

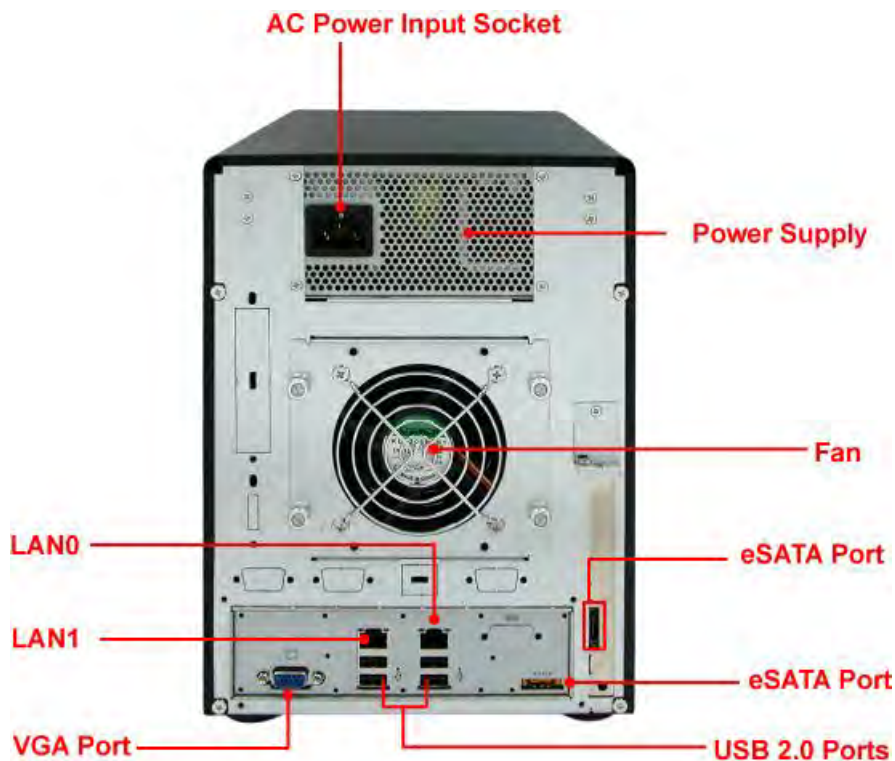
NNAS-D5 Quick Installation Guide

NOTE: By default, LAN0 (eth0) is set to DHCP. If a DHCP server is available or detected, LAN0 will be assigned a DHCP IP address.

If a DHCP server is not available, LAN0 will use the default IP address 172.16.0.1 subnet mask 255.255.0.0, and LAN0 need to be reconfigured via LCD front panel to a suitable network setting applicable to your network environment. Or configure a client computer to be able to connect to IP address 172.16.0.1.

Part 1: Preparing the NAS

1. Connect the power cord to the AC Power Input Socket.
2. Connect network cable to LAN0 port.



3. Press the Power On/Off Switch at the front panel to power on the NAS. Wait for at least 3 minutes for the system to start up.
4. Install the disk drives in the disk trays. Insert the disk trays in the NAS.

5. The current IP address of LAN0 (eth0) is displayed in the LCD display panel. If a DHCP server is available, a DHCP IP will be assigned to eth0. If not, eth0 will use the default IP address **172.16.0.1** subnet mask **255.255.0.0**.

NOTE: If a DHCP server is available, skip these steps and proceed to Part 2.

NOTE: If a client computer is able to connect to LAN0 (eth0) IP address 172.16.0.1 (after making necessary changes in network setting of client computer), skip these steps and proceed to Part 2.

To manually change the network settings of eth0 via LCD front panel, follow these steps:

- a. Press the Down button ▼. The LCD will show 00000000 as Password (default).



- b. Press Select button ✓ several times to select eight zeros until the Network Information menu is displayed.
- c. Press Select button ✓. The LCD will show "eth0 IP" and "172.016.000.001".
- d. Press Select button ✓. The LCD will display "Set eth0 IP". The first number in the IP address is highlighted.
- e. To change the number, press ▼ or ▲. When done, press ✓ to move to the next number. If the number will not be changed, just press ✓ to move to the next number.
- f. Repeat Step E to change the other numbers in the IP address until the last one.
- g. The LCD will display "Submit Network Setting (Yes/No)". Press ✓ to save the setting. It will go back to eth0 IP.
- h. Press ▼. The eth0 Netmask will be displayed.
- i. Press ✓ to modify eth0 Netmask. The LCD will show "Set eth0 Netmask". The first number is highlighted.

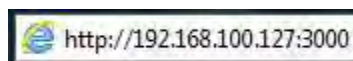
- j. To change the number, press ▼ or ▲. When done, press ✓ to move to the next number. If the number will not be changed, just press ✓ to move to the next number.
- k. Repeat Step J to change the other numbers in the Netmask until the last one.
- l. The LCD will display "Submit Network Setting (Yes/No)". Press ✓ to save the setting. It will go back to eth0 Netmask.
- m. Press ▼ few times until the Gateway_0 option is displayed.
- n. Press ✓ to modify Gateway. It will show "Set Gateway_0" and the first number is highlighted.
- o. To change the number, press ▼ or ▲. When done, press ✓ to move to the next number. If the number will not be changed, just press ✓ to move to the next number.
- p. Repeat Step O to change the other numbers in the Gateway until the last one.
- q. The LCD will display "Submit Network Setting (Yes/No)". Press ✓ to save the setting. It will go back to Gateway_0.
- r. The eth0 network configuration is set. Press **EXIT** twice to go back to main menu.

Part 2: Connecting to NAS Management GUI and Using Quick Setup

NOTE: The NAS Management GUI requires Adobe Flash Player to be installed in the client computer that will be used to manage the NAS.

NOTE: Quick Setup will use all available disk drives as RAID members. If you want to configure a hot spare in Quick Setup, remove the disk drive that will be designated as hot spare. When Quick Setup process is completed, reinsert the unused disk drive. It is automatically assigned as hot spare disk.

1. Open web browser in a client computer.
2. Type in the address bar the IP address of eth0 (check LCD display for the current IP address) followed by port 3000.
Example: <http://192.168.100.127:3000>



3. The NAS Login page will be displayed.

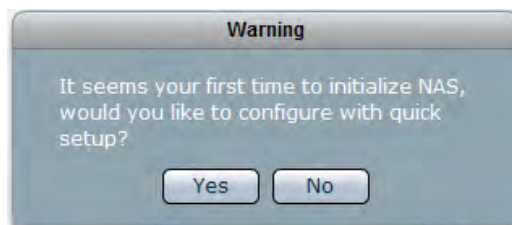


4. Enter the Login Name and Password. Click "Login".

Entity	Default
Login Name	admin
Password	00000000

NOTE: When the system initially has no NAS configuration (settings are factory default), after login to GUI, the Quick Setup option will be displayed.

5. A warning message will be displayed. Select "Yes" to configure the NAS for the first time using Quick Setup.



6. Configure RAID by selecting the RAID Level.

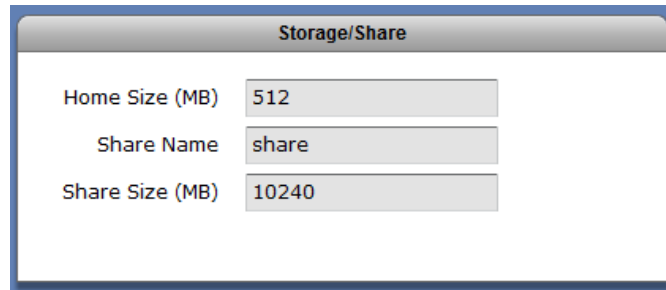


NOTE: To initialize the RAID, remove the check mark in the "Without initializing" option.

7. Configure the Storage/Share.
 - a. **Change the "Home Size" default capacity if needed.**
 - b. Rename the default share **"share"** if necessary.

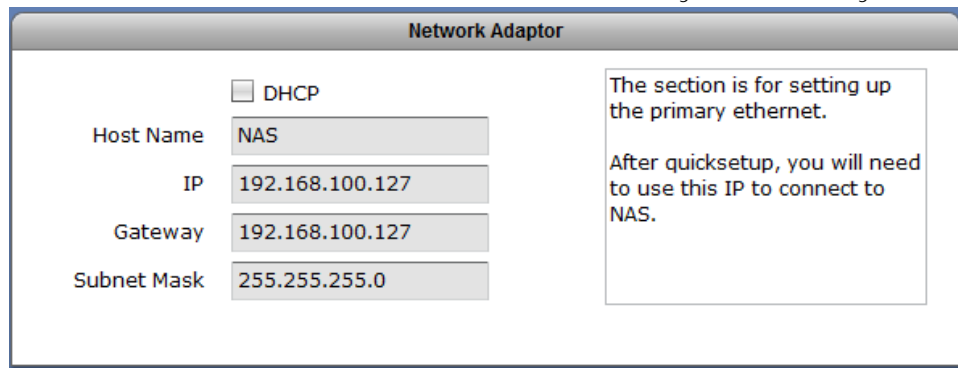
NOTE: The share folder name does not allow space in-between characters.

- c. Change the size of the default share if needed.



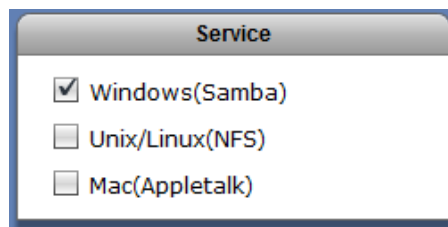
The 'Storage/Share' configuration window has a title bar with the text 'Storage/Share'. It contains three input fields: 'Home Size (MB)' with the value '512', 'Share Name' with the value 'share', and 'Share Size (MB)' with the value '10240'.

8. In Network Adaptor settings, enable DHCP option (if DHCP server is available) or configure network settings with static IP.
 - a. Enter the new NAS Host Name in the Host Name box, if needed.
 - b. Edit the IP address, Subnet Mask and Gateway, if necessary.



The 'Network Adaptor' configuration window has a title bar with the text 'Network Adaptor'. It features a checkbox for 'DHCP' which is currently unchecked. Below it are four input fields: 'Host Name' with 'NAS', 'IP' with '192.168.100.127', 'Gateway' with '192.168.100.127', and 'Subnet Mask' with '255.255.255.0'. To the right of these fields is a text box containing the following text: 'The section is for setting up the primary ethernet. After quicksetup, you will need to use this IP to connect to NAS.'

9. Configure the Service option. Enable the network protocol services as needed.



The 'Service' configuration window has a title bar with the text 'Service'. It contains three checkboxes: 'Windows(Samba)' which is checked, 'Unix/Linux(NFS)' which is unchecked, and 'Mac(Appletalk)' which is unchecked.

10. When done, click the "Execute" button.

Welcome to Quicksetup -> Configuration (Step 1/2)

This quicksetup will guide you to setup the system easily. The process includes the storage, service and network configuration . Once you complete the setup, the system will be ready for use after a couple minutes.

RAID

The software RAID device will join the Storage automatically.

Disk Number : 5 Available Size(MB): 1904640

☐ Without initializing.

RAID Level **Security(RAID5)**

Storage/Share

Home Size (MB) 512

Share Name data1

Share Size (MB) 50000

Network Adaptor

☐ DHCP

Host Name NAS

IP 192.168.100.127

Gateway 192.168.100.253

Subnet Mask 255.255.255.0

The section is for setting up the primary ethernet.

After quicksetup, you will need to use this IP to connect to NAS.

Service

☒ Windows(Samba)

☐ Unix/Linux(NFS)

☐ Mac(Appletalk)

Execute Cancel

11. The configurations will be initialized. Wait for few minutes to complete the process.

Welcome to Quicksetup -> Configuration -> Execute (Step 2/2)

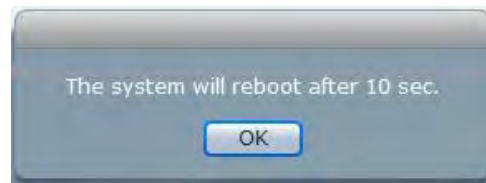
The execution will take a few minutes, please wait....

CurrentProgress 10%

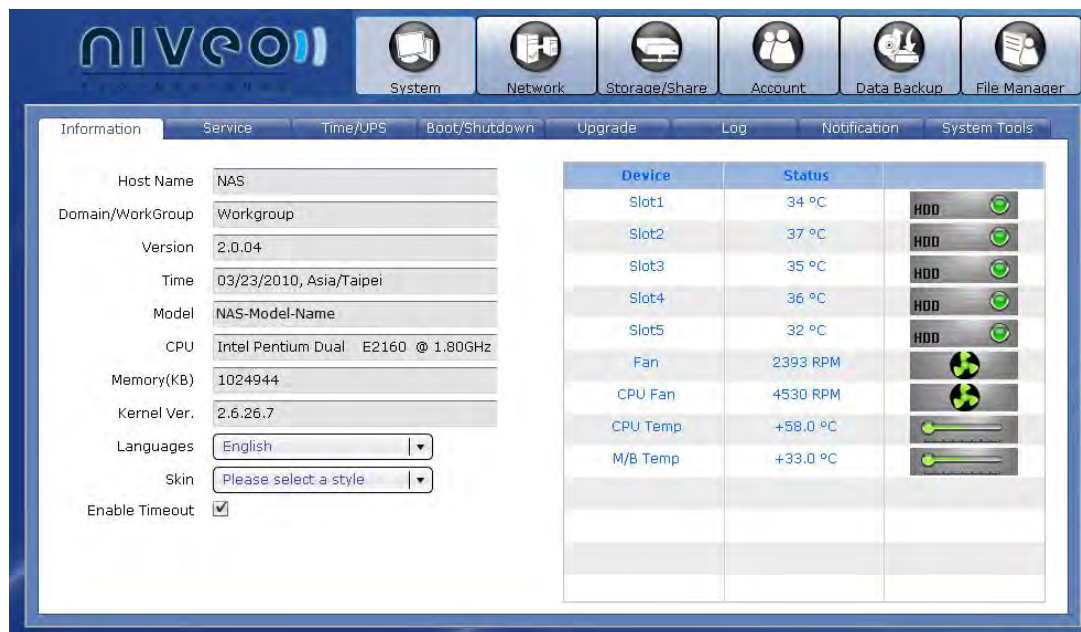
12. A warning message will be displayed. Select "Yes" to reboot the NAS and free some memory used by the system.



13. A message will be displayed. Click "OK".



14. The NAS will restart. Wait for about 3 to 4 minutes then login again. If IP address was changed in Network Adapter settings, re-login to NAS administration GUI using the new IP address.



NOTE: The NAS is ready for use while the RAID is initializing.

15. If any disk drive has been removed before Quick Setup, reinsert the unused disk drive. It will automatically become a hot spare.
16. NAS is ready for use. You can create other Volumes in Storage/Share → Volume, and create Share folders in Storage/Share → Share/Security, or create other user accounts or groups in Account → Account or Account → Group respectively. Then assign user/group permission to the Share folders.

For detailed information on how to manage Volumes, Share folders, and Accounts/Groups, please refer to the User's Manual.

17. If NAS will be joined to Windows AD domain, please refer to Part 3.

Part 3: Joining NAS to Windows AD Domain

1. Select Network → Device Configuration. Modify the Host Name, and enter the Domain Name and DNS Suffix. A DNS Server IP can also be entered if necessary. Click "Apply" when done.

Host Name – The NetBIOS name of NAS. It should be unique.

Domain – Enter the Windows domain name or workgroup name. For example: MYDOMAIN. Default is "Workgroup".

DNS Suffix – The DNS suffix is the name appended to server name to complete the server's FQDN. For example: MYDOMAIN.LOCAL

The screenshot shows the 'Device Configuration' window with tabs for ADS/NIS, DHCP(Internet Gateway), and P2P. The 'Host Name' is set to 'NAS', 'Domain' to 'MYDOMAIN', 'DNS Suffix' to 'MYDOMAIN.LOCAL', and 'DNS Server' to '192.168.100.131'. There are buttons for 'Edit Hosts Table', 'Edit LmHost Table', 'Apply', and 'Reset'. The 'Network Adaptor' section shows two network cards: 'eth0' and 'eth1'. 'eth0' is configured with IP '192.168.100.127', Gateway '192.168.100.253', Subnet Mask '255.255.255.0', MTU '1500', and MAC address '00:03:1D:05:44:AC'. It has checkboxes for 'Enable on Boot' (checked), 'Dynamic IP(BOOTP/DHCP)', and 'Default Gateway'. 'eth1' is configured with IP, Gateway, Subnet Mask, MTU '1500', and MAC address '00:03:1D:05:44:AD'. It has checkboxes for 'Enable on Boot', 'Dynamic IP(BOOTP/DHCP)' (checked), and 'Default Gateway'. There are 'Apply' and 'Reset' buttons for each adaptor, and a 'Create Trunking' button at the bottom right.

2. A warning message will be displayed. Select "Yes" to apply new settings.



3. Select Network → ADS/NIS tab.

4. In Windows screen, check the "Enable Domain Authentication" option. Configure the necessary options.
 - a. If Domain Server IP is automatically detected, the Domain Server IP will be displayed. If you want to join NAS to a specific Domain Server IP, remove the check mark in "Auto Detect Domain IP" and manually enter the Domain Server IP address.
 - b. Enter the Domain Administrator account.
 - c. **Enter the Domain Administrator's password.**
 - d. Select the PDC/ADS mode.
 - e. Click "Save" when done.

The screenshot shows a configuration window for Windows Domain Authentication. The window is divided into two panes: 'Windows' and 'NIS'. The 'Windows' pane contains the following fields and options:

- ☒ Enable Domain Authentication
- Host Name: NAS
- Domain/WorkGroup: MYDOMAIN
- DNS Suffix: MYDOMAIN.LOCAL
- Domain Server IP: ☐ Auto Detect Domain IP, 192.168.100.131
- Logon Administrator: administrator
- Password: [masked with asterisks]
- PDC/ADS Mode: ADS (Windows 2003/2008 Server) [dropdown menu]
- ☐ Enable NTLMv2 Authentication
- ☒ Enable Client Channel

At the bottom of the 'Windows' pane are 'Save' and 'Reset' buttons. The 'NIS' pane is currently empty, showing only the 'Enable NIS Authentication' checkbox, which is unchecked.

Windows Domain Authentication Options:

Enable Domain Authentication – Use this option to enable or disable Windows Domain Authentication.

Host Name – Indicates the NetBIOS name of NAS as configured in Network → Device Configuration tab.

Domain/Workgroup – Shows the domain/workgroup name as configured in Network → Device Configuration tab.

DNS Suffix – Shows the DNS Suffix as configured in Network → Device Configuration tab.

Domain Server IP – Shows the IP address of the domain server which is automatically detected when "Auto Detect Domain IP" option is enabled. If "Auto Detect Domain IP" option is disabled, manually type the domain server IP address.

Logon Administrator – Enter the administrator's logon account in the domain server.

Password – Enter the password of administrator's logon account in the domain server.

PDC/ADS Mode – Select the mode type of the domain server. This can be “ADS (Windows 2003/2008 Server)” or “PDC (Windows NT Server)”.

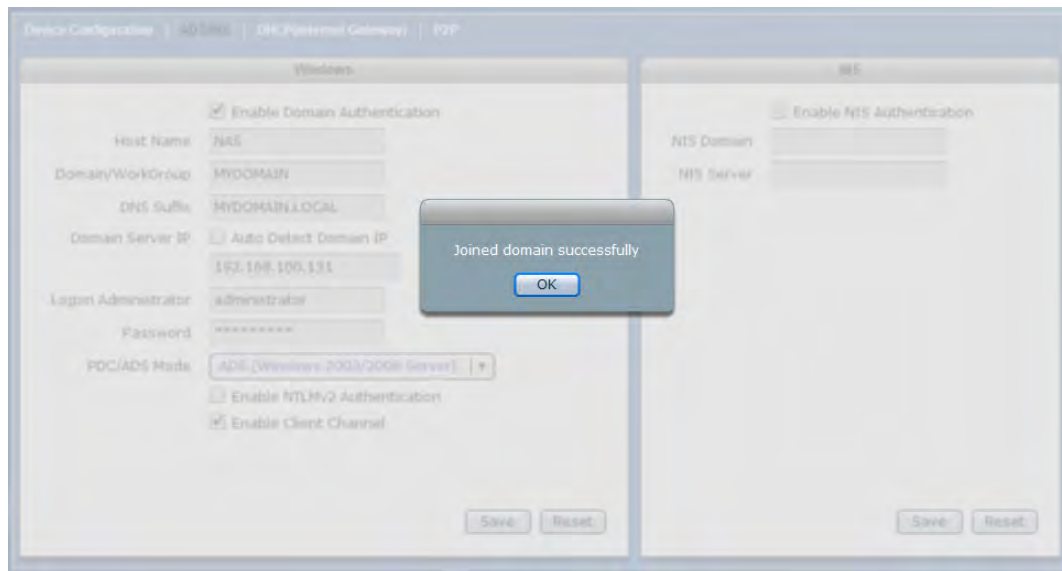
Enable NTLMv2 Authentication – This parameter determines whether or not smbclient will attempt to authenticate itself using the NTLMv2 encrypted password. If enabled, NAS will only sent NTLMv2 and LMv2 responses. NTLMv2 authentication protocol is available only on WindowsNT4 with SP4 and Windows 2000 or later. Default is disabled.

Enable Client Channel – This controls whether the client offers or even demands the use of the netlogon schannel. Default is auto, means it offers the schannel but does not enforce it.

Reset – Use this button to undo or clear any changes made.

Save – Use this button to save the changes made.

5. A message will be displayed when NAS is successfully joined the domain. Click “OK”.



NOTE: When NAS is successfully joined to the Windows domain, the domain user accounts will appear in Account list.

For detailed information on how to manage and configure the NAS, refer to the User's Manual.