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Add network storage with NASLite

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Network-attached storage (NAS) offers an alternative to traditional fileservers by creating systems designed specifically for data storage. A NAS box generally runs an embedded operating system (OS) rather than a full-fledged network OS, and it requires no monitor, keyboard, or mouse. One of the simplest NAS setups is **Server Elements**' NASLite.

NASLite is a diskette-based Linux OS that can convert any PC into a dedicated fileserver. With it, you could create a NAS box out of an old 486 machine with 16MB RAM, a diskette drive, one to four IDE hard drives, and a network card.

NASLite is available in various flavors that let you create a dedicated server via Server Message Block (SMB), Network File System (NFS), HTTP, or FTP. I'll show you how to set up NAS with SMB shares.

To begin, **download** and save the NASLite-SMB image on any Linux machine and open a command prompt. Insert a diskette in the diskette drive and issue the following commands:

```
# gunzip NASLite-SMB.img.gz
# fdformat /dev/fd0u1722
# dd if=NASLite-SMB.img of=/dev/fd0u1722
```

Connect all the hard drives you wish to server to the machine you wish to convert into a NAS box, and connect the machine to your network. Boot the machine with the diskette disk you just created. At the login prompt, log in with admin as the username and nas as the password. Use the option menu to configure the disks and the software for your NAS:

```
--------------------------------------
NASLite-SMB Administration Utility
OPTION MENU
--------------------------------------
1 - Change Network Settings
(192.168.1.1-255.255.255.
2 - Change Name
3 - Change Workgroup
4 - Configure Storage Disks
5 - Change Password
6 - Change Date and Time
7 - Reboot
8 - Shutdown
9 - Save Configuration
C - Make NASLite Floppy
E - Exit
--------------------------------------
SELECT 1
--------------------------------------
```

Select the fourth menu option to configure the disks for NAS, then select the Primary Master Drive from the list of drives. Go through the warning that appears, and then press Y, which deletes everything on the drive and formats it with an appropriate filesystem to support SMB shares. Follow the same procedure to configure and format the other connected drives.

Once you've configured the disks, select the first option from the menu and assign an available IP address within your network to your NAS box. Then select the third and fourth options to modify the name and the workgroup of your NAS box, respectively. Now choose the ninth option to save the configuration and reboot the machine. Your NAS box is now ready for use.

To access your NAS box from a Windows machine in your network, click the Run choice from the Start menu. Enter the IP address of your NAS box. Windows Explorer will display the network storage with pre-created network shares. You can also view the server configuration and the disk utilization by entering the IP address of your NAS box in a Web browser.

NASLite doesn't offer any provision for creating users and assigning quotas; anyone on the network can access the NAS box. However, despite its lack of security features, NASLite offers an easy and cost-effective way to implement a data warehouse on a network.

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