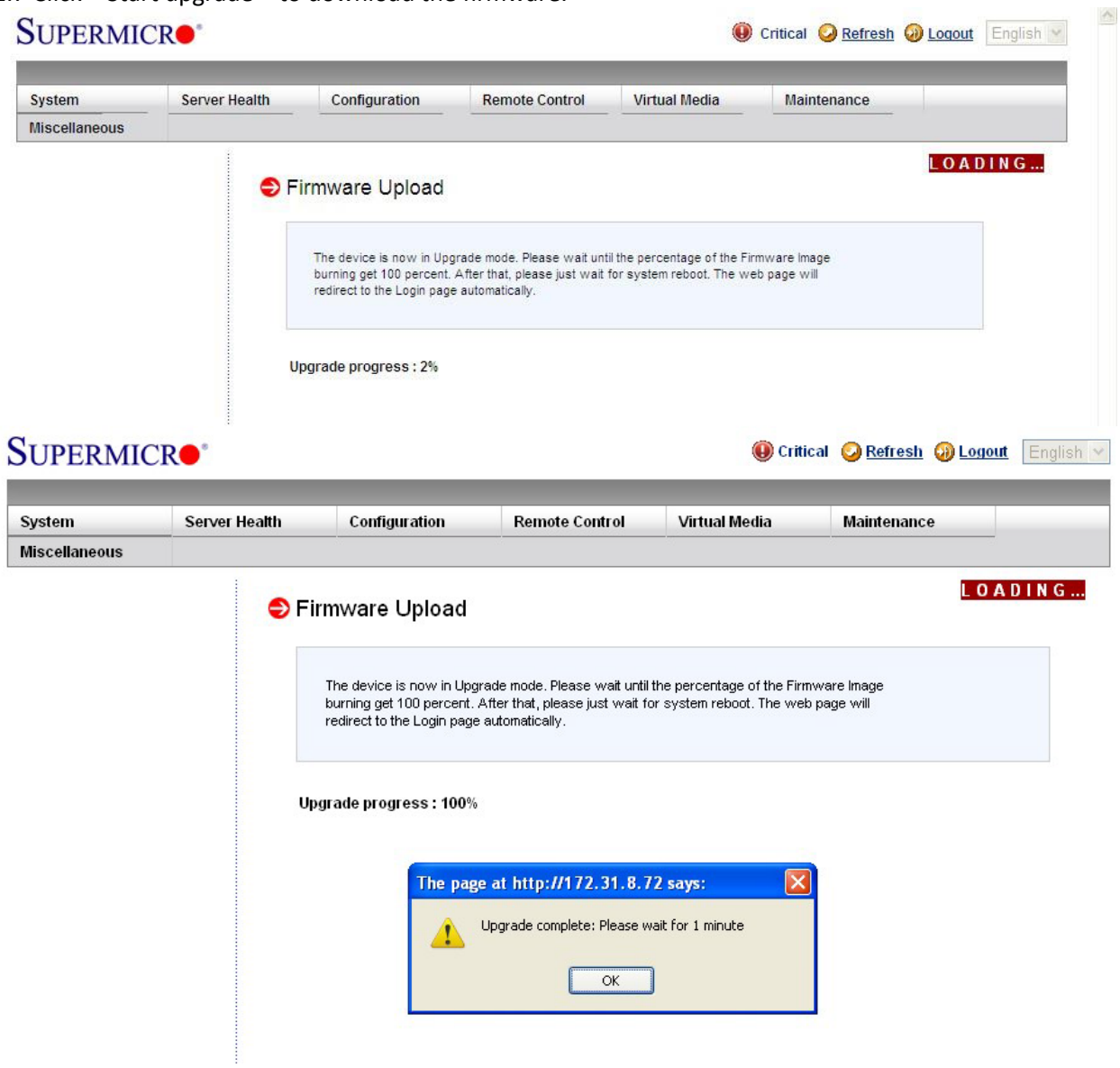
1.6 Click <Upload Firmware> to upload the selected firmware to the host server.
Warning! To properly update your firmware, do not interrupt the process until the process is completed. Once it is completed, the system will automatically reboot, and you will need to login to the server again.



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



1.7 Click < Start upgrade > to download the firmware.



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.

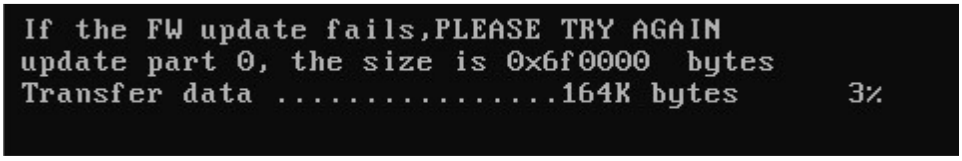


Figure 3: Transferring (Part 0)

Figure 4: Transferring (Part 1)

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).

Figure 6: Progress of Firmware Updating

Figure 7: Updates Completed