

# **ZyXEL**

## **Firmware Release Note**

### **NSA-220**

#### **Release 1.02(AFB.0)C0**

<b>Date:</b>	<b>May 18, 2007</b>
<b>Author:</b>	<b>Thomas Tsai, ext 5736</b>
<b>Project Leader:</b>	<b>Ray, ext 5724</b>

## 1.Revision History

Date	Release	Author	Description
2006/9/13	0.1	Jackson	1. File Creating. 2. Release firmware version: V1.00(AFB.0)B1 09/13/06
2006/10/31	0.2	Emma	Release firmware version: V1.00(AFB.0)b2 10/31/06
2006/12/15	0.3	Emma	Release firmware version: V1.00(AFB.0)b3 12/15/06
2007/1/16	0.4	Emma	Release firmware version: V1.00(AFB.0)b4 1/16/07
2007/1/26	0.5	Emma	Release firmware version: V1.00(AFB.0)b5 1/26/07
2007/2/13	0.6	Emma	Template for releasing firmware V1.00(AFB.0)b6
2007/03/14	0.7	Andy	Release firmware version: V1.00(AFB.0)b6
2007/03/28	0.8	Roger	Release firmware version: V1.00(AFB.0)C0
2007/05/08	0.9	Thomas Tsai	Release firmware version: V1.01(AFB.0)C0
2007/05/11	1.0	Thomas Tsai	Release firmware version: V1.02(AFB.0)b1 05/11/07
2007/05/18	1.1	Thomas Tsai	Release firmware version: V1.02(AFB.0)C0

## 2.Related Documents

No.	Date	Author	Document
1			

## **NSA-220 Version Release 1.02(AFB.0)C0 Release Note**

**Date: May 18, 2007**

### **Supported Platforms:**

ZyXEL NSA-220

### **Versions:**

102AFB0C0.bin: V1.02(AFB.0)C0

bootbase.bin: Bootbase V20061226 | 12/26/2006 10:58:17

### **Notes:**

1. FTP client must support UTF8.

### **Known Issues:**

1. Sometime, GUI will show “undefine” message.
2. Can’t login GUI/FTP by name that is not English.
3. FTP may fail to start during degraded RAID1 but can be manually started from GUI by re-enabling FTP.

### **Release Package:**

<b>File name</b>	<b>Description</b>
bootbase.bin	Version: V20061226
102AFB0C0.bin	NSA Firmware Package V1.02(AFB.0)C0 for FW Upgrading from GUI
zyconf.bin	Default configuration file. Can be restored from GUI to replace the configuration files on product.
NSA220-102AFB0C0.doc	Firmware release note (This document)

### **Default Settings:**

Configuration:

- DHCP is the default setting. If NSA-220 can’t auto get a dynamic IP, it will use the Auto IP mechanism.

<http://www.zyxel.com>

- FTP server: On (Default account is admin/1234.)
- Samba server: On

Note: If disk volume created, then Samba server mode is On, and share resource list as following:

1. admin – admin (Read/Write)
2. photo – everyone (Read/Write)
3. public – everyone (Read/Write)
4. video – everyone (Read/Write)
5. music – everyone (Read/Write)

Accounts:

1. GUI: admin (Password: 1234)
2. FTP: admin(Password: 1234), anonymous(Not required), ftp(Not required)

Web Interface:

- Username: admin
- Password: 1234

## **Features:**

[NEW]  
None.

[ENHANCEMENT]

[CHANGE]

[BUG FIX]

# **ZyXEL**

## **Firmware Release Note**

### **NSA-220**

#### **Release 1.02(AFB.0)b1**

<b>Date:</b>	<b>May 11, 2007</b>
<b>Author:</b>	<b>Thomas Tsai, ext 5736</b>
<b>Project Leader:</b>	<b>Ray, ext 5724</b>

### 3.Revision History

Date	Release	Author	Description
2006/9/13	0.1	Jackson	1. File Creating. 2. Release firmware version: V1.00(AFB.0)B1 09/13/06
2006/10/31	0.2	Emma	Release firmware version: V1.00(AFB.0)b2 10/31/06
2006/12/15	0.3	Emma	Release firmware version: V1.00(AFB.0)b3 12/15/06
2007/1/16	0.4	Emma	Release firmware version: V1.00(AFB.0)b4 1/16/07
2007/1/26	0.5	Emma	Release firmware version: V1.00(AFB.0)b5 1/26/07
2007/2/13	0.6	Emma	Template for releasing firmware V1.00(AFB.0)b6
2007/03/14	0.7	Andy	Release firmware version: V1.00(AFB.0)b6
2007/03/28	0.8	Roger	Release firmware version: V1.00(AFB.0)C0
2007/05/08	0.9	Thomas Tsai	Release firmware version: V1.01(AFB.0)C0
2007/05/11	1.0	Thomas Tsai	Release firmware version: V1.02(AFB.0)b1 05/11/07

### 4.Related Documents

No.	Date	Author	Document
1			

## **NSA-220 Version Release 1.02(AFB.0)b1 Release Note**

**Date: May 08, 2007**

### **Supported Platforms:**

ZyXEL NSA-220

### **Versions:**

102AFB0b1.bin: V1.02(AFB.0)b1 05/11/07

bootbase.bm: Bootbase V20061226 | 12/26/2006 10:58:17

### **Notes:**

2. FTP client must support UTF8.

### **Known Issues:**

4. Sometime, GUI will show “undefine” message.
5. Can’t login GUI/FTP by name that is not English.
6. FTP may fail to start during degraded RAID1 but can be manually started from GUI by re-enabling FTP.

### **Release Package:**

<b>File name</b>	<b>Description</b>
bootbase.bm	Version: V20061226
102AFB0b1.bin	NSA Firmware Package V1.02(AFB.0)b1 for FW Upgrading from GUI
zyconf.rom	Default configuration file. Can be restored from GUI to replace the configuration files on product.
NSA220-100AFB0C0.doc	Firmware release note (This document)

### **Default Settings:**

Configuration:

- DHCP is the default setting. If NSA-220 can’t auto get a dynamic IP, it will use the Auto IP mechanism.

- FTP server: On (Default account is admin/1234.)
- Samba server: On

Note: If disk volume created, then Samba server mode is On, and share resource list as following:

6. admin – admin (Read/Write)
7. photo – everyone (Read/Write)
8. public – everyone (Read/Write)
9. video – everyone (Read/Write)
10. music – everyone (Read/Write)

Accounts:

3. GUI: admin (Password: 1234)
4. FTP: admin(Password: 1234), anonymous(Not required), ftp(Not required)

Web Interface:

- Username: admin
- Password: 1234

## **Features:**

[NEW]

None.

[ENHANCEMENT]

- Enhance power button, reset button, and copy button functionality

[CHANGE]

[BUG FIX]

- Change File system to prevent bootbase corruption.
- Fix DLNA auto ip issue, which device can not release dynamic IP got from DHCP server after lease timeout, and can not assign self-assign IP.
- Increase hardware monitor PWM value when fan speed is lower than 1900 rpm.



# **ZyXEL**

## **Firmware Release Note**

### **NSA-220**

#### **Release 1.01(AFB.0)C0**

<b>Date:</b>	<b>May 08, 2007</b>
<b>Author:</b>	<b>Thomas Tsai, ext 5736</b>
<b>Project Leader:</b>	<b>Ray, ext 5724</b>

## 5.Revision History

Date	Release	Author	Description
2006/9/13	0.1	Jackson	1. File Creating. 2. Release firmware version: V1.00(AFB.0)B1 09/13/06
2006/10/31	0.2	Emma	Release firmware version: V1.00(AFB.0)b2 10/31/06
2006/12/15	0.3	Emma	Release firmware version: V1.00(AFB.0)b3 12/15/06
2007/1/16	0.4	Emma	Release firmware version: V1.00(AFB.0)b4 1/16/07
2007/1/26	0.5	Emma	Release firmware version: V1.00(AFB.0)b5 1/26/07
2007/2/13	0.6	Emma	Template for releasing firmware V1.00(AFB.0)b6
2007/03/14	0.7	Andy	Release firmware version: V1.00(AFB.0)b6
2007/03/28	0.8	Roger	Release firmware version: V1.00(AFB.0)C0
2007/05/08	0.9	Thomas Tsai	Release firmware version: V1.01(AFB.0)C0

## 6.Related Documents

No.	Date	Author	Document
1			

## **NSA-220 Version Release 1.01(AFB.0)C0 Release Note**

**Date: May 08, 2007**

### **Supported Platforms:**

ZyXEL NSA-220

### **Versions:**

101AFB0C0.bin: V1.01(AFB.0)C0

bootbase.bm: Bootbase V20061226 | 12/26/2006 10:58:17

### **Notes:**

3. FTP client must support UTF8.

### **Known Issues:**

7. Sometime, GUI will show “undefine” message.
8. Can’t login GUI/FTP by name that is not English.
9. FTP may fail to start during degraded RAID1 but can be manually started from GUI by re-enabling FTP.

### **Release Package:**

<b>File name</b>	<b>Description</b>
bootbase.bm	Version: V20061226
100AFB0C0.bin	NSA Firmware Package V1.01(AFB.0)C0 for FW Upgrading from GUI
zyconf.rom	Default configuration file. Can be restored from GUI to replace the configuration files on product.
NSA220-100AFB0C0.doc	Firmware release note (This document)

### **Default Settings:**

Configuration:

- DHCP is the default setting. If NSA-220 can’t auto get a dynamic IP, it will use the Auto IP mechanism.

- FTP server: On (Default account is admin/1234.)
- Samba server: On

Note: If disk volume created, then Samba server mode is On, and share resource list as following:

- 11. admin – admin (Read/Write)
- 12. photo – everyone (Read/Write)
- 13. public – everyone (Read/Write)
- 14. video – everyone (Read/Write)
- 15. music – everyone (Read/Write)

Accounts:

- 5. GUI: admin (Password: 1234)
- 6. FTP: admin(Password: 1234), anonymous(Not required), ftp(Not required)

Web Interface:

- Username: admin
- Password: 1234

## **Features:**

Modifications in V1.00(AFB.0)C0

[NEW]

None.

[ENHANCEMENT]

None.

[CHANGE]

[BUG FIX]

- Change File system to prevent bootbase corruption.

# **ZyXEL**

## **Firmware Release Note**

### **NSA-220**

#### **Release 1.00(AFB.0)C0**

<b>Date:</b>	<b>Mar. 28, 2007</b>
<b>Author:</b>	<b>Roger, ext 5722</b>
<b>Project Leader:</b>	<b>Ray, ext 5724</b>

## 7.Revision History

Date	Release	Author	Description
2006/9/13	0.1	Jackson	1. File Creating. 2. Release firmware version: V1.00(AFB.0)B1 09/13/06
2006/10/31	0.2	Emma	Release firmware version: V1.00(AFB.0)b2 10/31/06
2006/12/15	0.3	Emma	Release firmware version: V1.00(AFB.0)b3 12/15/06
2007/1/16	0.4	Emma	Release firmware version: V1.00(AFB.0)b4 1/16/07
2007/1/26	0.5	Emma	Release firmware version: V1.00(AFB.0)b5 1/26/07
2007/2/13	0.6	Emma	Template for releasing firmware V1.00(AFB.0)b6
2007/03/14	0.7	Andy	Release firmware version: V1.00(AFB.0)b6
2007/03/28	0.8	Roger	Release firmware version: V1.00(AFB.0)C0

## 8.Related Documents

No.	Date	Author	Document
1			

## **NSA-220 Version Release 1.00(AFB.0)C0 Release Note**

**Date: Mar. 28, 2007**

### **Supported Platforms:**

ZyXEL NSA-220

### **Versions:**

100AFB0C0.bin: V1.00(AFB.0)C0

bootbase.bin: Bootbase V20061226 | 12/26/2006 10:58:17

### **Notes:**

4. FTP client must support UTF8.

### **Known Issues:**

10. Sometime, GUI will show “undefine” message.
11. Can’t login GUI/FTP by name that is not English.
12. FTP may fail to start during degraded RAID1 but can be manually started from GUI by re-enabling FTP.

### **Release Package:**

<b>File name</b>	<b>Description</b>
bootbase.bin	Version: V20061226
100AFB0C0.bin	NSA Firmware Package V1.00(AFB.0)C0 for FW Upgrading from GUI
zyconf.bin	Default configuration file. Can be restored from GUI to replace the configuration files on product.
NSA220-100AFB0C0.doc	Firmware release note (This document)

### **Default Settings:**

Configuration:

- DHCP is the default setting. If NSA-220 can’t auto get a dynamic IP, it will use the Auto IP mechanism.

<http://www.zyxel.com>

- FTP server: On (Default account is admin/1234.)
- Samba server: On

Note: If disk volume created, then Samba server mode is On, and share resource list as following:

- 16. admin – admin (Read/Write)
- 17. photo – everyone (Read/Write)
- 18. public – everyone (Read/Write)
- 19. video – everyone (Read/Write)
- 20. music – everyone (Read/Write)

Accounts:

- 7. GUI: admin (Password: 1234)
- 8. FTP: admin(Password: 1234), anonymous(Not required), ftp(Not required)

Web Interface:

- Username: admin
- Password: 1234

## **Features:**

Modifications in V1.00(AFB.0)b6

[NEW]

None.

[ENHANCEMENT]

None.

[CHANGE]

[BUG FIX]





**Firmware Release Note**

**NSA-220**

**Release 1.00(AFB.0)b6**

**Date:** Mar. 14, 2007  
**Author:** Andy, ext 5733  
**Project Leader:** Ray, ext 5724

## 9.Revision History

Date	Release	Author	Description
2006/9/13	0.1	Jackson	1. File Creating. 2. Release firmware version: V1.00(AFB.0)B1 09/13/06
2006/10/31	0.2	Emma	Release firmware version: V1.00(AFB.0)b2 10/31/06
2006/12/15	0.3	Emma	Release firmware version: V1.00(AFB.0)b3 12/15/06
2007/1/16	0.4	Emma	Release firmware version: V1.00(AFB.0)b4 1/16/07
2007/1/26	0.5	Emma	Release firmware version: V1.00(AFB.0)b5 1/26/07
2007/2/13	0.6	Emma	Template for releasing firmware V1.00(AFB.0)b6
2007/03/14	0.7	Andy	Release firmware version: V1.00(AFB.0)b6

## 10.Related Documents

No.	Date	Author	Document
1			

## **NSA-220 Version Release 1.00(AFB.0)b6 Release Note**

**Date: Mar. 14, 2007**

### **Supported Platforms:**

ZyXEL NSA-220

### **Versions:**

100AFB0b6.bin: V1.00(AFB.0)b6

bootbase.bm: Bootbase V20061226 | 12/26/2006 10:58:17

### **Notes:**

5. FTP client must support UTF8.

### **Known Issues:**

13. Sometime, GUI will show “undefine” message.
14. Can’t login GUI/FTP by name that is not English.
15. SPRID: 070122050

### **Release Package:**

<b>File name</b>	<b>Description</b>
bootbase.bm	Version: V20061226
100AFB0b6.bin	NSA Firmware Package V1.00(AFB.0)b6 for FW Upgrading from GUI
zyconf.rom	Default configuration file. Can be restored from GUI to replace the configuration files on product.
NSA220-100AFB0b6.doc	Firmware release note (This document)
NSA220_BAT_test_report_b6.xls	BAT test report of this release

### **Default Settings:**

Configuration:

- DHCP is the default setting. If NSA-220 can’t auto get a dynamic IP, it will use the Auto IP mechanism.

- FTP server: On (Default account is admin/1234.)
- Samba server: On

Note: If disk volume created, then Samba server mode is On, and share resource list as following:

- 21. admin – admin (Read/Write)
- 22. photo – everyone (Read/Write)
- 23. public – everyone (Read/Write)
- 24. video – everyone (Read/Write)
- 25. music – everyone (Read/Write)

Accounts:

- 9. GUI: admin (Password: 1234)
- 10. FTP: admin(Password: 1234), anonymous(Not required), ftp(Not required)

Web Interface:

- Username: admin
- Password: 1234

## **Features:**

Modifications in V1.00(AFB.0)b6

[NEW]

None.

[ENHANCEMENT]

None.

[CHANGE]

1. HTP test procedure. (Please see Appendix 1)
2. Beep after firmware upgrade.

[BUG FIX]

1. SPRID: 070123146  
Description: play video terminated and can not find the server.
2. SPRID: 070123147  
Description: can not browse this folder.
3. SPRID: 070201028  
Description: FTP anonymous user access can not work.
4. SPRID: 070201052  
Description: normal user read on-line help issue.
5. SPRID: 070201053  
Description: default gateway and DNS error.

6. SPRID: 070201054  
Description: poor throughput from "My NSA Browser" to local desktop.
7. SPRID: 070201055  
Description: wish could modify "Network Apps".
8. SPRID: 070202189  
Description: only display 128 files.
9. SPRID: 070202228  
Description: help page not found.

## Appendix:

1. Production support tools  
✓ Shell script, **httpk.sh**, is provided to do production test.

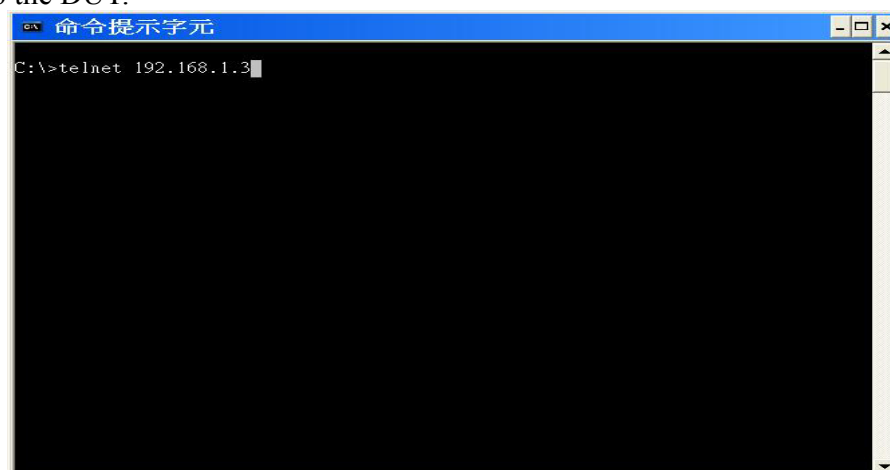
The following is the production test procedure for reference:

Step 1: Insert the "Function Key".

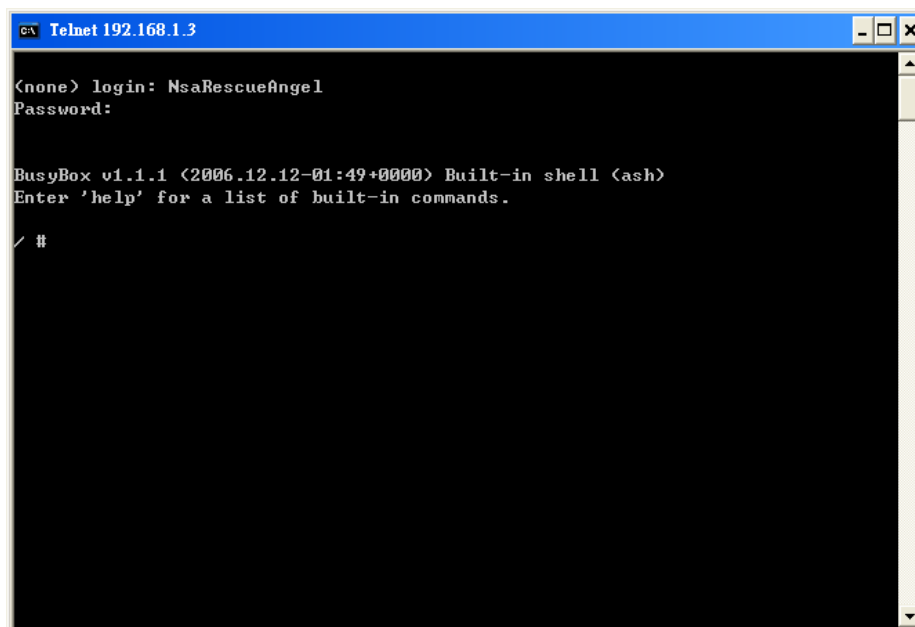
Step 2: Connect the DUT(Device Under Test) and your PC with Ethernet cable. The DUT's default IP address is 192.168.1.3 and network mask is 255.255.255.0, so you've to setup the correct IP address on you PC in order to connect to the DUT.

Step 3: Power on the DUT, you'll see the SYS green LED is blinking. After the SYS green LED stops blinking and remains on, the DUT is ready to do production test.

Setp 4: Telnet to the DUT.



Step 5: Login with username/password: NsaRescueAngel/ 5j/4ul4



```
GV Telnet 192.168.1.3

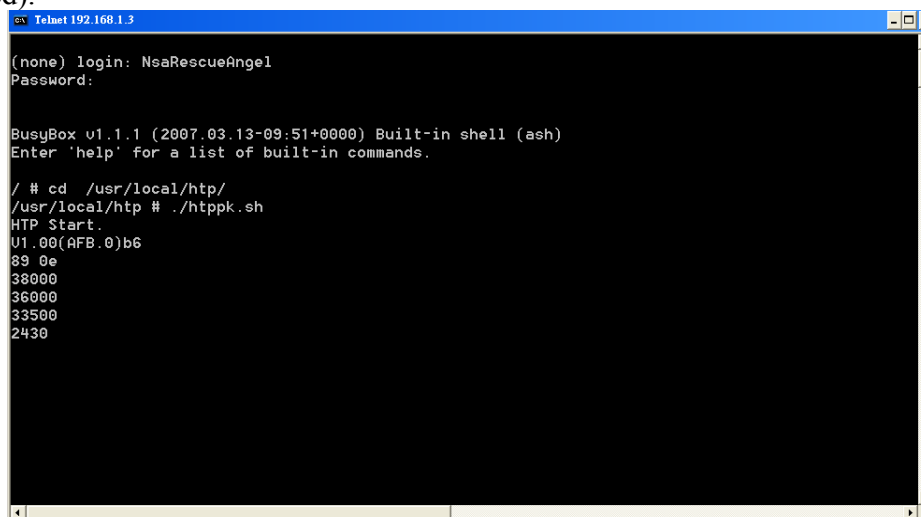
<none> login: NsaRescueAngel
Password:

BusyBox v1.1.1 (2006.12.12-01:49+0000) Built-in shell (ash)
Enter 'help' for a list of built-in commands.

/ #
```

Step 6: Change directory to /usr/local/http and execute httpk.sh.

Step 7: It will show the information in target first. (Version number, check sum, temperature from sensor, fan speed).



```
GV Telnet 192.168.1.3

(none) login: NsaRescueAngel
Password:

BusyBox v1.1.1 (2007.03.13-09:51+0000) Built-in shell (ash)
Enter 'help' for a list of built-in commands.

/ # cd /usr/local/http/
/usr/local/http # ./httpk.sh
HTP Start.
U1.00(AFB.0)b6
89 0e
38000
36000
33500
2430
```

Step 8 : Press ENTER to get hardware test information.

```
Telnet 192.168.1.3

BusyBox u1.1.1 (2007.03.13-09:51+0000) Built-in shell (ash)
Enter 'help' for a list of built-in commands.

/ # cd /usr/local/http/
/usr/local/http # ./httpk.sh
HTP Start.
U1.00(AFB.0)b6
89 0e
38000
36000
33500
2430

STORAGE          EXTERNAL      TEST.....SATA0 OK
STORAGE          EXTERNAL      TEST.....SATA1 OK
STORAGE          EXTERNAL      TEST.....USB0 OK
STORAGE          EXTERNAL      TEST.....USB1 OK
BUZZER           EXTERNAL      TEST.....OK
LED_TEST         EXTERNAL      TEST.....OK
POWER_BUTTON     EXTERNAL      TEST.....OK
COPY_BUTTON      EXTERNAL      TEST.....OK
RESET_BUTTON     EXTERNAL      TEST.....OK
Please specify the new MAC: _
```

Step 9: Verify the MAC address using MRD tool, mrd\_mac.

Step 10: If you want to test again later, just reboot it and repeat the Step1 ~ Step7. Otherwise, please pull out the “Function Key”.

# **ZyXEL**

## **Firmware Release Note**

### **NSA-220**

#### **Release 1.00(AFB.0)b5**

**Date:** Jan. 26, 2007  
**Author:** Emma, ext 5551  
**Project Leader:** Ray, ext 5724



## 11. Revision History

Date	Release	Author	Description
2006/9/13	0.1	Jackson	1. File Creating. 2. Release firmware version: V1.00(AFB.0)B1 09/13/06
2006/10/31	0.2	Emma	Release firmware version: V1.00(AFB.0)b2 10/31/06
2006/12/15	0.3	Emma	Release firmware version: V1.00(AFB.0)b3 12/15/06
2007/1/16	0.4	Emma	Release firmware version: V1.00(AFB.0)b4 1/16/07
2007/1/26	0.5	Emma	Release firmware version: V1.00(AFB.0)b5 1/26/07

## 12. Related Documents

No.	Date	Author	Document
1			

## **NSA-220 Version Release 1.00(AFB.0)b5 Release Note**

**Date: Jan. 26, 2007**

### **Supported Platforms:**

ZyXEL NSA-220

### **Versions:**

100AFB0b5.bin: V1.00(AFB.0)b5

bootbase.bm: Bootbase V20061226 | 12/26/2006 10:58:17

### **Notes:**

6. Upgrade firmware procedure:  
Step 1: upgrade firmware from GUI.  
Step 2: reset to default.
7. FTP client must support UTF8.

### **Known Issues:**

16. Sometime, GUI will show “undefine” message.
17. Can’t login GUI/FTP by name that is not English.

### **Release Package:**

<b>File name</b>	<b>Description</b>
bootbase.bm	Version: V20061226
100AFB0b5.bin	NSA Firmware Package V1.00(AFB.0)b5 for FW Upgrading from GUI
zyconf.rom	Default configuration file. Can be restored from GUI to replace the configuration files on product.
NSA220-100AFB0b5.doc	Firmware release note (This document)
NSA220_BAT_test_report_b5.xls	BAT test report of this release

### **Default Settings:**

## Configuration:

- DHCP is the default setting. If NSA-220 can't auto get a dynamic IP, it will use the Auto IP mechanism.
- FTP server: On (Default account is admin/1234.)
- Samba server: On

Note: If disk volume created, then Samba server mode is On, and share resource list as following:

- 26. admin – admin (Read/Write)
- 27. photo – everyone (Read/Write)
- 28. public – everyone (Read/Write)
- 29. video – everyone (Read/Write)
- 30. music – everyone (Read/Write)

## Accounts:

- 11. GUI: admin (Password: 1234)
- 12. FTP: admin(Password: 1234), anonymous(Not required), ftp(Not required)

## Web Interface:

- Username: admin
- Password: 1234

## Features:

Modifications in V1.00(AFB.0)b5

### [NEW]

1. Reset to factory default from GUI. (Please see Appendix 1)

### [ENHANCEMENT]

None.

### [CHANGE]

1. Reset button usage specification
  - ✓ Pressed 2 seconds: Set ip to **DHCP** and password of admin to 1234.
2. HTP test procedure. (Please see Appendix 2)

### [BUG FIX]

1. SPRID: 060915883  
Description: overnight stress failed.
2. SPRID: 061102132  
Description: external volume incorrect information.
3. SPRID: 061102134  
Description: please add "factory default setting" function.
4. SPRID: 061220218

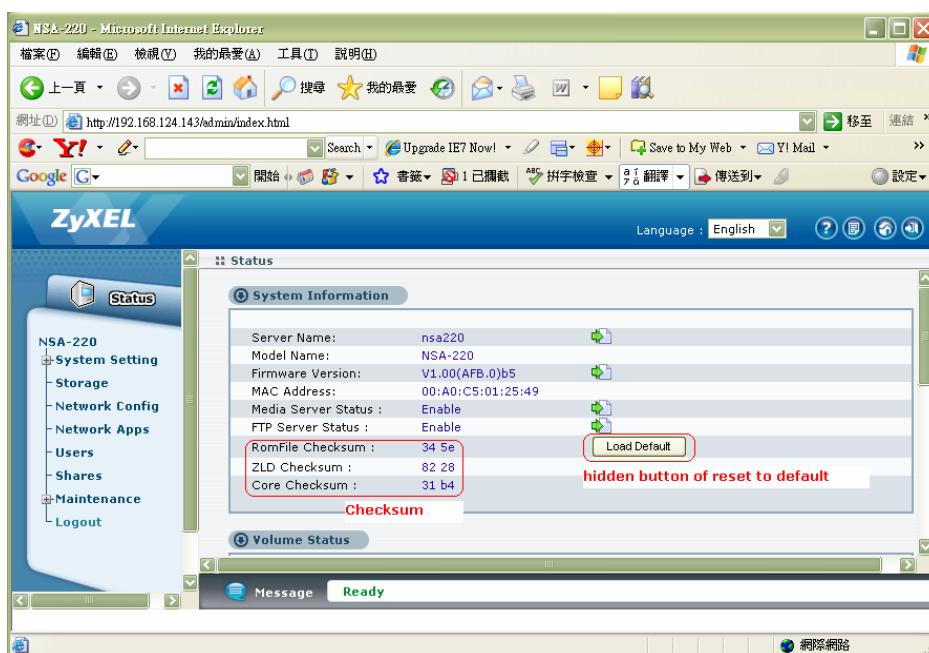
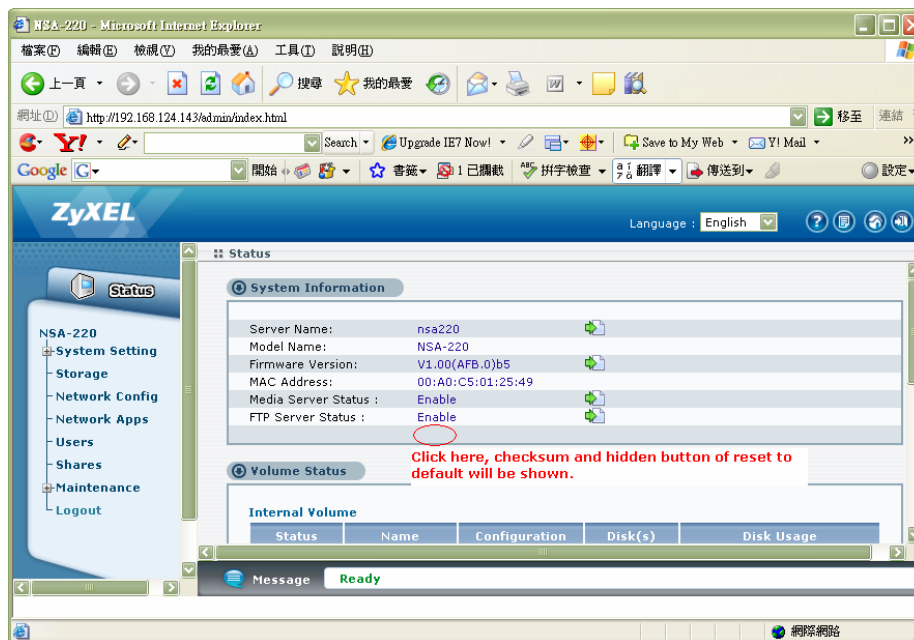
- 5. Description: insert damaged block disk , NSA-220 LED can not light red.  
SPRID: 061220219
- 6. Description: can not upload Chinese folders/files.  
SPRID: 061220222
- 7. Description: strange behavior.  
SPRID: 070118847
- 8. Description: NSA-220 does not allow default gateway and IP address in the different subnet.  
SPRID: 061220223
- 9. Description: on-line help manual not ready.  
SPRID: 070121968
- 10. Description: file name issue of download files.  
SPRID: 070122048
- 11. Description: Zysh daemon is busying , GUI error.  
SPRID: 070123145
- 12. Description: "COPY" can not work if source external disk over 8GB data.  
SPRID: 061220215
- 13. Description: anonymous ftp user can not upload file.

#### [NOT A PROBLEM]

- 1. SPRID: 061102075
- 2. SPRID: 061220217
- 3. SPRID: 061222373

### **Appendix:**

- 2. Reset to factory default from GUI  
Reset to factory default button are hidden by default and can be shown up by clicking the hidden button.



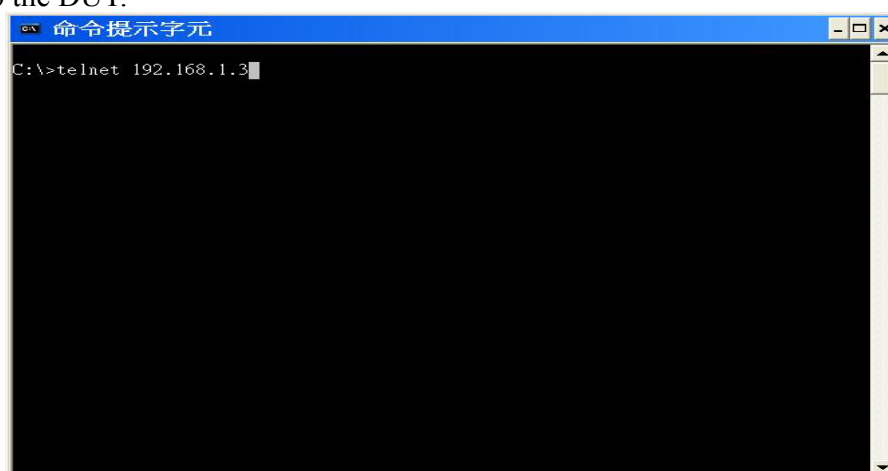
3. HTP test procedure  
✓ Shell script, **httpk.sh**, is provided to do production test.

The following is the production test procedure for reference:

Step 1: Connect the DUT(Device Under Test) and your PC with Ethernet cable. The DUT's default IP address is 192.168.1.3 and network mask is 255.255.255.0, so you've to setup the correct IP address on you PC in order to connect to the DUT.

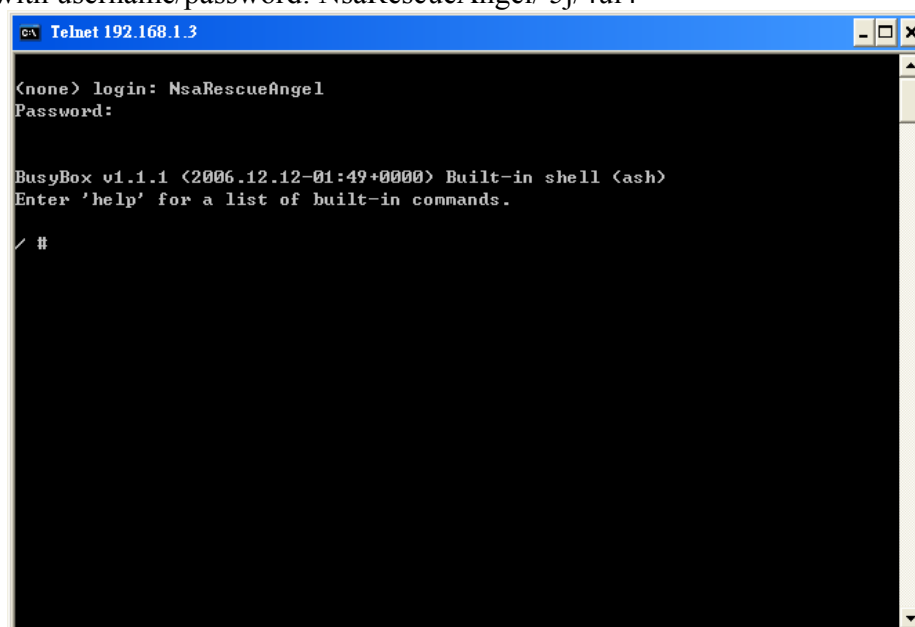
Step 2: Power on the DUT, you'll see the SYS green LED is blinking. After the SYS green LED stops blinking and remains on, the DUT is ready to do production test.

Setp 3: Telnet to the DUT.



```
命令提示字元
C:\>telnet 192.168.1.3
```

Step 4: Login with username/password: NsaRescueAngel/ 5j/4ul4



```
Telnet 192.168.1.3
<none> login: NsaRescueAngel
Password:
BusyBox v1.1.1 (2006.12.12-01:49+0000) Built-in shell (ash)
Enter 'help' for a list of built-in commands.
/ #
```

Step 5: Change directory to /usr/local/http and execute httpk.sh.

Step 6: Verify the MAC address using MRD tool, mrd\_mac.

```
~ # cd /usr/local/http
/usr/local/http # ./httpk.sh
HTP Start.
V1.00(ACB.0)b2-pre-release 10/25/06 Rev.1384
ff ff
42000
0
SATA0          EXTERNAL      TEST.....OK
SATA1          EXTERNAL      TEST.....OK
BUZZER         EXTERNAL      TEST.....OK
LED_TEST       EXTERNAL      TEST.....OK
POWER_BUTTON   EXTERNAL      TEST.....OK
COPY_BUTTON    EXTERNAL      TEST.....OK
RESET_BUTTON   EXTERNAL      TEST.....OK
Please specify the new MAC:00a0c5000001
HTP Done.
/usr/local/http # mrd_mac
00:a0:c5:00:00:01
/usr/local/http #
```

Step 7: If you want to test again later, just repeat the Step1 ~ Step7. Otherwise please execute shell script, **httpTonormal.sh**. ( In other word, you run the httpTonormal.sh shell script only when the test is done and will not test again)

**NOTE: After Tonormal.sh has been executed, you can't run HTP test again.**

```
~ # cd /usr/local/http
/usr/local/http # ./httpk.sh
HTP Start.
V1.00(ACB.0)b2-pre-release 10/25/06 Rev.1384
ff ff
42000
0
SATA0          EXTERNAL      TEST.....OK
SATA1          EXTERNAL      TEST.....OK
BUZZER         EXTERNAL      TEST.....OK
LED_TEST       EXTERNAL      TEST.....OK
POWER_BUTTON   EXTERNAL      TEST.....OK
COPY_BUTTON    EXTERNAL      TEST.....OK
RESET_BUTTON   EXTERNAL      TEST.....OK
Please specify the new MAC:00a0c5000001
HTP Done.
/usr/local/http # mrd_mac
00:a0:c5:00:00:01
/usr/local/http # ./httpTonormal.sh
```

# **ZyXEL**

## **Firmware Release Note**

### **NSA-220**

#### **Release 1.00(AFB.0)b4**

<b>Date:</b>	<b>Jan. 16, 2007</b>
<b>Author:</b>	<b>Emma, ext 5551</b>
<b>Project Leader:</b>	<b>Ray, ext 5724</b>



## 13. Revision History

Date	Release	Author	Description
2006/9/13	0.1	Jackson	1. File Creating. 2. Release firmware version: V1.00(AFB.0)B1 09/13/06
2006/10/31	0.2	Emma	Release firmware version: V1.00(AFB.0)b2 10/31/06
2006/12/15	0.3	Emma	Release firmware version: V1.00(AFB.0)b3 12/15/06
2007/1/16	0.4	Emma	Release firmware version: V1.00(AFB.0)b4 1/16/07

## 14. Related Documents

No.	Date	Author	Document
1			

## NSA-220 Version Release 1.00(AFB.0)b4 Release Note

**Date: Jan. 16, 2007**

### **Supported Platforms:**

ZyXEL NSA-220

### **Versions:**

100AFB0b4.bin: V1.00(AFB.0)b4

bootbase.bm: Bootbase V20061226 | 12/26/2006 10:58:17

### **Notes:**

8. Upgrade firmware procedure:  
Step 1: upgrade firmware from GUI.  
Step 2: reset to default.  
Step 3: Delete old volume and create new volume. (This step is for new default share, music. If this step is skipped, the actions of share music will fail.)
9. FTP client must support UTF8.

### **Known Issues:**

18. Sometime, GUI will show “undefine” message.
19. Can’t login GUI/FTP by name that is not English.

### **Release Package:**

File name	Description
bootbase.bm	Version: V20061226
100AFB0b4.bin	NSA Firmware Package V1.00(AFB.0)b4 for FW Upgrading from GUI
zyconf.rom	Default configuration file. Can be restored from GUI to replace the configuration files on product.
NSA220-100AFB0b4.doc	Firmware release note (This document)
NSA220_BAT_test_report_b4.xls	BAT test report of this release

## **Default Settings:**

### Configuration:

- DHCP is the default setting. If NSA-220 can't auto get a dynamic IP, it will use the Auto IP mechanism.
- FTP server: On (Default account is admin/1234.)
- Samba server: On

Note: If disk volume created, then Samba server mode is On, and share resource list as following:

- 31. admin – admin (Read/Write)
- 32. photo – everyone (Read/Write)
- 33. public – everyone (Read/Write)
- 34. video – everyone (Read/Write)
- 35. music – everyone (Read/Write)

### Accounts:

- 13. GUI: admin (Password: 1234)
- 14. FTP: admin(Password: 1234), anonymous(Not required), ftp(Not required)

### Web Interface:

- Username: admin
- Password: 1234

## **Features:**

Modifications in V1.00(AFB.0)b4

### [NEW]

- 1. Add a new default share, music.
- 2. Backdoor. (see Appendix 1)
  - ✓ Open backdoor: pressing reset button 6 seconds. (Release reset button when hearing second beep.)
  - ✓ Login account: NsaRescueAngel
  - ✓ Login password: 5j/4ul4
- 3. Multi-language support.
- 4. Delete share with deleting content.

### [ENHANCEMENT]

- 1. Firmware upgrade: add validity check.
- 2. Backup and restore: add validity check.

### [CHANGE]

- 3. Update bootbase.bm
- 4. Update zyconf.rom
- 5. Reset button usage specification

- ✓ Pressed 2 seconds: Set ip to **192.168.1.3** and password of admin to 1234.
- ✓ Pressed 6 seconds: Open backdoor.
- ✓ Pressed over 10 seconds: Set to factory default.
- 6. Hard Drive LED (HD1 and HD2) specification. (see Appendix 2)
- 7. IP acquisition: DHCP is the default setting. If NSA-220 can't auto get a dynamic IP, it will use the Auto IP mechanism.
- 8. Checksum information are hidden. (see Appendix 3)
- 9. Remove CLI button from GUI.

## [BUG FIX]

- 1. SPRID: 060915989  
Description: can not set unicode path.
- 2. SPRID: 060918123  
Description: it failed to login ExtVolume1(design issue).
- 3. SPRID: 061102074  
Description: there are problems after upgrade b2 firmware.
- 4. SPRID: 061102076  
Description: system corrupted.
- 5. SPRID: 061102132  
Description: external volume incorrect information.
- 6. SPRID: 061102136  
Description: unexpected error when change workgroup.
- 7. SPRID: 061102137  
Description: unexpected error when change description.
- 8. SPRID: 061219109  
Description: use static IP address , NDU utility can not detect NSA-220 (but dynamic IP is OK).
- 9. SPRID: 061220216  
Description: some case can not edit internal volume name.
- 10. SPRID: 061220218  
Description: insert damaged block disk , NSA-220 LED can not light red.
- 11. SPRID: 061220220  
Description: inactive icon is missed.
- 12. SPRID: 061220224  
Description: there are no clear description about firmware and no copy right statement at "About".
- 13. SPRID: 061220225  
Description: please give a clear unit : MB , KB , Byte in used space.
- 14. SPRID: 061222370  
Description: Initialize an External Volume.

## [NOT A PROBLEM]

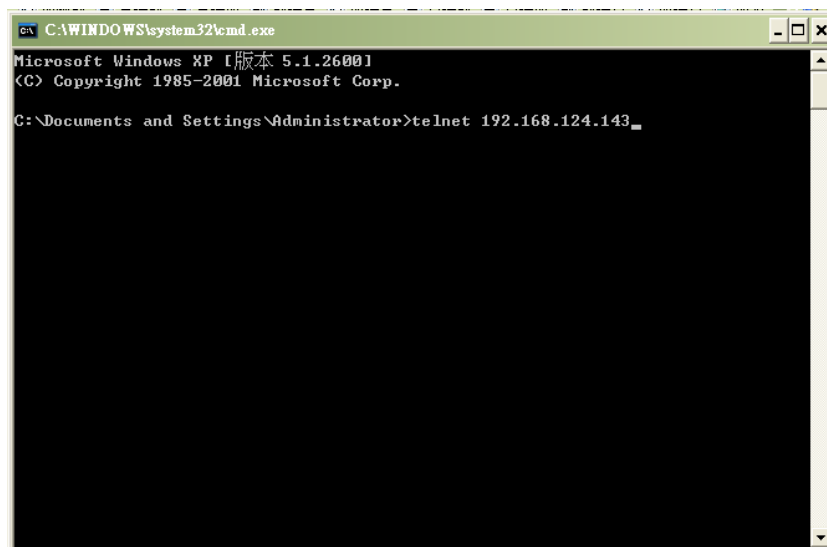
- 4. SPRID: 060918126

## Appendix:

### 1. Backdoor usage

Step 1: Pressing reset button 6 seconds. (Release reset button when hearing second beep.)

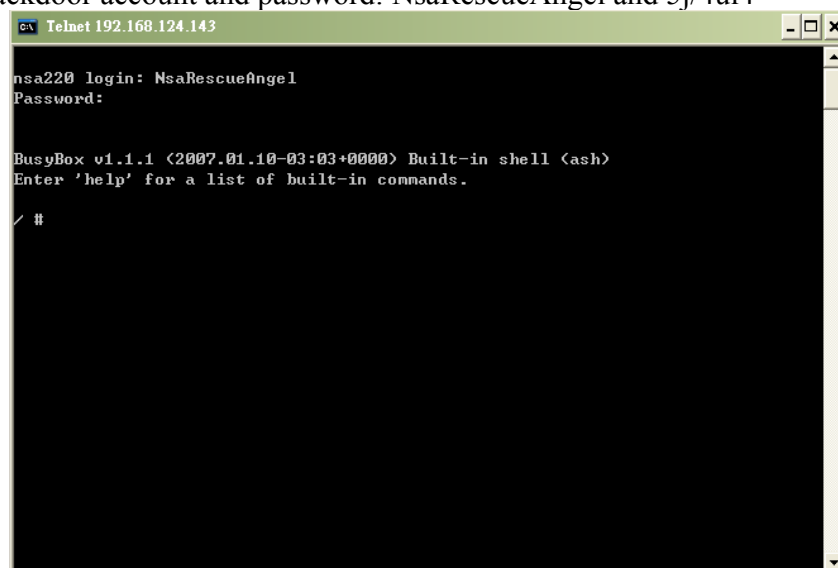
Step 2: Telnet to NSA-220 (You should get the ip of NSA-220 first. We use 192.168.124.143 for an example.)



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [版本 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Administrator>telnet 192.168.124.143
```

Step 3: Input backdoor account and password: NsaRescueAngel and 5j/4ul4



```
Telnet 192.168.124.143

nsa220 login: NsaRescueAngel
Password:

BusyBox v1.1.1 (2007.01.10-03:03+0000) Built-in shell (ash)
Enter 'help' for a list of built-in commands.

/ #
```

Note 1: Backdoor will be closed if no connection three minutes after initial start up.

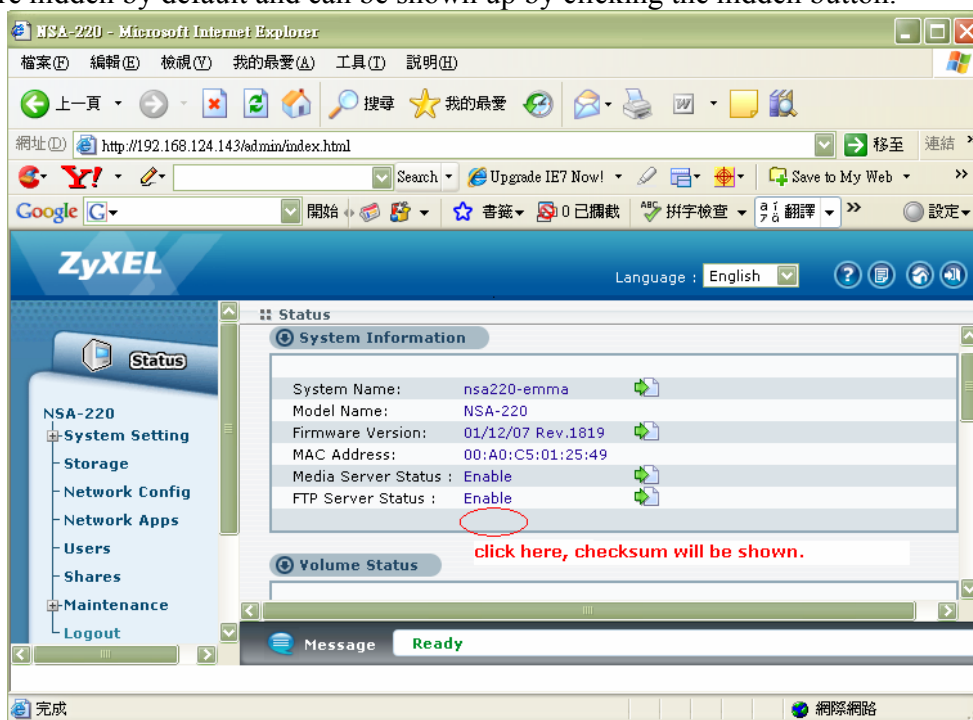
Note 2: Remain open for two minutes after the last session ends.

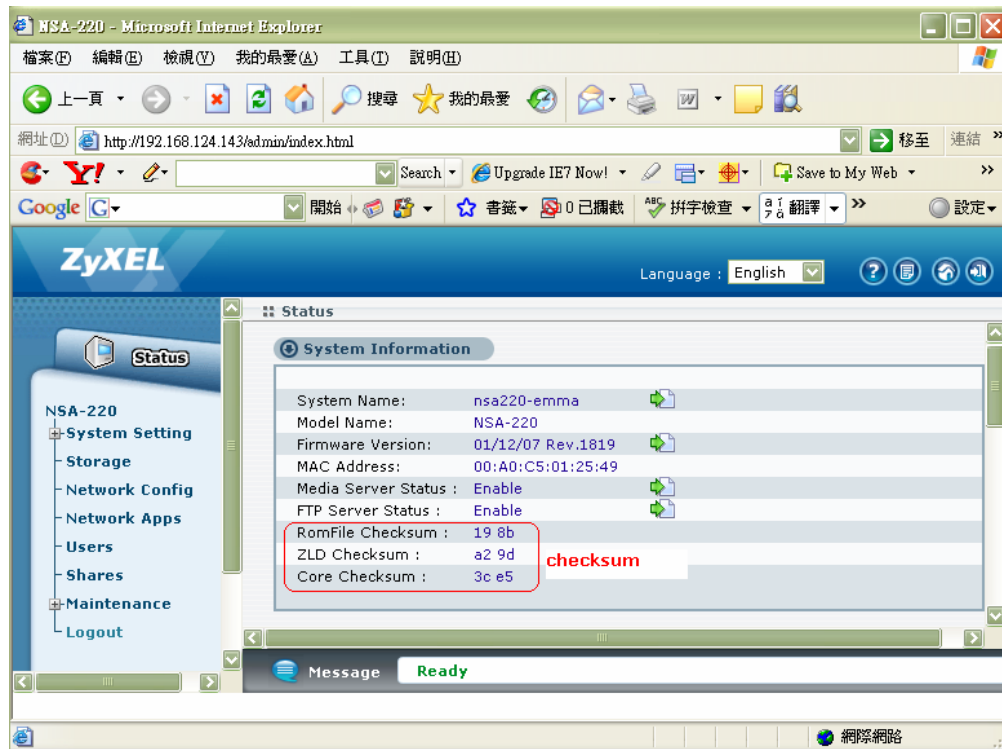
### 2. LED specification

LED	Indicator	State
Power LED (PWR)	Blue ON	Platform is powered.
	OFF	Platform is not powered.
System LED (SYS)	Green BLINK	System booting.
	Green ON	System booting is done.
	OFF	System shutdown.
Ethernet Activity LED	Green ON	Platform is connected to an 10/100 Ethernet port.
	Yellow ON	Platform is connected to an Giga Ethernet port.
	OFF	Platform is not connected to an Ethernet port.
Copy LED (COPY)	Green ON	Hotplug device is detected.
	Green BLINK	Copy files from hotplug device to NSA-220.
	Red ON	Failure occurs while copying files from hotplug device to NSA-220.
	OFF	No external device is detected.
Hard Drive LED (HD1 and HD2)	Green ON	Hard drive is fitted.
	OFF	Hard drive is not fitted.
	Orange	Volume is down.

### 3. Checksum

Checksum are hidden by default and can be shown up by clicking the hidden button.





# **ZyXEL**

## **Firmware Release Note**

### **NSA-220**

#### **Release 1.00(AFB.0)b3**

<b>Date:</b>	<b>Dec 15, 2006</b>
<b>Author:</b>	<b>Emma, ext 5551</b>
<b>Project Leader:</b>	<b>Ray, ext 5724</b>



## 15. Revision History

Date	Release	Author	Description
2006/9/13	0.1	Jackson	1. File Creating. 2. Release firmware version: V1.00(AFB.0)B1 09/13/06
2006/10/31	0.2	Emma	Release firmware version: V1.00(AFB.0)b2 10/31/06
2006/12/15	0.3	Emma	Release firmware version: V1.00(AFB.0)b3 12/15/06

## 16. Related Documents

No.	Date	Author	Document
1			

**NSA-220 Version  
Release 1.00(AFB.0)b3  
Release Note**

**Date: Dec. 15, 2006**

**Supported Platforms:**

ZyXEL NSA-220

**Versions:**

100AFB0b3.bin: V1.00(AFB.0)b3

bootbase.bm: Bootbase V20061020 | 10/20/2006 16:56:22

**Notes:**

10. Multi-language support are not including in this release and will be scheduled in next release.
11. Must reset to default after upgrade firmware from b1 to b2, from b1 to b3 or from b2 to b3.
12. Reset button usage specification
  - ✓ Pressed 2 seconds: Set ip and password of admin to default. (ip: DHCP, password of admin: 1234)
  - ✓ Pressed 6 seconds: Start telnet daemon.
  - ✓ Pressed over 10 seconds: Set to factory default.

**Known Issues:**

20. Sometime, GUI will show “undefine” message.

**Release Package:**

File name	Description
bootbase.bm	Version: V20061020
100AFB0b3.bin	NSA Firmware Package V1.00(AFB.0)b3 for FW Upgrading from GUI
zyconf.rom	Default configuration file. Can be restored from GUI to replace the configuration files on product.
NSA220-100AFB0b3.doc	Firmware release note (This document)
NSA220_BAT_test_report_b3.xls	BAT test report of this release

## **Default Settings:**

### Configuration:

- DHCP is default usage. If can't auto get an IP. Static IP address 192.168.1.3 is used.
- FTP server: On (Default account is admin/1234.)
- Samba server: On

Note: If disk volume created, then Samba server mode is On, and share resource list as following:

- 36. admin – admin (Read/Write)
- 37. photo – everyone (Read/Write)
- 38. public – everyone (Read/Write)
- 39. video – everyone (Read/Write)

### Accounts:

- 15. GUI: admin (Password: 1234)
- 16. FTP: admin(Password: 1234), anonymous(Not required), ftp(Not required)

### Web Interface:

- Username: admin
- Password: 1234

## **Features:**

Modifications in V1.00(AFB.0)b3

### [NEW]

None.

### [ENHANCEMENT]

1. Disable all internal shares if no volume is detected when system boots.

### [CHANGE]

None

### [BUG FIX]

1. SPRID: 060919250  
Description: DiXiM played lag (sound and movie frame).
2. SPRID: 060919253  
Description: DMA and DiXiM can not discover all media files.
3. SPRID: 060919255  
Description: DMA failed to play \*.avi file.

4. SPRID: 061102076  
Description: system corrupted.
5. SPRID: 061102077  
Description: admin session will be kick out.
6. SPRID: 061102078  
Description: actice session display incorrect information.
7. SPRID: 061102080  
Description: it (static ip) failed to re-link the login page.
8. SPRID: 061102133  
Description: can not find the external volume after initialed USB disk.
9. SPRID: 061102135  
Description: web GUI status error.
10. SPRID: 061103227  
Description: can not display page after reboot NSA.
11. SPRID: 060915987  
Description: unexpected error occurred when restore nothing.

[NOT A PROBLEM]

4. SPRID: 060915882
5. SPRID: 060915979
6. SPRID: 060918125

# **ZyXEL**

## **Firmware Release Note**

### **NSA-220**

#### **Release 1.00(AFB.0)b2**

<b>Date:</b>	<b>Oct. 31, 2006</b>
<b>Author:</b>	<b>Emma, ext 5551</b>
<b>Project Leader:</b>	<b>Ray, ext 5724</b>

## 17. Revision History

Date	Release	Author	Description
2006/9/13	0.1	Jackson	1. File Creating. 2. Release firmware version: V1.00(AFB.0)B1 09/13/06
2006/10/31	0.2	Emma	Release firmware version: V1.00(AFB.0)b2 10/31/06

## 18. Related Documents

No.	Date	Author	Document
1			

## NSA-220 Version Release 1.00(AFB.0)b2 Release Note

**Date: Oct. 31, 2006**

### **Supported Platforms:**

ZyXEL NSA-220

### **Versions:**

100AFB0b2.bin: V1.00(AFB.0)b2

bootbase.bin: Bootbase V20061020 | 10/20/2006 16:56:22

### **Notes:**

Following feature are not including in this release and will be scheduled in next release.

13. Multi-language support.

### **Known Issues:**

2. Sometime, GUI will show “undefine” message.
3. Disable all internal shares if no volume is detected when system boots.

### **Release Package:**

File name	Description
bootbase.bin	Version: V20061020
100AFB0b2.bin	NSA Firmware Package V1.00(AFB.0)b2 for FW Upgrading from GUI
zyconf.zxl	Default configuration file. Can be restored from GUI to replace the configuration files on product.
NSA220-100AFB0b2.doc	Firmware release note (This document)

### **Default Settings:**

Configuration:

- DHCP is default usage. If can't auto get an IP. Static IP address 192.168.1.3 is used.
- FTP server: On (Default account is admin/1234.)

- Samba server: On

Note: If disk volume created, then Samba server mode is On, and share resource list as following:

- 40. admin – admin (Read/Write)
- 41. photo – everyone (Read/Write)
- 42. public – everyone (Read/Write)
- 43. video – everyone (Read/Write)

Accounts:

- 17. GUI: admin (Password: 1234)
- 18. FTP: admin(Password: 1234), anonymous(Not required), ftp(Not required)

Web Interface:

- Username: admin
- Password: 1234

## **Features:**

Modifications in V1.00(AFB.0)b2

### **[NEW]**

1. File download from WEB
2. Show active session (Web/FTP)
3. Power/Reset/Copy button
4. Core checksum
5. Production support tools

### **[ENHANCEMENT]**

1. Update bootbase.bin
2. Create folder when creating a new share
3. Media Server integration (new version of media server solution from DigiOn)

### **[CHANGE]**

1. Configuration backup/restore file format.

### **[BUG FIX]**

1. SPRID: 060915875  
Description: It showed an incorrect description of valid character set of password.
2. SPRID: 060915876 Description: Guest login from web fails.
3. SPRID: 060915877  
Description: It showed undefined server name and undefined ip in Home page.
4. SPRID: 060915878  
Description: IE browser displayed error.



5. SPRID: 060915879  
Description: please modify file name in release note.
6. SPRID: 060915880  
Description: Re-link to NSA-220 after "restart" server
7. SPRID: 060915881  
Description: Show "Page can not find" when shutting down system from web.
8. SPRID: 060915883  
Description: Overnight stress failed.
9. SPRID: 060915975  
Description: Modify volume name error.
10. SPRID: 060915976  
Description: Can not login FTP server.
11. SPRID: 060915977  
Description: Can not specify my time server.
12. SPRID: 060915978  
Description: GUI no response.
13. SPRID: 060915982  
Description: No error message displayed when plugging out one member disk online.
14. SPRID: 060915983  
Description: Disable ftp will enable anonymous ftp access.
15. SPRID: 060915985  
Description: NDU can not find NSA-220.
16. SPRID: 060915986  
Description: Password does not support special character.
17. SPRID: 060915987  
Description: Unexpect error occurs when restoring nothing.
18. SPRID: 060915988  
Description: Put wrong icon. NAS icon should be used instead of zywall icon.
19. SPRID: 060918121  
Description: It spent much time to delete volume.
20. SPRID: 060918122  
Description: All shares on deleted volume except built-in ones should be deleted.
21. SPRID: 060918124  
Description: Initialed FAT32 and maximum support.
22. SPRID: 060918127  
Description: Create share path by folder browser function seems not ready.
23. SPRID: 060918128  
Description: None phase 1 feature should be hidden from GUI.
24. SPRID: 060918129  
Description: Detect external disk fails.
25. SPRID: 060919252  
Description: No matter media server is enabled or disabled, NSA-220 always disable media server after restarting system.
26. SPRID: 060919254

- Description: Can't change published to media server flag of built-in shares.
27. SPRID: 060921388  
Description: GUI could not block incorrect firmware code .
28. SPRID: 060921390  
Description: Only one of two NSA-220 could be found by NDU.
29. SPRID: 060921391  
Description: Problem occurs when playing video with heavy FTP traffic overnight.
30. SPRID: 060921393  
Description: It did not conform to maximum concurrent ftp sessions.

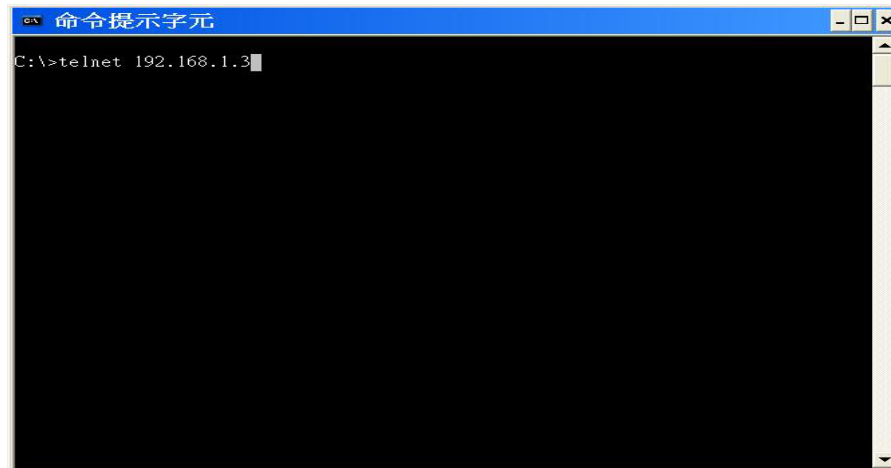
## Appendix:

4. MRD (Manufacturer Related Data) tools
- ✓ **mrdd\_country**: show the country type  
Example:  
/ # mrdd\_country  
country type = FF  
/ #
  - ✓ **mrdd\_vname**: show vendor name  
Example:  
/ # mrdd\_vname  
vender name = ZyXEL Communications Corp.  
/ #
  - ✓ **mrdd\_pname**: show product name  
Example:  
/ # mrdd\_pname  
product name = ZyXEL NSA220  
/ #
  - ✓ **mrdd\_mac**: show MAC address and set MAC address  
Example 1: show MAC address of product  
/ # mrdd\_mac  
00:a0:c5:11:90:01  
/ #  
  
Example 2: set MAC address to 00:a0:c5:11:25:49  
/ # mrdd\_mac 00 a0 c5 11 25 49  
MTD\_open  
MTD\_ioctl  
MTD\_ioctl

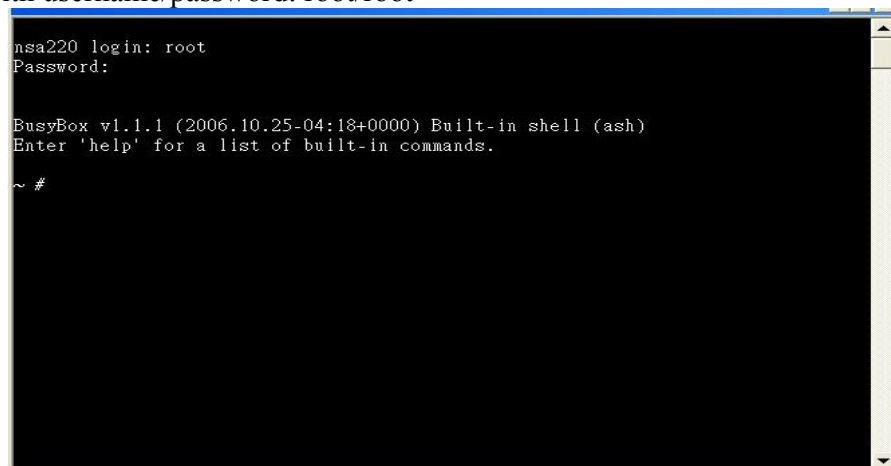
- 5. Production support tools
  - ✓ Shell script, **htppk.sh**, is provided to do production test.

Step 1: Connect the DUT(Device Under Test) and your PC with Ethernet cable. The DUT's default IP address is 192.168.1.3 and network mask is 255.255.255.0, so you've to setup the correct IP address on you PC in order to connect to the DUT.

Setp 3: Telnet to the DUT.



Step 4: Login with username/password: root/root



Step 5: Change directory to /usr/local/http and execute httpk.sh.

Step 6: Verify the MAC address using MRD tool, mrd\_mac.

```

~ # cd /usr/local/http
/usr/local/http # ./httpk.sh
HTP Start.
V1.00(ACB,0)b2-pre-release 10/25/06 Rev.1384
ff ff
42000
0
SATA0          EXTERNAL      TEST.....OK
SATA1          EXTERNAL      TEST.....OK
BUZZER         EXTERNAL      TEST.....OK
LED_TEST       EXTERNAL      TEST.....OK
POWER_BUTTON   EXTERNAL      TEST.....OK
COPY_BUTTON    EXTERNAL      TEST.....OK
RESET_BUTTON   EXTERNAL      TEST.....OK
Please specify the new MAC:00a0c5000001
HTP Done.
/usr/local/http # mrd_mac
00:a0:c5:00:00:01
/usr/local/http #

```

#### 6. Button usage specification

- ✓ Power button
  - ⇒ Pressed 1 second: Shut down system and then power off.
  - ⇒ Pressed over 5 seconds: Power off directly without shutting down system.
- ✓ Reset button
  - ⇒ Pressed 2 seconds: Set ip and password of admin to default. (ip: DHCP, password of admin: 1234)
  - ⇒ Pressed over 10 seconds: Set to factory default.
- ✓ Copy button
  - ⇒ Copy files from hotplug device to NSA-220. (copy into public share)

#### 7. LED specification

LED	Indicator	State
Power LED (PWR)	Blue ON	Platform is powered.
	OFF	Platform is not powered.
System LED (SYS)	Green BLINK	System booting.
	Green ON	System booting is done.
	OFF	System shutdown.
Ethernet Activity LED	Green ON	Platform is connected to an 10/100 Ethernet port.
	Yellow ON	Platform is connected to an Giga Ethernet port.
	OFF	Platform is not connected to an Ethernet port.
Copy LED (COPY)	Green ON	Hotplug device is detected.

	Green BLINK	Copy files from hotplug device to NSA-220.
	Red ON	Failure occurs while copying files from hotplug device to NSA-220.
	OFF	No hotplug device is detected.
Hard Drive LED (HD1 and HD2)	Green ON	Hard drive is fitted.
	OFF	Hard drive is not fitted.



**Firmware Release Note**

**NSA-220**

**Release 1.00(AFB.0)B1**

<b>Date:</b>	<b>Sept. 13, 2006</b>
<b>Author:</b>	<b>Jackson, ext 5538</b>
<b>Project Leader:</b>	<b>Ray, ext 5724</b>

## 19. Revision History

Date	Release	Author	Description
2005/9/13	0.1	Jackson	1. File Creating. 2. Release firmware version: V1.00(AFB.0)B1 09/13/06

## 20. Related Documents

No.	Date	Author	Document
1			



## NSA-220 Version Release 1.00(AFB.0)B1 Release Note

**Date: Sept. 13, 2006**

### **Supported Platforms:**

ZyXEL NSA-220

### **Versions:**

RAS.BIN: V1.00(AFB.0)B1 09/13/06

BootBase.BIN: Bootbase V20060913 | 09/13/2006 11:39:47

### **Notes:**

Following feature are not including in this release and will be scheduled in next release.

14. Multi-Boot.
15. LED definition
16. Bottom usage definition.(Power/Reset/Copy)
17. GUI show firmware checksum.
5. Show Active Session(samba/Web)

### **Known Issues:**

8. Sometime, GUI will show “undefine” message.
9. GUI can not set special characters for password. Six special character not support in this release:  
“!” “#” “.” “|” “space” and “'”
10. When changing user account type from admin to user, GUI should auto logout.
11. Hot-plug detects error if plug-in/out external disk frequently in a short period of time.

### **Release Package:**

File name	Description
Bootbase.bin	Version: V20060913
ras.bin	NSA Firmware Package V1.00(AFB.0)B1 09/13/06 for FW Upgrading from GUI
startup-config.conf	Default startup-config file. Can be restore from GUI

	to path /etc/zyxel/conf/
NSA220-100AFB0B1.doc	Firmware release note (This document)
NSA220 BAT.xls	RD BAT Test Report

## **Installation Notes:**

Install/Upgrade Method	Procedure
FW Upgrade from GUI	<ol style="list-style-type: none"><li>1. Login to GUI page: Maintenance &gt; Tools -&gt; Fw Upgrade.</li><li>2. Select your own ras.bin and upgrade bottom. System will show progress percentage after upload ras.bin to system memory.</li><li>3. System will auto reboot.</li></ol>

## **LED Specification:**

LED	Indicator	State

Action Table:

Action	State	System LED	Diagnostic LED	System Log

## **Bottom Usage Specification:**

## **Default Settings:**

Configuration:

- DHCP is default usage. If can't auto get an IP. Static IP address 192.168.1.3 is used.
- FTP server: On (Default account is admin/1234.)
- Samba server: On
- Hardware Reset Button: Not yet implement.

Note: If disk volume created, then Samba server mode is On, and share resource list as following:

- 44. admin – admin (Read/Write)
- 45. photo – everyone (Read/Write)

- 46. public – everyone (Read/Write)
- 47. video – everyone (Read/Write)

Accounts:

- 19. GUI: admin (Password: 1234)
- 20. FTP: admin(Password: 1234), anonymous(Not required), ftp(Not required)

Web Interface:

- Username: admin
- Password: 1234

## **Features:**

- Menu
  - ⇒ Show System Information
  - ⇒ Show Volume Status
  - ⇒ Show Active Session(samba)
- Storage.
  - ⇒ RAID 0.
  - ⇒ RAID 1.
  - ⇒ JBOD
  - ⇒ External Disk

(Read/write support following filesystem: FAT16/FAT32, EXT2, EXT3, ReiserFS)  
(Read only support : ISO9660, UDF, NTFS)
- Share Management
  - ⇒ Create/Modify/Delete Share.
  - ⇒ Access control (public share/private share/advanced share).
  - ⇒ Support maximum 100 share.
  - ⇒ Publish Share to Media Server.
  - ⇒ Share Browsing/Folder Browsing.
- Account Management
  - ⇒ Create/Modify/Delete Account.
  - ⇒ Support maximum 512 user accounts.
- System
  - ⇒ Date & Time (NTP / Manual Setting)
    - ✓ Time Zone
    - ✓ Daylight Saving
- Network
  - ⇒ Setting DHCP/Static IP.
  - ⇒ Setting DNS Server.
  - ⇒ Ftp Server.( Connection Limit range from 1~20 , Idle Timeout range from 30 ~ 300)
- Media Server.
  - ⇒ Publish file types.

<http://www.zyxel.com>

- ⇒ Publish Shares.
- Maintenance
  - ⇒ Configuration backup/restore.
  - ⇒ FW Upgrade.
  - ⇒ System shutdown/restart.
  - ⇒ Logs

## **AT Cmds:**

Change MAC address:

- ✓ atbt1
- ✓ atwz00a0c5000001

Upgrade bootbase.bin

- ✓ atip dhcp
- ✓ atip your\_tftp\_server\_ip (ex: atip 192.168.1.1, you have to put bootbase.bin on your tftp server)
- ✓ attc0x00200000,bootbase.bin (upload bootbase.bin to system free memory 0x00200000)
- ✓ atwf0x00200000,0xf8ff0000,0x10000 (Upgrade bootbase.bin to flash address 0xf8ff0000)