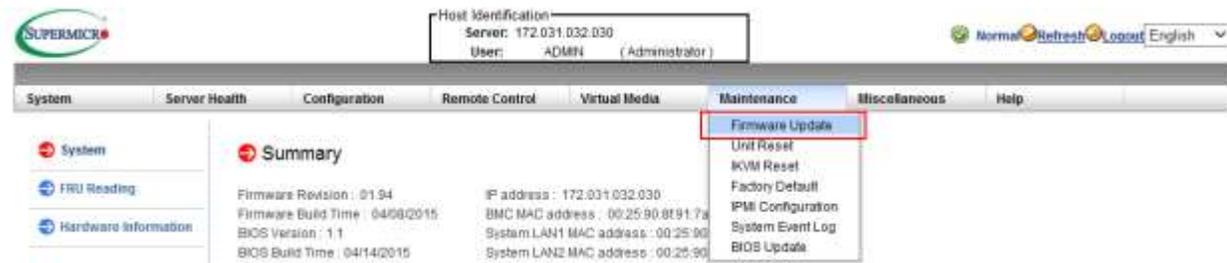


IPMI Firmware Update

In WEB-GUI/DOS/WIN/Linux

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






 English

Host Identification
 Server: 172.031.032.030
 User: ADMIN (Administrator)

System Server Health Configuration Remote Control Virtual Media Maintenance Miscellaneous Help

Maintenance
Firmware Update
 Unit Reset
 BMC Reset
 Factory Default
 IPMI Configuration
 System Event Log
 BIOS Update

Firmware Update

Press Enter Update Mode to put the device in a special mode that allows firmware update. Please note that once you enter update mode the device will reset if the update process is canceled.

Enter Update Mode

Message from webpage

Do you want to enter update mode? You will not be able to perform any other tasks until firmware upgrade is complete and the device is rebooted.

OK Cancel






 English

System Server Health Configuration Remote Control Virtual Media Maintenance Miscellaneous Help

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.






 English

System Server Health Configuration Remote Control Virtual Media Maintenance Miscellaneous Help

Firmware Upload

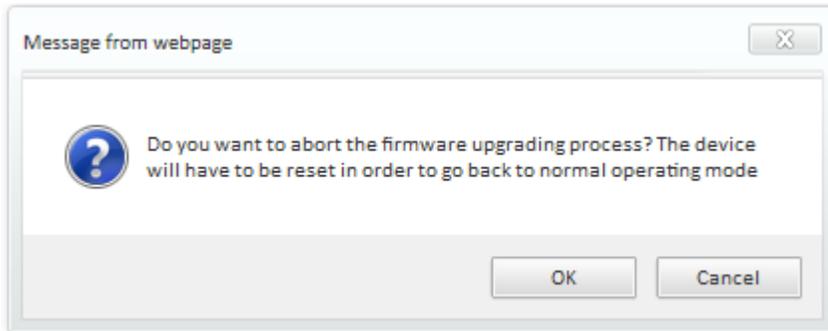
The device is now in Upgrade mode. Please wait until the percentage of the Firmware image burning get 100 percent. After that, please just wait for system reboot. The web page will redirect to the Login page automatically.

Select Firmware to Upload:

C:\Users\jonathan\Downloads Browse...

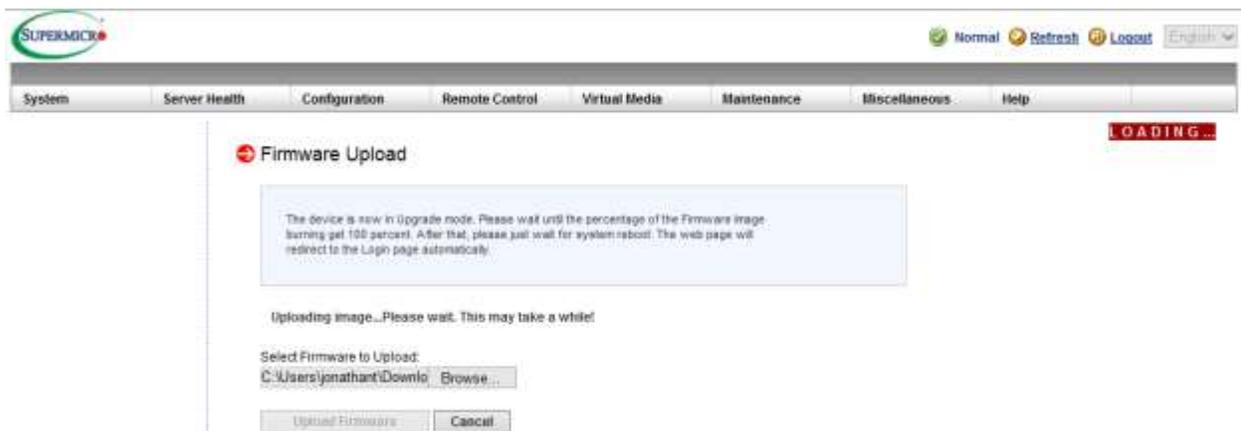
Upload Firmware Cancel

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.



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.

System | **Server Health** | **Configuration** | **Remote Control** | **Virtual Media** | **Maintenance** | **Miscellaneous** | **Help**

Firmware Upload

Upgradeable Modules

Module Name	Existing Version	New Version
SPM_FW	01.04	01.04

Preserve Configuration (Unchecking this option will restore the factory default setting of BMC.)
 Preserve SDR (Unchecking this option will restore the default of SDR.)

Start Upgrade **Cancel**

Uncheck first before Start Upgrade

1.7 Click < Start upgrade > to download the firmware.

System | **Server Health** | **Configuration** | **Remote Control** | **Virtual Media** | **Maintenance** | **Miscellaneous** | **Help**

Firmware Upload

LOADING...

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.

Upgrade progress : 2%



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

Firmware Updates in Windows, or Linux.

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 **DOS, Windows or Linux**. In addition, Windows and Linux allow the user to update the firmware via LAN or KCS.

Firmware Dumping

In addition to firmware updating, The Flash Tools also support firmware_dumping from the BMC (Baseboard Management Controller). You can use this feature to back up the firmware by *dumping* the current version of the firmware to an archive folder before updating to a new version. It will also allow you to flash other BMCs in the factory for mass production. Firmware_dumping is supported by DOS, Windows and Linux.

Windows/Linux Version of Flash Tools

In addition to DOS, the Flash Tools Utility supports Windows and Linux platforms.

The Windows/Linux version of Flash Tools Utility provides the same features supported by the DOS version. In addition, it also allows the user to update the firmware via LAN connections.

The main screen of the Windows/Linux version displays the information about the firmware and the instructions on how to use the utility as shown in Figure 1.

```

*****
* ATEN Technology, Inc.
*****
* FUNCTION : IPMI FIRMWARE UPDATE UTILITY
* VERSION : 2.02
* BUILD DATE : May 19 2014
* USAGE :
*
* (1)Update FIRMWARE : AlUpdate -f filename.bin [OPTION]
*
* (2)Dump FIRMWARE : AlUpdate -d filename
*
* (3)Restore CONFIG : AlUpdate -c -f filename.bin
*
* (4)Backup CONFIG : AlUpdate -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
* AlUpdate -f fwuperade.bin -i kcs -r y
* AlUpdate -d fwdump.bin -i kcs -r y
*
* we like to restore/backup IPMI config through KCS channel
* AlUpdate -c -f restore.bin -i kcs -r y
* AlUpdate -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
* AlUpdate -f fw.bin -i lan -h 10.11.12.13 623 -u usr -p pwd -r y
* AlUpdate -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
* AlUpdate -c -f fw.bin -i lan -h 10.11.12.13 623 -u usr -p pwd
* AlUpdate -c -d fwdump.bin -i lan -h 10.11.12.13 623 -u usr -p pwd
*****

```

Figure 1: Main Screen of Flash Tools (in the Windows/Linux Version)

In the Windows/Linux version of the Flash Tools Utility, there are six parameters:

- (1) -f: Type <-f> to enter the filename of the firmware that you want to update.
- (2) -i: indicates the IPMI channel. Currently, KCS and LAN connections are supported. If a LAN connection is used, the user needs to enter the following parameters:
 1. -h: Type <-h> to enter the addresses of the remote BMC and the RMCP+ port (default port is 623).
 2. -u: Type <-u> to enter the IPMI username.
 3. -p: Type <-p> to enter the password for the IPMI user.
 4. -r: Type <-r> to preserve (to save) the configuration settings you've entered. (This feature is optional.) (Default: preserve configuration.)
 5. y: Type <y> for the BMC to keep all settings after updating the firmware; otherwise, the BMC will reset the settings to factory default.

To connect IPMI via KCS, type <AwUpdate.exe/AIUpdate -f [filename.bin] -i kcs -r y> as shown in Figure 2.

```
./AIUpdate -f SMT_X10_100.bin -i kcs -r y
```

```
./AIUpdate -f SMT_X10_100.bin -i kcs
```

Figure 2: Example of KCS FW Updates with/without Preserving Configuration

To connect IPMI via LAN, type:

<AwUpdate.exe/AIUpdate -f [filename.bin] -i lan -h 192.168.1.1 623 -u USER -p PWD -r y> as shown in Figure 3.

```
./AIUpdate -f SMT_X10_100.bin -i lan -h 192.168.1.1 623 -u USER -p PWD -r y
```

```
./AIUpdate -f SMT_X10_100.bin -i lan -h 192.168.1.1 623 -u USER -p PWD
```

Figure 3: Example of LAN_FW_Updates through RMCP+ Port with/without Preserving Configuration.

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 4.

```
Check if this file is valid.....  
If the FW update fails,PLEASE TRY AGAIN  
Load part 0 135148 bytes, [Ok]  
Load part 1 11259904 bytes, [Ok]  
Load part 2 1519770 bytes, [Ok]  
Load part 3 2248732 bytes, 1293K bytes 59%
```

Figure 4: Transferring (Parts 0, 1, 2 & 3)

- Phase 2 is to flash the new firmware. The progress of firmware updating will be displayed as shown in (Figure 7). The BMC will reboot after the firmware is completely updated. Please wait for the BMC to complete system reboot (Figure 8).

```
If the FW update fails. PLEASE WAIT 5 MINS AND REMOVE THE AC...  
new firmware is updating...19%
```

Figure 5: Progress of Firmware Updating

```
If the FW update fails. PLEASE WAIT 5 MINS AND REMOVE THE AC...  
new firmware is updating...100%  
Update Complete, Please wait for BMC reboot, about 1 min
```

Figure 6: Updates Completed