Session: 406170
          26GB

iSeries NetServer:
File and Print Serving Basics

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September, 2003

Agenda

- Welcome to the Neighborhood

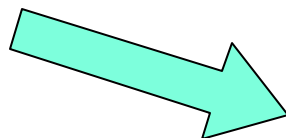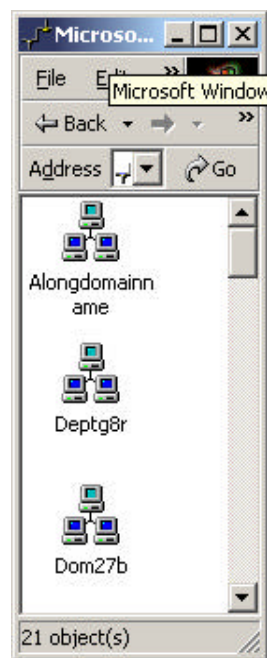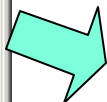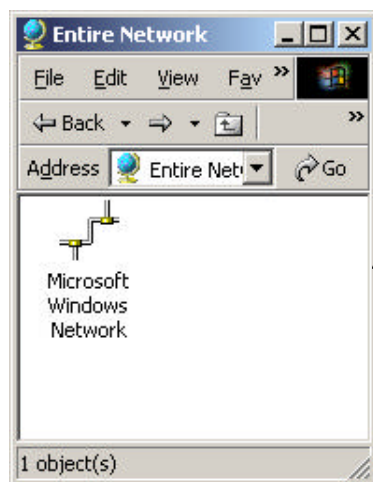- What is iSeries NetServer

- Using iSeries NetServer

- Configuration

- Administration
  - ► Setting up and using file shares
  - ► Setting up and using print shares
  - ► Managing iSeries NetServer activity

- What's new!

- Resources & Information

Welcome to the Neighborhood

Microsoft Windows Network

The Network Neighborhood
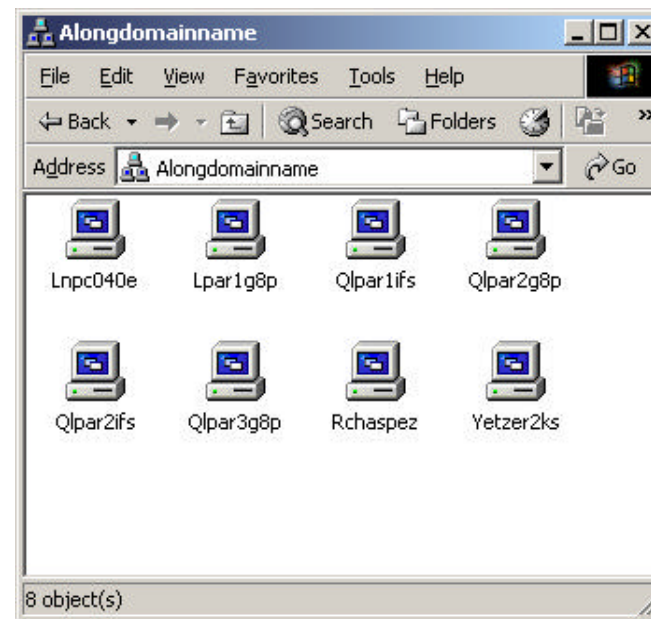
File Sharing Example
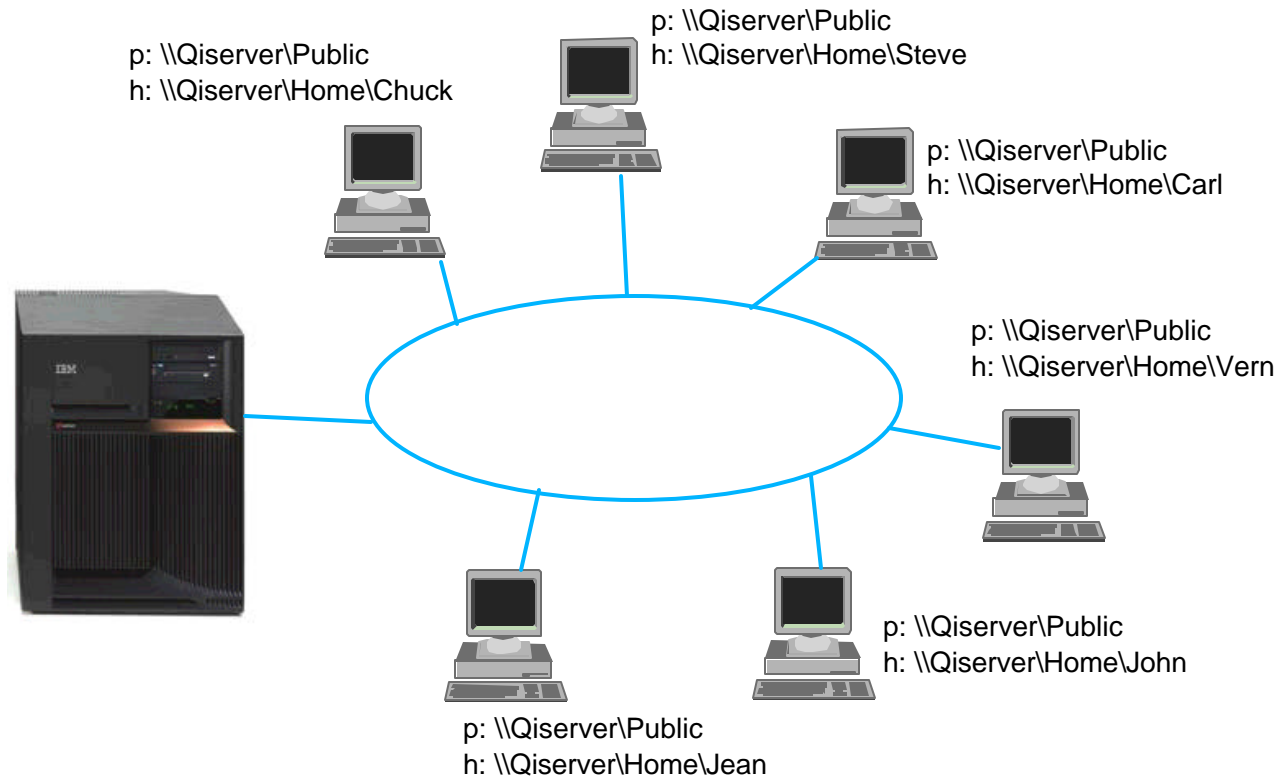
Qiserver shares:

Public

Home

Home/Chuck

Home/Steve

Home/Carl

Home/Vern

Home/John

Home/Jean

p: \\Qiserver\Public
h: \\Qiserver\Home\Chuck

p: \\Qiserver\Public
h: \\Qiserver\Home\Steve

p: \\Qiserver\Public
h: \\Qiserver\Home\Carl

p: \\Qiserver\Public
h: \\Qiserver\Home\Vern

p: \\Qiserver\Public
h: \\Qiserver\Home\John

p: \\Qiserver\Public
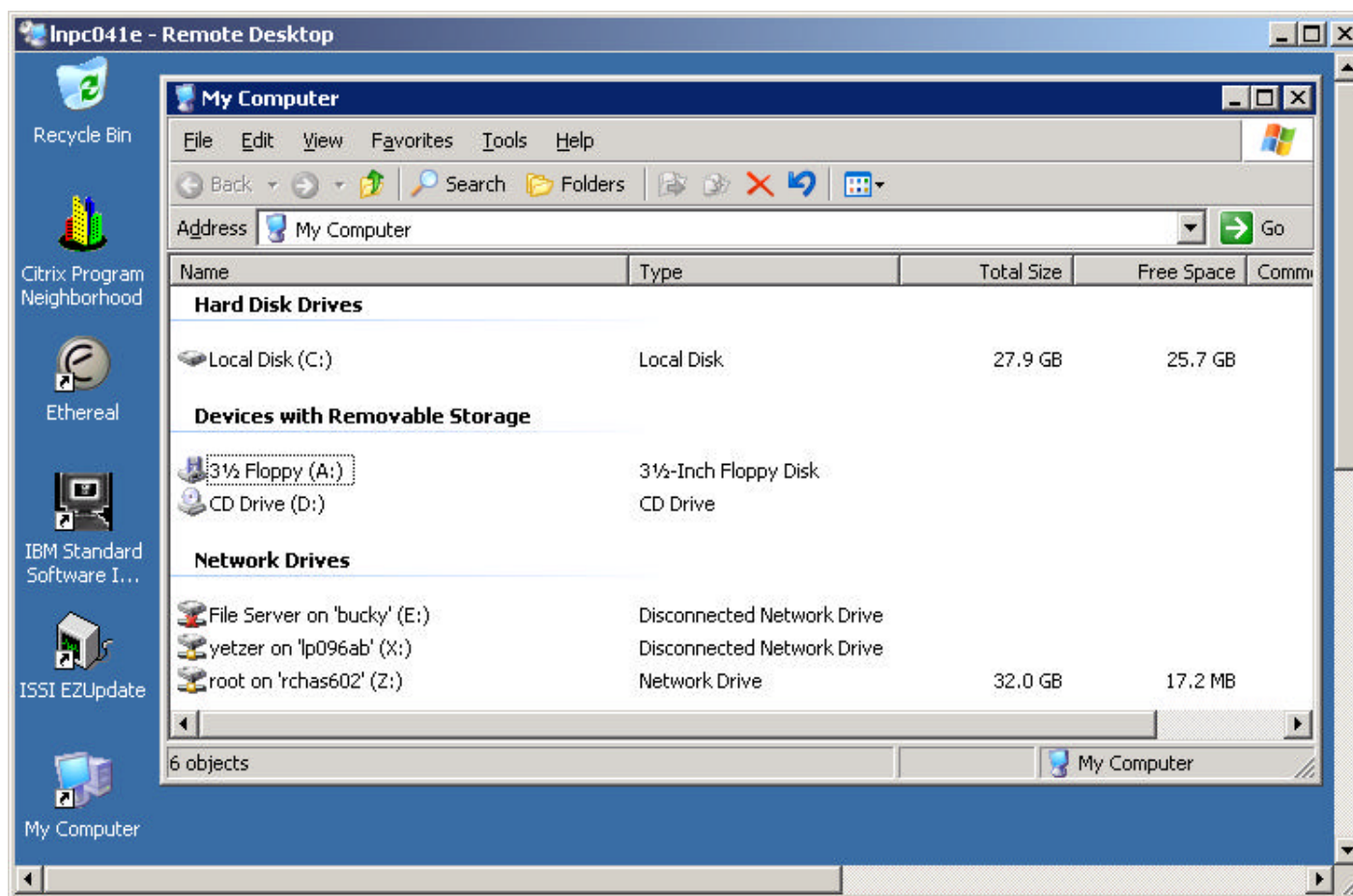h: \\Qiserver\Home\Jean

My Computer

iSeries NetServer Uses:

Some examples:

- Share office documents (or .MP3 files) between users

- Install / use applications from a central server (files or CD)

- Access data in any iSeries file system

- Use iSeries as a logon server for Windows users and store user profile settings on the server
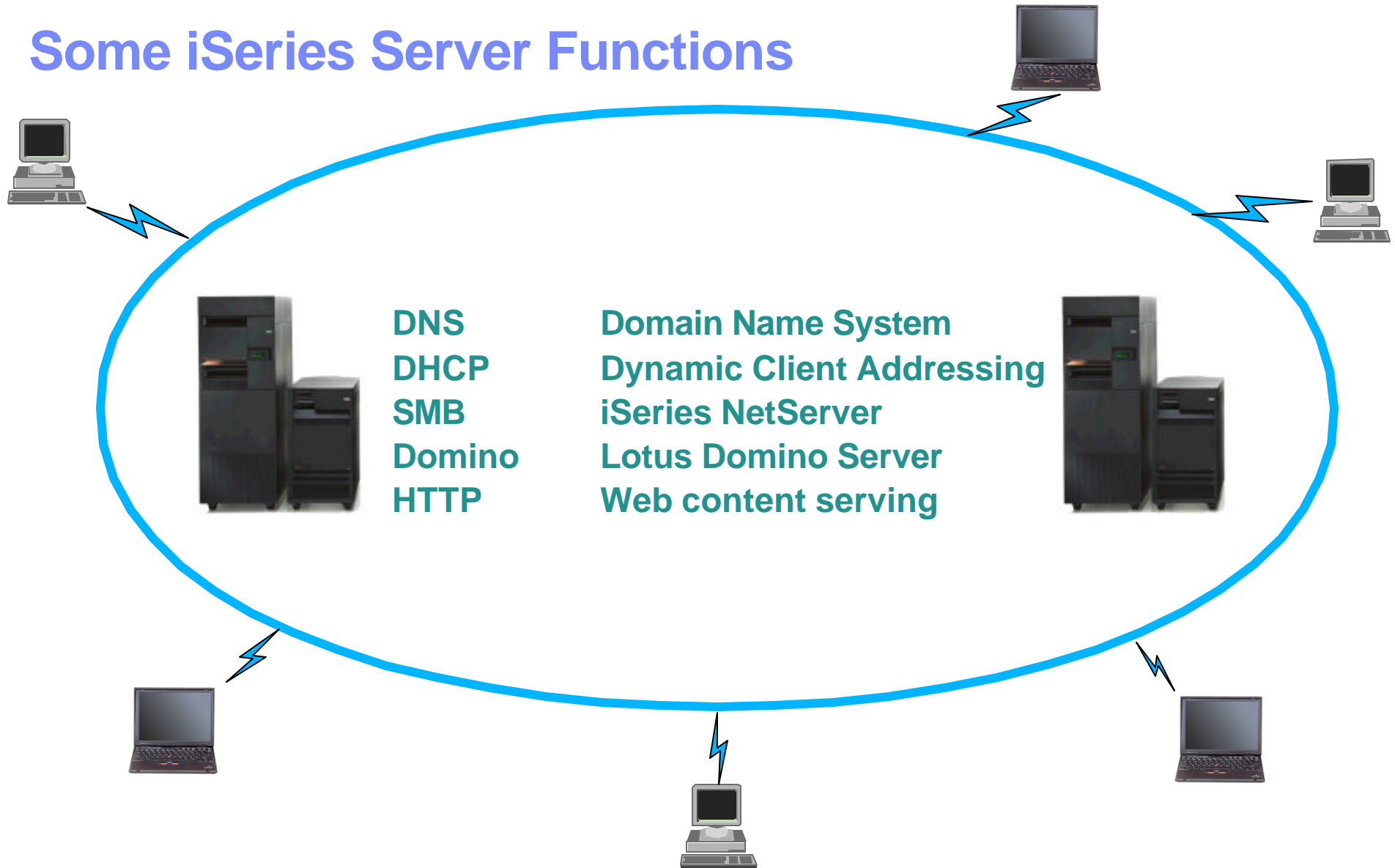
What is NetServer ?
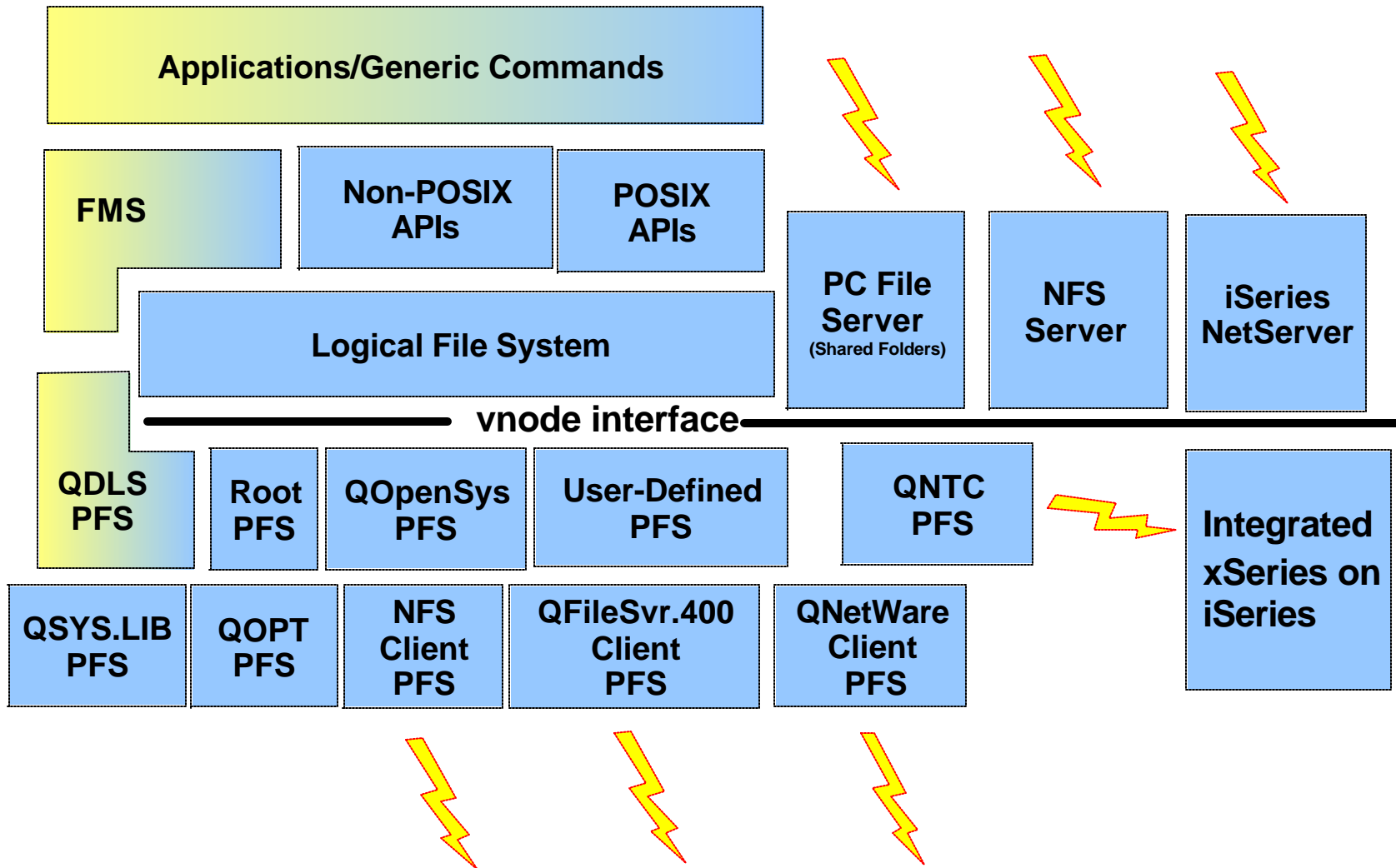
What is iSeries NetServer ?

"iSeries Support for Windows Network Neighborhood"

- File and print serving for CIFS clients

- Compatible with Microsoft Networking

- Part of the base OS/400 Operating System

- Uses TCP/IP for connectivity

Some iSeries Server Functions

DNS	Domain Name System
DHCP	Dynamic Client Addressing
SMB	iSeries NetServer
Domino	Lotus Domino Server
HTTP	Web content serving

Integrated File System

Supported Clients

iSeries NetServer - Currently Supported Clients

- Windows 98

- Windows Me

- Windows NT 4.0

- Windows NT 4.0 Terminal Server Edition

- Windows 2000

- Windows XP Professional (V5R2)

- Linux/Samba (V5R1 w/PTFs)

- Windows 2003 (V5R2)

iSeries NetServer vs PC Server?

- Eliminate cost of administering multiple server platforms
  - ► Uses iSeries user profiles and security
  - ► OS/400 is single point for software maintenance

- Reduced TCO vs PC servers

- Standard Windows client interface, no retraining required
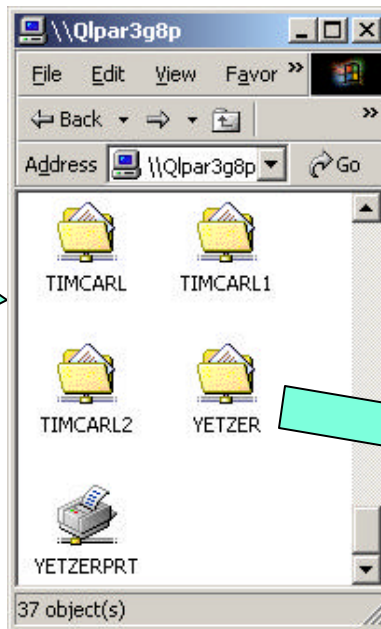
Using iSeries NetServer

Using iSeries NetServer

- **Network Neighborhood (My Network Places)**

- **Search for computers**

- **Connecting to a share**

- **Working with output queues**

- **Using Network DOS commands**
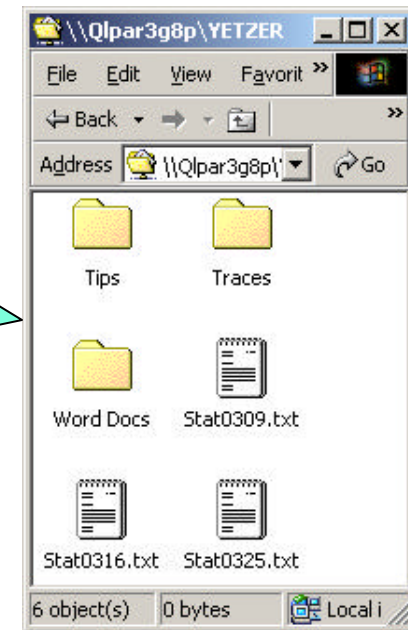
- **Encrypted password security**

Network Neighborhood and iSeries NetServer "Shares"
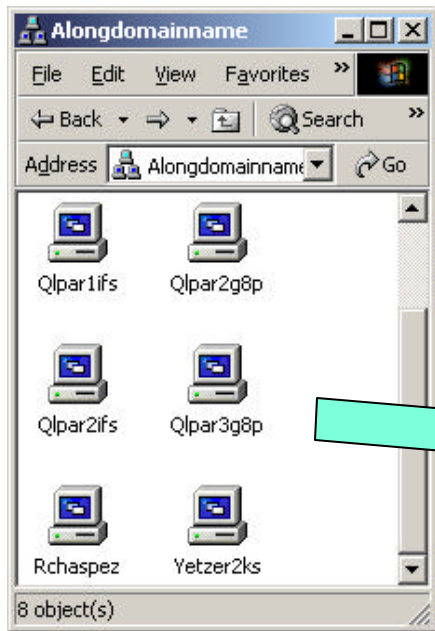
Servers

Shared Drives
and Printers

Files & Directories

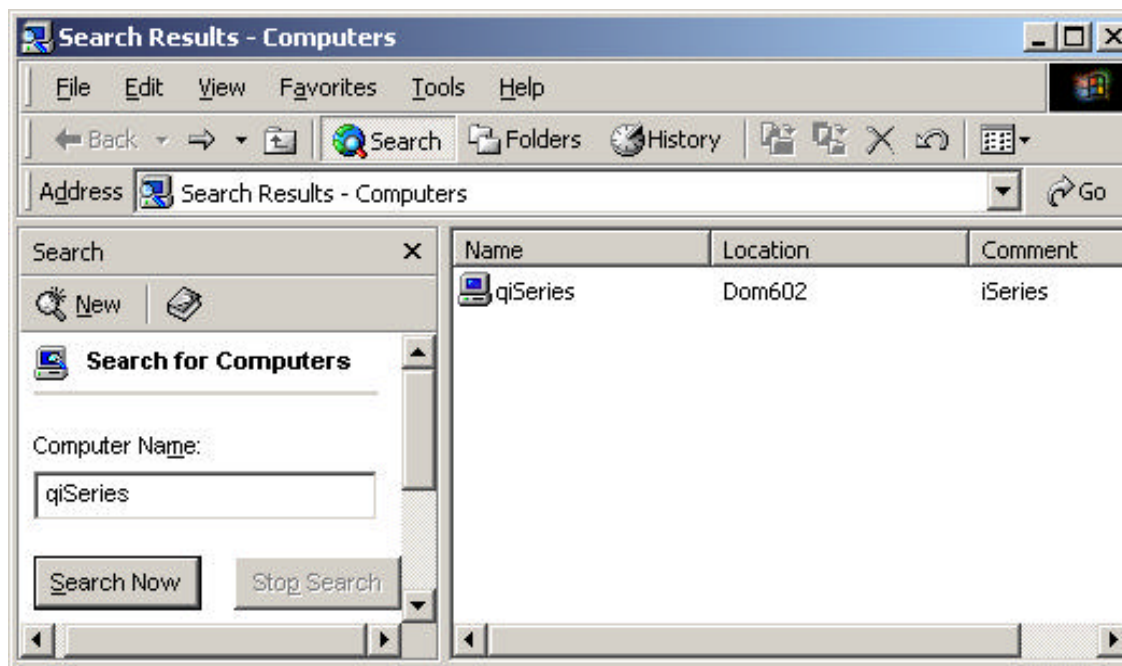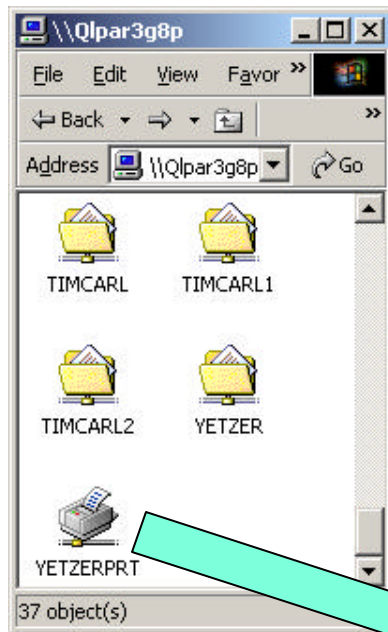# "Search for Computers" - Connecting with Windows 2000
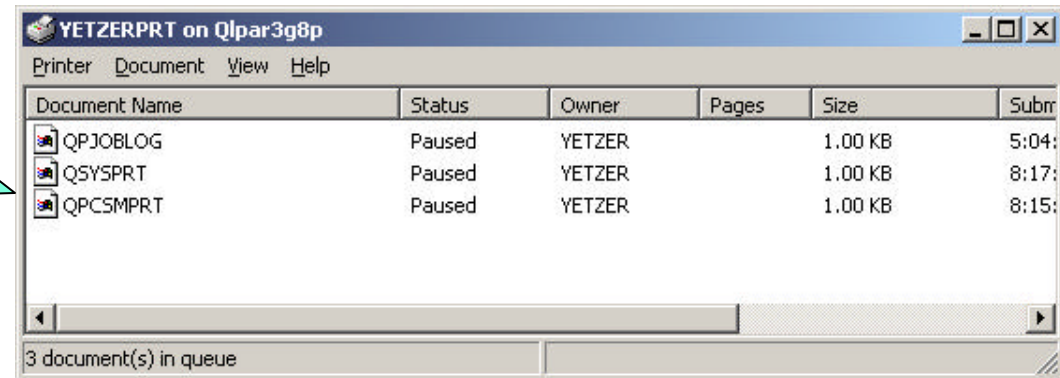

Ctnl+Meta key+f = Search for Computers

iSeries NetServer Printers

Shared Drives
and Printers

Output Queue

Access from a Command Prompt

Security

Configuration

Configuring iSeries NetServer

- Prerequisites

- iSeries Navigator Interfaces

- iSeries Configuration

- New configuration wizard

- Properties

iSeries Setup - Prerequisites

- ## TCP/IP support configured

- ## QSERVER subsystem started
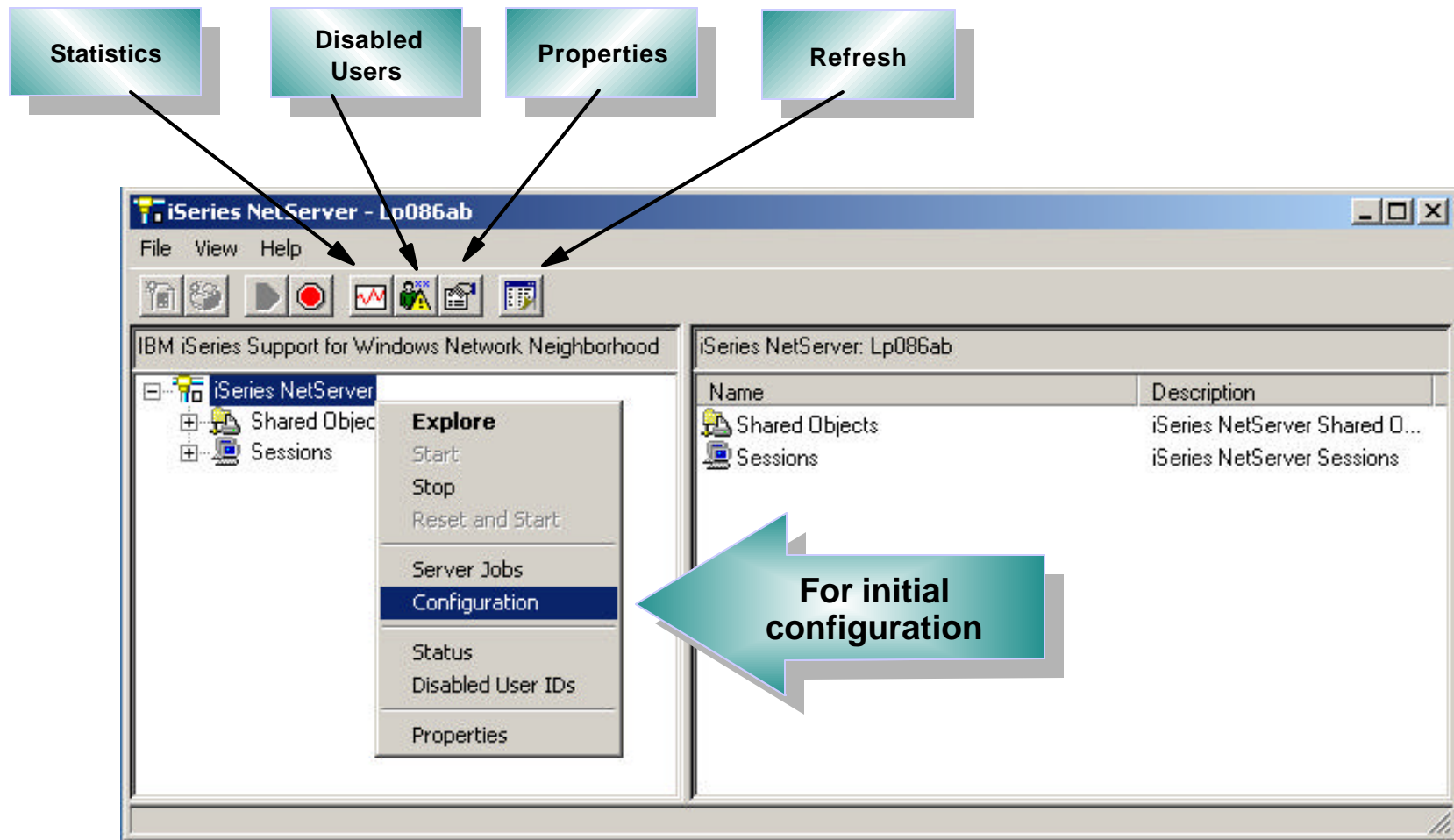 - ► STRSBS SBS(QSERVER)
    - ★ If using the subsystem support provided in V5R2, the alternate subsystems must be started as well.

Locating iSeries NetServer in iSeries Navigator

iSeries NetServer Management Window

V5R2 View

Use the Wizard for Initial Configuration
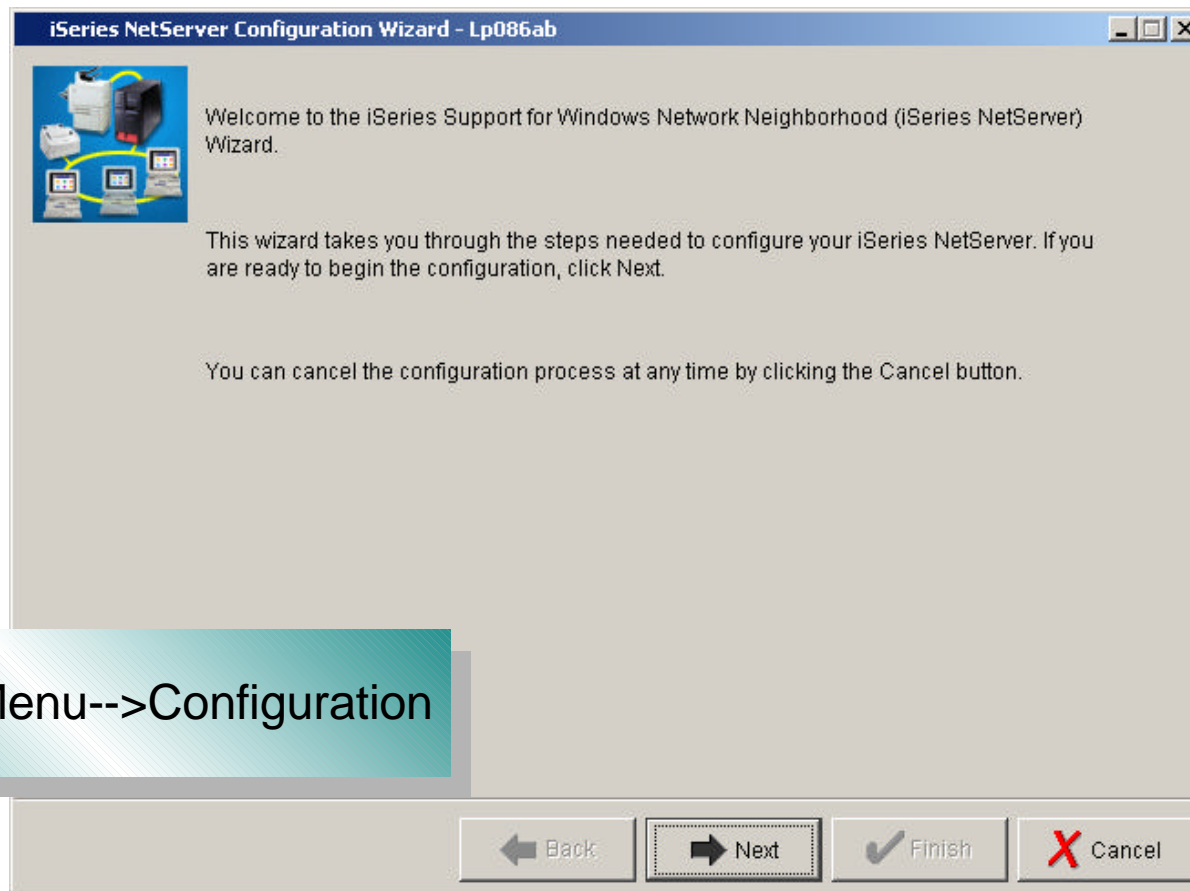
Choose File Menu-->Configuration

Properties: General Tab
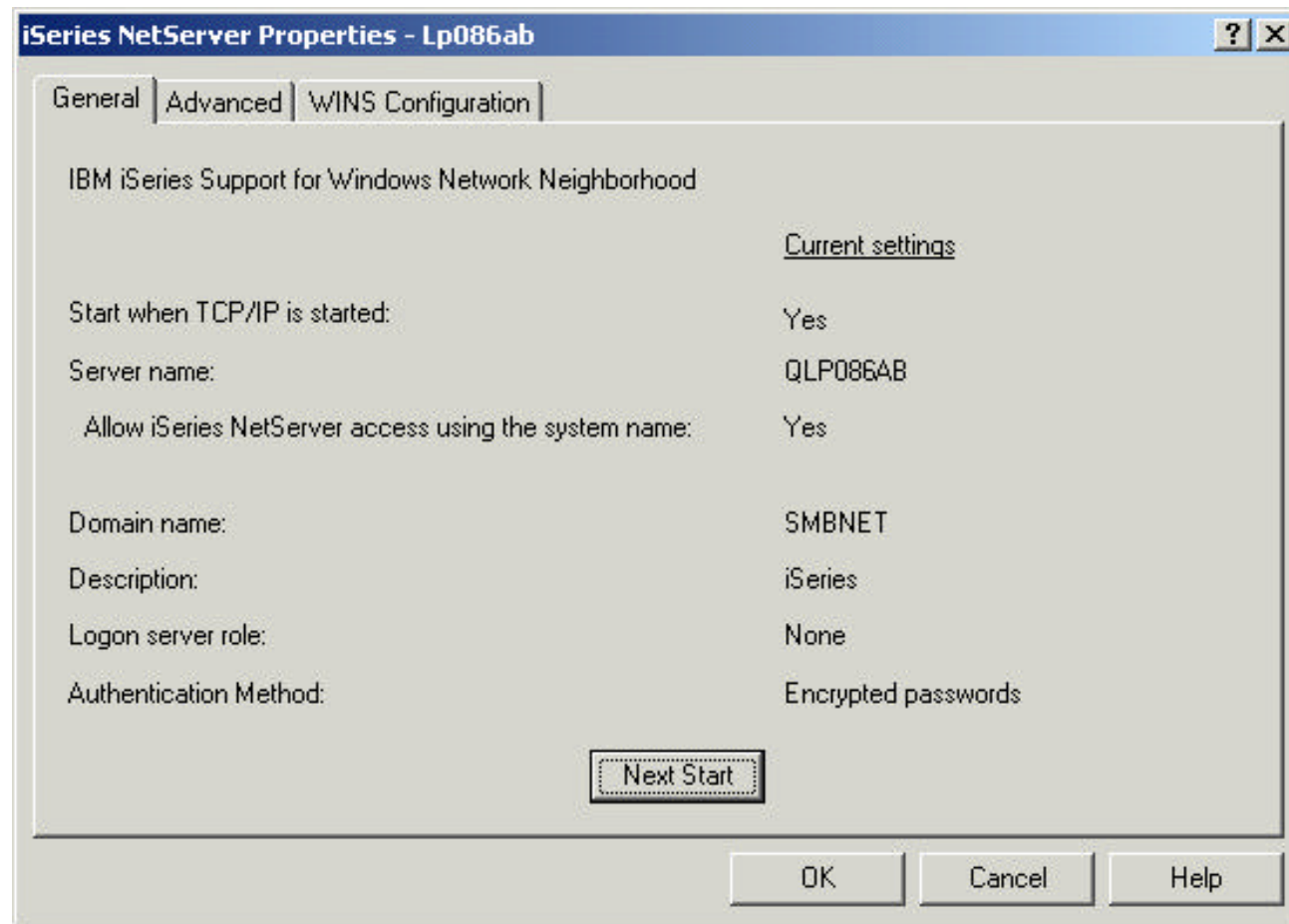
V5R2 Properties dialog

Properties: Advanced Tab
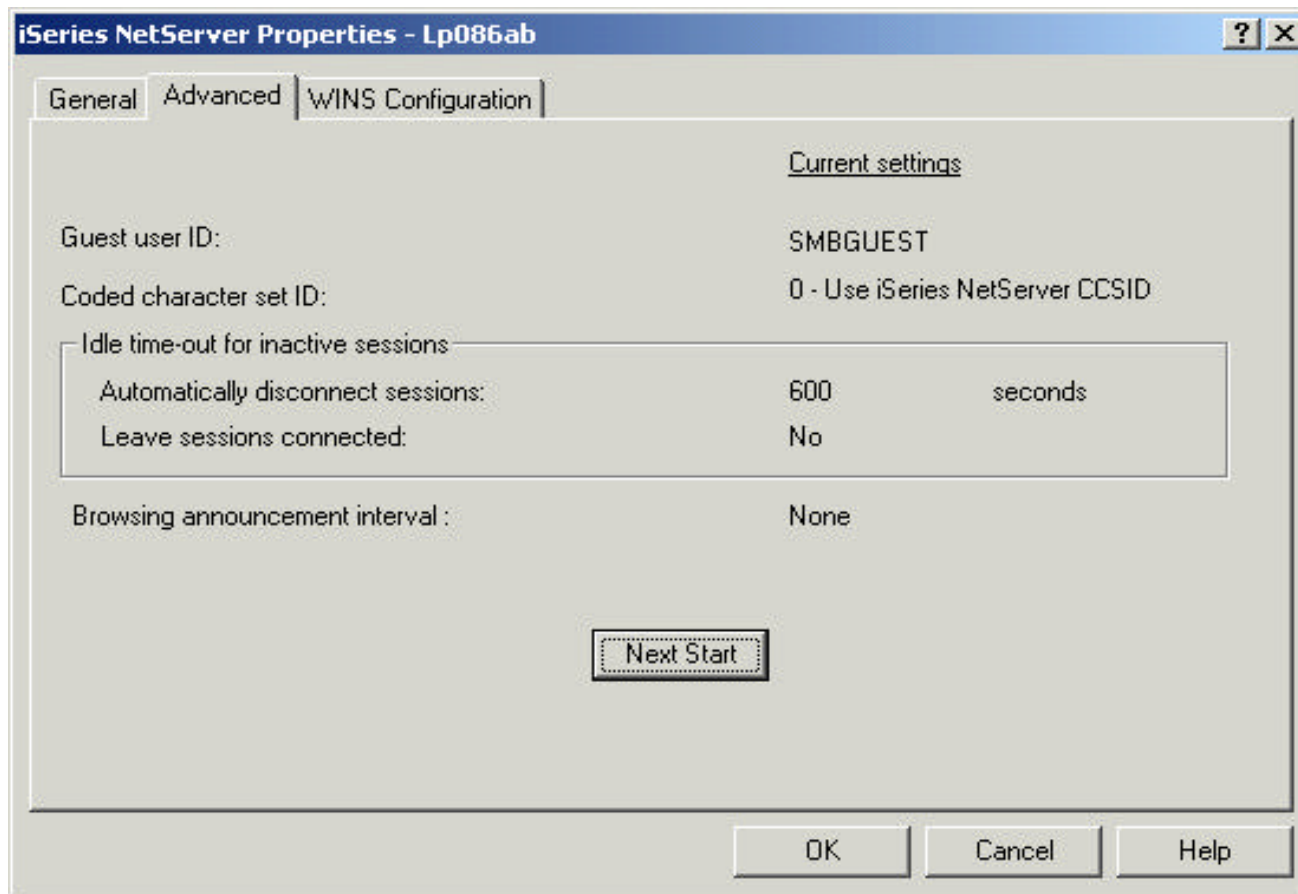
V5R2 Properties dialog

WINS configuration tab
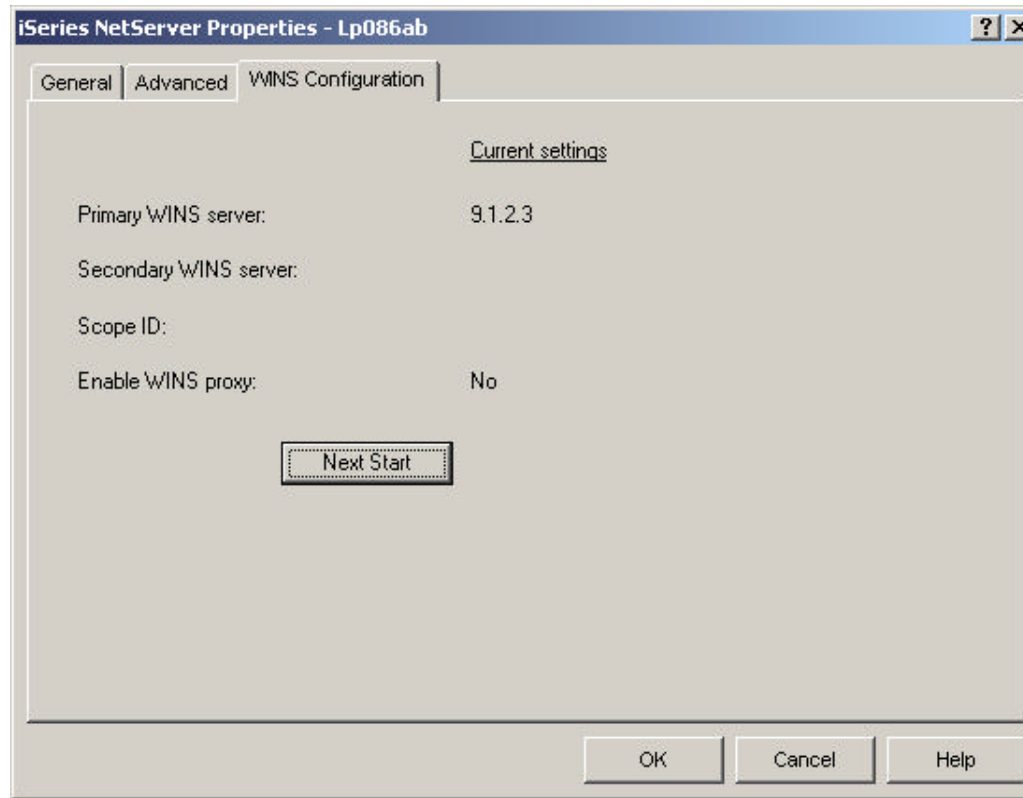
V5R2 Properties dialog

WINS Configuration - iSeries NetServer

'Next Start' dialog for iSeries NetServer

PC Client Configuration

- Client for Microsoft Networks
- Complex TCP/IP networks
- Name resolution considerations
- WINS
- Mapping a Drive

PC Setup

Use "Client for Microsoft Networks"
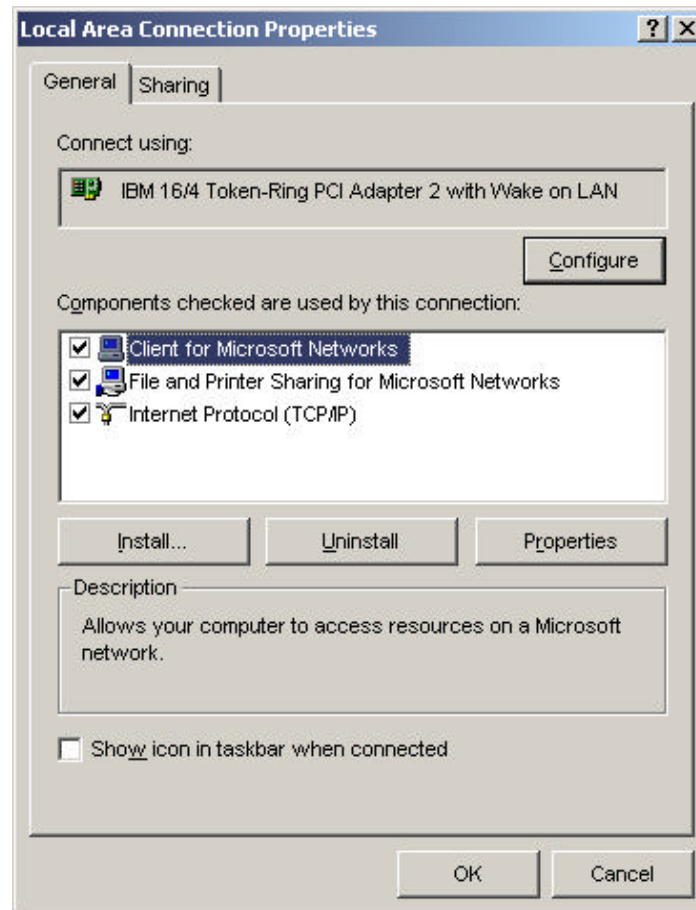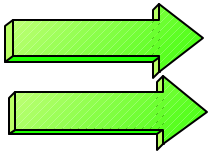
Complex TCP/IP Networks

- Broadcasts get discarded by routers

- Need some other method for clients to locate servers

Router
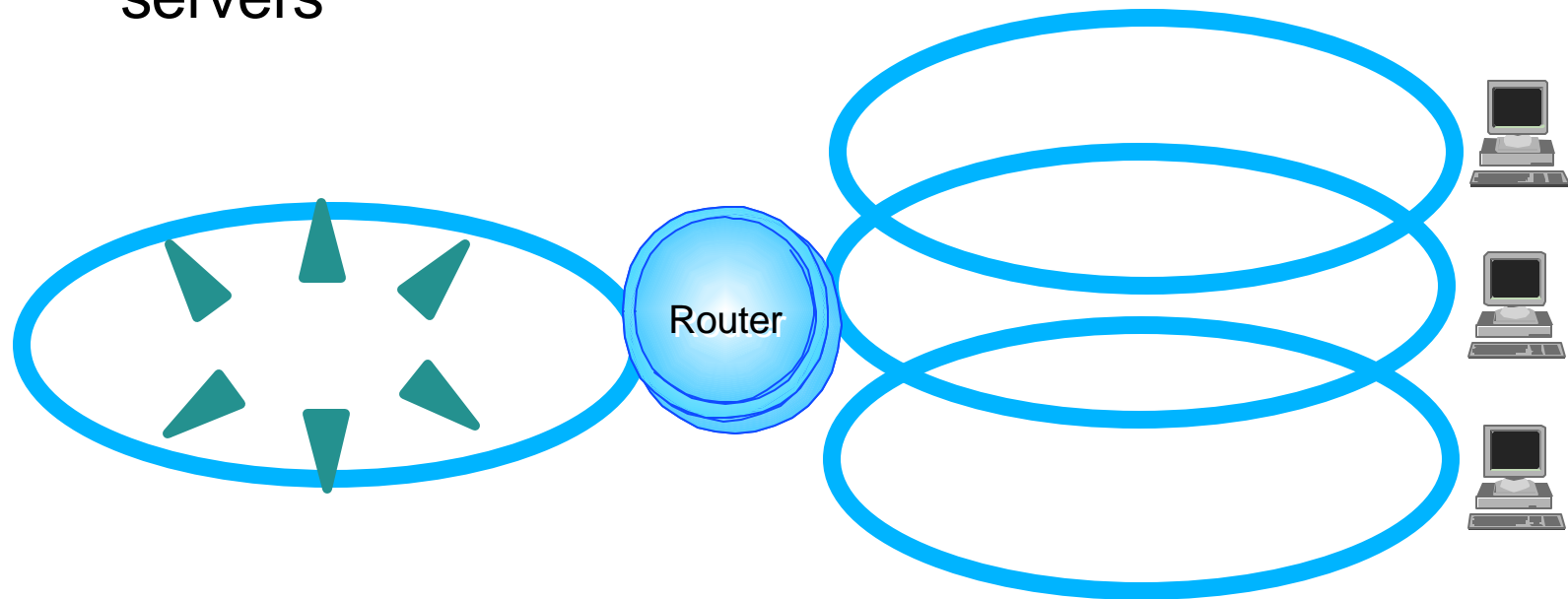
Client WINS configuration
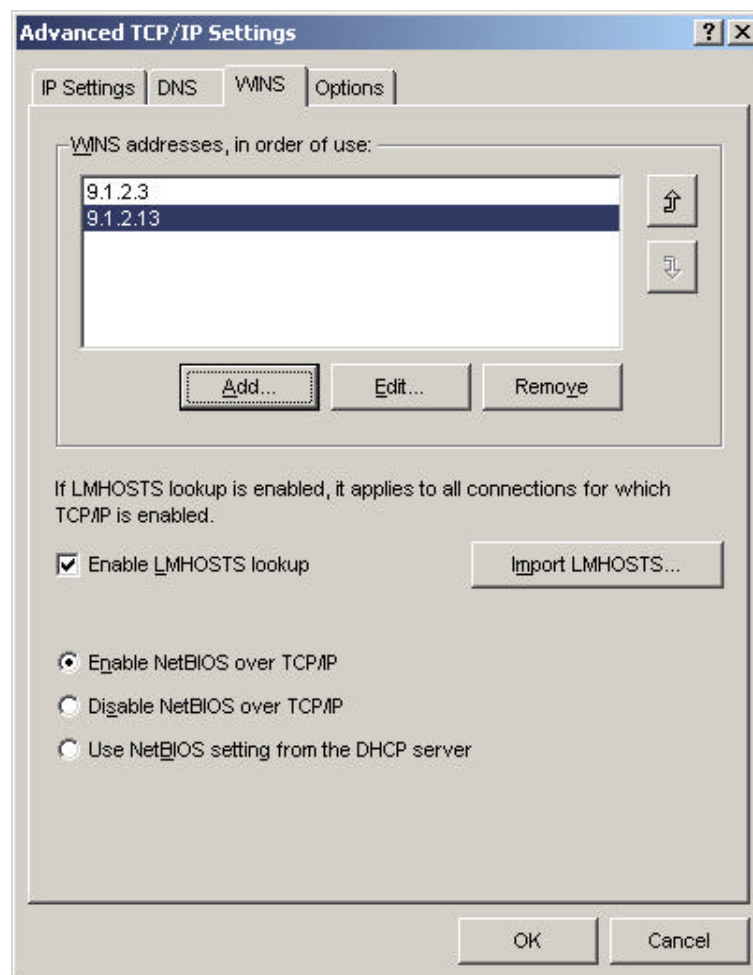
Windows 2000 example

Mapping drives
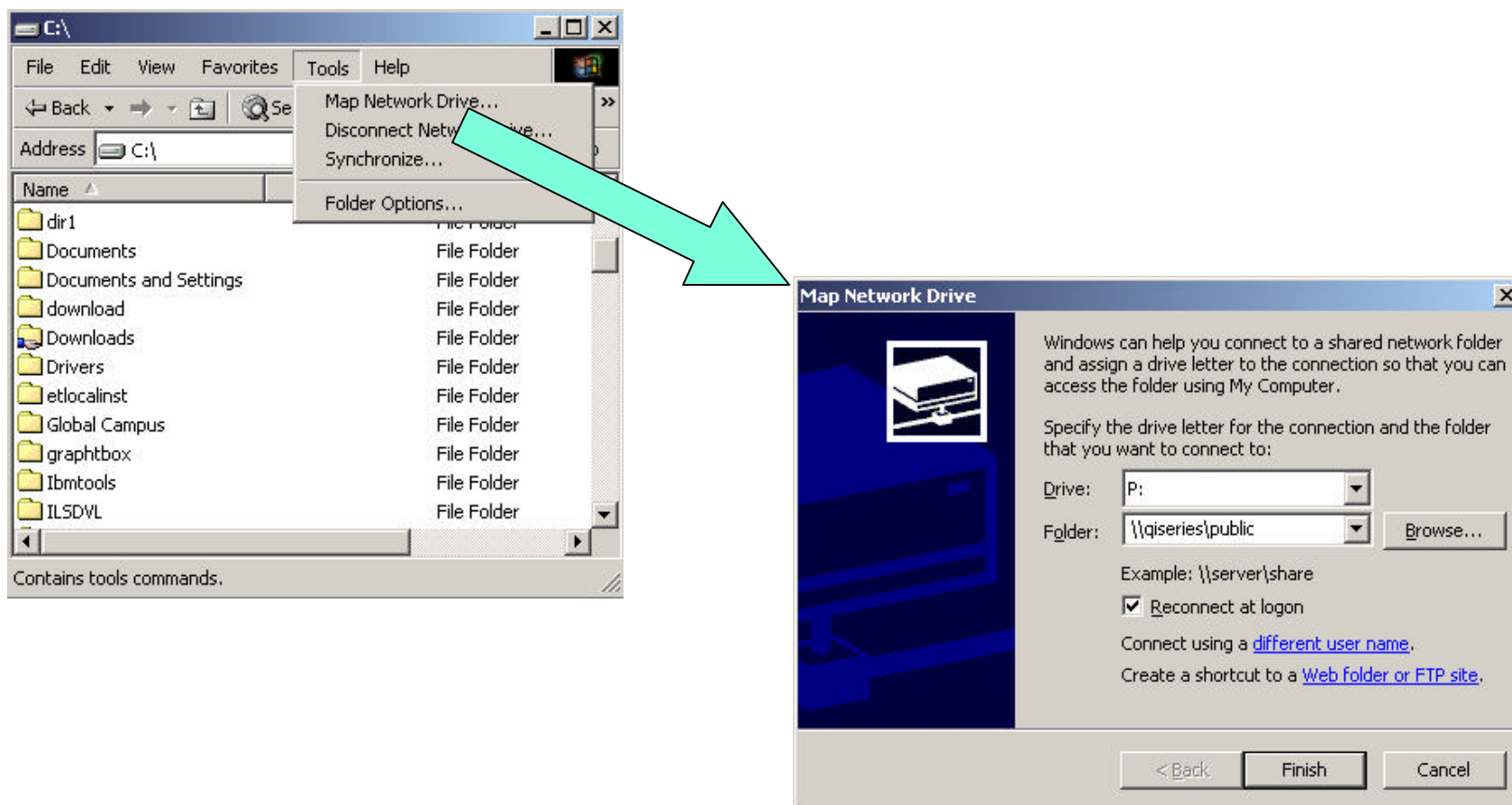
Mapped Drive on Client
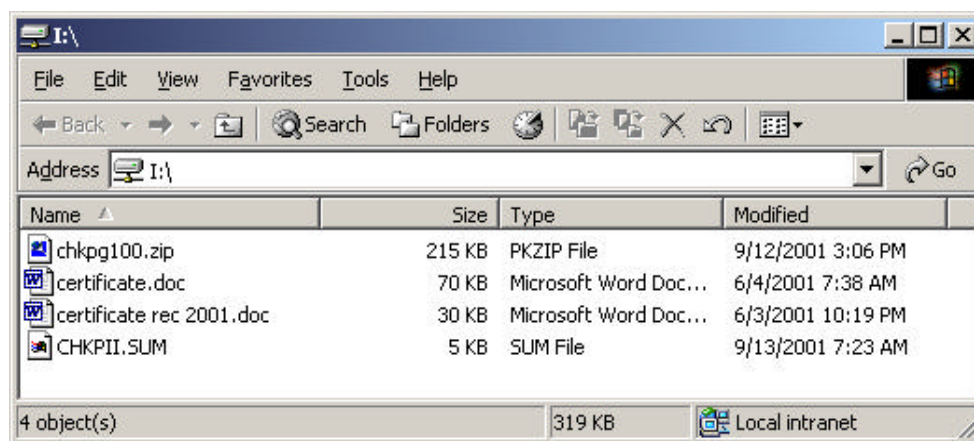
Administration

Administration - File Sharing

- Designing a file sharing solution

- Creating the directory structure

- Sharing Files and Printers

- Text conversion

- IFS directory permission considerations

Administration - File Sharing Considerations

- **What** files and directories should be accessed ?

- **Where** will the users be when they access the data?

- **Who** needs access to files and directories?

- **How** much authority and disk space do users need ?

- Are there any special considerations ?

Administration - File Sharing Considerations

- **What** files and directories should be accessed ?   *create shares*

- **Where** will the users be when they access the data?   *text conversion*

- **Who** needs access to files and directories?   *permissions*

- **How** much authority and disk space do users need ?   *permissions/profile*

- Are there any special considerations ?   *exit programs*

Creating the directories

MKDIR DIR('\NetServer')

- Create the iSeries NetServer branch of the iSeries integrated file system
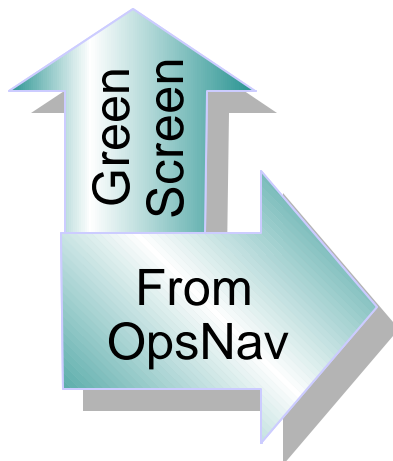
Green Screen

From OpsNav

- Create the public directory where applications are stored

Open iSeries NetServer
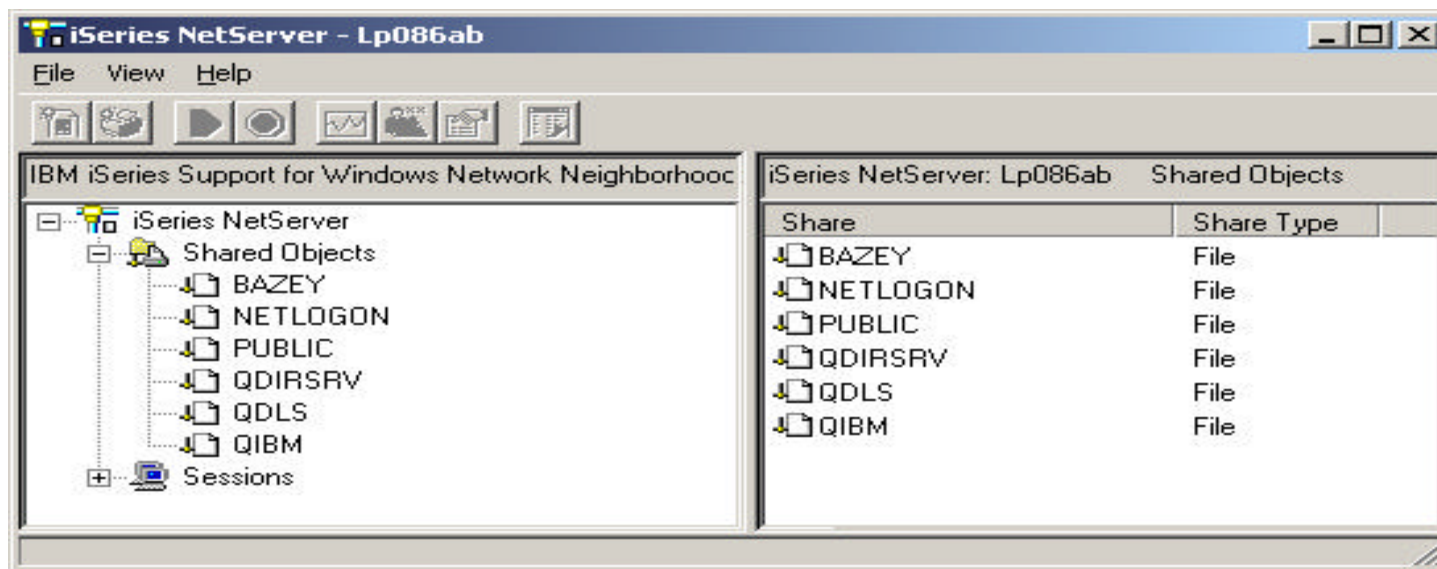
Viewing shares from the iSeries NetServer window with additional administrative options.

iSeries Navigator Shows Shares
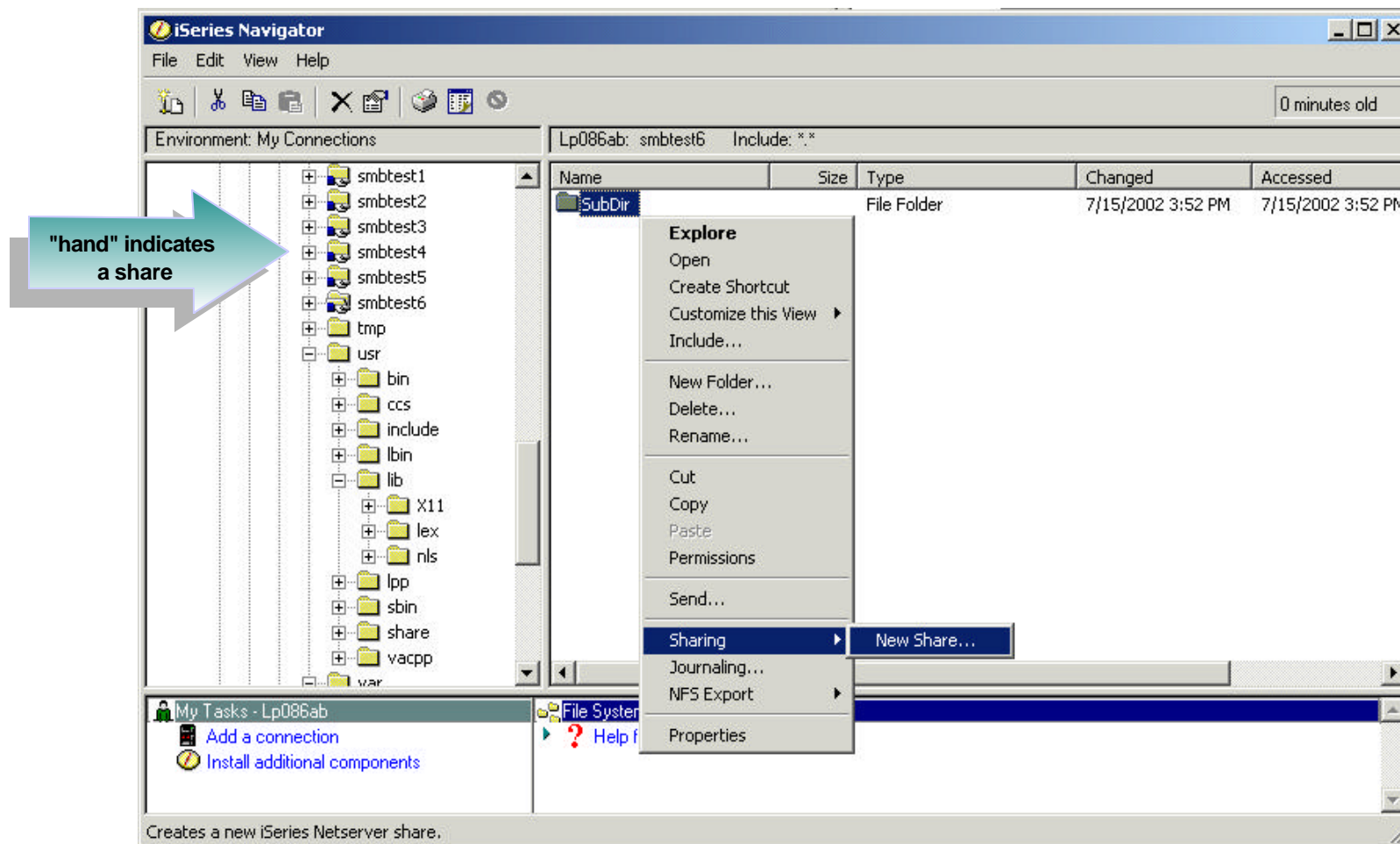
Sharing iSeries Directories

Text Conversion

Allow users to see text files in character set of choice

Configuring Directory Permissions
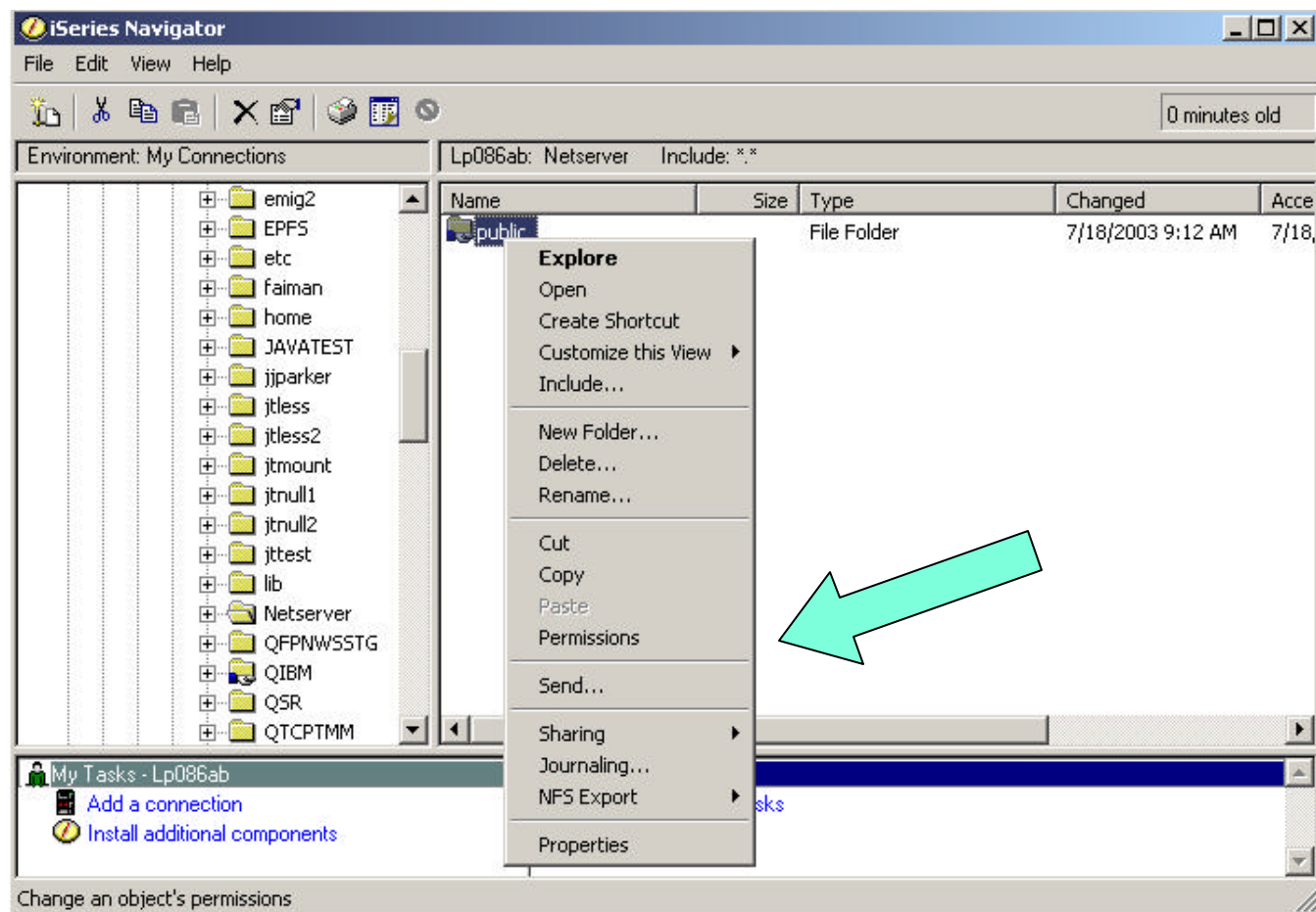
iSeries directory permissions
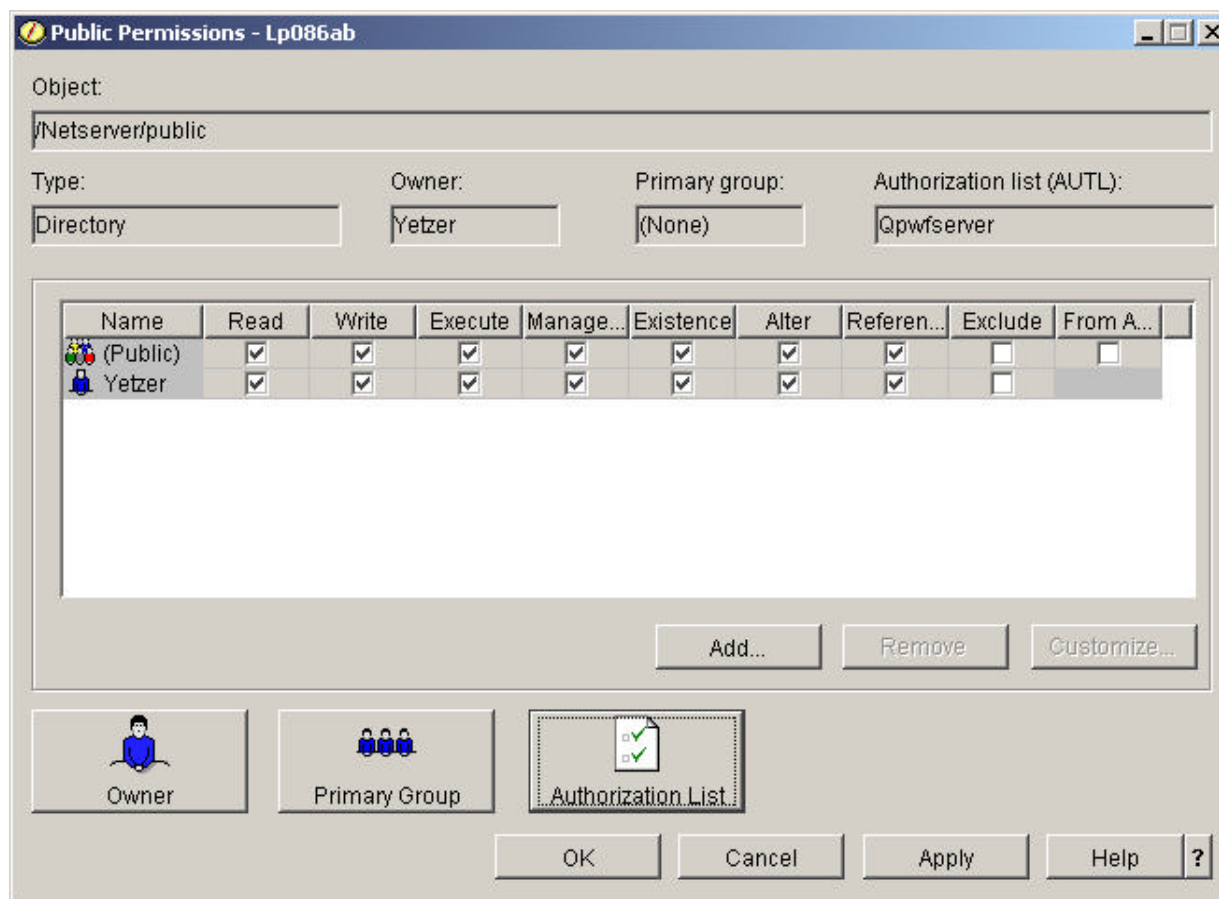
iSeries directory permissions

Authorization Lists
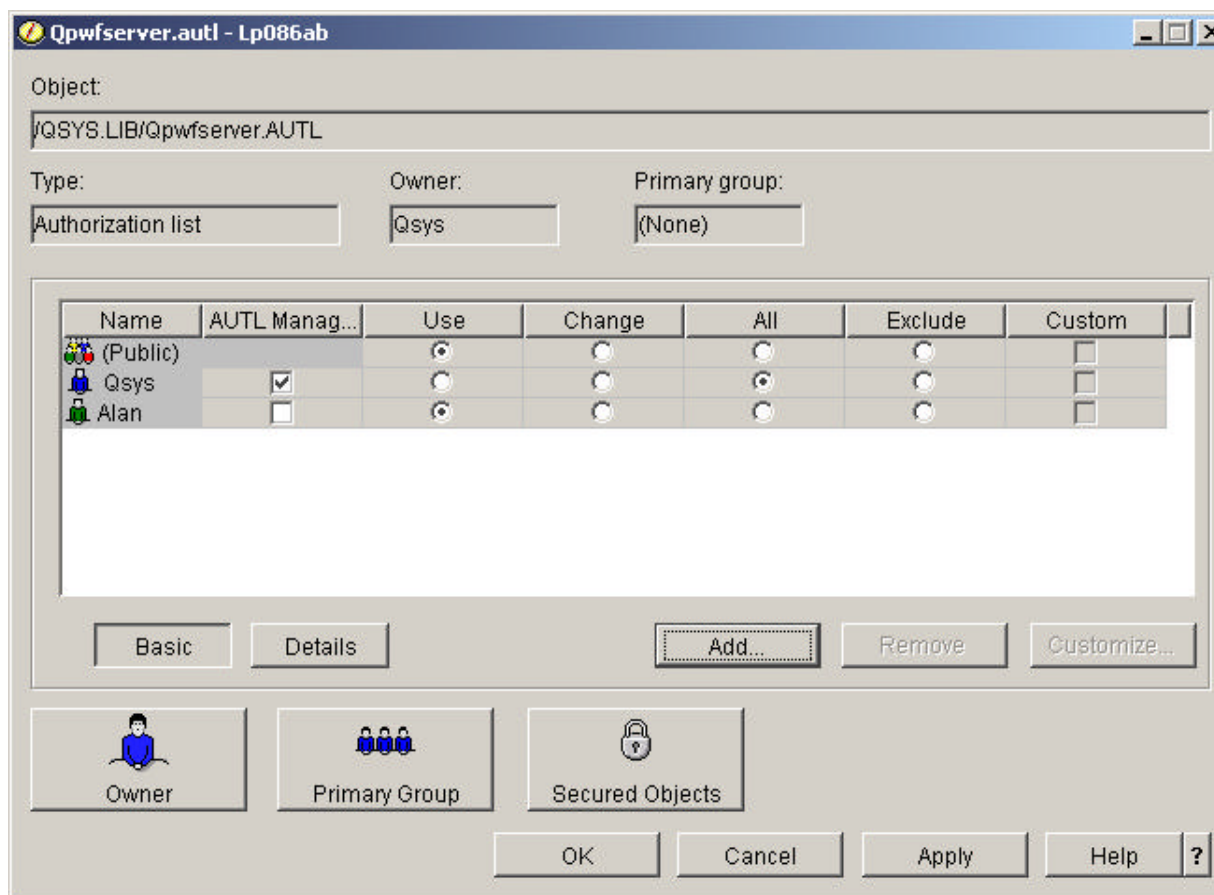
Administration - Print Sharing

Setting Up Print Shares

- Sharing an output queue
- Installing a network printer on the client
- TCP/IP printing

Print share example

PC printing to AFP printer

1. Create OUTQ on the iSeries for AFP printer

2. Share the OUTQ with "IBM AFP 3820" printer driver, *AFP spool file type
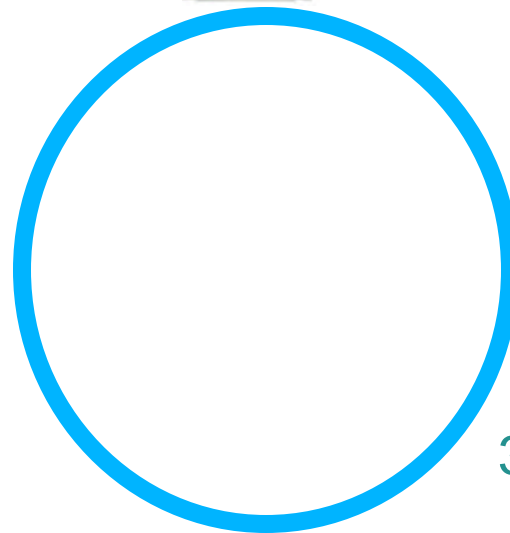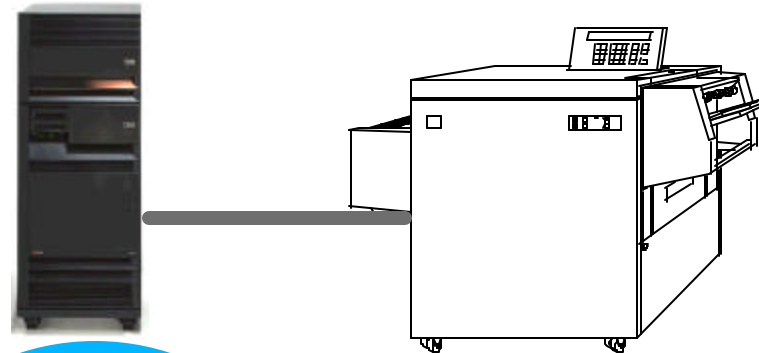
3. Use the share, using IBM AFP 3820 print driver

Sharing a Printer

Use Operations Navigator to create the printer share.
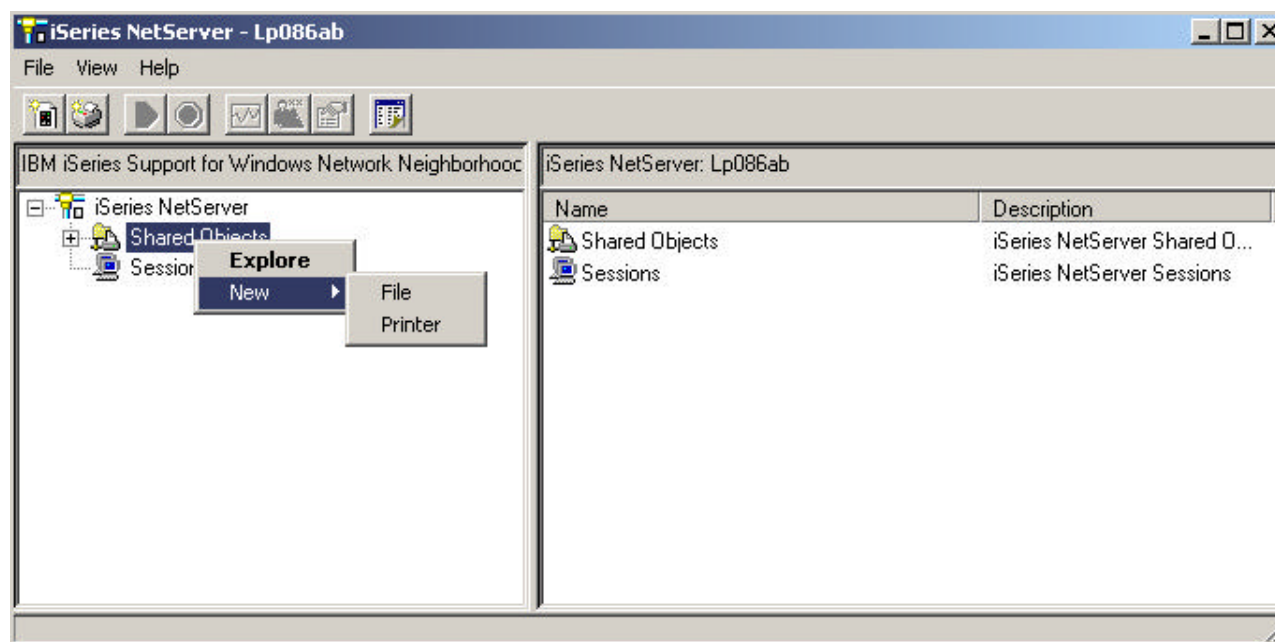
Sharing a Printer

Connect OUTQ to the Printer Share
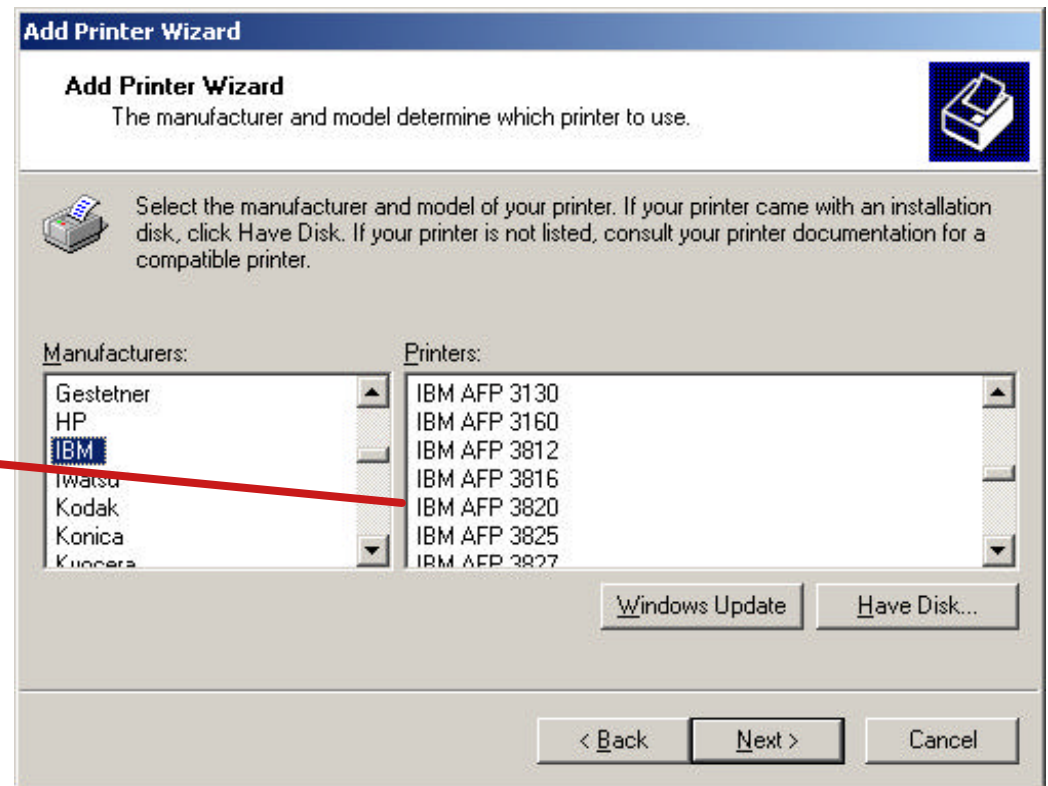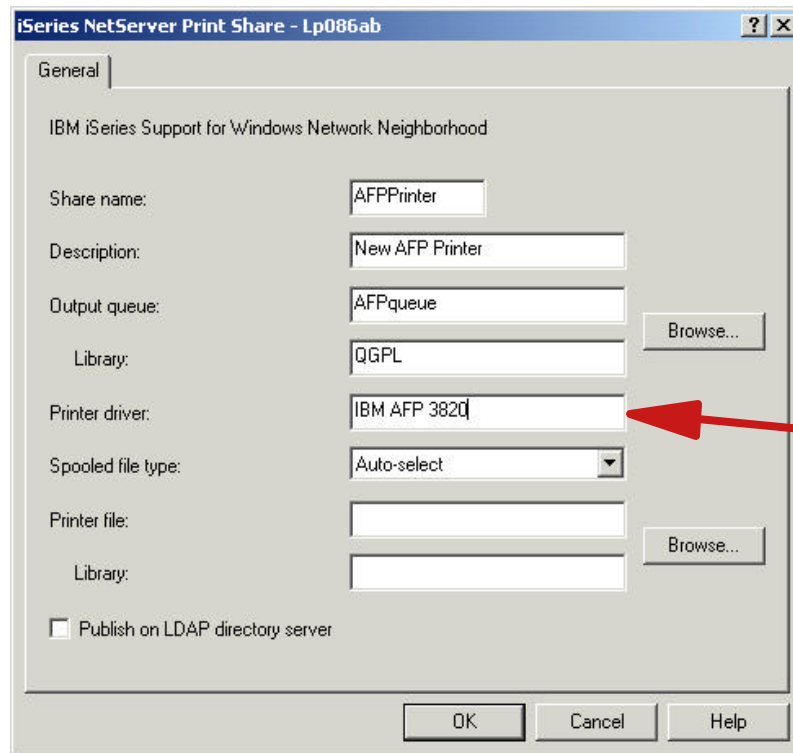
Use the *Add Printer Wizard* to see the list of printer drivers that your computer knows about.

Installing a network printer

Connect to the print share from a client PC
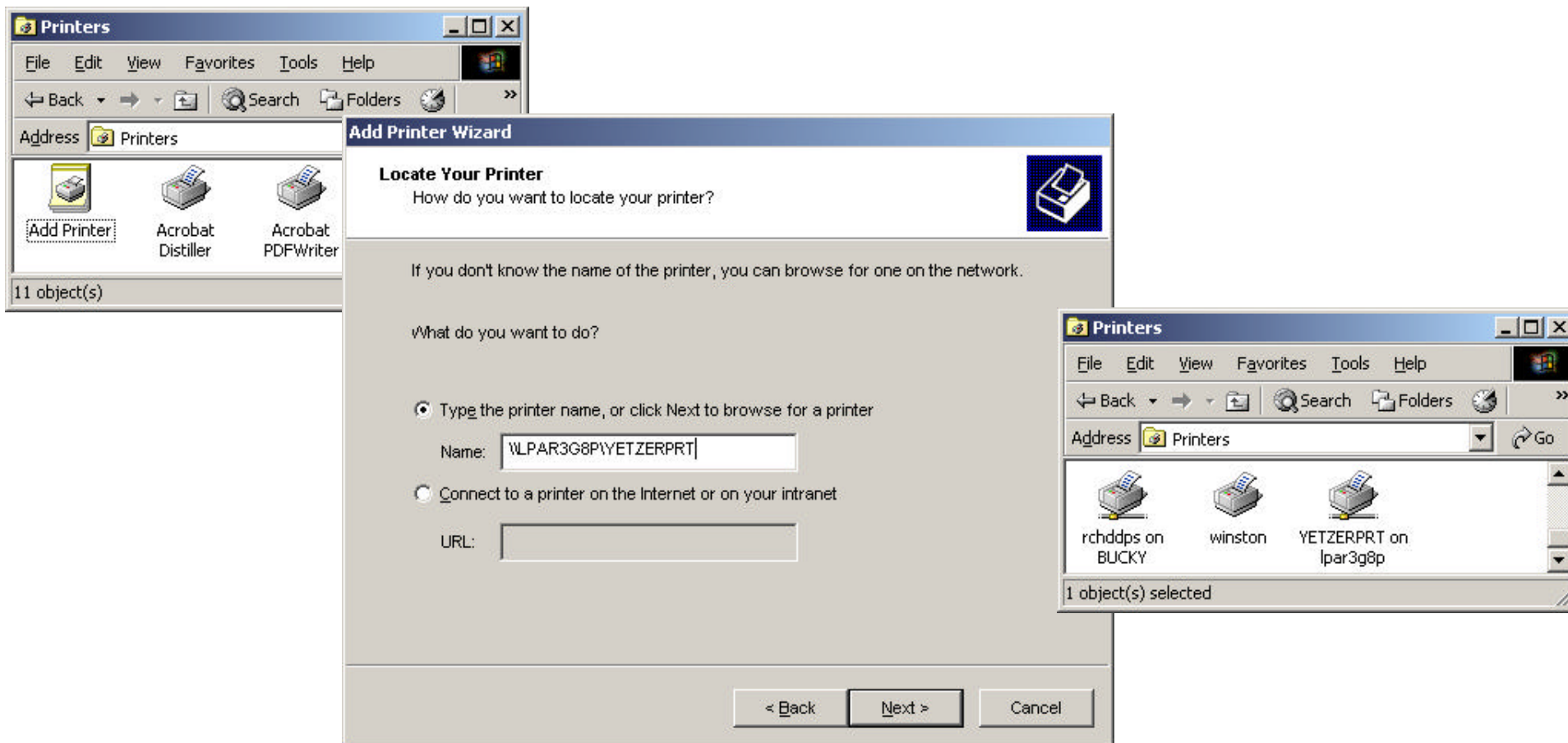
Administration - Managing Activity

- **Disabled Users**
- **Save/Restore**
- **Viewing statistics**
- **Working with sessions**
- **Working with jobs**
- **Checking print readiness**

Disabled Users
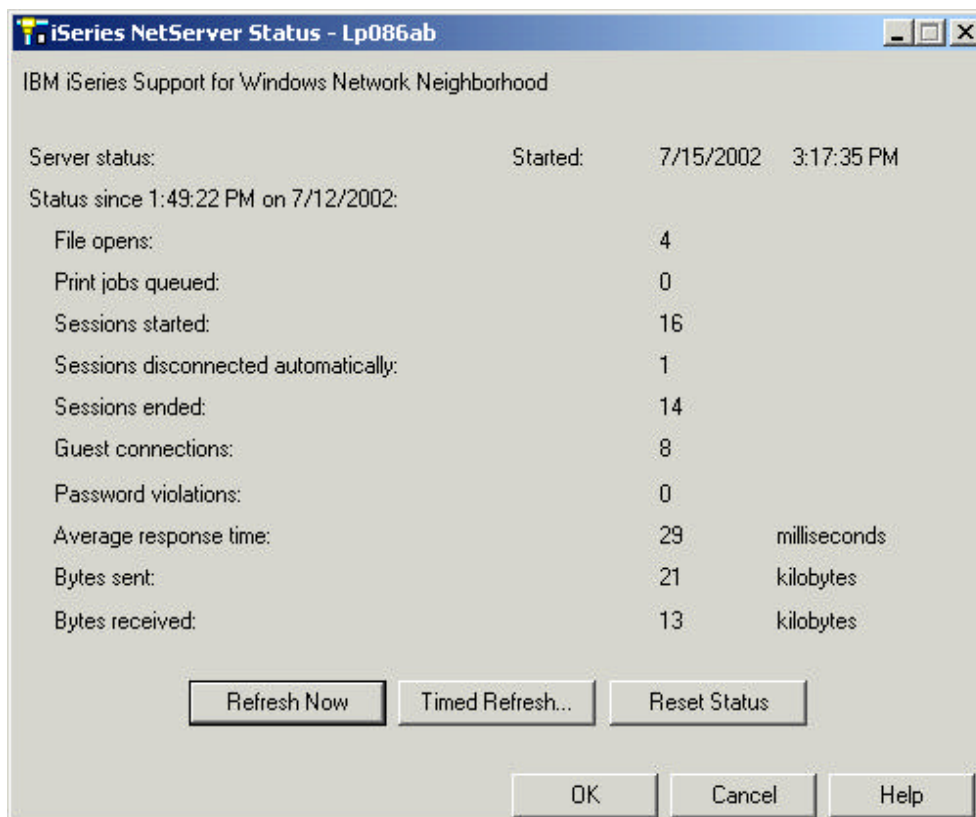
- A user becomes disabled for iSeries NetServer access when the number of password violations exceeds the QMAXSIGN system value.
  - ► A disabled NetServer user is NOT a disabled user profile (i.e. they can still signon)
  - ► Prior to V5R1, this could easily happen from a Windows client if you didn't increase the value for QMAXSIGN
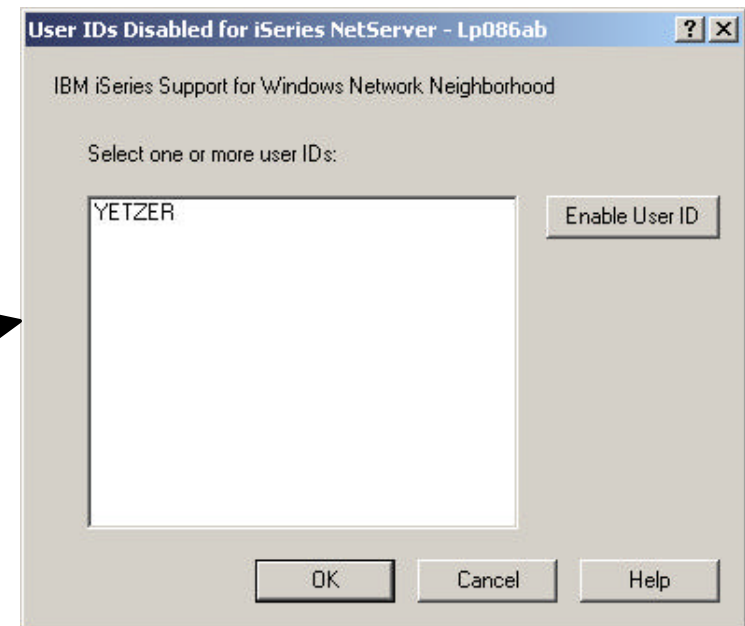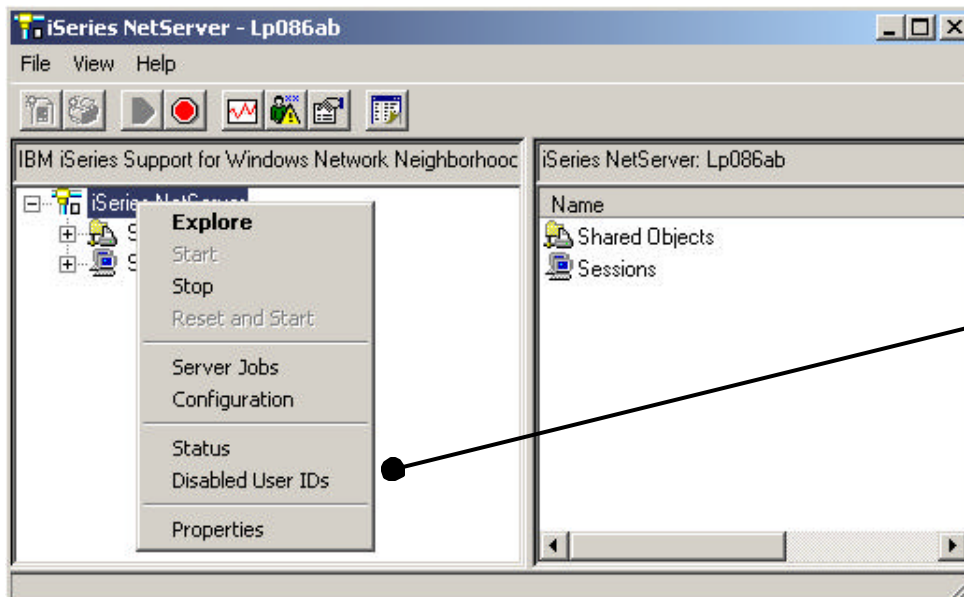
Save and restore made simple

- **No additional steps required for the end user**

- **Use established iSeries backup and restore strategy**
  - ► SAV command to save directories
  - ► RST command to restore directories

- **Build seamlessly on emerging technologies**
  - ► Journaled File Systems
  - ► Independent ASPs

iSeries NetServer Status

V5R2 Status Window

Who is Connected to iSeries NetServer
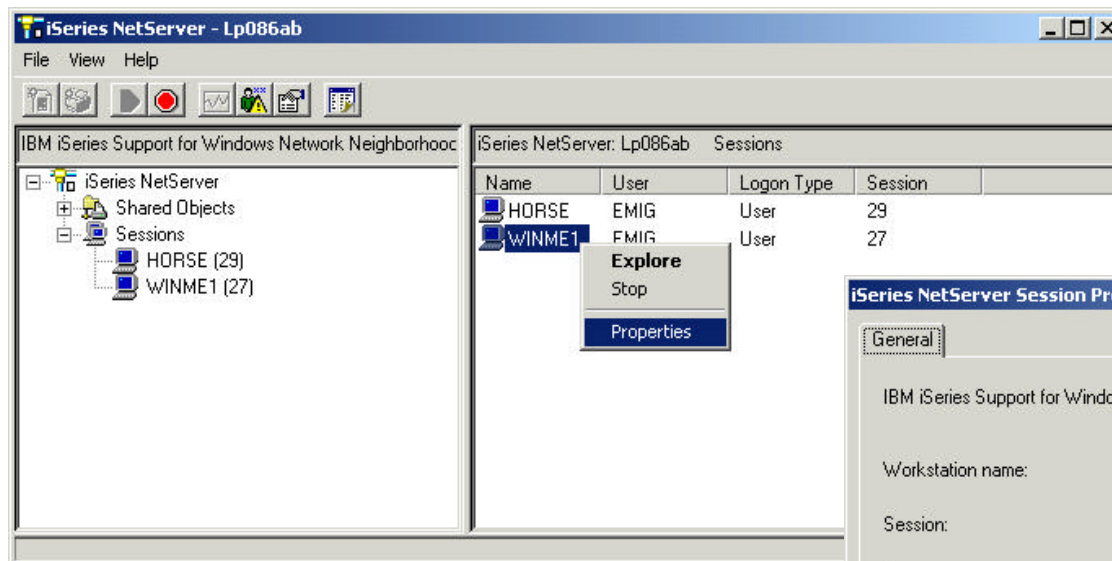
Working with Sessions

Properties displays the session connection status information
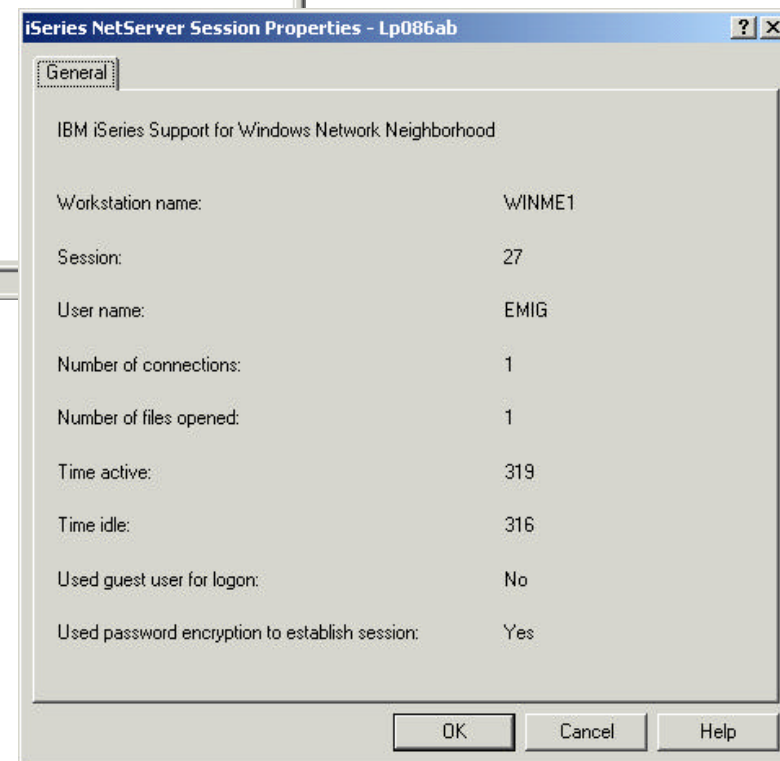
Work with Jobs

QZLSFILE jobs : Managing the active connections

Management Tips

Determining Print Readiness

Additional Information

- **Web resources**

- **Books**

- **Informational APARs**

- **What's New in V5R1**

- **What's New in V5R2**

Resources...

- iSeries NetServer Web Site:
  - ▶ http://www.ibm.com/servers/eserver/iseries/netserver/
    - Introduction Articles and Presentations
    - What's New?
    - Information APARs
    - Links to Technical References
    - Operations Navigator Instructions

- iSeries Infocenter
  - ▶ http://www.ibm.com/eserver/iseries/infocenter

- Diagnostics Aids Volume 2
  - ▶ Expansion of VLOGs
  - ▶ Expansion of Trace Points

- The AS/400 NetServer Advantage Redbook: SG24-5196

Other resources...

- **PTF information for supported releases**
  - ► http://www.ibm.com/eserver/iseries/netserver/ptfs_main.htm

- **iSeries NetServer Informational APARs**
  - ► II11081 - V4R2 PTF Information
  - ► II11239 - Tips and Techniques
  - ► II11435 - Support of Windows Terminal Server Edition
  - ► II11938 - Support of Windows 2000
  - ► II11752 - V4R3 PTF information
  - ► II12091 - V4R4 PTF Information
  - ► II12537 - V4R5 PTF Information

iSeries NetServer Advanced Support

What's New in V5R2?

- Name change to iSeries NetServer

- Support for Kerberos V5 authentication

- User defined subsystems for iSeries NetServer jobs

- QUSRTOOL for menu driven use of iSeries NetServer API's

- Linux/Samba support integrated into the server

- Support for Windows XP Professional

iSeries NetServer: What's New - 409113

Questions?

- Welcome to the Neighborhood

- What is iSeries NetServer

- Using iSeries NetServer

- Configuration

- Administration
  - ► Setting up and using file shares
  - ► Setting up and using print shares
  - ► Managing iSeries NetServer activity

- What's new!

- Resources & Information

- Conclusion

Appendix
Naming iSeries NetServer

Naming an iSeries NetServer

Decision tree for naming your iSeries NetServer
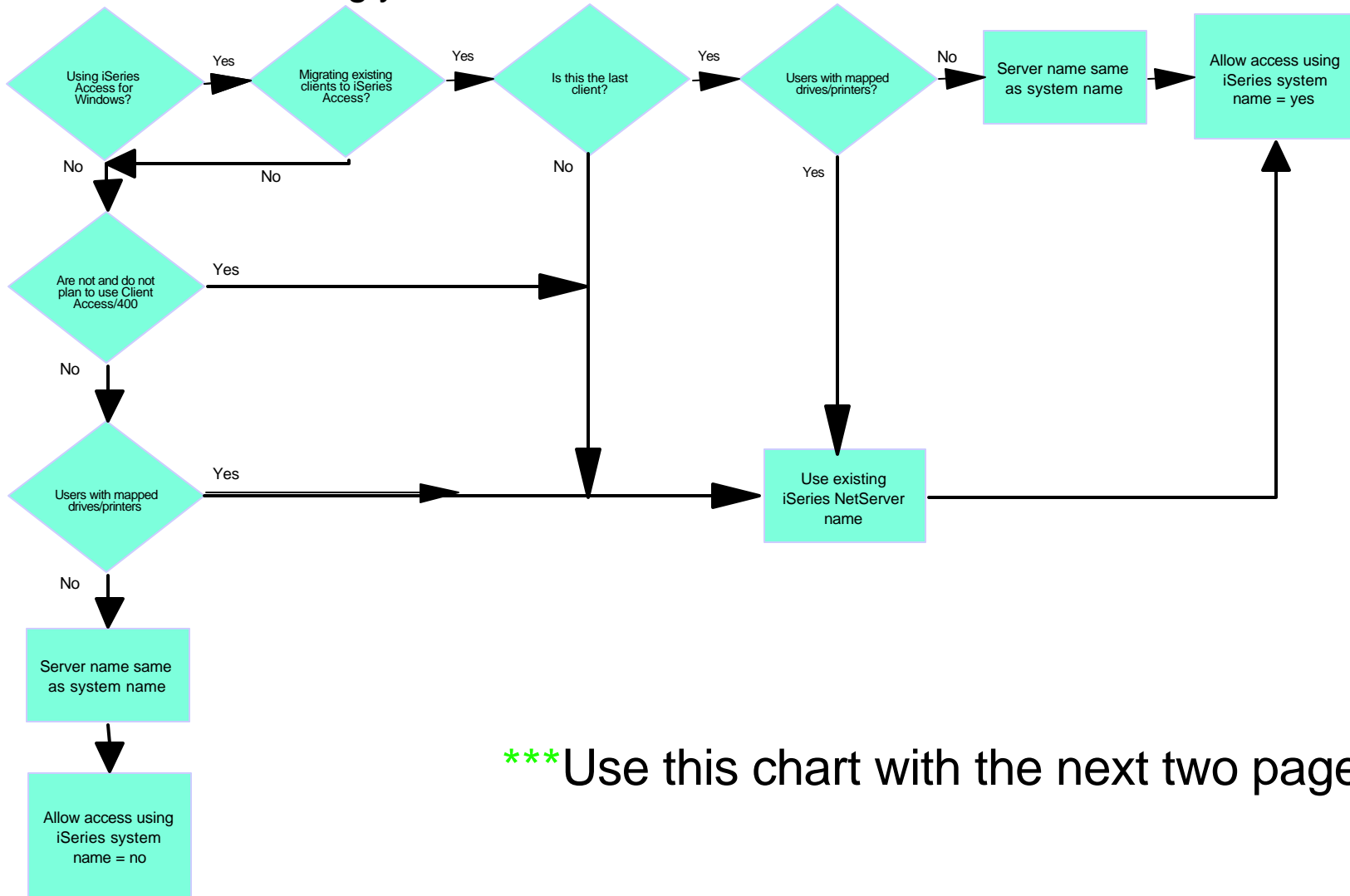
***Use this chart with the next two pages

Naming iSeries NetServer (Continued)

- Use same name as iSeries system name?
  - ► There are no Client for Microsoft Networks-iSeries NetServer clients with network drives currently mapped using an iSeries NetServer name different than the iSeries system name.
  - ► Are not using Client Access network file and print (other than Express) in network, now and in the future.

- Use name **different** than iSeries system name?
  - ► There is a mixed environment with both Client Access network file and print users (other than Express), and Client for Microsoft Networks-iSeries NetServer users.

- Select 'Allow iSeries NetServer access using iSeries name'?
  - ► There are Client for Microsoft Network-iSeries NetServer clients with network drives and printers mapped using an iSeries NetServer name different than the iSeries system name.
  - ► Migration from previous Client Access Family members to Express is complete for all clients in the network and you do not plan on using Client Access network drives and printers (other than Express) in the future.
  - ► There are no Client Access network drives and printers users (other than Express) in the network.

iSeries NetServer Properties - Next Start

Be cautious when you choose to select the Allow iSeries NetServer access using system name box. The iSeries system name is not enabled by default because this can cause conflicts if you still have Client Access Family members (other than Express) in your network.

When Client Access and iSeries NetServer use the same server name, both servers will attempt to answer a client request. The first one to satisfy the client's request takes control, producing inconsistent results for the client.

If you have ONLY Express clients in your network and do not have resources mapped to iSeries NetServer using a name that is not the same as the system name, then it is safe (and recommended) that iSeries NetServer and the system name are the same.

iSeries NetServer General Next Start - Lp086ab

IBM iSeries Support for Windows Network Neighborhood

☑ Start when TCP/IP is started

Server name:
LP086AB

☐ Allow iSeries NetServer access using the system name

Domain name:
MyDomain

Description:
OS/400 SMB Logon Server

Logon server role: Server

Authentication method: Encrypted passwords

Reset to Current

OK   Cancel   Help

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@server	OS/400	

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