

**ZyXEL**

**Firmware Release Note**

**NSA-220 PLUS**

**Release  
3.25(AFG.0)C0**

**NSA-220 PLUS Version  
Release 3.25(AFG.0)C0**

**Release Notes**

**Date: Dec., 2011**

**Supported Platforms:**

ZyXEL NSA-220 PLUS

**Notes:**

- 1) Must First Clean your Browser's cache after performing upgrade
- 2) Upload Torrent File may not immediately appear in Download list. Usually will first appear in Queued first before appearing in Download.
- 3) Share Browser Copy/Move only allows One Instance of Copy and Move
- 4) **After Create First System Volume, you must Reboot!**
- 5) **Create Volume consumes more time because it uses EXT3 file system**
- 6) **Suggested to Rebuild database of media server after performing upgrade**
- 7) When the share permission configuration conflicts, the priority will be "DENY" > "Read-Only" > "Read-Write"

## **Known Issues:**

- If FTP Encoding incompatible with FTP client, some files will have odd file names which Media server cannot support.
- **Download Service may not always be able to download 10 at a time.** It will depend on how much free memory is left on the system at that time.
- iTunes Server may not play videos correctly if the file extension is mp4. However, if the file extension is changed to m4v the file will play correctly.
- You cannot copy or move files/folders with a name that includes any of the following characters:
  - " (double quote)
  - / (forward slash)
  - \ (backslash)
  - : (colon)
  - | (pipe)
  - < (less than)
  - > (greater than)
  - ; (semicolon)
  - , (comma)
  - ? (question mark)
  - \* (asterisk)
- Media Server May Not Support the following Formats:
  - gif
  - tif
  - asf
  - m2p
  - dvr-ms
  - ogg
- Broadcatching cannot work with YouTube RSS Feeds
- Share Name or Share Path cannot be longer 200 characters
- iTunes Server:
  - if video file extension is mp4, only audio will play
- Upload torrent from URL does not collect torrent file in the folder named "torrent". But upload torrent file does.
- Sometimes the database of mediaserver will corrupt and required rebuild database.
- iTunes 8 can not play video published by iTunes Server
- When enable Jumbo Frame and use Download Service to download BT with a lot of peers connected, there is a chance to make NSA hang. Workaround is to disable Jumbo Frame.
- There is some rare situation can not repair Raid1 and it requires below procedure to solve it: 1. Plug only the wanted Raid1 disk on disk1 slot of NSA (leave disk2 slot of NSA empty) and boot-up NSA so that NSA will solve it automatically. 2. Power-off NSA and add a spare HD and then you can repair it.
- Duration of some VBR MP3 song is inaccurate and may cause player to play additional

time in silent

- Some video file (with file extension: mp2) published in music type and when DMA-1000 play it, it may cause DMA-1000 to hang.
- Printer Server is not able to cancel print job if the print job has not been sent to NSA.
- In some situation, eMule is not able to connect to peers. When it happened, disable eMule and then enable eMule will recover it.
- When quota is full, user can not use share browser to move
- Upload a file over 2 GB to a FAT32 volume via CIFS with Windows will fail. User can modify below registry to solve it:

[HKEY\_LOCAL\_MACHINE\SYSTEM\CURRENTCONTROLSET\SERVICES\LANMANWORKSTATION\PARAMETERS] "SessTimeout"=dword:00000600.

- After overnight test eMule and BT download, there is a chance that the additional HTTP port can not be set, NSA will recover again after reboot.

## **Complete Features List:**

- Copy/Sync for Copy Button feature
- Link Capture Browser Plug-in: Supports IE (for Windows) and Firefox (for all platform)
- Support IPOD web-streaming
- Menu
  - ⇒ Show System Information
  - ⇒ Show Volume Status
  - ⇒ Show Active Session(samba)
  - ⇒ Show UPS Current Capacity
  - ⇒ Show Temperature, CPU Loading, Memory Usage, Fan Speed
- Storage.
  - ⇒ RAID 1.
  - ⇒ JBOD
  - ⇒ External USB Disk  
(Read/write support following filesystem: NTFS, FAT16/FAT32, EXT2, EXT3, ReiserFS)  
(Read only support : ISO9660, UDF)
  - ⇒ Support 3TB volume size (with two 1.5TB HD installed)
  - ⇒ When Creating Volume, will show volume status with "Create Volume" in the storage page and system status page.
  - ⇒ PTP Support (Digital Camera Support)
- Share Management
  - ⇒ Recycle Bin and auto-expire recycle-bin files.
  - ⇒ 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.
    - ◆ Copy/Move/Create Folder/Delete Folder/file
    - ◆ Upload File
    - ◆ Rename File/Folder
- Account Management

- ◆ User Groups
  - ⇒ Create/Modify/Delete Account.
  - ⇒ Support maximum 512 user accounts.
  - ⇒ User Quota Support
- System
  - ⇒ Date & Time (NTP / Manual Setting)
    - ✓ Time Zone
    - ✓ Daylight Saving
- Network
  - ⇒ PPPoE Client Support (also supported in NDU client)
  - ⇒ No Master Browser Setting: Allow Unicode Computer Names in same workgroup
  - ⇒ Jumbo Frames
  - ⇒ Setting DHCP/Static IP.
  - ⇒ Setting DNS Server.
  - ⇒ Ftp Server.( Connection Limit range from 1~20 , Idle Timeout range from 30 ~ 300 MINUTES, Customize Passive Mode Port Range)
  - ⇒ FTP Server Custom Character Encoding
  - ⇒ Support additional HTTP Configuration Port Number Selection
- AutoUpload
  - Automatically Upload Files to Flickr or YouTube
  - Having log when en-queued files, file uploaded
- FTP Uploadr
- AutoUpload
  - Automatically Upload Files to Flickr or YouTube
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- Media Server. (Media Server changed Solution)
  - ⇒ Publish file types.
  - ⇒ Publish Shares.
  - ⇒ iTunes Server Support
  - ⇒ DLNA 1.5 Support
  - ⇒ XBOX360 Support
  - ⇒ File-extension support:

CATEGORY	FILE TYPE	EXTENSION
Video	MPEG-1 / MPEG-2	dat, dvr-ms, iso, m1v, m2p, m2t, m2v, mp2, mpe, mpeg, mpeg2, mpg, mpg2, ts, vob, m2ts, tts
	MPEG-4	m4v, mp4
	AVI	avi
	DivX	divx, avi
	Motion JPEG	mjpeg, mjpg
	Quick Time Video	mov, qt
	RealMedia	rmvb, rm

	Ogg	ogg
	Matroska	mkv
	ASF	asf
	Windows Media Video	wmv
	Subtitle	srt, ssa, idx, sub
Music	MP3	mp3, mpa
	Ogg Vorbis	ogg
	RealMedia	ra, ram
	WAVE	wav
	Windows Media Audio	wma
	Matroska	mka
	Monkeys Audio	ape
	MP1	mp1
	MP4	mp4, m4a, m4p
	PCM	pcm
	LPCM	lpcm
	DTS	dts
	AC3	ac3
	Free Lossless Audio Codec	flac
	Au	au
	AAC	aac
	3GPP	3gp, 3g2
	AIFF	aif, aiff
	RIFF-based MIDI	rmi
	Playlist	wpl, pls, m3u
Photo	JPEG	jpe, jpeg, jpg
	Bitmap	bmp
	PNG	png

■ Printer Server

- ⇒ Add / Delete Printer
- ⇒ Cancel Print Job

■ Download Service

- ⇒ Download BitTorrent, HTTP, or FTP files
- ⇒ FTP authentication supported

- ⇒ Pause, Delete, Continue Downloads
- ⇒ Priority
- ⇒ Max 10 items job processing
- ⇒ Support Configure Maximum Number of Seeding Job
- ⇒ Two Keep Seeding Criteria Support: Upload/Download Ratio and Seeding Time
- ⇒ Resume Completed Torrent Job to Do Seeding Again.
- ⇒ Support Show Detail Job Information and Configure Comment for Each Job
- ⇒ Support Download Service Download Period Control
- ⇒ Support IP Filter Table Management
- ⇒ Support Encryption in BT Protocol
- ⇒ Open Share Browser on Location of Completed Job to See Download Files.
- ⇒ Configurable Maximum number of Connections (max is 500)
- Download Service Notification (RSS Server): Notify Downloaded File from Download Service / Broadcatching Torrent Job
- Broadcatching
  - ⇒ Add RSS 2.0 Feeds with enclosures Only
  - ⇒ Invalid feeds will show red color
  - ⇒ Support encoding other than UTF-8
- Package Management
  - ⇒ Retrieve Package List (from internet server)
  - ⇒ Install/Upgrade package
  - ⇒ Uninstall package
  - ⇒ Enable package
  - ⇒ Disable package
  - ⇒ Cancel Install package
- Packages:
  - ⇒ eMule
  - ⇒ SqueezeCenter
  - ⇒ MySQL / PHP / phpMyAdmin
  - ⇒ S.M.A.R.T.
  - ⇒ DyDNS Client
    - ◆ DynDNS (<http://www.dyndns.com/>)
    - ◆ No-IP (<http://www.no-ip.com/>)
    - ◆ 3322 (<http://www.3322.org/>)
    - ◆ zoneEdit (<http://www.zoneedit.com/>)
    - ◆ DHS (<http://www.dhs.org/>)
  - ⇒ Gallery (Album)
  - ⇒ WordPress (Blog)
  - ⇒ NFS
  - ⇒ BackupPlanner
    - ◆ Backup
    - ◆ Restore
- Maintenance

- ⇒ Configuration backup/restore.
- ⇒ UPS shutdown capacity (Not supported in this version yet)
- ⇒ Power Management
  - Power Resume
  - Power Control Schedule
- ⇒ SSL: HTTPS, FTPS, Force HTTPS support, CA Management Support
- ⇒ FW Upgrade:
  - FW Upgrade by uploading FW file.
  - On-Line FW Upgrade.
- ⇒ System shutdown/restart.
- ⇒ High Temperature Buzzer alert support
- ⇒ Over Temperature auto-shutdown support
- ⇒ Logs
  - E-mail Alert in plain text or HTML

## **Release Package:**

<b>File name</b>	<b>Description</b>
325AFG0C0.bin	NSA Firmware Package for standard version
325AFG0C0_END.pdf	Firmware release note (This document)
325AFG0C0.rom	Default Configuration File

## **Installation Notes:**

<b>Install/Upgrade Method</b>	<b>Procedure</b>
FW Upgrade from GUI	<ol style="list-style-type: none"> <li>1. Login to GUI page: Administration &gt; Maintenance -&gt; Fw Upgrade.</li> <li>2. Select &lt;firmware version&gt;.bin and click the upgrade button. System will show progress percentage after upload &lt;firmware version&gt;.bin to system memory.</li> <li>3. System will auto reboot New Firmware should apply</li> </ol>
FW Upgrade via on-line FW upgrade manually (when zyfw is ready on ftp2.zyxel.com)	<ol style="list-style-type: none"> <li>1. Login to GUI page: Administration &gt; Maintenance -&gt; Fw Upgrade.</li> <li>2. Press [Check for Latest Firmware Now].</li> <li>3. NSA found a new FW</li> <li>4. Press [Upgrade FW] to start FW upgrade process New Firmware should apply</li> </ol>
FW Upgrade via on-line FW upgrade automatically	<ol style="list-style-type: none"> <li>1. Login to GUI page: If NSA found a this new FW when checking <a href="ftp2.zyxel.com">ftp2.zyxel.com</a> files. User will see a dialog that there is a new FW and ask user if he/she want to upgrade this new FW.</li> </ol>

	2. Choose yes to start FW upgrade New Firmware should apply
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## **Features**

### **Modification in V3.25(AFG.0)C0 | 12/2011**

[Enhancement]

- Allow Media Server support to choose generating thumbnail or not
- Media Server: support id3 tag by libiconv

[Fix]

- Online firmware upgrade stopped unexpectedly
- Fix some problems of power schedule
- Solve smbd failure while sending large files to FAT32 formatted USB device.
- Fix HDD wake-up problem

### **Modification in V3.24(AFG.0)C0 | 11/25/2010**

[Enhancement]

- Allow to set non-ascii password for admin
- Media Server:Support APE and FLV music format
- Media Server:Fix VBR MP3 duration inaccurate issue
- Media Server:Support UPnP sort by tracknumber

[Change]

- Package management page link in GUI: do not show private IP if user is connecting from WAN
- Upgrade libtorrent to 0.15.0
- Allowed maximum e-mail password length from 14 to 64

### **Modification in V3.23(AFG.0)C0 | 05/12/2010**

[Enhancement]

- Media sever: Add presentation url for Win7 and modify model description
- Media sever: Modify MPEG1 profile criteria and refine http head response for Samsung TV issue
- Media sever: Parse whole VBR MP3 file in background(importwork)
- Media Server: Fix Samsung DLNA Rewind and Pause issue.

### **Modification in V3.22(AFG.0)C0 | 10/05/2009**

[Fix Issue]

- Media server: Get into infinite loop and buffer overflow when syncing some ts VOB file..

### **Modification in V3.21(AFG.0)C0 | 08/18/2009**

[Enhancement]

- Add "Expand Raid1" available action after replacing all member disks.

- Add "On-line Firmware Upgrade" feature.
- Add "Package Management" feature
- Add packages:
  - ◆ eMule
  - ◆ SqueezeCenter
  - ◆ MySQL / PHP / phpMyAdmin
  - ◆ S.M.A.R.T.
  - ◆ DyDNS Client
  - ◆ Gallery (Album)
  - ◆ WordPress (Blog)
  - ◆ NFS
  - ◆ BackupPlanner
- Media Server: copy the encrypted wma file to Media-Server Share and Media-Server cannot be found by DMA anymore.
- Mediaserver: Support Thumbnail generation
- Mediaserver: Add server icon
- Mediaserver: Change default sort criteria to be title.
- FTP Server: Add per-session bandwidth limit setting.
- Add High Temperature Buzzer alert support
- Add Over Temperature auto-shutdown support
- Add Spanish support
- Enhance accuracy of VBR MP3 music duration. (but still not accurate)

[Change]

- Allow edit "public" and "admin" share permission.

[Bug Fix]

- Media server:
  - ◆ DMA-1000 can not play divx file
  - ◆ File in recycle bin still be found by DMA if user rename it
  - ◆ Using DMA-1000 and cover thumbnail in Music does not works
  - ◆ Using DMA-1000 and photo over 2MP can not show thumbnail.
  - ◆ Some mpeg file using DMA-1000 can only play to the halfway
  - ◆ Some vob file makes NSA takes a lot of time to import
  - ◆ ram, rm, 3gp, m4a, m4p video / audio wrong type issue.
  - ◆ Music date is wrong.
  - ◆ some MP4 file can not be shown
- Link Capture does not support Firefox 3.5

**Modification in V3.12(AFG.0)C0 | 05/04/2009**

[Enhancement]

- Change supported file extension for Auto Upload Flickr to be: 'bmp', 'mov', 'mpeg', 'avi', 'mp4', 'mpg', 'wmv', '3g2', '3gp'.
- Media server: add more media format. (mp4, mts)
- Media server: Set default sort criteria as title for browse and search

- Media server: Support subtitle file (.SRT, .SSA, .IDX, and .SUB).
- Enhance accuracy of CPU loading in status page.

[Change]

- SYS LED blinks orange if upgrading firmware. DO NOT POWER OFF NSA in this state.

[Bug Fix]

- Fix issue: Support more uPnP search features to support DMA-1000
- Fix issue: iPod touch and iPhone web streaming failed.
- Fix issue: No server icon for media server when browsing with DMA-1000.
- Fix issue: Support uPnP title search for DMA-1000.
- Fix issue: IE browser can not download a file through share browser that over 2 GB: Enhance it to 4GB file.
- Fix issue: Media server can not publish all video files successfully when a specific mpeg2 TS high bit rate file exists
- Fix HD compatible issue for Seagate 160G (Barracuda 7200.0 Firmware: 3.AAD) and Hitachi 1TB (model: HDT721010SLA360, MLC: BA3013, PN: 0A38016)

### **Modification in V3.11(AFG.0)C0 | 03/02/2009**

[Enhancement]

- Enhance FTP Download Throughput

[Bug Fix]

- Fix issue: NDU client can not set PPPoE setting of NSA-220 PLUS (Fix on both NDU client and NSA-220 PLUS FW)
- Fix issue: When Raid1 is built by FW other than V3.10, using FW V3.10 can not repair or resync the Raid1 when it downgrade.

### **Modification in V3.10(AFG.0)C0 | 01/20/2009**

[New Feature / Change]

- Menu: Show Temperature, CPU Loading, Memory Usage, Fan Speed
- Storage: When Creating Volume, will show volume status with "Create Volume" in the storage page and system status page.
- Share Browsing/Folder Browsing: Rename File/Folder
- Network:
  - ⇒ Support additional HTTP Configuration Port Number Selection
  - ⇒ Support FTP over TLS explicit mode
  - ⇒ DLNA 1.5 Support
  - ⇒ Add file-extension support for: MKV, MKA, FLAC, M2TS
  - ⇒ XBOX360 Support
  - ⇒ Add file-extension support for:
    - ◆ Picture: ico, jpe, pcd, pnm, ppm, qti, qtf, qtif
    - ◆ Video: ogm, dat, iso, ts, rmvb, dv, mjpg, mp4ps, m2p, qt, hdmov,
    - ◆ Audio: ac3, aif, aiff, at3p, au, snd, dts, rmi, mp1, mp2, ogg, L16, rm, ram,

m4p

- Download Service:

- ⇒ Support Configure Maximum Number of Seeding Job
- ⇒ Two Keep Seeding Criteria Support: Upload/Download Ratio and Seeding Time
- ⇒ Resume Completed Torrent Job to Do Seeding Again.
- ⇒ Support Show Detail Job Information and Configure Comment for Each Job
- ⇒ Support Download Service Download Period Control
- ⇒ Support IP Filter Table Management
- ⇒ Support Encryption in BT Protocol
- ⇒ Open Share Browser on Location of Completed Job to See Download Files.

- Broadcatching

- ⇒ Support encoding other than UTF-8

- Maintenance

- ⇒ SSL: HTTPS, FTPS, Force HTTPS support, CA Management Support

[Bug Fix]

- Fixed: 1.5 TB H.D compatible issue

**Modification in V3.00(AFG.0)C0 | 10/23/2008**

Initial Version