R421 R422 R422-INF HOW TO: Update the AOC-SIMSO firmware

NOVASCALE UNIVERSAL



REFERENCE Rev06v01

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R421 R422 R422-INF HOW TO: Update the AOC-SIMSO firmware

Hardware

July 2007

BULL CEDOC 357 AVENUE PATTON B.P.20845 49008 ANGERS CEDEX 01 FRANCE

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Preface

This HOW TO explains how to replace the AOC-SIMSO or AOC-SIMSO+ card firmware for the following servers:

- NovaScale Universal R421
- Novascale Universal R422
- Novascale Universal R422-INF

All items, including firmware, BIOS, tools, packages or manuals, which are included in this manual with an * character can be downloaded from the Bull web site:

Bull S.A.S. support Web site

http://support.bull.com

Intended readers

This HOW TO is written for very qualified user's or Bull SAS support technicians.

Chapter 1. How to replace the AOC-SIMSO(+) firmware

Note:

To better understand this chapter it is recommended that the following document is read first:

Bull NovaScale R42x AOC-SIMSO/SIMSO+ Installation and User's Guide (86 A1 96ET 00)

There are two models of IPMI card used to manage the servers.

1. AOC-SIMSO

(with support of the Serial Over LAN functionality but without the support of KVM over LAN functionality)

2. AOC-SIMSO+

(with support of the Serial Over LAN and KVM over LAN functionalities).

Each model can be installed into the following servers:

- Novascale Universal R421
- Novascale Universal R422
- Novascale Universal R422-INF

We assume in this chapter that it is necessary to replace the firmware of the AOC-SIMSO or AOC-SIMSO+ card of a server named **TARGET**.

There are three different ways of replacing the AOC-SIMSO or AOC-SIMSO+ firmware.

- Use the IPMI View application from a server which can access the AOC-SIMSO(+) IP address (IPMI view exists for both Windows and Linux).
- 4. Use a WEB browser application from a server which can access the AOC-SIMSO(+) IP address; this works regardless of the type of operating system.
- 5. Use the script C:\DOS\AOCSIMSO\upgrade.bat on the bootable USB key*.

1.1 How to replace the AOC-SIMSO or AOC-SIMSO+ firmware by means of the IPMI View application

1.1.1 Prerequisites

The example that follows applies to a PC named **SUPPORT** which can access the network 192.168.1.*

It is further assumed that new firmware (for example: **ugsim131.bin**) has been downloaded from <u>http://support.bull.com</u>

to the file (SUPPORT)C:\R421R422\AOCSIMSO\beta\ugsim131.bin

1.1.2 Procedure

- 1. On the server SUPPORT launch the IPMI View application.
- 2. Log in to target AOC-SIMSO or APC-SIMSO+
 - Type in Login ID in the Login ID box (default Login ID is ADMIN)
 - Type in Password in the Password box (default password is ADMIN)
 - Click on the Login button.

📴 IPMI View V2.5.2 (build 061219) -	Super Micro Computer, Inc.	- D ×		
File Edit Session Manage Help				
SUPERMICRO The Server Solutions Manufacturer	🖳 ccs-node-9-m (R421-SDD) 🔀 ccs-node-11-m (R422-INF-P-SDD) 🖪 ccs-node-10-m (R422-INF-S-SDD)			
IPMI Domain ▲ ▼ ♀ ☆ ccs-node-10-m (R422-INF-S-SDD) ccs-node-11-m (R422-INF-P-SDD) ccs-node-4-m (R421-IPEC)	System Name ccs-node-10-m (R422-INF-S-SDD)			
ccs-node-9-m (R421-SDD) ccs-node-6-m (R422-S-IPEC) ccs-node-5-m (R422-P-IPEC)	IP Address 199.182.200.197 Description ccs-node-10m (R4224NF-S-SDD)			
ccsnode-7-m (R422-INF-9-IPEC)	Login ID ADMIN			
	Password ****			
	v save ID and Password			
	Login Logout			
罰 Groups 💽 盐 金 參				
IPMI Domain (7/8)				
J				
Logout successful				

- 3. Open the File menu and click on Update IPMI firmware
 - Type in the local file path of the firmware in the Firmware File box. Example: C:\R421R422\AOCSIMSO\beta\ugsim131.bin
 - Click on the **Start** button.

📴 Update Fir	mware >			
IP: 199.182.200.197				
Firmware File:	1R422\AOC-SIMSO\Beta\ugsim131.bin Open Start			
Message:				
		1		
]		

- 4. The current and new firmware versions are displayed.
 - Click on **Yes** to confirm the request.

Request	Confirmation 🔀
?	Curresnt firmware: Firmware Version: 1.29.0 build 4238 Firmware Tag: Mar-30-2007-11-00-nonKVM hardware ID: 0x22 OEM: peppercon
	New firmware: Firmware Version: 1.31.0 build 4238 Firmware Tag: May-30-2007-14-00 Firmware Size: 4414362 bytes Firmware Path: C:\R421R422\AOC-SIMSO\Beta\ugsim131.bin Would you like to continue ? Qui Non

Firmware uploading starts.

Warning: Do not forget to wait for the message "Firmware update completed".

📴 Update Firmware 🛛 🛛 🛛
IP: 199.182.200.197
Firmware File: C:\R421R422\AOC-SIMSO\Beta\ugsim131.bin Open Start
Upload firmware completed
Message:
Login to 199.182.200.197 Start firmware upgarde Uploading firmwareDone BMC is flashing firmware now, please wait for 1 minute
Message Update firmware completed. Please close this dialog and try to connect this system after 2 minutes

5. Click on the **OK** button.



- 6. Close the **Update Firmware** window.
- 7. Close the session.

1.1.3 How to check the AOC-SIMSO or AOC-SIMSO+ firmware version number

- 1. Log in again to TARGET AOC-SIMSO or AOC-SIMSO+
 - Type in Login ID in Login ID box
 - Type in Password in **Password** box
 - Click on Login button

IPMI View V2.5.2 (build 061219) - Super Micro Computer, Inc.	_ 🗆 🗙			
Hie Lat Sesion Manage Hep				
SUPERMICRO The Server Solutions Manufacturer				
cosnode10m (B422INFS-SDD) System Name ccs-node-4-m (B421-IPEC)				
Ccsnode-4m IP4214FEC IP Address 199.182.200.195				
聞 ccsnode-5m (R42254PEC) Description ccs-node-4m (R4214PEC) 成 csnode-7m (R4214PEC) したいのは、1000000000000000000000000000000000000				
Ccs-node-8-m (R4221NF-S-IPEC)				
Password ****				
V save ID and Password				
Login Logout				
III Groups Da 齿 金 参				
IPMI Domain (8/8)				
Login				
Logout successful				

2. Click on the IPM tab page

• Firmware version displays into **Device Information** frame.

IPMI View V2.5.2 (build 061219) - 5	uper Micro Computer, Inc.	<		
File Edit Session Manage Help		-		
SUPERMICRO The Server Solutions Manufacturer	Coshode-4-m (R421-IPEC) Device Information Firmware Revision 01.31 ACPI System Power State S0/G0			
Image: Costnode-11-m (R422-INF-P-SDD) Image: Costnode-4-m (R421-IPEC) Image: Costnode-9-m (R422-SI-IPEC) Image: Costnode-5-m (R422-SI-IPEC) Image: Costnode-5-m (R422-SI-IPEC)	IPMI Revision 2.0 On Graceful Power Control			
Scs-node-7-m (R422-INF-P-IPEC) ccs-node-8-m (R422-INF-S-IPEC)	Chassis Power Control			
	Power Down Power Up Power Cycle Reset			
	BMC Cold Reset			
譚 Groups				
Get ACPI Power State succeeded	Lugini Evenic Lugi Sensura IPM Device BMC Setting Users Text Console VVM Console) Virtual Media			

3. Click on the **Logout** button.

IPMI View V2.5.2 (build 061219) - Supe	er Micro Computer, Inc.	
File Edit Session Manage Help		
SUPERMICR• The Server Solutions Manufacturer	ccsnode-4m (R421-IPEC)	
IPMI Domain ▲ ♀ ♀ Image: Ccs-node-10-m (R422-INF-S-SDD) Image: Ccs-node-11-m (R422-INF-P-SDD)	System Name ccs-node-4-m (R421-IPEC)	
Cosinode-4-m (R421-IPEC)	IP Address 199.182.200.195	
Coshode Sim (R422-Sin EC) Coshode-5-m (R422-P-IPEC) Coshode-7-m (R422-INF-P-IPEC)	Description ccs-node-4-m (R4214PEC)	
🔀 ccs-node-8-m (R422-INF-S-IPEC)	Login ID	
	Password ****	
	🔽 save ID and Password	
	Login	
题 Groups 隐盐途参 配 IPMI Domain (8/2)	CONNECTED	
	Version : IPMI 2.0 For Standard RMCP+ Cipher Suite : (RAKP-HMAC-SHA1, HMAC-SHA1-96, AES-CBC-128)	
Get ACPI Power State succeeded	gin Event Log Sensors IPM Device BMC Setting Users Text Console KVM Console Virtual Media	

4. Close the session.

1.2 How to replace the AOC-SIMSO or AOC-SIMSO+ firmware by means of a WEB browser

1.2.1 **Prerequisites**

The example that follows applies to a PC named **SUPPORT** which can access the network 192.168.1.*

It is further assumed that new firmware (for example: **ugsim131.bin**) has been downloaded from <u>http://support.bull.com</u>

to the file (SUPPORT)C:\R421R422\AOCSIMSO\beta\ugsim131.bin

1.2.2 Procedure

On the server **SUPPORT**, open your WEB browser (for example Internet Explorer on Windows) and type in the AOC-SIMSO or AOC-SIMSO+ IP address. (example: <u>http://192.168.1.102</u>)

Type in your Username in the Username box (The default username is ADMIN)

Type in your Password in the **Password** box (The default password is **ADMIN**)

🖉 Authentication - Microsoft Internet Explorer	
Eile Edit View Favorites Tools Help	
🔇 Back 🔹 🗇 👻 😰 🐔 🔎 Search 🛭 😓 Favorites 🔮 Media 🛛 🖉 😓 😓	
Address 🕘 http://ccs-node-4-m/auth.asp	🔽 🄁 Go 🛛 Links 🎽
	<u>م</u>
Authenticate with Login and Pa	issword!
Username ADMIN	
Password	
Login	
Done	Trusted sites





Click on the Maintenance Icon on the Home Page to activate its submenus.

- Then click on the Update Firmware function to enable Update Firmware.
- Enter the name of the firmware you want to update or click on the **Browse** icon to select the firmware file.
- Click on the **Upload** icon to upload the firmware file to the server for the update.

Note:

This process is not reversible once the firmware is updated, so proceed with caution. It might take a few minutes to complete the procedure.



Click on the **Update** button

Note:

It might take a few minutes to complete the procedure.

🖉 Home - Microsoft Internet Expl	orer 🔤 🗖 🗙
<u>File Edit View Favorites Tool</u>	s Help 🧗
🔇 Back 🝷 🕘 👻 🖹 😭 🏸	Search 👷 Favorites 🜒 Media 🕢 🔗 - 😓 🚍
Address 🙆 http://ccs-node-4-m/home	e.asp 🔽 🄁 Go Links »
Home Console	Logout
Remote Control	Firmware Update
Virtual Media	Current version: 36
System Health	New version: 01.31.00 (Build 4238) / May-30-2007-14-
User Management	Update Discard
KVM Settings	I his may take some minutes. Please do NOT power off the device while the update is in progress! After a successful undate, the device will be reset automatically.
Device Settings	
Maintenance	
Oevice Information	
Event Log Undete Firmwere	
 ♥ Update Firmware ♥ Unit Reset 	
🙆 Done	Trusted sites

When the procedure is successfully terminated, the message below is displayed.



The browser is redirected to the login page within 1 minute.

🚰 Authentication - Microsoft Internet Explorer		
<u>Eile Edit Vi</u> ew Favorites <u>I</u> ools <u>H</u> elp		
🚱 Back 🝷 🕥 👻 😰 🐔 🔎 Search 👷 Favorites 🚳 Media 🗔 😥 چ 🚍		
Address 🗃 http://ccs-node-4-m/auth.asp?redirect=yes		🔽 🄁 Go 🛛 Links
Authenticate with Login and Password!		
Username	1	
	-	
Password]	
Login		
A Done		Trusted sites

- To verify the firmware version, log in again to the target AOC-SIMSO or AOC-SIMSO+ card
- Type in your Username in the **Usernam**e box (The default username is **ADMIN**)
- Type in your Password in the Password box (The default password is ADMIN)

Authentication - Microsoft Internet Explorer	_ 🗆 ×
🌍 Back 🔻 🕥 🖌 😰 🚷 🔎 Search 👷 Favorites 😵 Media 🛛 😥 😓 🔜	
Address 🗃 http://ccs-node-4-m/auth.asp	💌 🌛 Go 🛛 Links 🂙
	<u>~</u>
Authenticate with Login and Password!	
Username ADMIN	
Password	
Login	
Done	Trusted sites

Click on the Maintenance Icon on the Home Page to activate its submenus.

• Then click on the function "Device Information" to display the firmware version.

🖉 Home - Microsoft Internet Explorer		
<u>Eile E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u> ools <u>H</u> elp		2
🔇 Back 👻 🕤 👻 😰 🐔 🔎 Search 👷 F	Favorites 👏 Media 🔣 😥 🔜	
Address 🕘 http://ccs-node-4-m/home.asp		🕶 🌛 Go 🛛 Links 🂙
Home Console		Logout
Remote Control	Device Information	
Virtual Media	Product Name: Supermicro Daughter Card Serial Number: 0251A601B944269C	
System Health	Device IP Address: 199.182.200.195	
	Device MAC Address: 00:30:48:33:86:a0	
User Management	Firmware Version: 01.31.00	
KV/M Settings	Firmware Build Number: 4238	
RYM Settings	Firmware Description: May-30-2007-14-00	
Device Settings		
Maintenance	View the datafile for support.	
Device Information	Connected Users	
😔 Event Log	ADMIN (199.162.200.196) active	
Oupdate Firmware		
		risteri sites

• Click on the "Logout" button to log out from Remote Console Interface.

1.3 How to replace the AOC-SIMSO or AOC-SIMSO+ firmware by means of a bootable USB key

This procedure is reserved for Bull S.A.S. support technicians when, for example, an AOC-SIMSO or AOC-SIMSO+ card must be replaced.

In this case:

- The AOC-SIMSO or AOC-SIMSO+ firmware must be upgraded. •
- The IP address of the replaced card must be restored on the new card.

Note:

The technician must have a portable PC (hereafter named SUPPORT) running the Windows operating system.

How to create your 'Bootable USB Key' 1.3.1

1. Download the Bootable-USB-Key-kit.zip from the Bull S.A.S. support WEB site.

http://support.bull.com/ols/product/platforms/ns/uline/r400/r421/dl/index.html

http://support.bull.com/ols/product/platforms/ns/uline/r400/r422/dl/index.htm

to (SUPPORT)C:\R421R422\

2. Deploy (extract all files) the Bootable-USB-Key-kit.zip the in local directory

(SUPPORT)C:\R421R422\

3. Change the directory to

(SUPPORT)C:\R421R422\ClefUSBbootable-Tools

4. Connect an USB Key to your SUPPORT server (for example Windows might see this USB key on drive J: (for example))



CAUTION:

All data on this USB key will be lost.

Execute the following command to create your Bootable USB Key.

CreateBootableUSBkey.bat J

And follow the directions which appear.

1.3.2 How to use your 'Bootable USB Key'

- 1. From the **SUPPORT** server Log on to TARGET server either by means of a WEB browser or by means of the IPMI View application and switch to **Full screen** mode.
- 2. Connect your **Bootable USB Key** to a Novascale R421, R422 or R422-INF server USB port.
- 3. If necessary stop the operating system.
- 4. Reboot the system and press **Del** to run setup.
- 5. Move the USB Key to first position of the boot list.

≜ Supermicro Daug	hter Card Remote	e Console					
Ctrl+Alt+Delete							Options
			Phoen ix BIOS	Setup	Utilitu		<u> </u>
Main	Adua	anced	Securitu	Boot	Exit		
	110.00			2000			
						T4	9
					_	Item	specific Help
1:	USB KEY	l:					
2:	USB FDO	D:					
3:	USB CDI	ROM :				Keys us	ed to view or
4:	PCI SCS	SI: Intel	RATDO-0			configu	re devices:
5.	PCT BEL	I. TBA (F Slot 0400 u	1236		lln and	Down arrows
с. с.	TOT DL	·		1230		l ob ana	doution
				C •			
<u>e</u>			Setup Co	nt irmat	t ion		<-> moves
8:							ce up or down.
1 (C)	IDE 0:	Save o	configuration	changes	s and exit	t now? 👘	<pr> specifies</pr>
	IDE 1:						e fixed or
	THE 2:		fyes		[No]		• .
	THE 3.		100		LIIOJ		de en include
	TDE A.	_			_	41-1	
	IDE 4:						
÷ .	IDE 5:					<shift< td=""><td>+ 1> enables or</td></shift<>	+ 1> enables or
÷	Legacy	Floppy I)rives			disable	s a device.
:	USB HDI	D:				<1 - 4>	Loads default
	PCT SCS	SI: Intel	RATDO-1			hoot se	mence.
						1 2200 00	
Console(): Desktop	size is 1 024 x 768					Fps: 0 l	n: 0 B/s Out: 2 B/s 🔢 👔 🍋

6. Type F10 and confirm the acceptance of the changes and the reboot of the server.

The server stops on prompt C: $\$

7. Change directory to

```
C:\DOS\AOCSIMSO\
```

8. If the server has an AOC-SIMSO card then execute the following command:

C:\Upgrade.bat SIMSO

otherwise if the server has an AOC-SIMSO+ card then execute the following command:

```
C:\Upgrade.bat SIMSOP
```

And follow the directions which appear.

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