

The SOP of updating XJ3000-4603S SAS JBOD Firmware and MFG through Console Port in Windows OS

Date: 10-April-14

● Purpose

To ensure the process of updating the XJ3000-4603S SAS JBOD Firmware and MFG were successful and all updates are done in same manner.

● Tools prepare:

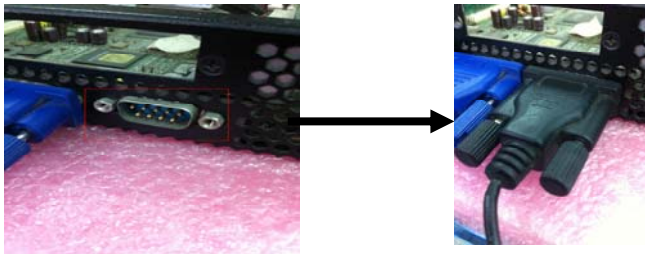
- 1) Console cable (You can find the cable in Ass'y bag of 4U60 JBOD)



- 2) Please have a OS with HyperTerminal program.

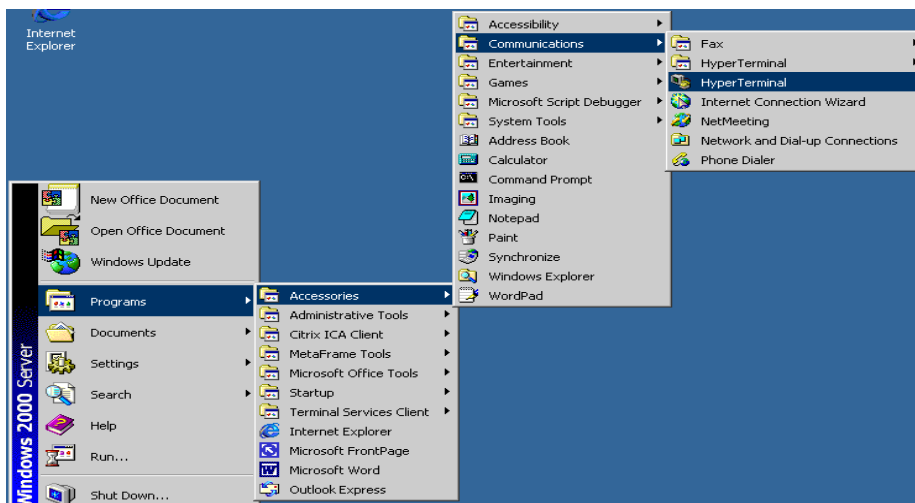
- 3) Please connect the console cable into the computer's RS232 port and JBOD's COM.

* The COM port icon in JBOD is 1C, 2C and 3C. The 1C is HUB, 2C is left edge, 3C is right edge port .



● Update Procedure

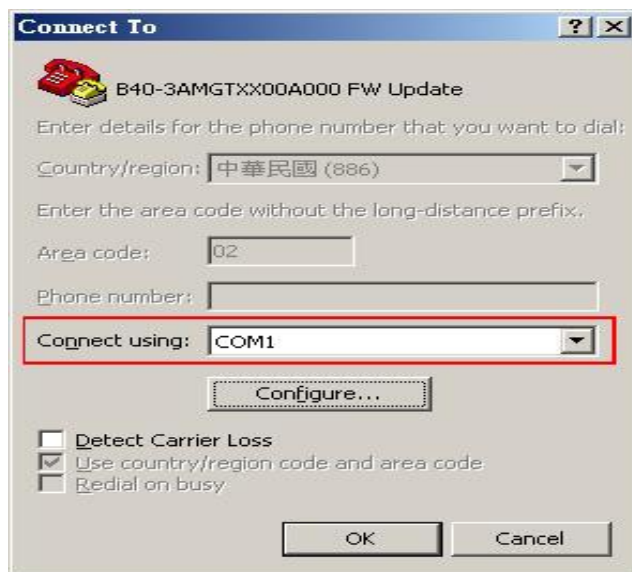
- 1) Power on your computer and running the HyperTerminal program.



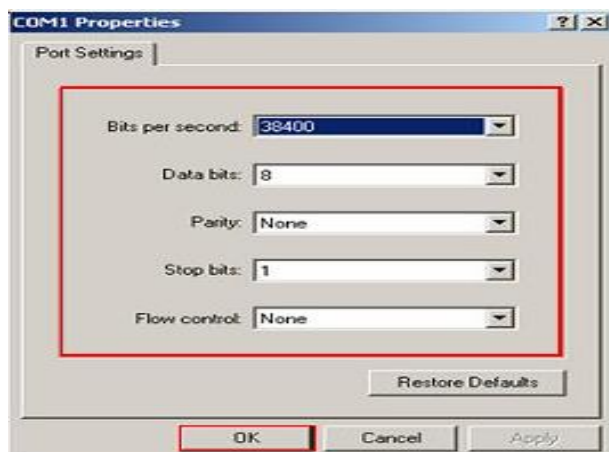
2) Assign the name to the session.(The name can be any words.)



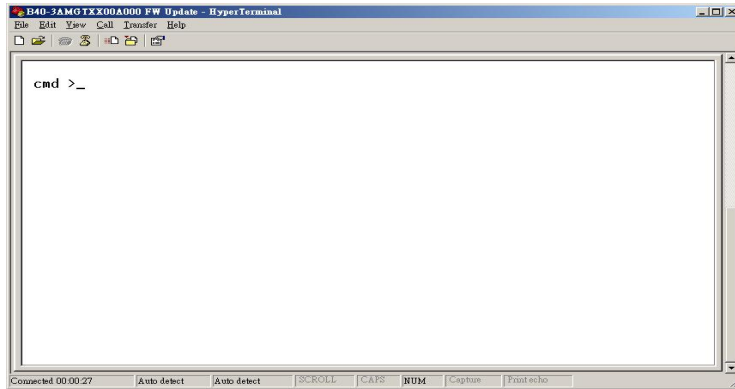
3) Please select "COM1" in connect using item and then press "configure".



4) Please set a) Bits per second to "38400", b) Data bits to "8", c) Parity to "None", d) Stop Bits to "1", e) Flow Control to "None" and then press OK.



- 5) After steps 4, you will enter hyper terminal screen and then please press "Enter" key, the screen will appear the cmd line



- 6) There are 3 COM ports have to update. Please update the FW/MFG from right to left in sequence

7) Please insert JBOD COM port jack in 1C of JBOD to update HUB FW and MFG.

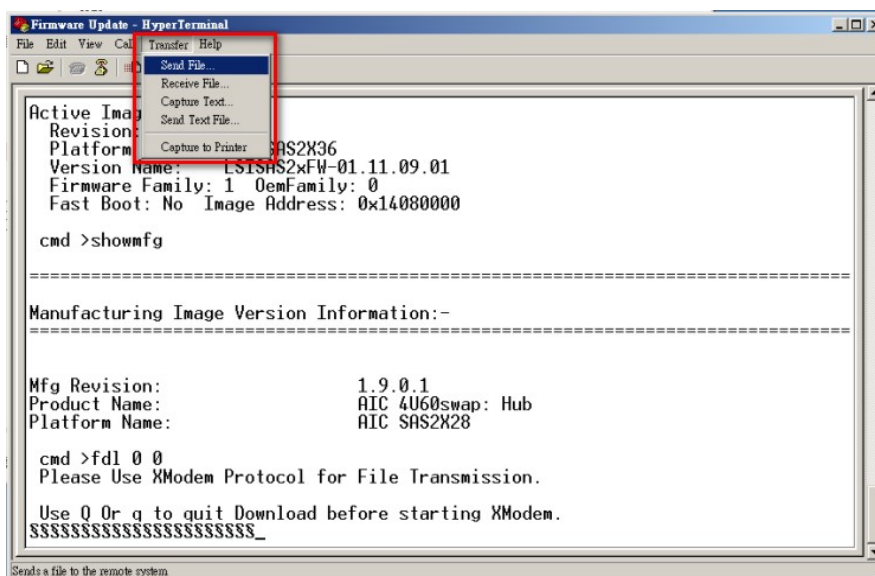
The HUB FW file name is **fw2A9_v1.11.9.53hub** .

The HUB MFG file name is **mfg2A9.0_4U60swap_SE_Hub_v1.9.0.51**

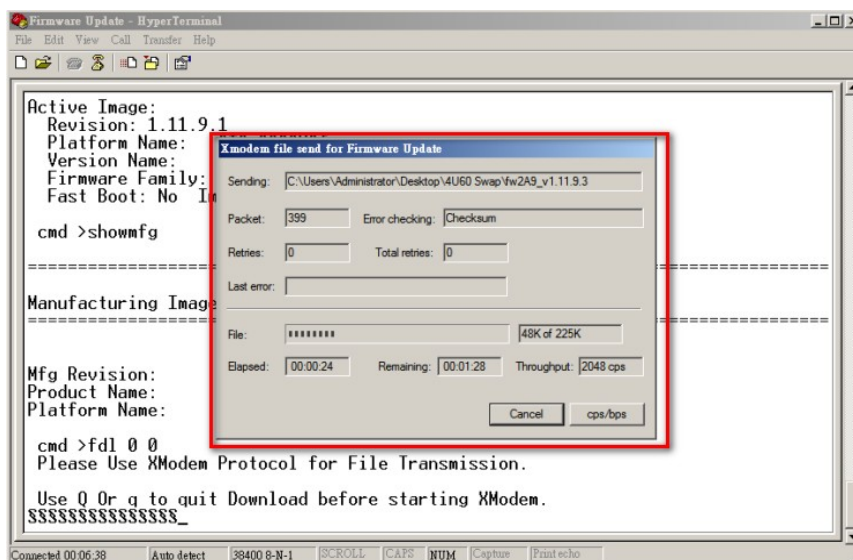
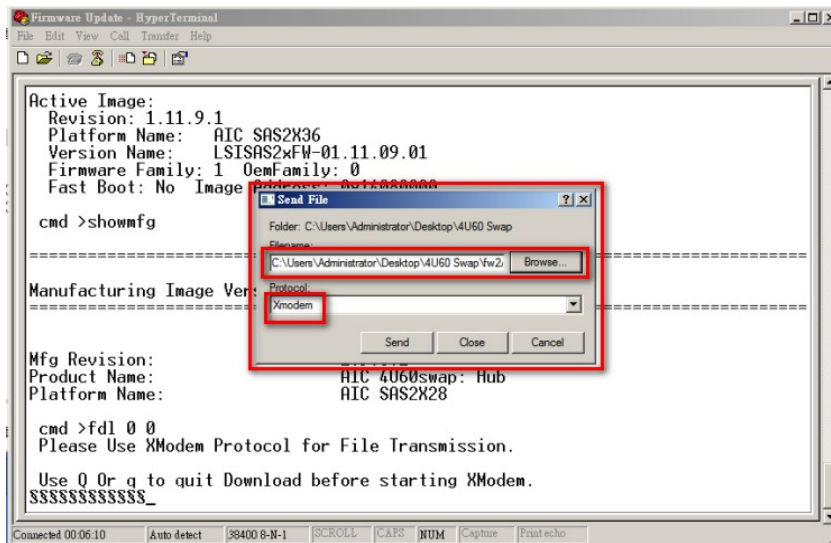
- 8) Please input "fdl 0 0" in com line to update the firmware,



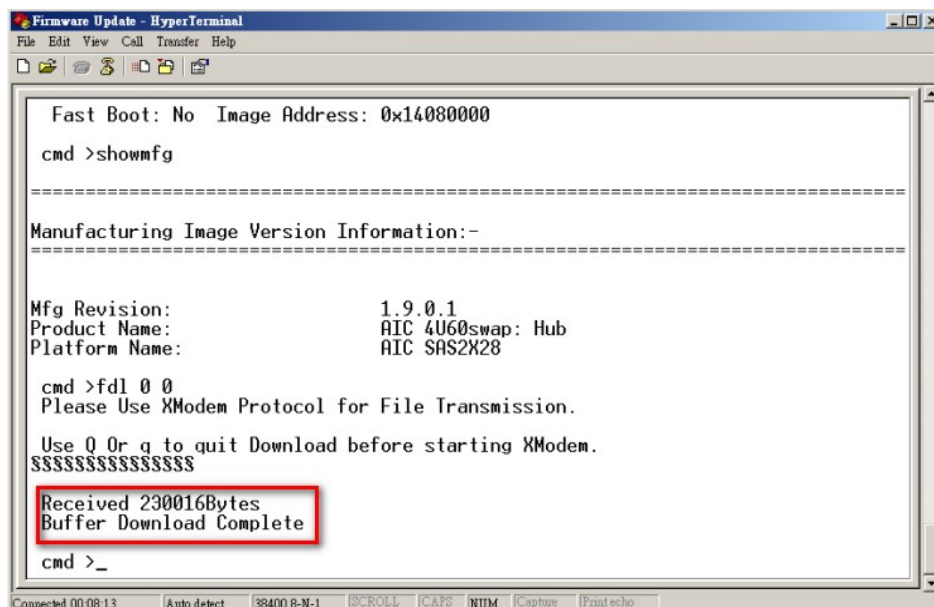
- 9) Please go to the Transfer menu, and then select "Send file"



- 10) Select the Firmware file “fw2A9_v1.11.9.53hub” and set the Protocol type is “Xmodem” and then press the “Send” button



- 11) After finished the FW updated, the screen will show “ Buffer Download Complete”.



- 12) Please input "fdl 83 0" in com line to update the MFG.
- 13) Please go to the Transfer menu, and then select "Send file"
- 14) Select the Firmware file "mfg2A9.0_4U60swap_SE_Hub_v1.9.0.51" and set the Protocol type is "Xmodem" and then press the "Send" button
- 15) After finished the MFG updated, the screen will show " Buffer Download Complete".

```
Firmware Update - HyperTerminal
File Edit View Call Transfer Help

Mfg Revision:          1.9.0.1
Product Name:         AIC 4U60swap: Hub
Platform Name:        AIC SAS2X28

cmd >fdl 0 0
Please Use XModem Protocol for File Transmission.

Use Q Or q to quit Download before starting XModem.
SSSSSSSSSSSSSSSSSSSS

Received 230016Bytes
Buffer Download Complete

cmd >fdl 83 0
Please Use XModem Protocol for File Transmission.

Use Q Or q to quit Download before starting XModem.
SSSSSSSSSS

Received 14848Bytes
Buffer Download Complete

cmd >
```

- 16) Please change JOBD COM port jack from 1C to 2C to update Left Edge FW and MFG.

The Left Edge FW file name is fw2A10_v1.11.10.53left .

The Left Edge MFG file name is mfg2A10.0_4U60swap_SE_LeftEdge_v1.10.0.53

- 17) Please input "fdl 0 0" in com line to update the firmware,

```
Platform Name:          HIC SAS2X28

cmd >fdl 0 0
```


A screenshot of the HyperTerminal application window titled "Firmware Update - HyperTerminal". The "File" menu is open, and the "Send File..." option is highlighted with a red rectangle. Other visible options include "Receive File...", "Capture Text...", "Send Text File...", and "Capture to Printer...". The main terminal area displays information about an active image revision, including platform name (SAS2X36), version name (LSISAS2xFW-01.11.09.01), and firmware family details. Below this, it shows the command prompt where "cmd >showmfg" has been entered, followed by a separator line and the heading "Manufacturing Image Version Information:-". This is followed by mfg revision (1.9.0.1), product name (AIC 4U60swap: Hub), and platform name (AIC SAS2X28). At the bottom, it shows the command "cmd >fdl 0 0" and instructions to use XModem protocol for file transmission, ending with a series of dollar signs and an underscore. A status bar at the very bottom reads "Sends a file to the remote system."

Firmware Update - HyperTerminal

File Edit View Call Transfer Help

Active Image:
 Revision: 1.11.9.1
 Platform Name: AIC SAS2X36
 Version Name: LSI SAS2xFW-01.11.09.01
 Firmware Family: 1 OEM Family: 0
 Fast Boot: No Image Address: 0c12000000

cmd > showmfg

=====

Manufacturing Image Version:

=====

Mfg Revision:
 Product Name: AIC 4060swap: Hub
 Platform Name: AIC SAS2X28

cmd > fdl 0 0
 Please Use XModem Protocol for File Transmission.
 Use Q Or q to quit Download before starting XModem.
 \$\$\$\$\$\$\$\$\$\$\$\$

Send File

Folder: C:\Users\Administrator\Desktop\AU60 Swap

File name:
 C:\Users\Administrator\Desktop\AU60 Swap\fw2

Protocol:
 Xmodem

Send Close Cancel

Connected 00:06:10 Auto detect 38400 8-N-1 SCROLL CAPS NUM Capture Print echo

Firmware Update - HyperTerminal

File Edit View Call Transfer Help

Active Image:
Revision: 1.11.9.1
Platform Name:
Version Name:
Firmware Family:
Fast Boot: No I

cmd >showmfg

Manufacturing Image

Mfg Revision:
Product Name:
Platform Name:

cmd >fdl 0 0
Please Use XModem Protocol for File Transmission.
Use Q Or q to quit Download before starting XModem.
\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$

Xmodem file send for Firmware Update

Sending: C:\Users\Administrator\Desktop\4U60 Swap\fw245_v1.11.9.3

Packet: 399 Error checking: Checksum

Retries: 0 Total retries: 0

Last error:

File: 48K of 225K

Elapsed: 00:00:24 Remaining: 00:01:28 Throughput: 2048 cps

Cancel cps/tps

20) After finished the FW updated, the screen will show “ Buffer Download Complete”.

```
Firmware Update - HyperTerminal
File Edit View Call Transfer Help

Fast Boot: No Image Address: 0x14080000
cmd >showmfg

Manufacturing Image Version Information:-

Mfg Revision:          1.9.0.1
Product Name:          AIC 4U60swap: Hub
Platform Name:         AIC SAS2X28

cmd >fdl 0 0
Please Use XModem Protocol for File Transmission.

Use Q Or q to quit Download before starting XModem.
Received 230016Bytes
Buffer Download Complete
cmd >_

Connected 00:08:13 | Auto detect | 38400 8-N-1 | SCROLL | CAPS | NUM | Capture | Print echo
```

21) Please input “fdl 83 0 ” in com line to update the MFG.

22) Please go to the Transfer menu, and then select “Send file”

23) Select the Firmware file “mfg2A10.0_4U60swap_SE_LeftEdge_v1.10.0.53 ” and set the Protocol type is “Xmodem” and then press the “Send” button

24) After finished the MFG updated, the screen will show “ Buffer Download Complete”.

```
Firmware Update - HyperTerminal
File Edit View Call Transfer Help

Mfg Revision:          1.9.0.1
Product Name:          AIC 4U60swap: Hub
Platform Name:         AIC SAS2X28

cmd >fdl 0 0
Please Use XModem Protocol for File Transmission.

Use Q Or q to quit Download before starting XModem.
Received 230016Bytes
Buffer Download Complete

cmd >fdl 83 0
Please Use XModem Protocol for File Transmission.

Use Q Or q to quit Download before starting XModem.
Received 14848Bytes
Buffer Download Complete
cmd >

Connected 00:09:39 | Auto detect | 38400 8-N-1 | SCROLL | CAPS | NUM | Capture | Print echo
```

25) Please change JOBD COM port jack from 2C to 3C to update Right Edge FW and MFG.

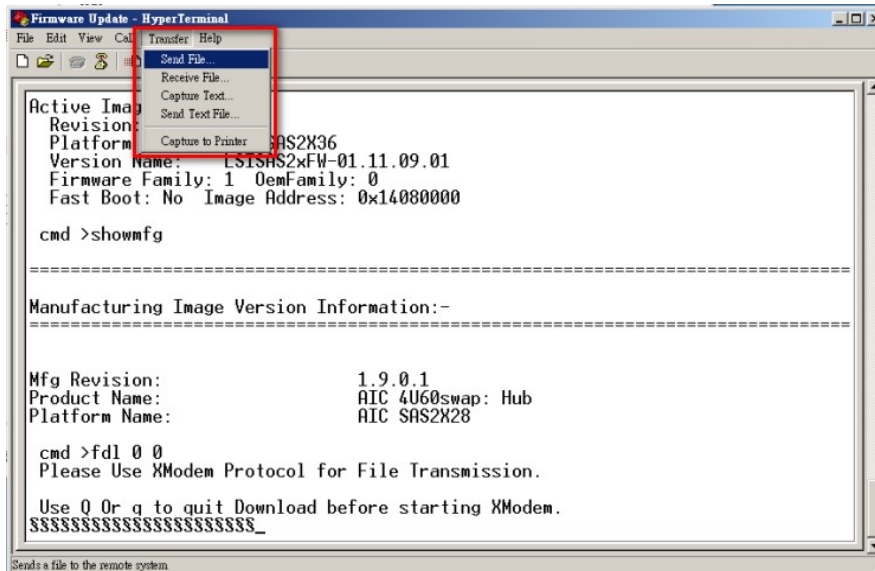
The Right Edge FW file name is **fw2A10_v1.11.10.53right**.

The Right Edge MFG file name is **mfg2A10.1_4U60swap_SE_RightEdge_v1.10.1.53**.

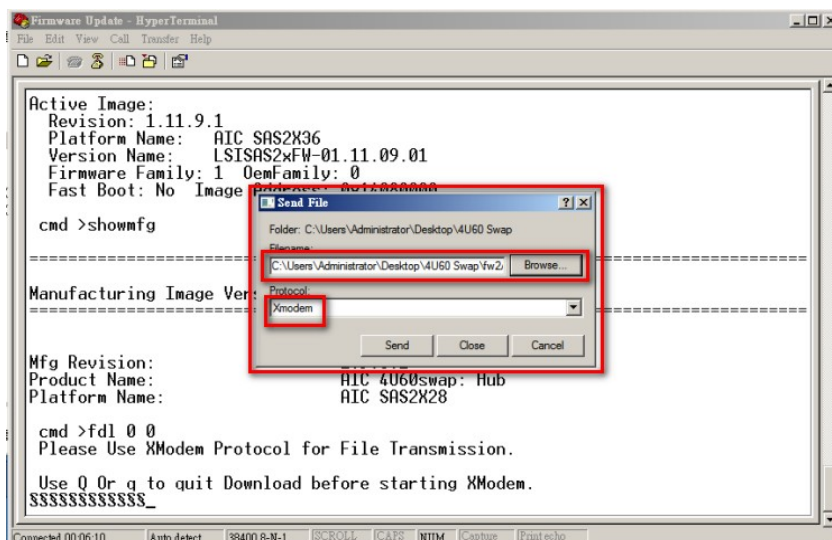
26) Please input “fdl 0 0” in com line to update the firmware,

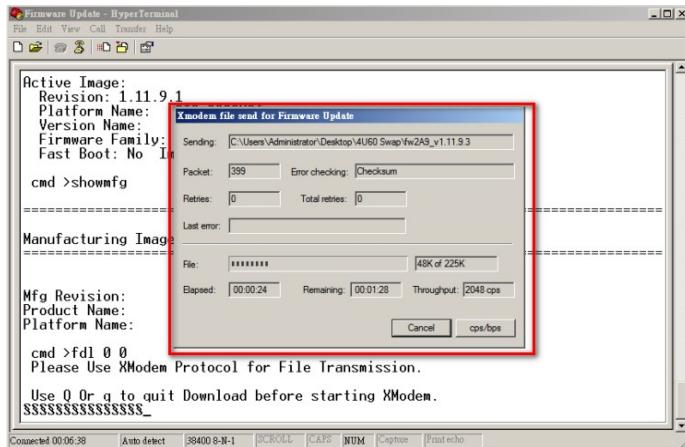


27) Please go to the Transfer menu, and then select “Send file”

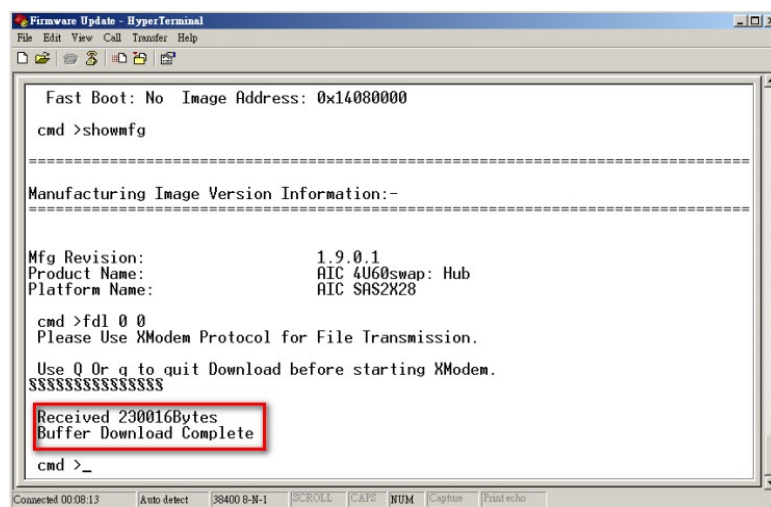


28) Select the Firmware file “fw2A10_v1.11.10.53right” and set the Protocol type is “Xmodem” and then press the “Send” button





29) After finished the FW updated, the screen will show “ Buffer Download Complete”.

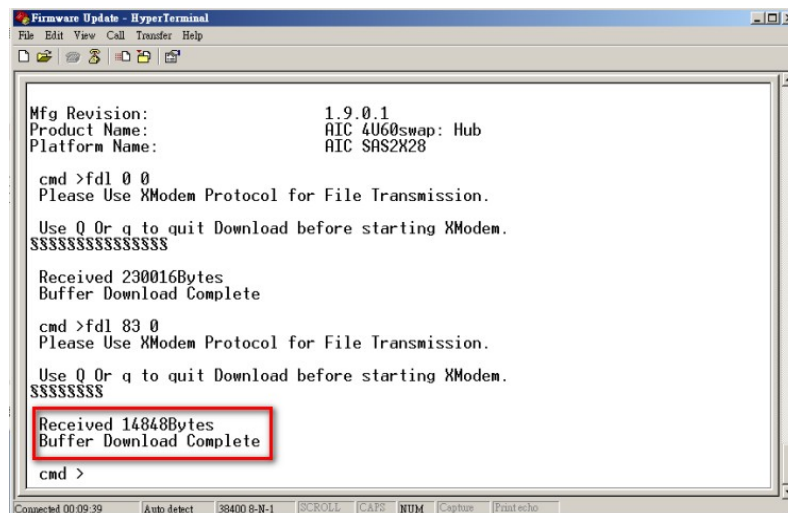


30) Please input “fdl 83 0 ” in com line to update the MFG.

31) Please go to the Transfer menu, and then select “Send file”

32) Select the Firmware file “**mfg2A10.1_4U60swap_SE_RightEdge_v1.10.1.53** “ and set the Protocol type is “**Xmodem**” and then press the “**Send**” button

33) After finished the MFG updated, the screen will show “ Buffer Download Complete”.



34) After finished all FW/MFG update, please press the “power button” to reset the JBOD.

The SOP of updating XJ3000-4603S SAS JBOD Firmware and MFG through Console Port in Linux OS

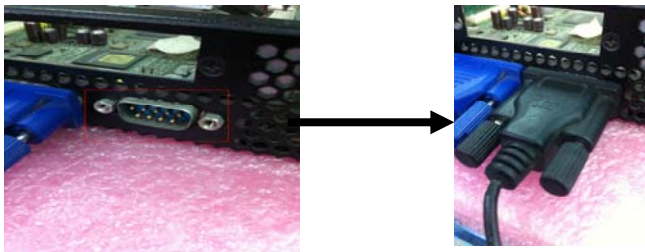
● Tools prepare:

- 1) Console cable (You can find the cable in Ass'y bag of 4U60 JBOD)



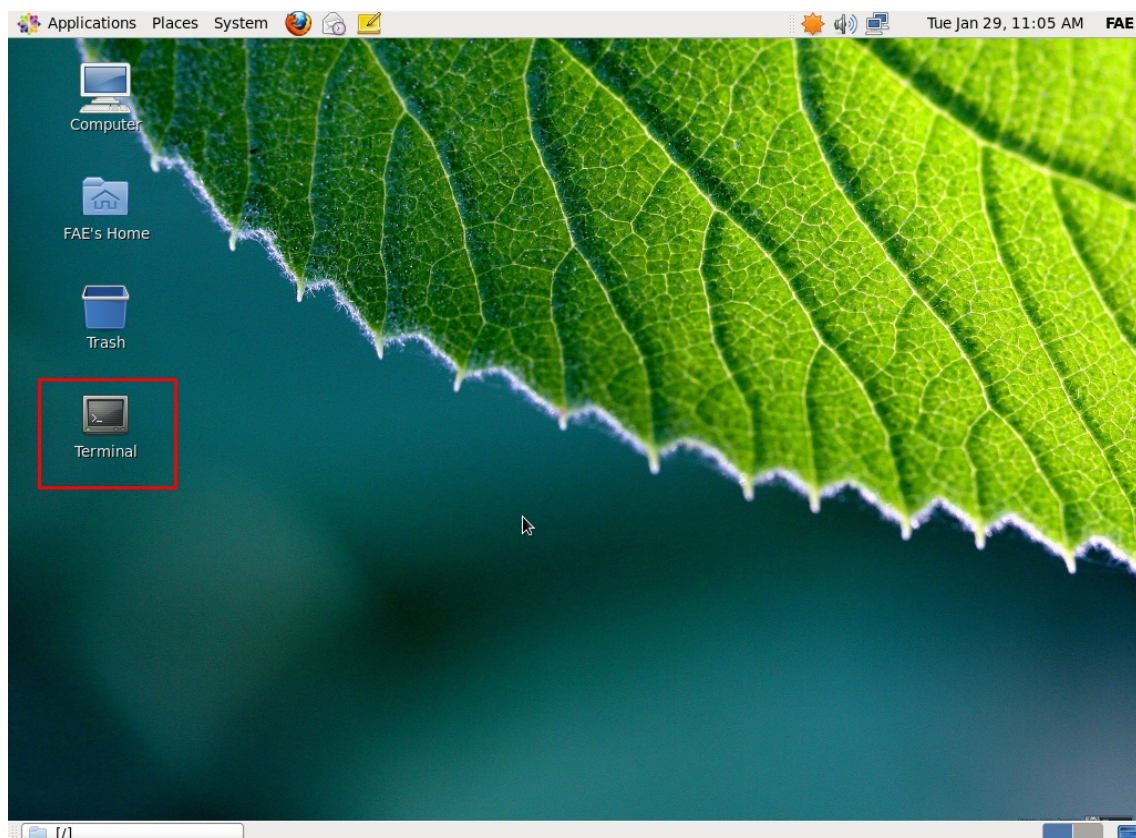
- 2) Please connect the console cable into the computer's RS232 port and JBOD's COM.

* The COM port icon in JBOD is 1C, 2C and 3C. The 1C is HUB, 2C is left edge, 3C is right edge port .




● Update Procedure

- 1) Power on your computer and running the Terminal program.



- 2) Login as "root", please enter **su** and key-in root password



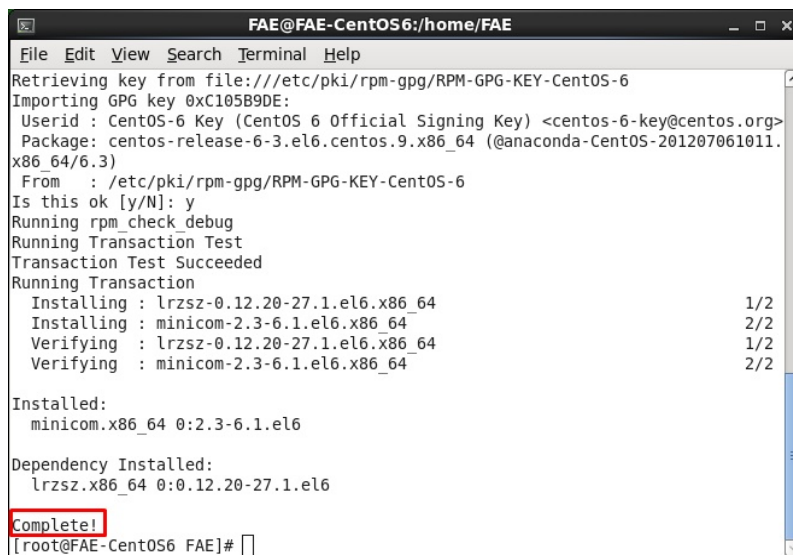
```
FAE@FAE-CentOS6:~  
File Edit View Search Terminal Help  
[FAE@FAE-CentOS6 ~]$ su
```

- 3) Please enter `yum install minicom` to install the console software.



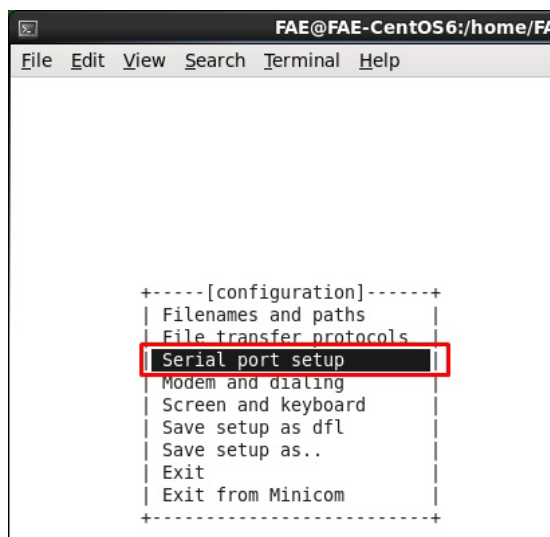
```
FAE@FAE-CentOS6:/home/FAE  
File Edit View Search Terminal Help  
[FAE@FAE-CentOS6 ~]$ su  
Password:  
[root@FAE-CentOS6 FAE]# yum install minicom
```

- 3) After complete the installed, the screen will show as below



```
FAE@FAE-CentOS6:/home/FAE  
File Edit View Search Terminal Help  
Retrieving key from file:///etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-6  
Importing GPG key 0xC105B9DE:  
  Userid : CentOS-6 Key (CentOS 6 Official Signing Key) <centos-6-key@centos.org>  
  Package: centos-release-6-3.el6.centos.9.x86_64 (@anaconda-CentOS-201207061011.x86_64/6.3)  
  From   : /etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-6  
Is this ok [y/N]: y  
Running rpm_check debug  
Running Transaction Test  
Transaction Test Succeeded  
Running Transaction  
  Installing : lrzsz-0.12.20-27.1.el6.x86_64 1/2  
  Installing : minicom-2.3-6.1.el6.x86_64 2/2  
  Verifying   : lrzsz-0.12.20-27.1.el6.x86_64 1/2  
  Verifying   : minicom-2.3-6.1.el6.x86_64 2/2  
  
Installed:  
  minicom.x86_64 0:2.3-6.1.el6  
  
Dependency Installed:  
  lrzsz.x86_64 0:0.12.20-27.1.el6  
  
Complete!  
[root@FAE-CentOS6 FAE]#
```

- 4) Please key in "**minicom -s**" to enter the configuration menu.



```
FAE@FAE-CentOS6:/home/FAE  
File Edit View Search Terminal Help  
  
+-----[configuration]-----+  
| Filenames and paths         |  
| File transfer protocols     |  
| Serial port setup         |  
| Modem and dialing           |  
| Screen and keyboard         |  
| Save setup as dfl           |  
| Save setup as..             |  
| Exit                         |  
| Exit from Minicom           |  
+-----+
```

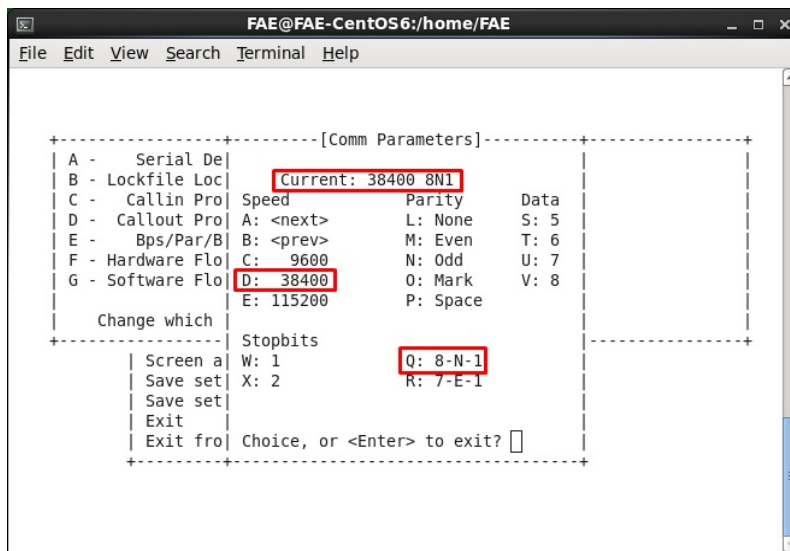
5) Please press **A**, then change the Serial Device to **/dev/ttyS0** and then press the enter.

```
+-----+
| A -   Serial Device       | /dev/ttyS0 |
| B - Lockfile Location    | : /var/lock |
| C - Callin Program       | :          |
| D - Callout Program      | :          |
| E - Bps/Par/Bits         | : 115200 8N1 |
| F - Hardware Flow Control | : No        |
| G - Software Flow Control | : No        |
|                           |             |
| Change which setting?    |             |
+-----+
```

6) Please press **E** to change the Bps/Par/Bits

a) Please press **D** and **Q** to set the 'Speed' to 38400 、 'Parity' to None 、 'Data' to 8 、 'Stopbits' to 1 。

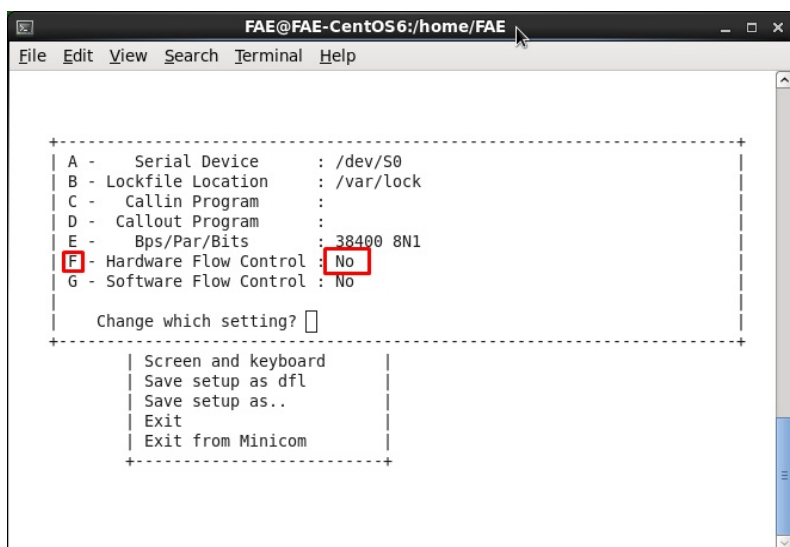
And then press enter.



```
FAE@FAE-CentOS6:/home/FAE
File Edit View Search Terminal Help

+-----+-----[Comm Parameters]-----+
| A - Serial De | Current: 38400 8N1 |
| B - Lockfile Loc |
| C - Callin Pro | Speed            | Parity      | Data       |
| D - Callout Pro | A: <next>        | L: None    | S: 5       |
| E - Bps/Par/B  | B: <prev>        | M: Even    | T: 6       |
| F - Hardware Flo | C: 9600         | N: Odd     | U: 7       |
| G - Software Flo | D: 38400        | O: Mark    | V: 8       |
|                 | E: 115200       | P: Space   |            |
| Change which  | Stopbits        |            |            |
| Screen a     | W: 1            | Q: 8-N-1   |            |
| Save set     | X: 2            | R: 7-E-1   |            |
| Save set     |                  |            |            |
| Exit         |                  |            |            |
| Exit fro    | Choice, or <Enter> to exit? |
+-----+
```

b) Please press **F** to set the "Hardware Flow Control " to No, then press enter.



```
FAE@FAE-CentOS6:/home/FAE
File Edit View Search Terminal Help

+-----+
| A -   Serial Device       | : /dev/S0 |
| B - Lockfile Location    | : /var/lock |
| C - Callin Program       | :          |
| D - Callout Program      | :          |
| E - Bps/Par/Bits         | : 38400 8N1 |
| F - Hardware Flow Control | : No        |
| G - Software Flow Control | : No        |
|                           |             |
| Change which setting?    |             |
+-----+
| Screen and keyboard |
| Save setup as dfl   |
| Save setup as..    |
| Exit               |
| Exit from Minicom  |
+-----+
```

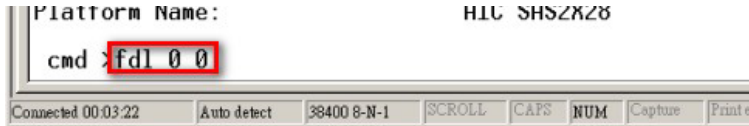

7) Please select **Save** setup as dfl and then exit.

8) Please insert JBOD COM port jack in 1C of JBOD to update HUB FW and MFG.

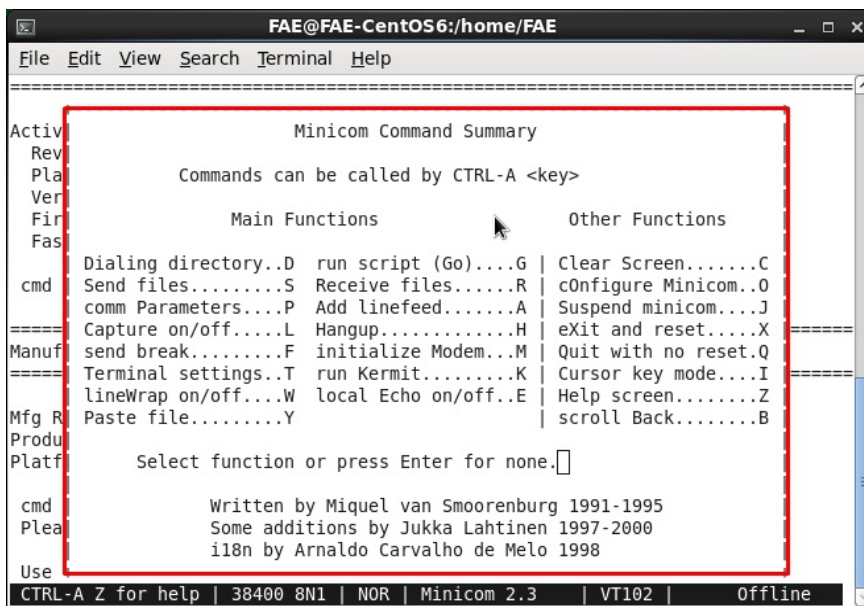
The HUB FW file name is **fw2A9_v1.11.9.53hub**.

The HUB MFG file name is **mfg2A9.0_4U60swap_SE_Hub_v1.9.0.51**

9) Please input "fdl 0 0" in com line to update the firmware,

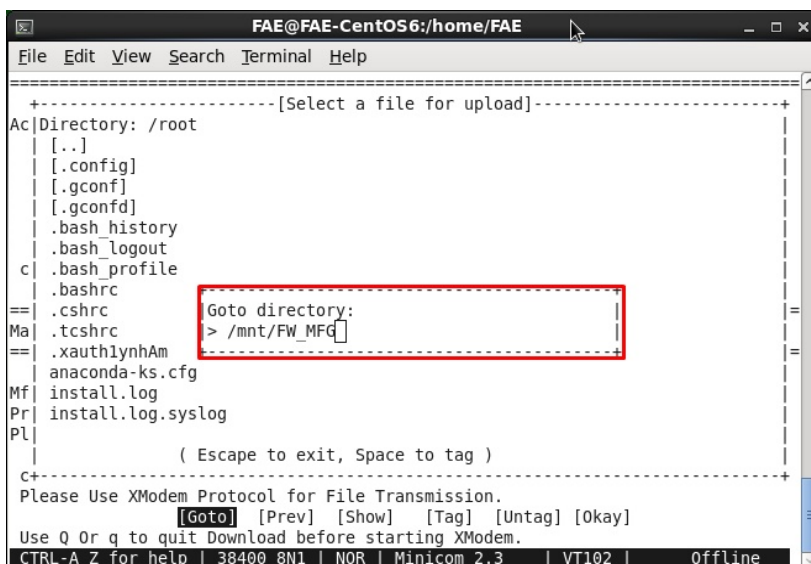


10) Please press **Ctrl + A** and then press "**Z**" to see the below menu.



11) Please press **S** to send Firmware, and select "xmodem" to update.

12) Please press "GOTO" to select FW file name "**fw2A9_v1.11.9.53hub**" and then press "Okay" to update FW



13) After finished the FW updated, the screen will show "Transfer Complete".

```

fae@momo:/home/fae
File Edit View Search Terminal Help

cm
Invalid Command. Use help command for CLI Command Help.

cmd >
cmd >RE
=====
Retry 0: NAK on sector
Invalid Command
Retry 0: NAK on sector
Bytes Sent: 230016 BPS:3727
cmd >re
=====
Transfer complete
=====
Firmware
READY: press any key to continue...
=====

Active Image:
Revision: 1.11.9.1
Platform Name: AIC SAS2X36
Version Name: LSISAS2xFW-01.11.09.01
Firmware Family: 1 OemFamily: 0
Fast Boot: No Image Address: 0x14080000

cmd >showmfg
=====
Manufacturing Image Version Information:-
=====

Mfg Revision: 1.9.0.1
Product Name: AIC 4U60swap: Hub
Platform Name: AIC SAS2X28

cmd >fdl 0 0
Please Use XModem Protocol for File Transmission.

Use Q Or q to quit Download before starting XModem.

CTRL-A Z for help | 38400 8N1 | NOR | Minicom 2.3 | VT102 | Offline

```

14) Please input "fdl 83 0" in com line to update the MFG.

15) Please press **Ctrl + A** and then press "**Z**" to see the below menu.

```

FAE@FAE-CentOS6:/home/FAE
File Edit View Search Terminal Help

=====
Minicom Command Summary
Commands can be called by CTRL-A <key>

Main Functions                                Other Functions
=====
Dialing directory..D  run script (Go)...G  Clear Screen.....C
Send files.....S    Receive files.....R  cOnfigure Minicom..O
comm Parameters....P  Add linefeed.....A  Suspend minicom...J
Capture on/off....L  Hangup.....H        eXit and reset....X
Manuf send break.....F  initialize Modem...M  Quit with no reset.Q
===== Terminal settings..T  run Kermit.....K    Cursor key mode...I
lineWrap on/off...W  local Echo on/off..E  Help screen.....Z
Mfg R Paste file.....Y                                scroll Back.....B
Produ
Platf

Select function or press Enter for none.

cmd
Plea
Use

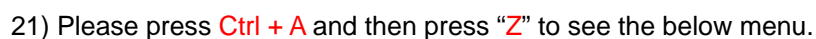
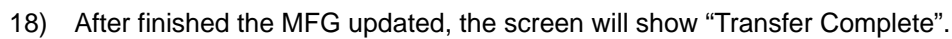
Written by Miquel van Smoorenburg 1991-1995
Some additions by Jukka Lahtinen 1997-2000
i18n by Arnaldo Carvalho de Melo 1998

CTRL-A Z for help | 38400 8N1 | NOR | Minicom 2.3 | VT102 | Offline

```

16) Please press **S** to send MFG, and select "xmodem" to update.

17) Please press "GOTO" to select MFG file **mfg2A9.0_4U60swap_SE_Hub_v1.9.0.51** and then press "Okay" to update MFG.



```

FAE@FAE-CentOS6:/home/FAE
File Edit View Search Terminal Help

Minicom Command Summary

Commands can be called by CTRL-A <key>

Main Functions                                Other Functions
-----
Dialing directory..D  run script (Go)...G  Clear Screen.....C
Send files.....S    Receive files.....R  cOnfigure Minicom..O
comm Parameters....P  Add linefeed.....A  Suspend minicom....J
Capture on/off.....L  Hangup.....H        eXit and reset....X
send break.....F    initialize Modem...M  Quit with no reset..Q
Terminal settings..T  run Kermit.....K    Cursor key mode....I
lineWrap on/off...W  local Echo on/off..E  Help screen.....Z
Paste file.....Y      scroll Back.....B

Select function or press Enter for none.

Written by Miquel van Smoorenburg 1991-1995
Some additions by Jukka Lahtinen 1997-2000
i18n by Arnaldo Carvalho de Melo 1998

CTRL-A Z for help | 38400 8N1 | NOR | Minicom 2.3 | VT102 | Offline

```

22) Please press **S** to send Firmware, and select “xmodem” to update.

23) Please press “GOTO” to select FW file name “**fw2A10_v1.11.10.53left**” and then press “Okay” to update FW

```

FAE@FAE-CentOS6:/home/FAE
File Edit View Search Terminal Help

[Select a file for upload]-----
Directory: /root
[.]
[.config]
[.gconf]
[.gconfd]
.bash_history
.bash_logout
.bash_profile
.bashrc
.cshrc
.tcshrc
.xauthlynhAm
anaconda-ks.cfg
install.log
install.log.syslog

( Escape to exit, Space to tag )

Please Use XModem Protocol for File Transmission.
[Goto] [Prev] [Show] [Tag] [Untag] [Okay]
Use Q Or q to quit Download before starting XModem.

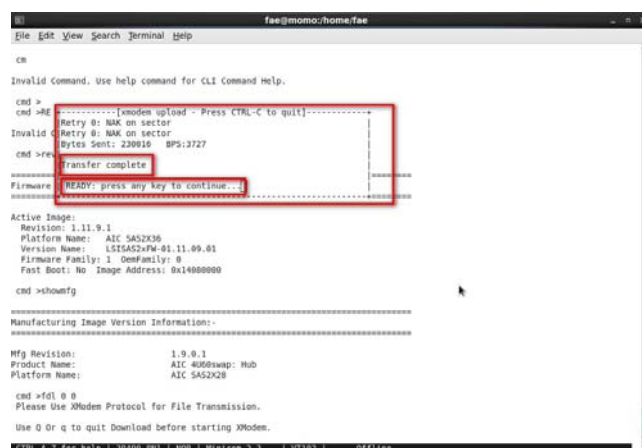
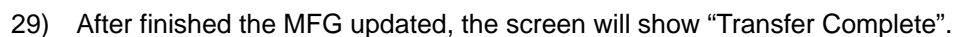
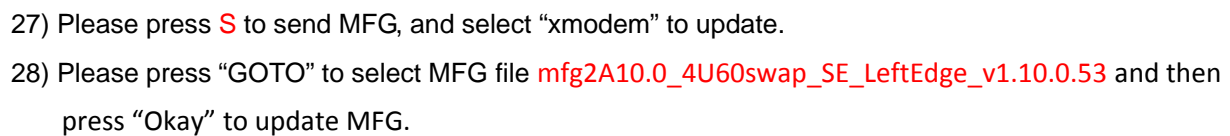
CTRL-A Z for help | 38400 8N1 | NOR | Minicom 2.3 | VT102 | Offline

```

24) After finished the FW updated, the screen will show “Transfer Complete”.

25) Please input “fdl 83 0” in com line to update the MFG.

26) Please press **Ctrl + A** and then press “**Z**” to see the below menu.

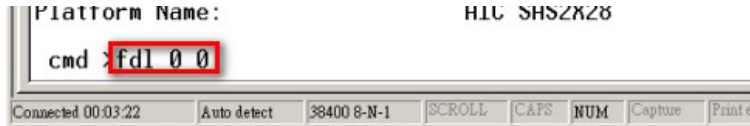


- 30) Please change JOBD COM port jack from 2C to 3C to update Right Edge FW and MFG.

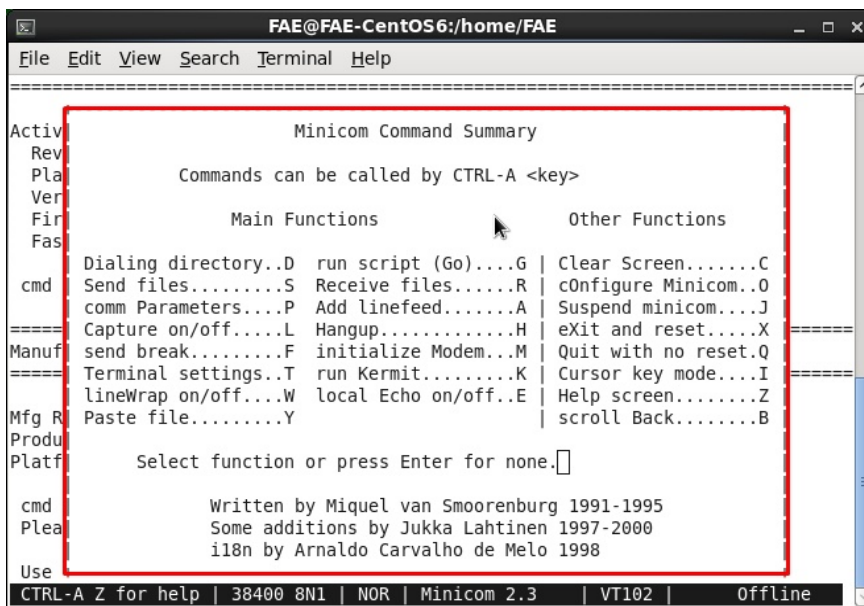
The Right Edge FW file name is **fw2A10_v1.11.10.53right**.

The Right Edge MFG file name is **mfg2A10.1_4U60swap_SE_RightEdge_v1.10.1.53**.

- 31) Please input "fdl 0 0" in com line to update the firmware,

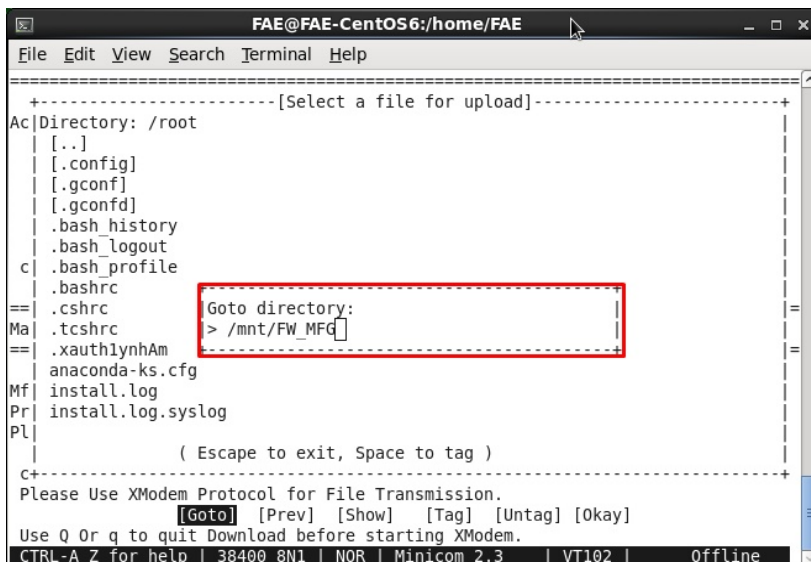


- 32) Please press **Ctrl + A** and then press "**Z**" to see the below menu.



- 33) Please press **S** to send Firmware, and select "xmodem" to update.

- 34) Please press "GOTO" to select FW file name "**fw2A10_v1.11.10.53right**" and then press "Okay" to update FW



- 35) After finished the FW updated, the screen will show "Transfer Complete".
- 36) Please input "fdl 83 0" in com line to update the MFG.
- 37) Please press **Ctrl + A** and then press **"Z"** to see the below menu.

```

FAE@FAE-CentOS6:/home/FAE
File Edit View Search Terminal Help

Minicom Command Summary

Commands can be called by CTRL-A <key>

Main Functions          Other Functions
-----
Dialing directory...D  run script (Go)...G  Clear Screen.....C
Send files.....S      Receive files.....R  cOnfigure Minicom..O
comm Parameters....P  Add linefeed.....A  Suspend minicom...J
Capture on/off....L  Hangup.....H        eXit and reset....X
==== send break.....F  initialize Modem...M  Quit with no reset.Q
==== Terminal settings..T  run Kermit.....K    Cursor key mode...I
lineWrap on/off...W  local Echo on/off..E  Help screen.....Z
Mfg R Paste file.....Y  | scroll Back.....B

Select function or press Enter for none.

cmd      Written by Miquel van Smoorenburg 1991-1995
Plea     Some additions by Jukka Lahtinen 1997-2000
Use      i18n by Arnaldo Carvalho de Melo 1998

CTRL-A Z for help | 38400 8N1 | NOR | Minicom 2.3 | VT102 | Offline

```

- 38) Please press **S** to send MFG, and select "xmodem" to update.
- 39) Please press "GOTO" to select MFG file **mfg2A10.1_4U60swap_SE_RightEdge_v1.10.1.53** and then press "Okay" to update MFG.

```

FAE@FAE-CentOS6:/home/FAE
File Edit View Search Terminal Help

+-----[Select a file for upload]-----+
AcDirectory: /root
|  [..]
|  [.config]
|  [.gconf]
|  [.gconfd]
|  .bash_history
|  .bash_logout
|  .bash_profile
|  .bashrc
|  .cshrc
|  .tcshrc
Ma|  .xauthlynhAm
|  anaconda-ks.cfg
Mf|  install.log
Pr|  install.log.syslog
Pl|
|
|  ( Escape to exit, Space to tag )
+-----+

Please Use XModem Protocol for File Transmission.
[Goto] [Prev] [Show] [Tag] [Untag] [Okay]
Use Q Or q to quit Download before starting XModem.

CTRL-A Z for help | 38400 8N1 | NOR | Minicom 2.3 | VT102 | Offline

```

- 40) After finished the MFG updated, the screen will show "Transfer Complete".
- 41) After finished all FW/MFG update, please press the "power button" to reset the JBOD.