



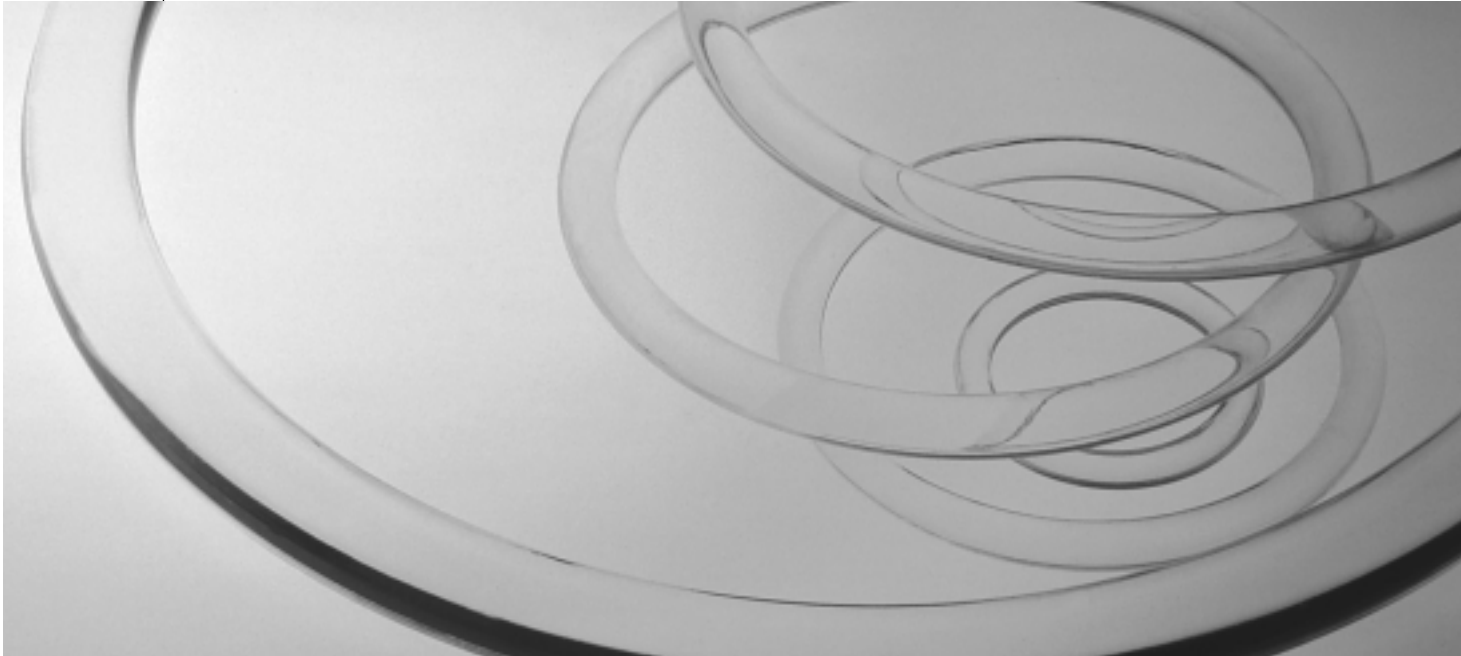
3COM

OfficeConnect®

Network Storage Server 20 (3C19500)

Network Storage Server 40 (3C19501)

User Guide



3Com Corporation ■ 5400 Bayfront Plaza ■ Santa Clara, California ■ 95052-8145

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ABOUT THIS GUIDE

This guide provides the information you need to use the two OfficeConnect® Network Storage Server models:

- OfficeConnect Network Storage Server 20 (3C19500)
- OfficeConnect Network Storage Server 40 (3C19501)

 *The OfficeConnect Network Storage Server is compatible with OfficeConnect Hubs and Switches.*

The guide is intended for use by those responsible for installing and setting up network equipment; consequently, it assumes a basic working knowledge of LANs (Local Area Networks) and network storage systems.

 *If a release note is shipped with this OfficeConnect Network Storage Server and contains information that differs from the information in this guide, follow the information in the release note.*

Most user guides and release notes are available in Adobe Acrobat Reader Portable Document Format (PDF) or HTML on the 3Com World Wide Web site:

<http://www.3com.com>

Naming Convention




Throughout this guide, the OfficeConnect Network Storage Server 20 and the OfficeConnect Network Storage Server 40 are referred to as “the Network Storage Server”.

This guide also makes reference to Category 3 and Category 5 Twisted Pair Cable. For convenience, these cables will be referred to as Twisted Pair Cable throughout this guide.

Icon Conventions

[Table 1](#) lists the conventions that are used throughout this guide.

Table 1 Notice Icons

Icon	Notice Type	Description
	Information note	Information that describes important features or instructions.
	Caution	Information that alerts you to potential loss of data or potential damage to an application, system, or device.
	Warning	Information that alerts you to potential personal injury.

Feedback about this User Guide

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Please include the following information when commenting:

- Document title
- Document part number (on the title page)
- Page number (if appropriate)

Example:

- OfficeConnect Network Storage Server User Guide
- Part Number DUA1950-0AAA01
- Page 24



Do not use this e-mail address for technical support questions. For information about contacting Technical Support, see [“Technical Support” on page 40.](#)

Related Documentation

In addition to this guide, each OfficeConnect Network Storage Server document set includes one Quick Installation Guide. This poster contains the instructions you need to install and configure your Network Storage Server.

Year 2000 Compliance

For information on Year 2000 compliance and 3Com products, visit the 3Com Year 2000 Web page:

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Product Registration

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<http://support.3com.com/warrantyregistration/register.pl>

INTRODUCING THE OFFICECONNECT NETWORK STORAGE SERVER

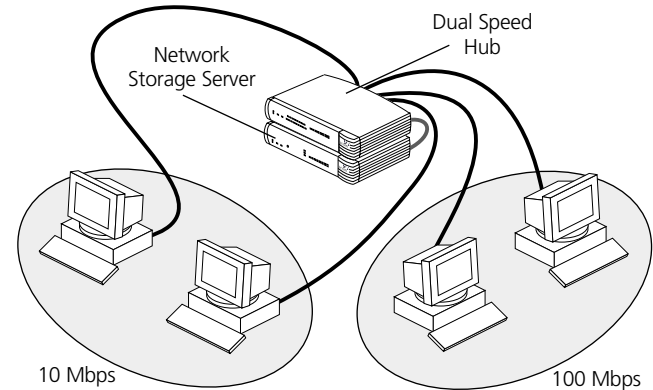
Welcome to the world of networking with 3Com®. In the modern business environment, communication and sharing information is crucial. Computer networks have proved to be one of the fastest modes of communication but, until recently, only large businesses could afford the networking advantage. The OfficeConnect® product range from 3Com has changed all this, bringing networks to the small office.

The Network Storage Server is ideal for adding extra storage space to your network. It is compact and attractively designed for desktop use and can be used with other OfficeConnect products. These products form part of the OfficeConnect range which neatly stack together with the OfficeConnect stacking clip. The Network Storage Server provides you with a quick-to-install, efficient and inexpensive alternative to complex, more-expensive computer servers.

The Network Storage Server is an ideal solution for users and groups of people who simply require more storage space for their data and the ability to share data across the entire network quickly and easily.

The OfficeConnect Network Storage Server 20 (3C19500) has a Hard Disk capacity of 20 GB whereas the OfficeConnect Network Storage Server 40 (3C19501) has a Hard Disk capacity of 40 GB. This is the only difference between the two models.

Figure 1 The Network Storage Server Operating in a Network



[Figure 1](#) shows how a Network Storage Server adds extra storage space to your network. The workstations are connected to a Dual Speed OfficeConnect Hub to form a network. The Network Storage Server is then connected to the Hub with a Twisted Pair Cable to give all workstations access to the Network Storage Server.

Summary of Features

The Network Storage Server has the following features:

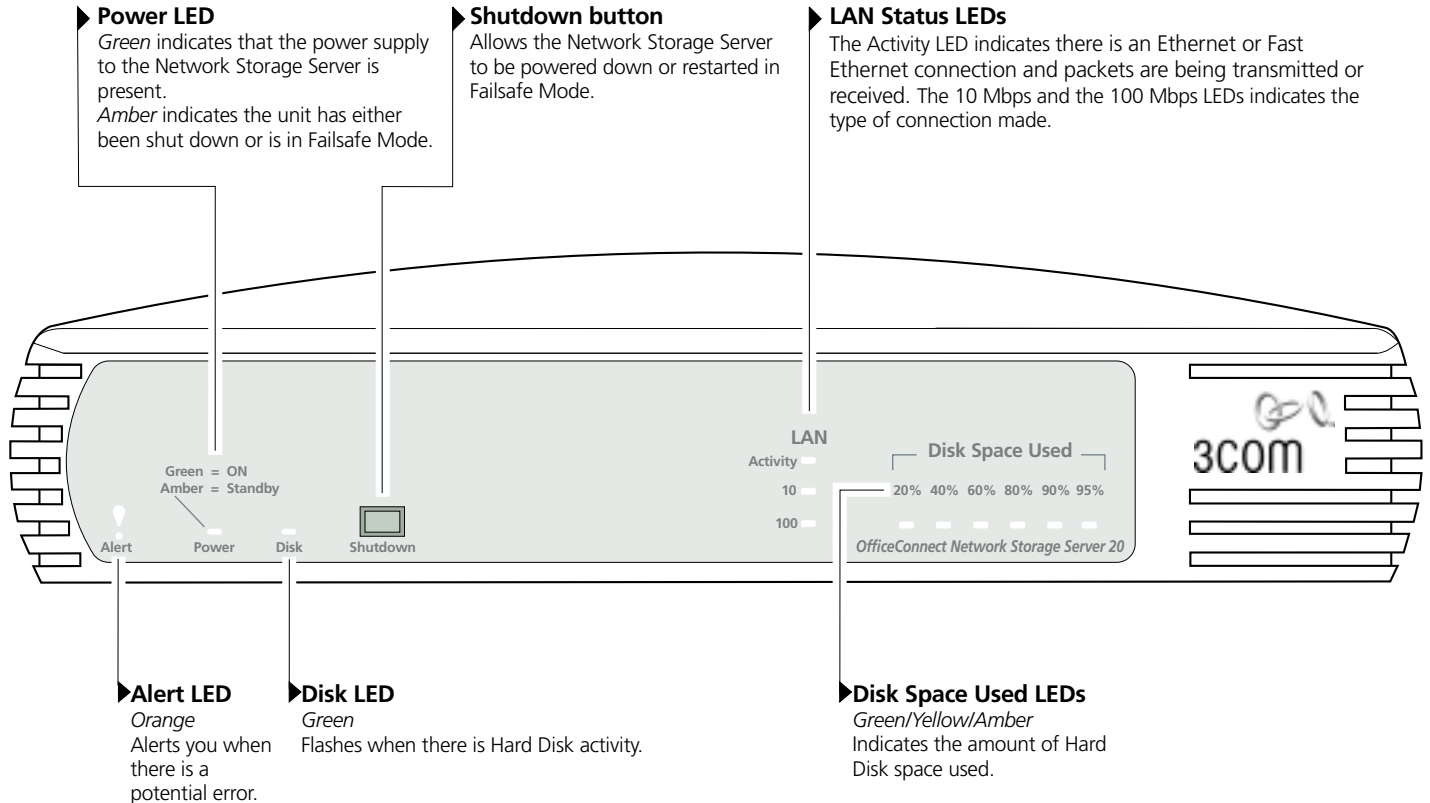
- One auto-negotiating Ethernet or Fast Ethernet port so you can install the Network Storage Server in an Ethernet (10 Mbps) network, a Fast Ethernet (100 Mbps) network or a dual-speed (10 or 100 Mbps) network. This port can also operate in full or half duplex mode.
- 20 GB or 40 GB of storage space.
- LED status indicators on the front panel.
- A Web-based Administration System that allows a Network Administrator to:
 - Configure and manage the Network Storage Server.
 - Create Users, Groups and Shares and impose security restrictions on the Network Storage Server.
- A Web-based Failsafe Mode that allows the Network Administrator to:
 - Upgrade its Operating System.
 - Run Hard Disk checks.
 - Reset the Unit back to its factory defaults.
- An online help system that gives explanations and instructions on how to configure the Network Storage Server and use the Administration System.
- A replaceable Hard Disk, in the unlikely event the Hard Disk should fail.

System Requirements

To install your Network Storage Server, refer to the “Quick Installation Guide” (DIA1950-0AAA0x) that accompanies this product. In summary, you will need:

- A functioning Ethernet or Fast Ethernet network.
- One spare Ethernet or Fast Ethernet port on your Hub or Switch for each Network Storage Server you wish to install.
- An Operating System (Windows® 95, Windows 98 or Windows NT 4.0) with network support configured, running on your workstations.
- Microsoft Internet Explorer 4.0 (or above) or Netscape Navigator 4.5 (or above) as your Web browser to access the Administration System.

The Network Storage Server — Front View



The Network Storage Server — Rear View

▶ Power Adapter Socket

Only use the 12V power adapter (part number 3C16749) that is supplied with this Network Storage Server. Do not use any other adapter.

▶ Lock Slot

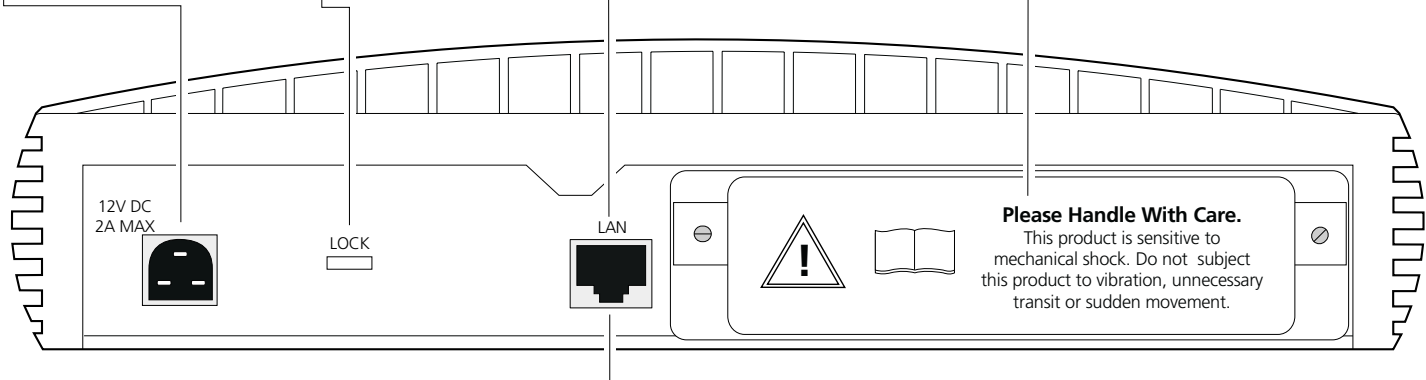
This slot allows you to fit a security lock (not included) and physically secure your Network Storage Server to a desk.

▶ Ethernet/Fast Ethernet LAN Port

Use a Twisted Pair cable with RJ-45 connectors. You can connect the Network Storage Server to a Hub or a Switch that has a spare Ethernet or Fast Ethernet port. This port is capable of auto-negotiating for 10 Mbps or 100 Mbps operation and operates in full or half duplex mode.

▶ Hard Disk Blanking Plate

The Hard Disk is fitted behind this blanking plate. Refer to the section on 'Replacing A Faulty Hard Disk', for more information.



▶ **WARNING: RJ-45 port.**

This is a shielded RJ-45 data socket. It cannot be used as a telephone socket. Only connect an RJ-45 data connector to this socket.

WARNHINWEIS: RJ-45-Port.

Hierbei handelt es sich um eine abgeschirmte RJ-45 Datenbuchse. Sie darf nicht als Telefonanschluß verwendet werden. Stecken Sie ausschließlich einen Datenstecker des Typs RJ-45 in diese Buchse.

AVERTISSEMENT: port de données RJ-45. ◀

Il s'agit d'une prise de données RJ-45 blindée, qui ne peut pas être utilisée comme prise téléphonique. Raccordez uniquement un connecteur de données RJ-45 à cette prise.

LED Functions

[Table 2](#) explains how the LEDs on the front of the Network Storage Server function:

Table 2 The Network Storage Server LED Function Table

Color	Appearance	Meaning
Alert LED		
Orange	On or Flashing	There is a potential problem.
None	Off	The unit is working correctly.
Power LED		
Green	On	The unit is either powering-up or is working correctly.
Amber	On	The Shutdown button has been pressed and the unit has either been shut down or is operating in Failsafe Mode.
None	Off	The Network Storage Server has been unplugged or is powered off.
Disk LED		
Green	Flashing	There is Hard Disk activity.
None	Off	There is no Hard Disk activity.

Color	Appearance	Meaning
Activity LED		
Green	Flashing	There is an Ethernet or Fast Ethernet connection and packets are being transmitted or received.
None	Off	There are no packets being transmitted or received.
10 LED		
Yellow	On	There is a 10 Mbps Link enabled.
None	Off	There is no 10 Mbps Link.
100 LED		
Green	On	There is a 100 Mbps Link enabled.
None	Off	There is no 100 Mbps Link.
Disk Space Used LEDs		
Green/Yellow/Amber		Indicates the amount of Hard Disk space used.

If you suspect there may be a problem with the Network Storage Server, consult the [“Troubleshooting”](#) section on [page 30](#).

POSITIONING THE NETWORK STORAGE SERVER

Choosing a Suitable Site

When you install your Network Storage Server, ensure:

- It is out of direct sunlight and away from sources of heat.
- Cabling is away from power lines, fluorescent lighting fixtures, and sources of electrical noise such as radios, transmitters and broadband amplifiers.
- Water or moisture cannot enter the case of the unit.
- Air flow around the unit and through the vents on the side of the case is not restricted. 3Com recommend you provide a minimum of 25 mm (1 in.) clearance.
- Cabling is secure and not pulled taut.



CAUTION: Do not wall-mount the Network Storage Server and do not wall-mount stacked units.



CAUTION: The Network Storage Server is not a portable device and is sensitive to mechanical shock. Do not subject it to vibration, unnecessary transit or movement.

Stacking the Network Storage Server

Fitting the Rubber Feet

The four self-adhesive rubber feet prevent your Network Storage Server from moving around on your desk. Only stick the feet to the marked areas at each corner of the underside of your Network Storage Server if you intend to place the unit directly on top of the desk.

Fitting the Stacking Clip

The blue stacking clip allows you to stack your Network Storage Server with other OfficeConnect Units neatly and securely.



CAUTION: You can stack up to a maximum of four OfficeConnect units. Smaller units must be stacked above larger units.



You must place the Network Storage Server at the bottom of the stack.

To fit the Stacking Clip:

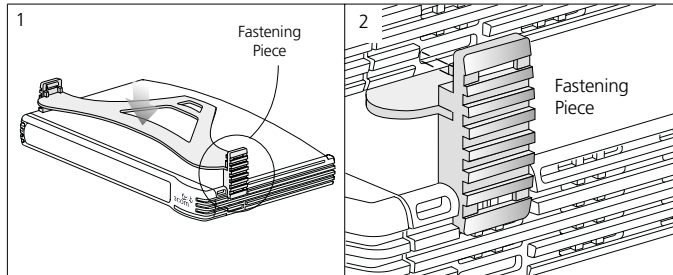
- 1 Place your unit on a flat surface.
- 2 Position the clip across the top of the unit, as shown in [Figure 2](#) (picture 1), ensuring that the longer sections of the fastening pieces are pointing downwards.
- 3 Align the fastening pieces over the slots found on each side of the unit.
- 4 Push the clip down gently to secure it, ensuring the fastening pieces snap into the slots on the unit.

Fitting Another Unit

To fit another unit:

- 1 Rest the second unit on top of the clip and align it with the front of the unit below.
- 2 Press down gently on the unit to secure it onto the clip, ensuring the fastening pieces fit into the slots on the unit below, as shown in [Figure 2](#) (picture 2).

Figure 2 Stacking Units Together



Removing The Stacking Clip

To remove the Stacking Clip:

- 1 Remove the top unit together with the clip. If you hook a finger around one of the fastening pieces and then pull it gently out of the slot, the clip should come away with the upper unit attached to it.
- 2 Push the clip in the center, so it bends towards the base of the unit, and then separate once the clip is loose.


POWERING UP AND POWERING DOWN

Powering Up the Network Storage Server

To power up the Network Storage Server:

- 1 Attach the power adapter to the power adapter socket located in the back of the Network Storage Server.
- 2 Plug the other end into a power outlet.

When power is supplied, the LEDs on the front of the Network Storage Server will flicker for approximately two minutes while it performs a Power On Self Test (POST). The Network Storage Server will be ready to use when the Power LED is Green; the Disk LED has finished flickering and the Disk Space Used LEDs have stopped moving up the LED scale.

 See the *Network Storage Server LED Function table* on [page 11](#) for further LED information.

 To power up the Network Storage Server into its Failsafe Mode, see the section about the “Failsafe Mode” on [page 21](#).

Powering Down the Network Storage Server

To power down the Network Storage Server, press the Shutdown button on the front of the unit for between two and four seconds.

The Network Storage Server will take approximately one minute to shut down. As the Network Storage Server powers down, the Disk Space Used LEDs will go to the maximum point on its scale and then gradually move down the scale until full shut down. When the Power LED appears Amber and there are no Disk Space Used LEDs lit, the Network Storage Server has shut down.

USING THE NETWORK STORAGE SERVER

Who Can Access the Network Storage Server?

The Network Storage Server operates like a typical server as you can create directories and save, delete, move and copy data across the network with ease.

Anyone can access the Network Storage Server provided they are connected to the network. You can connect the Network Storage Server to your network and allow every User unrestricted access to the Public Share (or public directory) and the data stored in it. Network users can also create their own *Shares* (or directories) for their personal use.

Although anyone can access the Network Storage Server, you can restrict a User from accessing specific Shares (or directories) by setting access restrictions on them. To do this, you must create a Share on the Administration System and set access restrictions on it (see [page 16](#) for more information).

Accessing the Network Storage Server

From the task bar at the bottom of your screen, select:

- 1 *Start, Find* and then *Computer*.
- 2 Enter the name of the Network Storage Server.
- 3 Click *Find Now*. An icon for the Network Storage Server should appear in the search window after a short while.
- 4 Double-click the Network Storage Server icon. A window will appear containing all the Shares stored on the Network Storage Server.

The Public Share is the default area on the Network Storage Server where all users have unrestricted access to the data stored. If other Shares have been created, they will appear here too. Access to these other Shares is determined by the Network Administrator.



3Com recommends you map a drive letter to the respective Share. Mapping a drive to the Share will allow you to access it quickly and reliably from Windows Explorer.

Mapping a Drive to a Share

From the task bar at the bottom of your screen, select:

- 1 *Start, Find* and then *Computer*.
- 2 Enter the name of the Network Storage Server.
- 3 Click *Find Now*. An icon for the Network Storage Server should appear in the search window after a short while.
- 4 Double-click the Network Storage Server icon. A window will appear containing the Shares.
- 5 Select a Share and click the right-hand button on your mouse.
- 6 Select *Map Network Drive* from the list.
- 7 Select an unused drive from the Drive list.
- 8 Ensure the *Reconnect at logon* check-box is turned on.
- 9 Click *OK*.

USING THE ADMINISTRATION SYSTEM

The Administration System

The Administration System is a Web-based utility that allows a Network Administrator to configure the Network Storage Server and set up Shares, Users and Groups. The Administration System can also be used to configure the Network Storage Server itself, so that it functions efficiently within the network. The Network Administrator can access the Network Storage Server's Failsafe Mode to upgrade its Operating System, run Hard Disk checks and reset the Unit back to its factory defaults. (See "[Failsafe Mode](#)" on [page 21](#) for more information.)

This Administration System also contains a comprehensive online help system that gives explanations and instructions on configuring the Network Storage Server and using the Administration System.

Who Can Access the Administration System?

Anyone using the Network Storage Server can access the Administration System, provided they have a Web browser installed on their PC and are connected to the network. However, their level of access and, therefore, the tasks they can carry out on the Administration System is determined by the access level assigned to them by the Network Administrator.

When a User is created, the Network Administrator can assign additional managerial privileges that allow the User to create other Users, Groups and Shares; allocate disk space and impose security restrictions. A User without these privileges can only change their Login password when they access the Administration System.

Accessing the Administration System

To access the Administration System:

- 1 Open your Web browser.
- 2 Enter the following URL into your Web browser:

http://<xyz>/

Where <xyz> is the IP address or the Host name of your Network Storage Server. The IP address and Hostname were assigned to your Network Storage Server when it was installed.

- 3 Press *Return*.

The Administration System's Login screen will appear.

- 4 Click the *Login* button.

A dialogue box will appear prompting for a User Name and a Password.

- 5 Enter *admin* for the User Name.
- 6 Enter *admin* for the Password.
- 7 Click *OK*.

The Administration System's Welcome Page is displayed on your screen (see [Figure 3](#)).

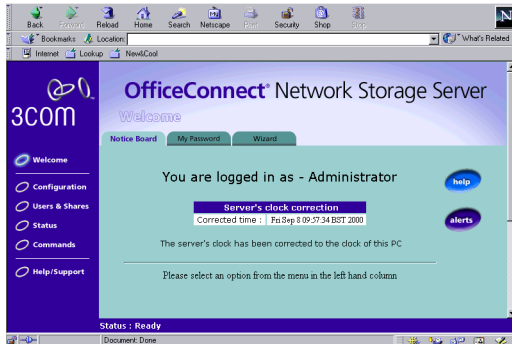


CAUTION: Always use this procedure to access the Administration System. Do not bypass the logging-in procedure by creating a 'bookmark' to your Network Storage Server in your Web browser as this may prove unreliable.



For security reasons, 3Com recommends you change the Administration System's default Password when your Network Storage Server has been configured correctly.

Figure 3 Administration System Welcome Page



Administration System Features

There are five main sections to the Administration System. These are:

- Users and Shares
- Configuration
- Status
- Commands
- Help/Support

Each section can be accessed by selecting the appropriate link in the left-hand column of the Administration System.

Users and Shares

Shares

A Share is a directory that can be accessed by multiple Users. When a Share is viewed in Windows Explorer, it will look just like any Windows folder. However, when viewed in the Administration System, the Share will exhibit distinctive characteristics to help you distinguish it from others.

You can control which Users access a Share by using access control rules. You only need to set up Users on the Network Storage Server if you want to control the User's access to a specific Share.

Using Shares

The following examples show some likely scenarios about *why* and *how* you would set up a Share.

You want every User to be able to access and modify files in a Share on the Network Storage Server.

Set up a public Share with *full* access, so that everyone can read and write to it.

The company stores information that all employees need to access regularly. This information is updated very rarely, if ever.

Set up a *read only* share. This will enable all staff to read the information, but will prevent any changes from being made to it.

The company has sensitive information that only a few employees in the company can view.

Establish a *read only with password* Share. This will ensure that people who do not know the password will not be able to view the information. People with the password will be able to view it but not change it.

Various employees in the company require different access to a Share. Some people need to be able to edit the Share; others only to read it and a small majority should not be able to view it at all.

For this configuration use of the *depends on user* Share is recommended. With this you can define Groups of Users who should be able to *read and write* to the Share; Groups for *read only access* and Groups for *no access*. User accounts for the employees can be created and moved inside the Groups. Also individual User configuration can be carried out by specifying permissions for sole Users, instead of Groups.

Share Icons Explained

This section shows the icons most likely to be seen when creating a Share.

User



This symbol represents a User set up on the Network Storage Server.

A User can be assigned a specific amount of personal Hard Disk space so that only they may use it. Users can be combined to form a Group.

Group



This symbol represents a Group of Users set up on the Network Storage Server.

A Group is a quick and simple way for setting up multiple access rights for a cluster of Users for a specific Share.

Full Access



All Users have *read and write* access to this Share without needing a password. Any User can create, modify or delete any file or Share. Users do not need to be set up for this option. This option makes it easy to share information but provides minimal protection.

Read Only



All Users have *read-only* access to the files and directories in this Share without needing a password, but they cannot modify or delete any of them. Users do not need to be set up for this option.

Full Access with Password



This Share is protected by a password set by the Network Administrator. Any User who knows the password will obtain full *read and write* access. Users do not need to be set up for this option.

Read and Write Access to the Share



This symbol means the User will be granted *read and write* access to this Share.

Read-only Access to the Share



This symbol means the User will be granted *read-only* access to this Share.

Read Only with Password



This Share is protected by a password set by the Network Administrator. Any User who knows the password will be able to obtain *read-only* access. Users do not need to be set up for this option.

Depends On User



Users are only allowed to access this type of Share if they are given permission to access it and can provide a valid password on connection.

If the User's Windows Login name exists as a name on the Network Storage Server, they will connect as that User and must use the associated password.

However, if the User's Windows Login name does not exist on the Network Storage Server, they will connect as the special User *Everyone Else* and can use the associated password whose default is *admin*.

Users must be set up on the Network Storage Server to use this option.

No Access to Share



This symbol means the User will not be granted access to this Share.

Delete Button



If you need to delete a User, Group or a Share, simply click this button where appropriate.

Configuration

The Configuration section allows the Network Administrator to view and adjust the configuration settings of the Network Storage Server. Properties such as the IP characteristics, the Hostname and the Workgroup name can be redefined here, too.

Status

The Status section gives detailed information about the condition of the Network Storage Server. This section details:

- General information about the Network Storage Server.
- The amount of Hard Disk space used/available.
- The PCs currently connected to the Network Storage Server.
- Any Alerts and their descriptions.

Commands

The Commands section allows you to:

- Shut down the Network Storage Server.
- Save its configuration settings.

3Com recommends you make regular backups of your configuration settings as it may prove useful if you need to restore them at a later date.



Please note that you can perform these two commands in the Network Storage Server's Failsafe Mode. For more information, see [page 21](#).



You can restore your configuration settings by accessing the Network Storage Server's Failsafe Mode. See [page 21](#) for further details.

Help/Support

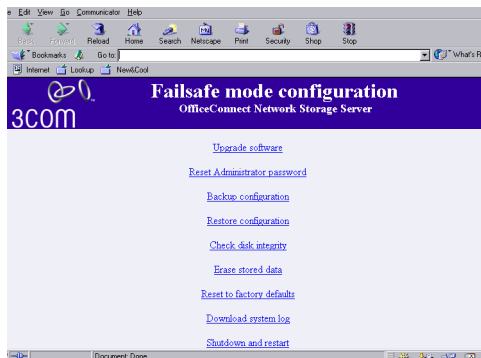
This Administration System contains a comprehensive online help system that gives explanations and instructions about configuring the Network Storage Server and the Administration System.

FAILSAFE MODE

The Network Storage Server has a Web-based feature called the Failsafe Mode that allows you to:

- Upgrade the Operating System
- Reset the administration password
- Backup the current configuration settings
- Restore the previous configuration settings
- Run a Hard Disk check
- Erase the Hard Disk
- Restore the unit to its factory defaults
- Save the system logs as a single file
- Shutdown and restart the system

Figure 4 Failsafe Mode Welcome Screen



Accessing the Failsafe Mode

To access the Failsafe Mode:

- 1 Power down the Network Storage Server by pressing the Shutdown button on the front of the unit for between two and four seconds.
The Network Storage Server will take approximately one minute to shut down. As the Network Storage Server powers down, the Disk Space Used LEDs will go to the maximum point on its scale and then gradually move down the scale until full shut down. When the Power LED appears Amber and there are no Disk Space Used LEDs lit, the Network Storage Server has shut down.
- 2 Disconnect the power supply adapter from the unit only when the Network Storage Server has completely shut down.
- 3 Push and hold the Shutdown button, then reconnect the power supply adapter to the Network Storage Server to power it up. Keep the shutdown button pressed until the Power LED appears Amber (approximately 30 seconds).
- 4 Open your Web browser and enter the following URL into your Web browser:
http://<xyz>/failsafe.cgi
Where <xyz> is the IP address or the name of your Network Storage Server. The IP address and Hostname were assigned to your Network Storage Server when it was installed.
- 5 Press *Return*.

You should now be able to see and access the Failsafe Mode's Welcome screen (see [Figure 4](#)). From here, simply click on one of the features and follow the on-screen instructions.

Failsafe Mode Options

Upgrading the Operating System

You can download the latest version of the Operating System for the Network Storage Server from the following 3Com Website:

<http://support.3com.com>

When you have saved the new Operating System to your PC, you can upgrade it by selecting this option.

Resetting the Administration Password

If you forget your Login password to the Administration System, you can reset the password to its default setting by selecting this option.

Backing Up the Configuration Settings

You can create a backup of the configuration settings for the Network Storage Server. Creating regular backups will allow you to restore your settings at a later date, if necessary. The configuration settings includes information such as the IP address; the Network Storage Server name; the Workgroup name; all User account details; any Share details and access rights.



You cannot backup any data stored by a User on the Network Storage Server this way. To create a backup of the information stored on the Network Storage Server, please see the section [“About the Hard Disk” on page 23.](#)

Restoring the Previous Configuration Settings

You can restore your previous saved configuration settings by selecting this option.

Running A Hard Disk Check

If you suspect there might be a problem with the Hard Disk you can check it for errors. There are two types of scan available. A quick scan will only check the section on the Hard Disk that has information stored on it, and will take approximately two minutes. A thorough scan can take up to 30 minutes. If there are any errors on the Hard Disk, the Network Storage Server will attempt to repair them.

If the errors cannot be repaired, you might try erasing the entire Hard Disk. Alternatively, call the Technical Support centre at 3Com. See [page 40](#) for contact details.

Erasing the Hard Disk

This feature will erase everything on the Hard Disk except the Operating System.

Resetting the Unit Back to its Factory Defaults

The Failsafe Mode has the facility to reset the Network Storage Server to its original factory defaults. From here, you can reset the system configuration; the system logs and the Operating System.

Saving the System Logs as a Single File

The Network Storage Server logs every operation performed on it. Saving the system logs as a single file is useful because it can be e-mailed to 3Com Technical Support for analysis as a **.tgz** file if a problem cannot be resolved.

Shutting Down and Restarting

When you have finished using the Failsafe Mode, select this option to restart the Network Storage Server and resume normal operation.

REPLACING A FAULTY HARD DISK

Hard Disk Safety Information



WARNING: Installation and removal of the Hard Disk must be carried out by qualified personnel only. This Hard Disk is not hot-swappable. Always make sure the Network Storage Server is powered down and disconnected from the mains before removing and installing the Hard Disk. For full safety instructions, see [page 36](#).



AVERTISSEMENT: L'installation et la dépose du disque dur sont à effectuer uniquement par du personnel compétent. Ce disque dur n'est pas hot swappable (ne peut pas se brancher/débrancher à chaud). Vérifiez toujours que le serveur de programmes de mémoire sur réseau est mis hors tension et débranché de la prise secteur avant de retirer et d'installer le disque dur. Pour des explications complètes sur la sécurité, reportez-vous [page 36](#).



WARNHINWEIS: Der Ein- und Ausbau der Festplatte ist nur von ausgebildetem Personal auszuführen. Diese Festplatte darf nicht während des Betriebs ausgetauscht werden. Fahren Sie den Network Storage Server herunter und trennen Sie ihn von der Stromversorgung, bevor Sie die Festplatte entfernen beziehungsweise installieren. Weitere Sicherheitsanweisungen finden Sie auf Seite [37](#).



CAUTION: A 20 GB Hard Disk will only work with the OfficeConnect Network Storage Server 20 (3C19500). A 40 GB Hard Disk will only work with the OfficeConnect Network Storage Server 40 (3C19501). The Hard Disks are not interchangeable.



If 3Com Technical Support cannot resolve your Hard Disk problem, you may have to purchase a replacement Hard Disk. Replacement Hard Disks are only available from 3Com.

About the Hard Disk

The Network Storage Server has a removable Hard Disk that allows you to replace it in the unlikely event it should fail.

3Com recommends that you regularly backup the information on your Network Storage Server. There are two main areas to consider: the configuration settings of the Network Storage Server and the actual Hard Disk data saved by the Users and Groups.

Backing Up the Configuration Settings

You can backup the configuration settings in two ways. You can make a backup through the Commands section in the Administration System. Alternatively, you can backup the configuration settings through the Network Storage Server's Failsafe Mode. See [page 21](#) for details on how to access the Failsafe Mode.

Backing Up the Data

You can backup the Users data by running a backup application such as Microsoft's Windows Backup which is normally provided with Windows 95, Windows 98 and Windows NT 4.0 Operating Systems.



If you have not backed up your Network Storage Server data and the Hard Disk fails, you might try a specific data recovery agency to retrieve the data.

If you have problems with the Hard Disk that cannot be resolved in the "[Troubleshooting](#)" section on [page 30](#), contact Technical Support. See [page 40](#) for contact details.

Replacing the Hard Disk

Once you have received your new Hard Disk, you are ready to replace the faulty one. The Hard Disk arrives pre-imaged with the Operating System installed, so there is no need to format the Hard Disk after installation.



CAUTION: When you replace the Hard Disk, undo the screws that secure the blanking plate and the Hard Disk with a suitable tool. Keep the blanking plate and the screws in a safe place. After replacing the Hard Disk, replace the blanking plate and tighten the screws with a suitable tool.

Handling the Hard Disk

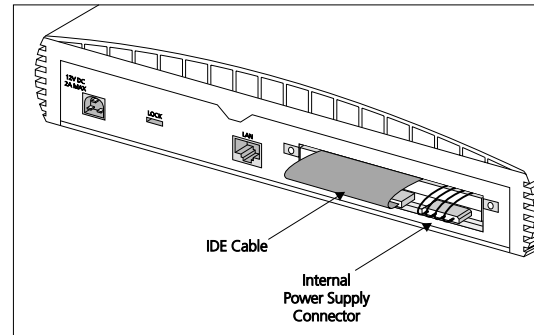
The Hard Disk can be easily damaged by electrostatic discharge. To prevent damage, observe the following:

- Always wear an anti-static wristband connected to a suitable earth point.
- Do not remove the Hard Disk from its packaging until you are ready to install it into the Network Storage Server.
- Do not touch any of the pins, connections or components on the Hard Disk.
- Handle the Hard Disk only by its edges and its supporting tray.
- Always store or transport the Hard Disk in anti-static packaging.

Removing the Faulty Hard Disk

When you remove the blanking plate on the Network Storage Server to replace the Hard Disk (see [Figure 5](#)), you will find that the Hard Disk is attached to a metal supporting tray. Also, the Hard Disk will have an IDE cable and an internal power supply connector connected to it. These connections must be removed before you remove the Hard Disk. Also, when you remove the Hard Disk, you must remove the supporting tray with it.

Figure 5 Rear of the Network Storage Server



To remove the Hard Disk:

- 1 Ensure that the Network Storage Server has been powered down and disconnected from the mains power supply. Ensure that you are wearing an anti-static wristband connected to a suitable earth point.
- 2 Ensure that the Twisted Pair cable has been disconnected from the LAN port on the Network Storage Server.

- 3 Undo the two screws on the Network Storage Server's blanking plate and remove it. Keep the blanking plate and the fixings in a safe place.
- 4 Disconnect the IDE cable and the internal power supply connector from the back of the Hard Disk.
- 5 Undo the four screws that secure the supporting tray and the Hard Disk to the Network Storage Server from the underside of the Network Storage Server.
- 6 Remove the supporting tray containing the Hard Disk from the Network Storage Server.

Inserting the New Hard Disk

To insert the new Hard Disk:

- 1 Ensure that the Network Storage Server has been powered down and disconnected from the mains power supply. Ensure that you are wearing an anti-static wristband connected to a suitable earth point.
- 2 Position the Hard Disk as shown in [Figure 6](#).
- 3 Push the Hard Disk into the Network Storage Server.
- 4 Tighten the four screws that secure the supporting tray and the Hard Disk to the Network Storage Server on the underside of the Network Storage Server.
- 5 Reconnect the IDE cable and the internal power supply cable to the back of the Hard Disk.
- 6 Secure the blanking plate and the Hard Disk by first positioning the screws over the screw apertures and then tighten the two captive screws with a suitable tool screwdriver.

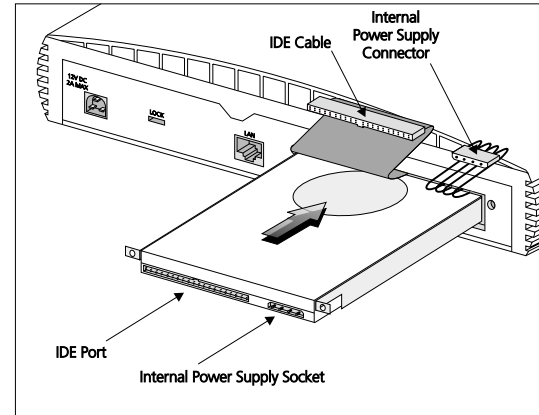


CAUTION: Keep the IDE cable and the internal power supply cable away from the Hard Disk as you insert it into the Network Storage Server (see [Figure 6](#)).



CAUTION: After replacing the Hard Disk, you must replace the blanking plate.

Figure 6 Inserting The Hard Disk



Rebooting the Network Storage Server

There are two ways to reboot your Network Storage Server. The method used to reboot the Network Storage Server depends on whether you have previously backed up your configuration settings or not. The configuration settings includes information such as the IP address; the Network Storage Server's name; the Workgroup name; all User account details; Share details and access rights.

See [page 21](#) for more details about backing up the configuration settings through the Network Storage Server's Failsafe Mode.

Rebooting the Network Storage Server without Restoring the Configuration Settings

If you have not backed up the configuration settings, you must completely re-install the Network Storage Server using the Discovery Application. To do this:

- 1 Reconnect the Twisted Pair cable between the LAN port on the Network Storage Server and the network device (Hub or Switch).
- 2 Power up the Network Storage Server by re-attaching the power adapter to the power adapter socket.
- 3 Install and configure the Network Storage Server. See the "Quick Installation Guide" (DIA1950-0AAA0x) that accompanies this User Guide for installation instructions.

Your Network Storage Server should now be ready to use.

Rebooting the Network Storage Server and Restoring the Configuration Settings in Failsafe Mode

If you have backed up your configuration settings and wish to restore them on your Network Storage Server, you can reinstall them through the Failsafe Mode.

To reboot the Network Storage Server into its Failsafe Mode:

- 1 Reconnect the Twisted Pair cable between the LAN port on the Network Storage Server and the network device (Hub or Switch).
- 2 Push and hold the Shutdown button, then reconnect the power supply adapter to the Network Storage Server to power it up. Keep the shutdown button pressed until the Power LED appears Amber (approximately 30 seconds).

3 Open your Web browser.

4 Enter the following URL into your Web browser:

`http://<xyz>/failsafe.cgi`

Where **<xyz>** is the IP address or the name of your Network Storage Server. The IP address and Hostname were assigned to your Network Storage Server when it was installed.

5 Press *Return*.

6 Click *Restoring the Previous Configuration Settings* and follow the on-screen instructions.

7 Click the *Shutting Down and Restarting* option on the Failsafe Mode menu and follow the onscreen instructions to restart the Network Storage Server and resume operation.

IP ADDRESSING

The Internet Protocol Suite

The Internet protocol suite consists of a well-defined set of communications protocols and several standard application protocols. Transmission Control Protocol/Internet Protocol (TCP/IP) is probably the most widely known and is a combination of two of the protocols (IP and TCP) working together. TCP/IP is an internationally adopted and supported networking standard that provides connectivity between equipment from many vendors over a wide variety of networking technologies.

Managing the Network Storage Server over the Network

To manage a device over the network, the Network Storage Server must be correctly configured with the following IP information:

- An IP address
- A Subnet Mask

IP Addresses and Subnet Masks

Each device on your network must have a unique IP address to operate correctly. An IP address identifies the address of the device to which data is being sent and the address of the destination network. IP addresses have the format n.n.n.x where n is a decimal number between 0 and 255 and x is a number between 1 and 254 inclusive.

However, an IP Address alone is not enough to make your device operate. In addition to the IP address, you need to set a subnet mask. All networks are divided into smaller sub-networks and a subnet mask is a number that enables a device to identify the sub-network to which it is connected.

For your network to work correctly, all devices on the network must have:

- The same sub-network address.
- The same subnet mask.



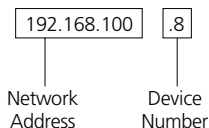
The only value that will be different is the specific host device number. This value must always be unique.

An example IP address is '192.168.100.8'. However, the size of the network determines the structure of this IP Address. In using the Network Storage Server, you will probably only encounter two types of IP Address and subnet mask structures.

Type One

In a small network, the IP address of '192.168.100.8' is split into two parts:

- Part one ('192.168.100') identifies the network on which the device resides.
- Part two ('.8') identifies the device within the network.



This type of IP Address operates on a subnet mask of '255.255.255.0'.

See [Table 3](#) for an example about how a network with three PCs and a Network Storage Server might be configured.

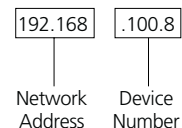
Table 3 IP Addressing and Subnet Masking

Device	IP Address	Subnet Mask
PC 1	192.168.100.8	255.255.255.0
PC 2	192.168.100.33	255.255.255.0
PC 3	192.168.100.188	255.255.255.0
Network Storage Server	192.168.100.72	255.255.255.0

Type Two

In larger networks, where there are more devices, the IP address of '192.168.100.8' is, again, split into two parts but is structured differently:

- Part one ('192.168') identifies the network on which the device resides.
- Part two ('.100.8') identifies the device within the network.



This type of IP Address operates on a subnet mask of '255.255.0.0'.

See [Table 4](#) for an example about how a network (only four PCs represented) and a Network Storage Server might be configured.

Table 4 IP Addressing and Subnet Masking

Device	IP Address	Subnet Mask
PC 1	192.168.100.8	255.255.0.0
PC 2	192.168.201.30	255.255.0.0
PC 3	192.168.113.155	255.255.0.0
PC 4	192.168.002.230	255.255.0.0
Network Storage Server	192.168.002.72	255.255.0.0

How does a Device Obtain an IP Address and Subnet Mask?

There are three different ways to obtain an IP address and the subnet mask. These are:

- Dynamic Host Configuration Protocol (DHCP) Addressing
- Static Addressing
- Automatic Addressing (Auto-IP Addressing)

DHCP Addressing

If your network contains a DHCP server, the Network Storage Server will obtain an IP address and subnet mask automatically. DHCP assigns a temporary IP address and subnet mask which gets reallocated once you disconnect from the network.

DHCP will work on any client Operating System such as Windows® 95, Windows 98 or Windows NT 4.0. Also, using DHCP means that the same IP address and subnet mask will never be duplicated for devices on the network. DHCP is particularly useful for networks with large numbers of users on them.

Static Addressing

You must enter an IP Address and the subnet mask manually on every device. Using a static IP and subnet mask means the address is permanently fixed.

Auto-IP Addressing

Network devices use automatic IP addressing if they are configured to acquire an address using DHCP but are unable to contact a DHCP server. Automatic IP addressing is a scheme where devices allocate themselves an IP address at random from the industry standard subnet of 169.254.x.x (with a subnet mask of 255.255.0.0). If two devices allocate themselves the same address, the conflict is detected and one of the devices allocates itself a new address.

Automatic IP addressing support was introduced by Microsoft in the Windows 98 operating system and is also supported in Windows 2000.

TROUBLESHOOTING

This chapter has been designed to help you detect and solve possible problems with the Network Storage Server. If you cannot find the solution to the problem in this chapter, please contact Technical Support (see [page 40](#) for details).



This section uses the term 'adapter' when referring to network interface cards (NICs), network interface adapters or personal computer (PC) cards.

Spot Checks

If you have trouble making a connection between a PC and the Network Storage Server, the first precautionary check is to examine the connecting cables. It is quite possible that the cable might be:

- Disconnected — check that the ends are securely connected between the computer, the Hub and the Network Storage Server.
- The wrong type — one common mistake is to use telephone cables. Ensure you use straight-through Twisted Pair cables.
- Broken — replace the cable with one you know to be working.

If the problem has not been resolved, make sure:

- That all equipment is switched on.
- The cable connections between the computer, the Hub and the Network Storage Server are in order.
- The adapter card is correctly inserted into your computer.
- The adapter card is correctly configured on your computer.
- The adapter drivers are the latest version on your computer.

- The Network Storage Server has been mapped to a local drive.
- The device can actually be found by using the 'Find' facility.

Once you have made these checks, reboot the Network Storage Server. See [page 14](#) for details.

Power LED is Off

If there is no power, check your power adapter connection. If there is still no power, you may have a faulty power adapter that needs replacing. If you need to replace it, make sure it is with the model manufactured by 3Com (part number 3C16749). Do not use any other power adapter with the Network Storage Server.

Alert LEDs

When the Alert LED is activated, there is a possible problem with the Network Storage Server. Check the Alert status, on the Status Section in the Administration System, to determine the problem.

The Alert LED will flash when:

- The Hard Disk is full. If this happens you will either have to add another Network Storage Server to your network or delete some of the data from the Hard Disk.
- The Network Storage Server is too hot. If this happens, the Network Storage Server should automatically adjust its performance and cool down. Check the environmental surroundings, as the Network Storage Server is designed to operate at a maximum temperature of 40 °C. If it does not cool down after this, contact Technical Support.

The Alert LED will appear permanently on when there is a problem with the Hard Disk. The Alert LED will be accompanied by a sequence of LEDs lit on the Disk Space Used LEDs.

If either of the Alerts below occur (see [Figure 7](#) and [Figure 8](#)), contact Technical Support.

Figure 7 Hard Disk Failure

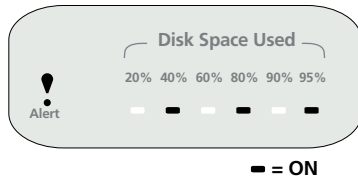
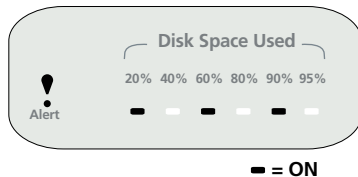


Figure 8 Incorrect Hard Disk Imaging



LAN LEDs are Off

The LAN LED(s) may be off because there is no equipment (cables or devices) connected to the LAN port or there is a problem with the connected equipment. Check:

- The power supply is connected to the Network Storage Server, the Hubs and computers and check that their power is on.
- The cable connection into the LAN port is secure. Also check that the connections between the Hub and the computers on the network are secure. If there is still a problem, replace the cable with a known working cable.
- The cabling follows the correct specification. See [“Ethernet Performance” on page 39](#) for more information.
- The adapter is correctly installed and is not faulty. Refer to the User Guide that accompanies your adapter for more information.

Network Appears Slow

If you experience a slow response time on the network, refer to the [“Spot Checks”](#) section on [page 30](#). If this does not solve your problem, it is possible that:

- The computer does not have enough processing or memory resources for the type of work the User wants to perform.
- Other Users may also be opening, editing and saving Shared files on your computer.
- There is a duplex mismatch. Check that the Network Storage Server's Ethernet duplex status (located on the Status page in the Administration System) is the same as the Hub or Switch it is plugged into.

Cannot Access Files on the Network Storage Server

If the Network Storage Server can be seen on the network, but cannot be accessed, check that:

- The computer has been mapped to the Network Storage Server.
- The Share has been set up for sharing and is not password protected.

Cannot Access the Administration System

If this happens, check that:

- The cables connecting the computer, the Hub or the Network Storage Server are not loose or damaged.
- You are running Microsoft Internet Explorer 4.0 (or above) or Netscape Navigator 4.5 (or above) as your Web browser.
- The IP Address is on the correct subnet by running the Discovery Application.

Forgotten Administration System Password

If you forget your Login password to the Administration System, you can reset the password to its default setting. Restart the Network Storage Server in Failsafe Mode and reset the password to *admin*. See the [“Failsafe Mode”](#) section on [page 21](#) for further information.

Installation Problems

TCP/IP Protocol Required

If during installation, the Discovery Application displays an error message that reads *TCP/IP Protocol Required*, TCP/IP must be installed on your PC. To install TCP/IP, follow the instructions below.

From the task bar at the bottom of your screen, select:

- 1 *Start, Settings* and then *Control Panel*.
 - 2 Double-click the *Network* icon from the *Control Panel* window.
 - 3 Select the *Configuration* tab when the *Network* window opens.
 - 4 Click *Add*.
 - 5 Select *Protocol* from the list that appears in the window.
 - 6 Click *Add*.
- A window titled *Select Network Protocol* should appear. There are two lists inside this window.
- 7 Select *Microsoft* from the Manufacturers list.
 - 8 Select *TCP/IP* from the Network Protocols list.
 - 9 Click *OK*.
 - 10 Select *TCP/IP* from the list on the Configuration tab.
 - 11 Click *OK*.

If you need further information about setting up TCP/IP on your PC, refer to the 'Using Your Network' section contained in the OfficeConnect Network Assistant CD-ROM that accompanies this product.

No Servers Found

If during installation, the Discovery Application displays an error message that reads *'No Server Found'*, follow the procedure below to determine the possible cause.

- 1 Check that the PC running the Discovery Application has access to the network. Open Network Neighborhood and look for other computers.
- 2 Check the basic network requirements as described in the [“Spot Checks”](#) section on [page 30](#).
- 3 Check that the Network Storage Server is fully powered up and that the LEDs are in normal status. See the section about the [“LED Functions”](#) on [page 11](#).
- 4 Check the Alert LED on the front of the Network Storage Server is not activated. See the section about the [“Alert LEDs”](#) on [page 30](#).
- 5 Check that the LAN 10 Mbps or 100 Mbps Link Status LED is ON and the Hub or Switch at the other end of the cable indicates the same Link connection speed. If not, see the section called [“LAN LEDs are Off”](#) on [page 31](#).
- 6 Check that a Router is not installed between the PC running the Discovery Application and the Network Storage Server. Remove the Router if one is installed.
- 7 Restart the Network Storage Server and check the LEDs are in normal status. See the section about the [“LED Functions”](#) on [page 11](#).

If the Discovery Application still cannot find the Network Storage Server, contact Technical Support.

Problems Running the OfficeConnect Server Discovery Application

Users of Windows 95 and Windows NT, who have not upgraded from Internet Explorer Version 3, may encounter problems when running the OfficeConnect Server Discovery Application. These problems, if they occur, can be fixed by installing Internet Explorer Version 4 or later. Installing Netscape will not solve these problems.

Cannot Access the Failsafe Mode

If you cannot access the Failsafe Mode, check that:

- The correct URL address has been entered into the Web browser. See [page 21](#) for details.
- The URL has been entered in lower case into the Web browser. The URL is case-sensitive and will not accept capital letters.
- The Shutdown button has been pressed and held in as you power up the Network Storage Server. The Shutdown button should be depressed until the Power LED appears.

FREQUENTLY ASKED QUESTIONS

Q. Can I connect more than one Network Storage Server in the same network?

A. Yes. Provided you have a spare Ethernet or Fast Ethernet port on your Hub or Switch, you can connect as many Network Storage Servers as required.

Q. Can I connect Network Storage Servers together to increase storage capacity?

A. No. The Network Storage Server is designed to plug directly into a Hub or a Switch. However, the number of Network Storage Servers you can put on the network is unlimited, provided you have a spare port on your Hub or Switch for each one.

Q. Can I access the Administration System from any PC on the network?

A. Yes. Enter the Administration System, as described on [page 16](#), and Login as usual. The Network Storage Server will recognize your Login password and grant you access.

Q. Can Users access a mapped network drive on the Network Storage Server across a router?

A. Yes, provided the drive has been mapped to the IP address of the Network Storage Server (e.g. \\192.168.1.21\Public). To do this, use *Start, Find, Computer* to find the Network Storage Server using its IP address (instead of its name) then map a drive to one of the Shares. For more information on mapping a drive, see [page 15](#).

Q. Can the Network Storage Server's Administration System be accessed remotely?

A. Yes, provided the IP address is entered as the URL in the Web Browser (e.g. <http://192.168.1.21/>).

Q. Who can access the Administration System?

A. Anyone using the Network Storage Server can access the Administration System, provided they have a Web browser installed on their PC and are connected to the network. See the "Administration System" section on [page 16](#) for more information.

Q. What happens if the Hard Disk on my Network Storage Server runs out of space?

A. If the Hard Disk on your Network Storage Server runs out of space, you must add another Network Storage Server to your network or remove some of the data from the Hard Disk.

Q. What happens if I forget my admin login password?

A. Reboot the Network Storage Server to Failsafe Mode and reset the password to its default setting. See [page 21](#) for further details on the "Failsafe Mode".

Q. Do I ever need to shutdown my Network Storage Server?

A. The only time you should shutdown your Network Storage Server is if you have to replace the Hard Disk or need to relocate the Unit.

Q. What happens to the network if I reboot the Network Storage Server?

A. The network remains unaffected, however, the files that Users may be working on at the time might get corrupted or lost.

Q. What happens to the data on the Network Storage Server if the Hard Disk fails? Is it backed-up anywhere?

A. If you have not backed up the data on your Hard Disk and it fails, you might want try and retrieve the data by using a specific

data recovery agency. 3Com recommends you make regular backups of the data. See [page 23](#) for further information.

Q. What if the installation process goes wrong?

A. Try reinstalling the Network Storage Server using the OfficeConnect Server Discovery Application. See the “Quick Installation Guide” (DIA1950-0AAA0x) that accompanies this User Guide. If problems persist, see the [“Troubleshooting”](#) section on [page 30](#).

Q. Does the Network Storage Server permit long file names?

A. Yes, up to 249 characters.

Q. Can I partition a Network Storage Server’s Hard Disk?

A. No. A Hard Disk cannot be partitioned, however, a Share can be created for a User with access restrictions imposed on it.

Q. How much storage space does the Network Storage Server actually have?

A. Although the Network Storage Server has a 20 GB or 40 GB Hard Disk installed, the actual storage space might be marginally less than that specified as the Network Storage Server’s configuration settings and Operating System are stored on the Hard Disk.

Q. Will the Network Storage Server operate as a stand-alone storage device?

A. Yes. Although the Network Storage Server is designed to be used across a network, it can also be used as a stand-alone storage device for your PC. To use it as a stand-alone, just connect a crossover cable between the Network Storage Server and the adapter card installed on your PC.

Q. Why does Windows 95 report the Hard Disk capacity as 1.99 GB?

A. Disk ‘Properties’ reported from Windows Explorer are incorrect for larger hard drive storage. This is a known limitation of Windows 95 as it cannot detect hard disk storage greater than 2 GB.

Q. Why are the old Share names still visible in Network Neighborhood even though they have been modified or deleted?

A. This is due to the Windows machines not correctly refreshing the display in Network Neighborhood to show the changed state of the Share. In order to update the display, reboot your PC and the old Share name should disappear.

Q. Why do my Windows NT PCs appear to copy files quicker than Windows 95 or Windows 98 PCs?

A. Windows NT appears to make better use of a network’s capacity than Windows 95 or Windows 98, which explains why Windows NT is faster at file transfer.

Q. Why does the Network Storage Server take a long time to restart?

A. It is possible the Network Storage Server lost its power supply which resulted in the Unit being abnormally terminated. When the Network Storage Server reboots, it runs an extensive disk check to ensure that no data corruption occurred as a result of the power failure.

SAFETY INFORMATION

Safety Information



WARNING: Warnings contain directions that you must follow for your personal safety. Follow all directions carefully. You must read the following safety information carefully before you install or remove the unit:

- Exceptional care must be taken during installation and removal of the unit.
- Only stack the OfficeConnect Network Storage Server with other OfficeConnect units.
- To ensure compliance with international safety standards, only use the power adapter that is supplied with the unit.
- The socket outlet must be near to the unit and easily accessible. You can only remove power from the unit by disconnecting the power adaptor from the outlet.
- This unit operates under SELV (Safety Extra Low Voltage) conditions according to IEC 60950. The conditions are only maintained if the equipment to which it is connected also operates under SELV conditions.
- Disconnect the power adapter before moving the unit.



WARNING: RJ-45 port. This is a shielded RJ-45 data socket. It cannot be used as a telephone socket. Only connect an RJ-45 data connector to this socket.

Wichtige Sicherheitshinweise



WARNHINWEIS: Warnhinweise enthalten Anweisungen, die Sie zu Ihrer eigenen Sicherheit befolgen müssen. Alle Anweisungen sind sorgfältig zu befolgen. Sie müssen die folgenden Sicherheitsinformationen sorgfältig durchlesen, bevor Sie das Geräts installieren oder ausbauen:

- Bei der Installation und beim Ausbau des Geräts ist mit höchster Vorsicht vorzugehen.
- Verwenden Sie den OfficeConnect Network Storage Server nur mit anderen OfficeConnect-Einheiten.
- Aufgrund von internationalen Sicherheitsnormen darf das Gerät nur mit dem mitgelieferten Netzadapter verwendet werden.
- Die Netzsteckdose muß in der Nähe des Geräts und leicht zugänglich sein. Die Stromversorgung des Geräts kann nur durch Herausziehen des Gerätenetzkabels aus der Netzsteckdose unterbrochen werden.
- Der Betrieb dieses Geräts erfolgt unter den SELV-Bedingungen (Sicherheitskleinstspannung) gemäß IEC 60950. Diese Bedingungen sind nur gegeben, wenn auch die an das Gerät angeschlossenen Geräte unter SELV-Bedingungen betrieben werden.
- Vor dem Ausbau des Geräts das Netzadapterkabel herausziehen.



WARNHINWEIS: RJ-45-port. Hierbei handelt es sich um eine abgeschirmte RJ-45 Datenbuchse. Sie darf nicht als Telefonanschluß verwendet werden. Stecken Sie ausschließlich einen Datenstecker des Typs RJ-45 in diese Buchse.

Consignes importantes de sécurité



AVERTISSEMENT: Les avertissements présentent des consignes que vous devez respecter pour garantir votre sécurité personnelle. Vous devez respecter attentivement toutes les consignes. Nous vous demandons de lire attentivement les consignes suivantes de sécurité avant d'installer ou de retirer l'appareil:

- Faites très attention lors de l'installation et de la dépose du groupe.
- Empilez le serveur de programmes de mémoire sur réseau OfficeConnect uniquement avec d'autres unités OfficeConnect.
- Pour garantir le respect des normes internationales de sécurité, utilisez uniquement l'adaptateur électrique remis avec cet appareil.
- La prise secteur doit se trouver à proximité de l'appareil et son accès doit être facile. Vous ne pouvez mettre l'appareil hors circuit qu'en débranchant son cordon électrique au niveau de cette prise.
- L'appareil fonctionne à une tension extrêmement basse de sécurité qui est conforme à la norme CEI 60950. Ces conditions ne sont maintenues que si l'équipement auquel il est raccordé fonctionne dans les mêmes conditions.
- Débranchez l'adaptateur électrique avant de retirer cet appareil.



AVERTISSEMENT: port de données RJ-45. Il s'agit d'une prise de données RJ-45 blindée, qui ne peut pas être utilisée comme prise téléphonique. Raccordez uniquement un connecteur de données RJ-45 à cette prise.

TECHNICAL SPECIFICATIONS

This section lists the technical specifications for the OfficeConnect Network Storage Server.

Interfaces

Ethernet/Fast Ethernet — 1 for the Network Storage Server

Operating Temperature

0 °C to 40 °C (32 °F to 105 °F)

Power

12V DC OfficeConnect Power Adapter

Humidity

0 % to 90 % (non-condensing) humidity

Dimensions

- Width = 228 mm (9.12 in.)
- Depth = 191 mm (7.64 in.)
- Height = 55 mm (2.2 in.)

Weight

Approximately 1.75 Kg (3.83 lbs)

Standards

Functional:	ISO 8802/3 IEEE 802.3
Safety:	UL 1950, EN 60950 CSA 22.2 #950 IEC 60950
EMC:	EN 55022 Class B [†] EN 55024 AS/NZS 3548 B [†] FCC Part 15 Class B ^{†*} ICES-003 Class B [†] VCCI Class B [†] CNS 13438 Class A
Environmental:	EN 60068 (IEC 68)

[†]Category 5 screened cables must be used to ensure compliance with the Class B requirements of this standard. The use of unshielded cables (Category 3 or Category 5) complies with the Class A requirements.

*See [“Regulatory Notices” on page 51](#) on for conditions of operation.

System Requirements

Operating Systems

The Network Storage Server will support the following Operating Systems:

- Windows 95a
- Windows 95b
- Windows 95b Version 2.5
- Windows 98
- Windows 98 Second Edition (SE)
- Windows NT 4.0 (Service Pack 4.0 and later)

Ethernet Performance

The Network Storage Server complies to the IEEE 802.3i, u and x specifications.

Cable Specifications

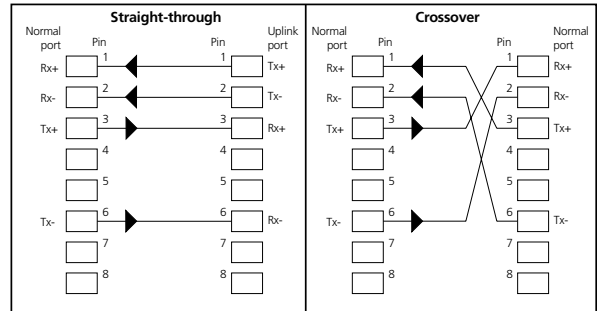
The Network Storage Server supports the following cable types and maximum lengths:

- Category 3 (Ethernet) or Category 5 (Fast Ethernet or Dual Speed Ethernet) Twisted Pair — shielded and unshielded cable types.
- Maximum cable length of 100m (327.86 ft).

Pinout Diagrams

[Figure 9](#) shows the pinout connections for twisted pair cable.

Figure 9 Twisted Pair Pinouts



TECHNICAL SUPPORT

3Com provides easy access to technical support information through a variety of services. This section describes these services.

Information contained in this section is correct at time of publication. For the most recent information, 3Com recommends that you access the 3Com Corporation World Wide Web site.

Online Technical Services

3Com offers worldwide product support 24 hours a day, 7 days a week, through the following online systems:

- World Wide Web site
- 3Com Knowledgebase Web Services
- 3Com FTP site

World Wide Web Site

To access the latest networking information on the 3Com Corporation World Wide Web site, enter this URL into your Internet browser:

<http://www.3com.com/>

This service provides access to online support information such as technical documentation and software, as well as support options that range from technical education to maintenance and professional services.

3Com Knowledgebase Web Services

This interactive tool contains technical product information compiled by 3Com expert technical engineers around the globe. Located on the World Wide Web at

<http://knowledgebase.3com.com>, this service gives all 3Com customers and partners complementary, round-the-clock access to technical information on most 3Com products.

3Com FTP Site

Download drivers, patches, software, and MIBs across the Internet from the 3Com public FTP site. This service is available 24 hours a day, 7 days a week.

To connect to the 3Com FTP site, enter the following information into your FTP client:

- Hostname: **ftp.3com.com**
- Username: **anonymous**
- Password: **<your Internet e-mail address>**



You do not need a User name and password with Web browser software such as Netscape Navigator and Internet Explorer.

Support from Your Network Supplier

If you require additional assistance, contact your network supplier. Many suppliers are authorized 3Com service partners who are qualified to provide a variety of services, including network planning, installation, hardware maintenance, application training, and support services.

When you contact your network supplier for assistance, have the following information ready:

- Product model name, part number, and serial number
- A list of system hardware and software, including revision levels
- Diagnostic error messages
- Details about recent configuration changes, if applicable

If you are unable to contact your network supplier, see the following section on how to contact 3Com.

Support from 3Com

If you are unable to obtain assistance from the 3Com online technical resources or from your network supplier, 3Com offers technical telephone support services. To find out more about your support options, call the 3Com technical telephone support number at the location nearest to you.

When you contact 3Com for assistance, have the following information ready:

- Product model name, part number, and serial number
- A list of system hardware and software, including revision levels
- Diagnostic error messages
- Details about recent configuration changes, if applicable

Here is a list of worldwide technical telephone support numbers:

Table 5 Worldwide Technical Support Telephone Numbers

Country	Telephone Number
Asia, Pacific Rim	
Australia	1 800 678 515
Hong Kong	800 933 486
India	+61 2 9937 5085
Indonesia	001 800 61 009
Japan	0531 61 6439
Malaysia	1800 801 777
New Zealand	0800 446 398
Pakistan	+61 2 9937 5083
Philippines	1235 61 266 2602
P.R. of China	10800 61 00137 or 021 6350 1590
Singapore	800 6161 463
S. Korea:	82 2 3455 6455
From anywhere in	
S. Korea:	00798 611 2230
From Seoul:	00798 611 2230
Taiwan, R.O.C.	0080 611 261
Thailand	001 800 611 2000

Europe

From anywhere in Europe, call: +31(0)30 6029900 phone
+31(0)30 6054396 fax

Europe, South Africa, and Middle East

From the following countries, you may use the toll-free numbers:

Table 5 Worldwide Technical Support Telephone Numbers (continued)

Country	Telephone Number
Austria	0800 297468
Belgium	0800 71429
Denmark	800 17309
Finland	0800 113153
France	0800 917959
Germany	0800 1821502
Hungary	06800 12813
Ireland	1800 553117
Israel	1800 9453794
Italy	1678 79489
Luxembourg	0800 3625
Middle East	1800 945 3794
Netherlands	0800 0227788
Norway	800 11376
Poland	00800 3111206
Portugal	0800 831416
Russia	0800 995014
South Africa	0800 995014
Spain	900 983125
Sweden	020 795482
Switzerland	0800 55 3072
U.K.	0800 966197

(continued)

Latin America

Argentina 5411 4510 3200
 Brazil 0800 13 3266
 Colombia 517 629 4827
 Mexico 01 800 CARE (01 800 2273)
 Puerto Rico 800 666 5065
 South America 1800 666 5065

North America

1 800 NET 3Com (1 800 638 3266)
 Enterprise Customers: 1 800 876 3266

Returning Products for Repair

Before you send a product directly to 3Com for repair, you must first obtain an authorization number. Products sent to 3Com without authorization numbers will be returned to the sender unopened, at the sender's expense.

To obtain an authorization number, call or fax:

Table 6 Obtaining Authorization Numbers

Country	Telephone Number	Fax Number
Asia, Pacific Rim	+65 543 6500	+65 543 6348
Brazil	5511 523 2725	
Europe, South Africa, and Middle East	+ 31 30 6029900	+ 31 30 6029999
Central and South America	525 201 0075	
From the following countries, you may call the toll-free numbers; select option 2 and then option 2:		
Austria	0800 297468	
Belgium	0800 71429	
Denmark	800 17309	
Finland	0800 113153	
France	0800 917959	
Germany	0800 1821502	
Hungary	00800 12813	
Ireland	1800 553117	
Israel	1800 9453794	
Italy	1678 79489	
Netherlands	0800 0227788	
Norway	800 11376	
Poland	00800 3111206	
Portugal	0800 831416	
South Africa	0800 995014	
Spain	900 983125	
Sweden	020 795482	
Switzerland	0800 55 3072	
U.K.	0800 966197	
U.S.A. and Canada	1 800 NET 3Com (1 800 638 3266)	1 408 326 7120 (not toll-free)
	Enterprise Customers: 1 800 876 3266	

GLOSSARY

10BASE-T The IEEE specification for 10 Mbps Ethernet over Category 3, 4 or 5 twisted pair cable.

100BASE-TX The IEEE specification for 100 Mbps Fast Ethernet over Category 5 twisted-pair cable.

Auto-IP (Automatic-IP) Auto-IP addressing occurs when a device on the network allocates an IP address to itself.

Auto-negotiation Some devices in the OfficeConnect range support auto-negotiation. Auto-negotiation is where two devices sharing a link, automatically configure to use the best common speed. The order of preference (best first) is: 100BASE-TX full duplex, 100BASE-TX half duplex, 10BASE-T full duplex, and 10BASE-T half duplex. Auto-negotiation is defined in the IEEE 802.3 standard for Ethernet and is an operation that takes place in a few milliseconds.

Bandwidth The information capacity, measured in bits per second, that a channel can transmit. The bandwidth of Ethernet is 10 Mbps, the bandwidth of Fast Ethernet is 100 Mbps.

Bridge A device that interconnects two LANs of a different type to form a single logical network that comprises of two network segments. Bridges learn which endstations are on which network segment by examining the source addresses of packets. They then use this information to forward packets based on their destination address. This process is known as filtering.

Broadcast A packet sent to all devices on a network.

Category 3 Cables One of five grades of Twisted Pair (TP) cabling defined by the EIA/TIA-586 standard. Category 3 is voice grade cable and can only be used in Ethernet networks (10BASE-T) to transmit data at speeds of up to 10 Mbps.

Category 5 Cables One of five grades of Twisted Pair (TP) cabling defined by the EIA/TIA-586 standard. Category 5 can be used in Ethernet (10BASE-T) and Fast Ethernet networks (100BASE-TX) and can transmit data up to speeds of 100 Mbps. Category 5 cabling is better to use for network cabling than Category 3, because it supports both Ethernet (10 Mbps) and Fast Ethernet (100 Mbps) speeds.

Client A computer, printer or server that is connected to a network.

DHCP (Dynamic Host Configuration Protocol) Windows 95, Windows 98 and Windows NT 4.0 contain software that assigns IP addresses to workstations on a network. These assignments are made by the DHCP server software that runs on Windows NT Server, and Windows 95 and Windows 98 will call the server to obtain the address. Windows 98 will allocate itself an address if no DHCP server can be found.

Dual Speed Hub A dual speed hub is a device that supports both Ethernet and Fast Ethernet technologies. Each port can be connected to either an Ethernet or a Fast Ethernet device. Each port automatically senses the speed of the connected device and operates at the highest speed possible.

Endstation See **Client**.

Ethernet A LAN specification developed jointly by Xerox, Intel and Digital Equipment Corporation. Ethernet networks use CSMA/CD to transmit packets at a rate of 10 Mbps over a variety of cables.

Ethernet Address See MAC address.

Fast Ethernet An Ethernet system that is designed to operate at 100 Mbps.

GB Gigabyte.

Group A Group sets up multiple access rights for a cluster of Users for a specific Share on the Network Storage Server's Administration System.

Full Duplex A system that allows packets to be transmitted and received at the same time and, in effect, doubles the potential throughput of a link.

Half Duplex A system that allows packets to be transmitted and received, but not at the same time. Contrast with full duplex.

Hub A device that regenerates LAN traffic so that the transmission distance of that signal can be extended. Hubs are similar to repeaters, in that they connect LANs of the same type; however they connect more LANs than a repeater and are generally more sophisticated.

Hostname This is the name assigned to the Network Storage Server upon initial installation.

IEEE (Institute of Electrical and Electronics Engineers) This American organization was founded in 1963 and sets standards for computers and communications.

ITF (Internet Engineering Task Force) An organization responsible for providing engineering solutions for TCP/IP networks. In the network management area, this group is responsible for the development of the SNMP protocol.

IP (Internet Protocol) IP is a layer 3 network protocol that is the standard for sending data through a network. IP is part of the TCP/IP set of protocols that describe the routing of packets to addressed devices. An IP address consists of 32 bits divided into two or three fields: a network number and a host number or a network number, a subnet number, and a host number.

IP Address (Internet Protocol Address) A unique identifier for a device attached to a network using TCP/IP. The address is written as four octets separated with periods (full-stops), and is made up of a network section, an optional subnet section and a host section.

LAN (Local Area Network) A network of endstations (such as PCs, printers, servers) and network devices (hubs and switches) that cover a relatively small geographic area (usually not larger than a floor or building). LANs are characterized by high transmission speeds over short distances (up to 1000 metres).

Loop An event that occurs when two network devices are connected by more than one path, thereby causing packets to repeatedly cycle around the network and not reach their destination.

MAC (Media Access Control) A protocol specified by the IEEE for determining which devices have access to a network at any one time.

MAC Address (Media Access Control Address) Also called the hardware or physical address. A layer 2 address associated with a particular network device. Most devices that connect to a LAN have a MAC address assigned to them as they are used to identify other devices in a network. MAC addresses are 6 bytes long.

Modem (MODulator-DEModulator) A device that adapts a computer's digital signal into audio frequencies (analog) for transmission down a telephone line, and changes them back again. Transmission speeds of modems generally range from 2,400 bps (2.4 Kbps) to 56,000 bps (56 Kbps).

Multicast A packet sent to a specific group of endstations on a network.

Network A Network is a collection of computers and other computer equipment that are connected for the purpose of exchanging information or sharing resources. Networks vary in size, some are within a single room, others span continents.

Network Interface Card (NIC) A circuit board installed into a piece of computing equipment, for example, a computer, that enables you to connect it to the network. A NIC is also known as an adapter or adapter card.

Network Loops Your network will not work if it has a network loop in it. This occurs when two pieces of network equipment are connected by more than one path, thereby causing packets to repeatedly cycle round and round the network and not reach their destination.

PC Card The Personal Computer Memory Card International Association (PCMCIA) was set up in 1989 to standardize a method for connecting equipment to portable computers. The PCMCIA created a 16-bit socket into which credit card-sized cards are plugged: these are commonly known as PC cards. The ports on these cards attach, for example, modems, sound cards and hard disks to portable computers.

POST (Power On Self Test) An internal test that a device carries out when it is powered-up.

Protocol A set of rules for communication between devices on a network. The rules dictate format, timing, sequencing and error control.

RJ-45 A standard connector used to connect Ethernet networks. The "RJ" stands for "registered jack".

Router A device that provides WAN links between geographically separate networks.

Share A Share is a directory on the Network Storage Server that can be accessed by multiple Users.

Segment A section of a LAN that is connected to the rest of the network using a switch or bridge.

Server A computer in a network that is shared by multiple endstations. Servers provide endstations with access to shared network services such as computer files and printer queues.

SNMP (Simple Network Management Protocol) The current IETF standard protocol for managing devices on an TCP/IP network.

Stack A group of network devices that are integrated to form a single logical device.

Subnet Address An extension of the IP addressing scheme that allows a site to use a single IP network address for multiple physical networks.

Subnet Mask A subnet mask is a term used to indicate how much of an IP address is used to identify the network. An IP address has two parts, the first identifies the network and the second identifies the machine or PC on the network.

Subnets A network that is a component of a larger network.

Switch A device that interconnects several LANs to form a single logical LAN that comprises of several LAN segments. Switches are similar to bridges, in that they connect LANs of a different type; however they connect more LANs than a bridge and are generally more sophisticated.

TCP/IP (Transmission Control Protocol/Internet Protocol) This is the name for two of the most well-known protocols developed for the interconnection of networks. Originally a UNIX standard, TCP/IP is now supported on almost all platforms, and is the protocol of the Internet.

TCP relates to the content of the data travelling through a network — ensuring that the information sent arrives in one piece when it reaches its destination. IP relates to the address of the endstation to which data is being sent, as well as the address of the destination network.

Traffic The movement of data packets on a network.

Unicast A packet sent to a single endstation on a network.

User A User is a person either connected to the network or setup on the Network Storage Server's Administration System.

Wizard A Windows application that automates a procedure such as installation or configuration.

3COM CORPORATION LIMITED WARRANTY

This warranty applies to customers located in the United States, Australia, Canada (except Quebec), Ireland, New Zealand, U.K., and other English language countries, and countries for which a translation into the local language is not provided.

OfficeConnect Network Storage Server 20 (3C19500)

OfficeConnect Network Storage Server 40 (3C19501)

HARDWARE

3Com warrants to the end user ("Customer") that this hardware product will be free from defects in workmanship and materials, under normal use and service, for the following length of time from the date of purchase from 3Com or its authorized reseller:

Lifetime, for as long as the original Customer owns the product (not transferable to a subsequent end user)

3Com's sole obligation under this express warranty shall be, at 3Com's option and expense, to repair the defective product or part, deliver to Customer an equivalent product or part to replace the defective item, or if neither of the two foregoing options is reasonably available, 3Com may, in its sole discretion, refund to Customer the purchase price paid for the defective product. All products that are replaced will become the property of 3Com. Replacement products or parts may be new or reconditioned. 3Com warrants any replaced or repaired product or part for ninety (90) days from shipment, or the remainder of the initial warranty period, whichever is longer.

SOFTWARE

3Com warrants to Customer that each software program licensed from it, except as noted below, will perform in substantial conformance to its program specifications, for a period of ninety (90) days from the date of purchase from 3Com or its authorized reseller. 3Com warrants the media containing software against failure during the warranty period. No updates are provided, unless specifically included in the Included Services section. 3Com's sole obligation under this express warranty shall be, at 3Com's option and expense, to refund the purchase price paid by Customer for any defective software product, or to replace any defective media with software which substantially conforms to applicable 3Com published specifications. Customer assumes responsibility for the selection of the appropriate applications program and associated reference materials. 3Com makes no warranty or representation that its software products will meet Customer's requirements or work in combination with any hardware or applications software products provided by third parties, that the operation of the software products will be uninterrupted or error free, or that all defects in the software products will be corrected. For any third party products listed in the 3Com software product documentation or specifications as being compatible, 3Com will make reasonable efforts to provide compatibility, except where the non-compatibility is caused by a "bug" or defect in the third party's product or from use

of the software product not in accordance with 3Com's published specifications or user manual.

THIS 3COM PRODUCT MAY INCLUDE OR BE BUNDLED WITH (1) THIRD PARTY SOFTWARE, OR (2) 3COM SOFTWARE THAT IS LICENSED "AS IS", THE USE OF WHICH IS GOVERNED BY A SEPARATE END USER LICENSE AGREEMENT. THIS 3COM WARRANTY DOES NOT APPLY TO SUCH THIRD PARTY SOFTWARE OR 3COM SOFTWARE LICENSED "AS IS". FOR THE APPLICABLE WARRANTY, PLEASE REFER TO THE END USER LICENSE AGREEMENT GOVERNING THE USE OF SUCH SOFTWARE OR THE ACCOMPANYING DOCUMENTATION RELATING TO SUCH SOFTWARE.

YEAR 2000 WARRANTY

In addition to the Hardware Warranty and Software Warranty stated above, 3Com warrants that each product sold or licensed to Customer on and after January 1, 1998 that is date sensitive will continue performing properly with regard to such date data on and after January 1, 2000, provided that all other products used by Customer in connection or combination with the 3Com product, including hardware, software, and firmware, accurately exchange date data with the 3Com product, with the exception of those products identified at 3Com's Web site, <http://www.3com.com/products/yr2000.html>, as not meeting this standard. If it appears that any product that is stated to meet this standard does not perform properly with regard to such date data on and after January 1, 2000, and Customer notifies 3Com within ninety (90) days after purchase of the product from 3Com or its authorized reseller, 3Com shall, at its option and expense, provide a software update which would effect the proper performance of such product, repair such product, deliver to Customer an equivalent product to replace such product, or if none of the foregoing is feasible, refund to Customer the purchase price paid for such product.

Any software update or replaced or repaired product will carry a Year 2000 Warranty for ninety (90) days after purchase.

OBTAINING WARRANTY SERVICE

Customer must contact a 3Com Corporate Service Center or an Authorized 3Com Service Center within the applicable warranty period to obtain warranty service authorization. Dated proof of purchase from 3Com or its authorized reseller may be required. Products returned to 3Com's Corporate Service Center must be pre-authorized by 3Com with a User Service Order (USO) number (or a Return Material Authorization (RMA) number or a Service Repair Order (SRO) number, whichever was issued) marked on the outside of the package, and sent prepaid and packaged appropriately for safe shipment, and it is recommended that they be insured or sent by a method that provides for tracking of the package. Responsibility for loss or damage does not transfer to 3Com until the returned item is received by 3Com. The repaired or replaced item will be shipped to Customer, at

3Com's expense, not later than thirty (30) days after 3Com receives the defective product, and 3Com will retain risk of loss or damage until the item is delivered to Customer.

3Com shall not be responsible for any software, firmware, information, or memory data of Customer contained in, stored on, or integrated with any products returned to 3Com for repair, whether under warranty or not.

Dead- or Defective-on-Arrival. In the event a product completely fails to function or exhibits a defect in materials or workmanship within the first forty-eight (48) hours of installation but no later than thirty (30) days after the date of purchase, and this is verified by 3Com, it will be considered dead- or defective-on-arrival (DOA) and a replacement shall be provided prior to 3Com receiving the defective product, but only if Customer provides a purchase order number, credit card number, or other method of payment acceptable to 3Com, to be used if 3Com needs to charge Customer for the replacement, as explained below. The replacement product will normally be shipped not later than three (3) business days after 3Com's verification of the DOA product, but may be delayed due to export or import procedures. The shipment of a replacement product prior to 3Com receiving the defective product is subject to local legal requirements and may not be available in all locations. When such a replacement is provided and Customer fails to return the original product to 3Com within fifteen (15) days after shipment of the replacement, 3Com will charge Customer for the replacement product, at list price.

INCLUDED SERVICES

3Com's Electronic Support Services, available at no charge, include 3Com Knowledgebase, information on known bugs, documentation, release notes, and publicly available software and firmware upgrades. 3Com reserves the right to modify or cancel this offering at any time, without advance notice.

Telephone Technical Support, with coverage for basic troubleshooting only, will be provided at no additional charge for ninety (90) days from the date of purchase, on a commercially reasonable efforts basis. Telephone support is provided by 3Com only if Customer purchased this product directly from 3Com, or if Customer's reseller is unable to provide telephone support. To qualify for this telephone technical support, Customer must register on the 3Com Web site at <http://support.3Com.com/index.htm>, and state the date of purchase, product number, and serial number. 3Com's response to a request for telephone technical support will be in the form of a return call from a 3Com representative by close of business the following business day, defined as 9 a.m. to 5 p.m., local time, Monday through Friday, excluding local holidays. Please refer to the Technical Support appendix in the User Guide for telephone numbers.

Software Updates, All software and firmware upgrades and the latest code for this product downloaded through the 3Com Software Library.

WARRANTIES EXCLUSIVE

IF A 3COM PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, CUSTOMER'S SOLE REMEDY FOR BREACH OF THAT WARRANTY SHALL BE REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT 3COM'S OPTION. TO THE FULL EXTENT ALLOWED BY LAW, THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, TERMS, OR CONDITIONS, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES, TERMS, OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, SATISFACTORY QUALITY, CORRESPONDENCE WITH DESCRIPTION, AND NON-INFRINGEMENT, ALL OF WHICH ARE EXPRESSLY DISCLAIMED. 3COM NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE OR USE OF ITS PRODUCTS.

3COM SHALL NOT BE LIABLE UNDER THIS WARRANTY IF ITS TESTING AND EXAMINATION DISCLOSE THAT THE ALLEGED DEFECT OR MALFUNCTION IN THE PRODUCT DOES NOT EXIST OR WAS CAUSED BY CUSTOMER'S OR ANY THIRD PERSON'S MISUSE, NEGLIGENCE, IMPROPER INSTALLATION OR TESTING, UNAUTHORIZED ATTEMPTS TO OPEN, REPAIR OR MODIFY THE PRODUCT, OR ANY OTHER CAUSE BEYOND THE RANGE OF THE INTENDED USE, OR BY ACCIDENT, FIRE, LIGHTNING, POWER CUTS OR OUTAGES, OTHER HAZARDS, OR ACTS OF GOD.

LIMITATION OF LIABILITY

TO THE FULL EXTENT ALLOWED BY LAW, 3COM ALSO EXCLUDES FOR ITSELF AND ITS SUPPLIERS ANY LIABILITY, WHETHER BASED IN CONTRACT OR TORT (INCLUDING NEGLIGENCE), FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FOR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATA, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE, OR INTERRUPTION OF ITS PRODUCTS, EVEN IF 3COM OR ITS AUTHORIZED RESELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND LIMITS ITS LIABILITY TO REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT 3COM'S OPTION. THIS DISCLAIMER OF LIABILITY FOR DAMAGES WILL NOT BE AFFECTED IF ANY REMEDY PROVIDED HEREIN SHALL FAIL OF ITS ESSENTIAL PURPOSE.

DISCLAIMER

Some countries, states, or provinces do not allow the exclusion or limitation of implied warranties or the limitation of incidental or consequential damages for certain products supplied to consumers, or the limitation of liability for personal injury, so the above limitations and exclusions may be limited in their application to you. When the implied

warranties are not allowed to be excluded in their entirety, they will be limited to the duration of the applicable written warranty. This warranty gives you specific legal rights which may vary depending on local law.

GOVERNING LAW

This Limited Warranty shall be governed by the laws of the State of California, U.S.A., and by the laws of the United States, excluding their conflicts of laws principles. The United Nations Convention on Contracts for the International Sale of Goods is hereby excluded in its entirety from application to this Limited Warranty.

3Com Corporation
5400 Bayfront Plaza
P.O. Box 58145
Santa Clara, CA 95052-8145
(408) 326-5000
November, 2000

3Com reserves the right to modify or cancel this offering at any time, without advance notice. This offering is not available where prohibited or restricted by law.

REGULATORY NOTICES

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules, and the Canadian Department of Communications Equipment Standards entitled, "Digital Apparatus," ICES-003. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

Information to the User

If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna.
- Relocate the equipment with respect to the receiver.
- Move the equipment away from the receiver.
- Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.
- Consult the dealer or an experienced radio/television technician for help.

The user may find the following booklet prepared by the Federal Communications Commission helpful:

How to Identify and Resolve Radio-TV Interference Problems

This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4. In order to meet FCC emissions limits, this equipment must be used only with cables which comply with IEEE 802.3.

CE Statement (Europe)

This product complies with the European Low Voltage Directive 73/23/EEC and EMC Directive 89/336/EEC as amended by European Directive 93/68/EEC.

CSA Statement

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

BSMI Statement

警告使用者：這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

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