Services

This topic covers the following points:
1. What are services?

2. The Services snap-in

3. Accessing service information

4. Troubleshooting service problems

What are services?

A service is a program or a process that performs a specific function within the Windows 2003 operating system (OS). Services provide the core OS features such as web serving, file serving, help and support, printing, and error reporting.

By default with Windows Server 2003, only the key services that are required to support common server roles are enabled.

However, if other server roles such as the domain name system (DNS) are added to a server, the corresponding DNS Server service will also be added.

The Services console – which you install as the Windows Server 2003 Services snap-in – allows you to manage all services installed on a Windows 2003 Server computer.

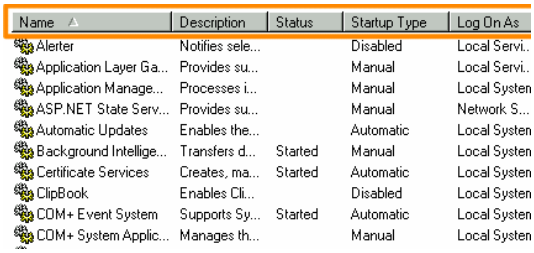
It allows you to manage services on local computers or – using Windows NT4.0, Windows 2000, Windows XP, and Windows Server 2003 – on remote computers.

You can access the Services console from the desktop.

Select **Start - Administrative Tools - Services**.

The Services console lists and displays information about each service currently installed for the computer.

The Services console lists information about each service in five columns.



Name	Description	Status	Startup Type	Log On As
Alerter	Notifies sele...		Disabled	Local Servi..
Application Layer Ga...	Provides su...		Manual	Local Servi..
Application Manage...	Processes i...		Manual	Local Systen
ASP.NET State Serv...	Provides su...		Manual	Network S...
Automatic Updates	Enables the...		Automatic	Local Systen
Background Intellige...	Transfers d...	Started	Manual	Local Systen
Certificate Services	Creates, ma...	Started	Automatic	Local Systen
ClipBook	Enables Cli...		Disabled	Local Systen
COM+ Event System	Supports Sy...	Started	Automatic	Local Systen
COM+ System Applic...	Manages th...		Manual	Local Systen

Name

The Name column displays the names of the services installed on a Windows 2003 computer. Examples of commonly installed services include the Dynamic Host Control Protocol (DHCP), domain name system (DNS), and error reporting services.

Description

The Description column displays a general description of each installed service. For example, the DHCP Client service is described as a service that registers and caches IP addresses and domain name system (DNS) names for the computer.

Status

The Status column tells you whether a service has started.

Startup type

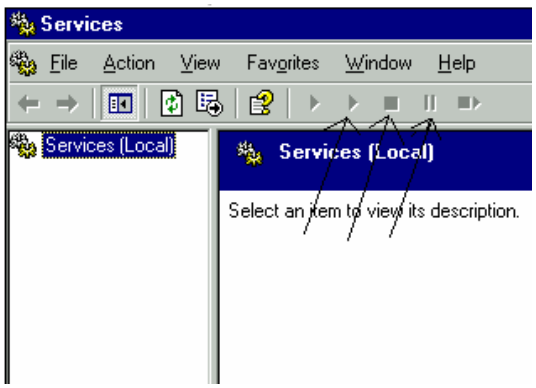
The Startup Type column displays the current startup configuration for each service. A service can be configured to start automatically when the OS starts, to require manual startup, or the service may be disabled.

Log on As

The Log On As column displays the Log On status of each service. Each service is configured to start as a local service, a local system, or a network service. For example, the DHCP Client Service is configured as a network service, whereas the Computer Browser service is currently configured as a local system service.

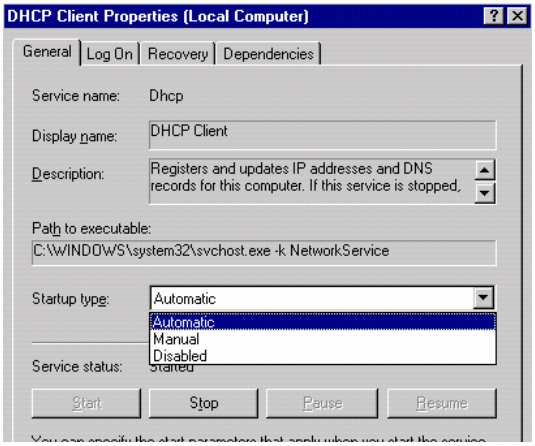
Buttons on the Standard toolbar of the Services console allow you to

- start a service that isn't configured to start automatically when you log on
- stop a service – to troubleshoot a service problem, for example – or pause it to stop it temporarily only
- pause a service



The Services console allows you to change the startup type for a selected service. You can configure a service to start automatically when the OS starts, to require manual starting, or to load as a disabled service.

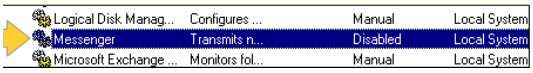
To disable a service, for example, you access its Properties dialog box and select the appropriate option from the Startup type drop-down list on the General tabbed page.



Suppose that you are a Windows Server 2003 network administrator, and the help desk in your organization has received calls that the database server is unavailable.

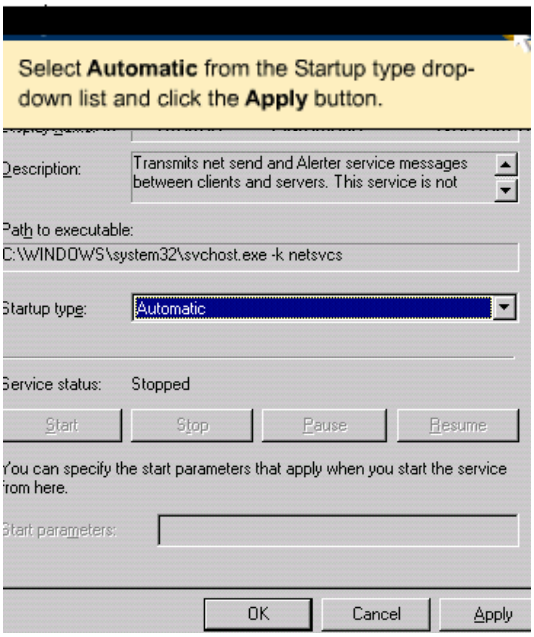
The database server was taken offline earlier for scheduled maintenance and you configured a net send message to alert all users 15 minutes prior to the server being shut down. However, users didn't receive the message.

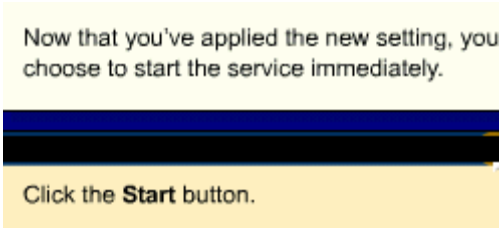
In the Services console, the entry in the Status column – Disabled – confirms that the Messenger service is disabled.

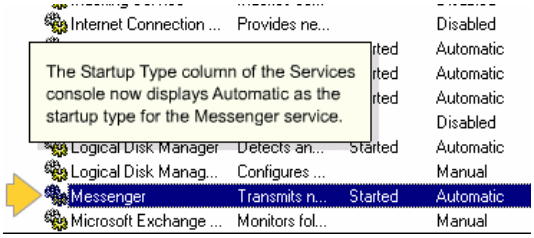


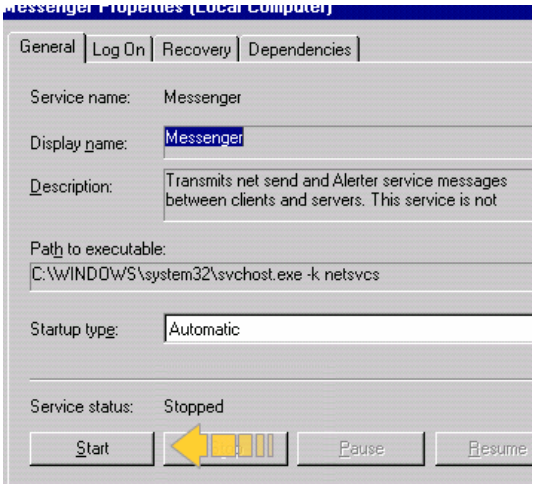
To prevent a similar event from occuring in future, you decide to configure the Messenger service to start automatically when the OS starts. To do this, you first double-click the service in the Services console to access its properties.

Select **Automatic** from the Startup type drop-down list and click the **Apply** button.







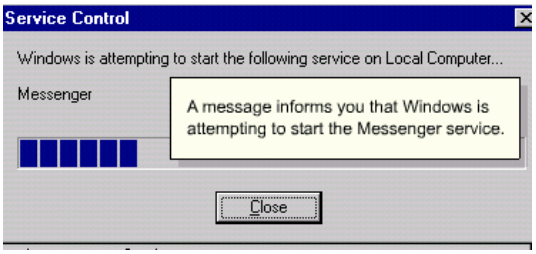


Question

What does the Windows Server 2003 Services console allow you to do?

1. Disable services
2. Install services
3. Stop, pause, or restart services
4. View information about each installed service

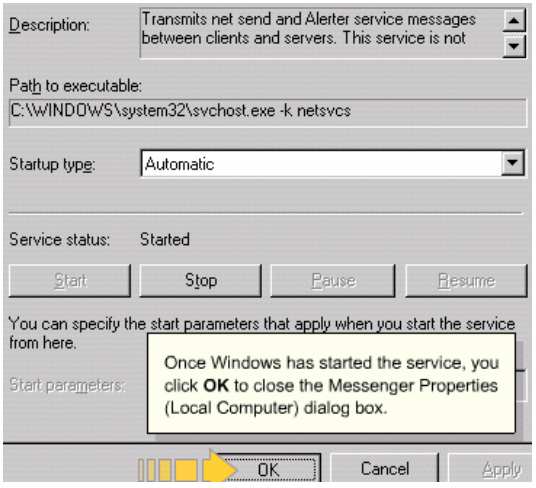
The Services console displays information about each installed service. It also allows you to stop, pause, or restart services, and to disable services.



SkillCheck

You want to view the status of the services on a server.

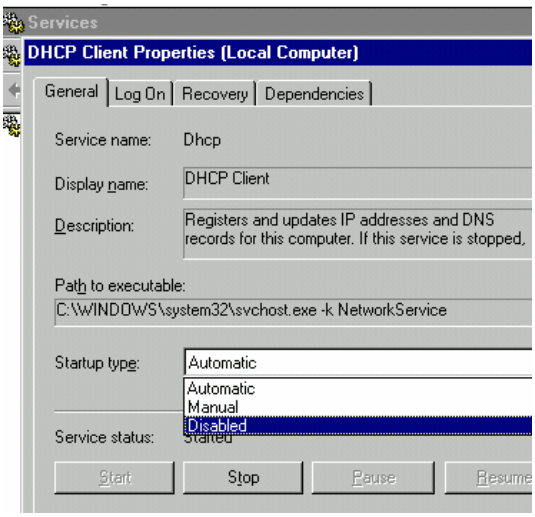
You select **Start - Administrative Tools - Services** to open the Services console, which displays information about the status of all installed services.



From the Services console, you can access detailed information about a service by accessing its properties.

Double-click the **DHCP Client** service to open its Properties dialog box.

Services



The General tabbed page displays the service name, its display name, and its description. It also displays the path to the executable file for the service.

The General tabbed page enables you to specify the following startup types for a servi

- Automatic
- Manual
- Disabled

Automatic

The **Automatic** option allows the service to start automatically with the Windows operating system. This option is selected by default in the Startup type drop-down list box.

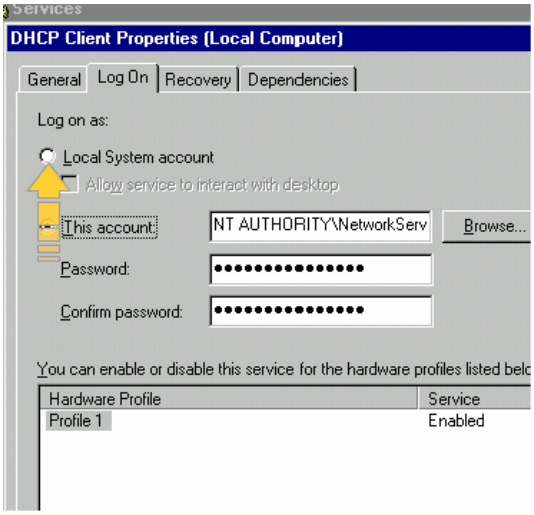
Manual

The **Manual** option instructs the operating system to start with the OS in Stopped mode. It is then necessary for an administrator to start the service manually.

Disabled

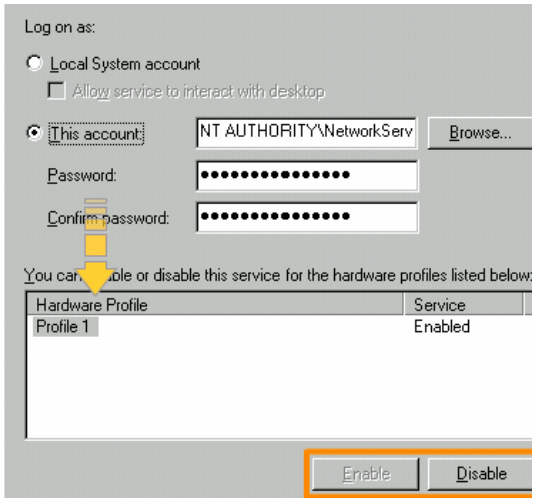
The **Disabled** option indicates that a service is disabled, which prevents an administrator from starting it manually. In this case, an administrator must change the startup type to re-enable the service.

The Log On tabbed page for a service provides details of the credentials that the service uses when interacting with other resources.

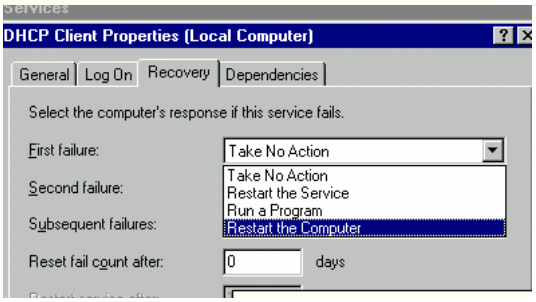


The majority of the core Windows Server services log on with the local system account. However, some services may need to log on using other credentials, which you can specify once you select the **This account** radio button.

You can also enable or disable the service for specific hardware profiles.



You use the Recovery tabbed page to set actions for the operating system to take if the selected service fails to start. You can specify different actions – or choose not to specify an action – for the first, second, and subsequent failures.



The actions that you can set on the Recove tabbed page for a service that fails include

- Take No Action
- Restart the Service
- Run a Program
- Restart the Computer

Using the **Take No Action** option, you specify that the operating system should not attempt any automatic recovery of a failed service.

In this case, you need to detect that a service has failed and to perform recovery tasks manually.

You use the **Restart the Service** option to instruct the operating system to attempt restarting a failed service.

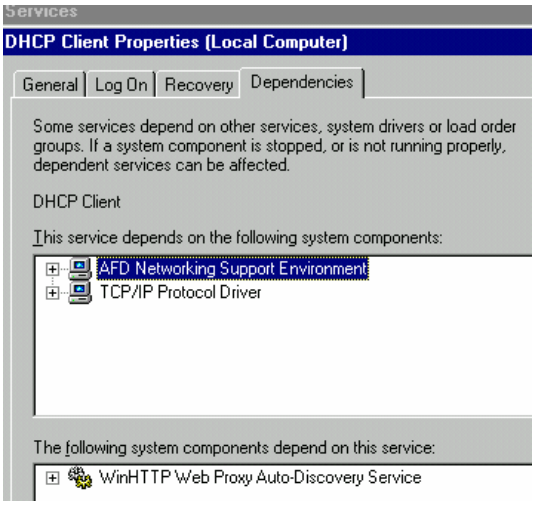
You can then specify the time delay (in minutes) before the operating system tries to restart the service.

The **Run a Program** option specifies that the operating system runs a specific program if a service fails.

In the Run program section of the tabbed page, you can then specify the path to a program that you wish to run.

You select the **Restart the Computer** option to instruct the operating system to reboot the computer if a service fails.

The Dependencies tabbed page provides a list of services on which the selected service depends. The services in this list must be started and running for the selected service to function.

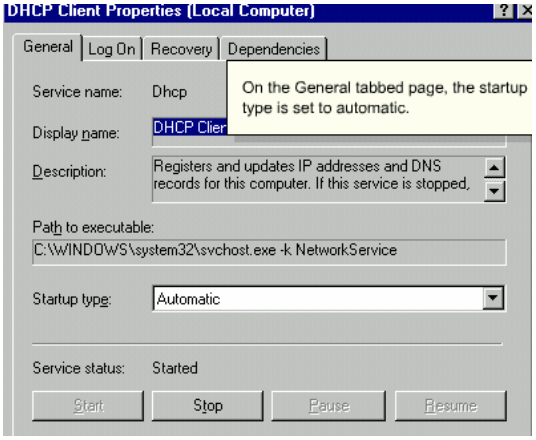


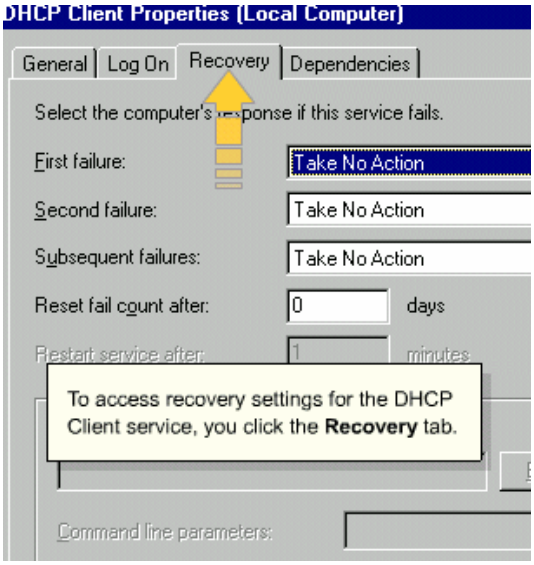
The tabbed page also displays a list of system components that depend on the selected service.

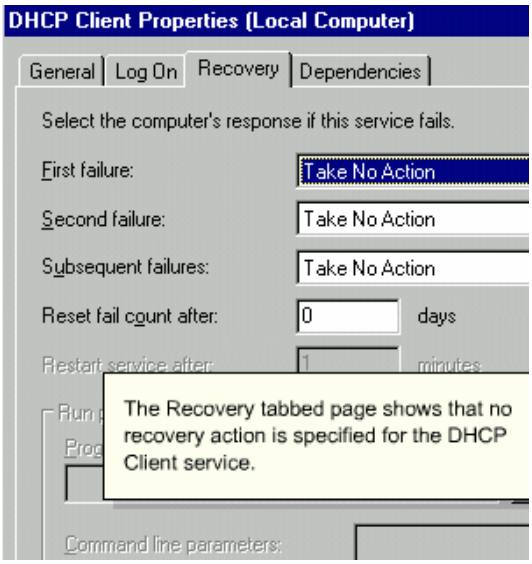
The DHCP Client service, for example, depends on the AFD Network Support Environment and the Transmission Control Protocol/Internet Protocol (TCP/IP) Protocol Driver services. In turn, the WinHTTP Web Proxy Auto-Discovery application requires the DHCP Client service to operate.

Suppose that you have recently installed the DHCP Client service. You now want to check the properties of the service, including general information and recovery settings.

From the Services console, you first access the properties of the DHCP Client service.







SkillCheck

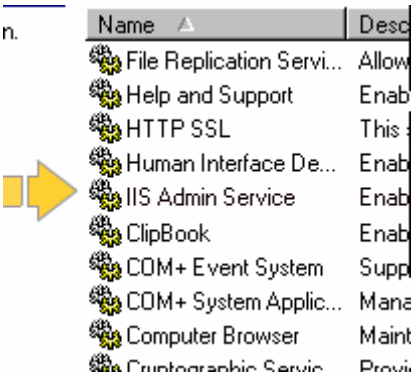
Suppose that, as a network administrator, you need to check the recovery options configured for when the DNS Server service fails. You've already opened the Services console.

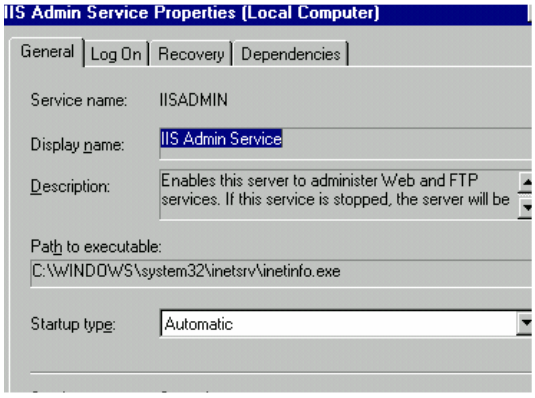
You double-click **DNS Server** in the Services console and then click the **Recovery tab** in the Properties dialog box for the service to access the recovery settings.

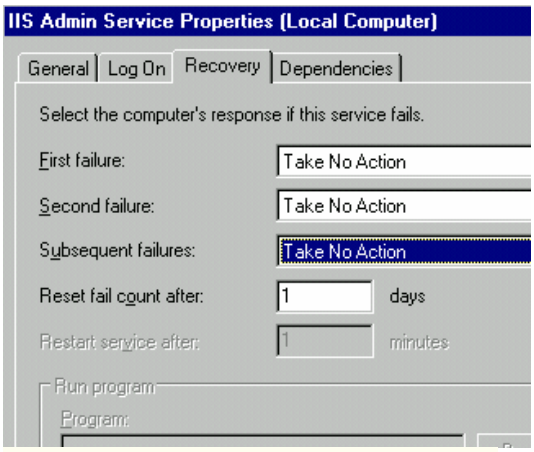
Suppose that you are responsible for maintaining a critical web site for your company. You need to ensure that if the web server fails, no significant disruption of web services results.

You decide to configure a sequence of recovery actions to occur if the Internet Information Service (IIS) Admin Service fails. So you scroll down the right-hand pane of the Services console to the service.

Double-click **IIS Admin Service** and click the **Recovery** tab in the Properties dialog box for the service.

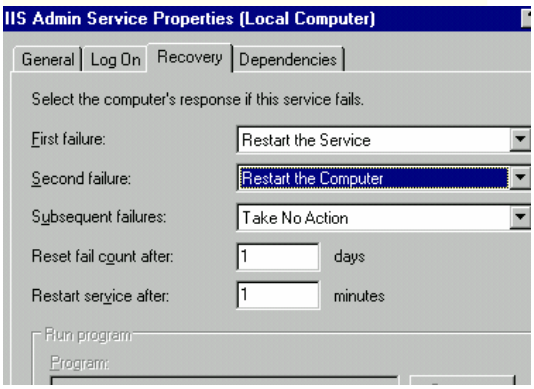






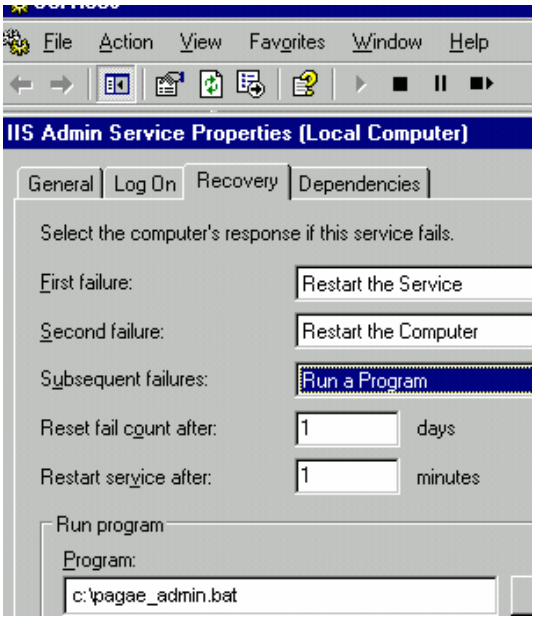
On the Recovery tabbed page, you want to ensure that if the IIS Admin Service fails to start, the Services console will try to restart the service, and if the service still does not start, the OS will reboot the computer.

To do this, you select the **Restart the Service** option from the First failure drop-down list. And you select the **Restart the Computer** option from the Second failure drop-down list.



If the IIS Admin Service fails to start after the computer reboots, you want the operating system to run a program to fix the problem.

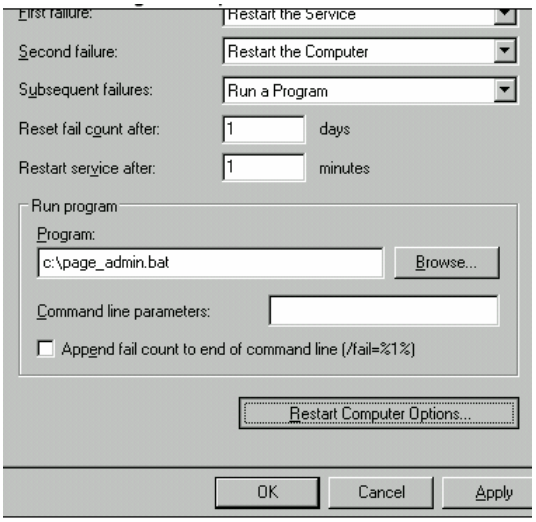
Select the **Run a Program** option from the Subsequent failures drop-down list and enter `c:\page_admin.bat` in the Program text box.

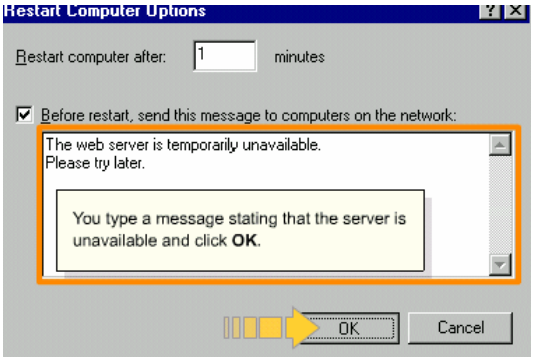


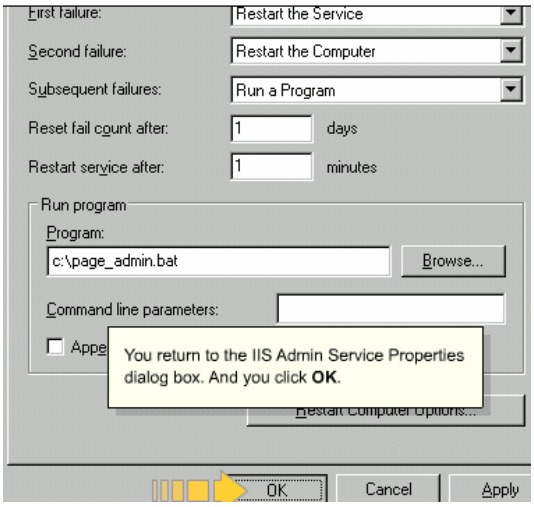
If the IIS Admin Service fails even after the OS reboots the computer, the page_admin.bat program will now run to troubleshoot the service.

Because you have set the OS to restart the computer after a second failure of the IIS Admin Service, you decide to enter a message for the operating system to send all clients before it restarts the computer.

To do this, you first click the **Restart Computer Options** button.





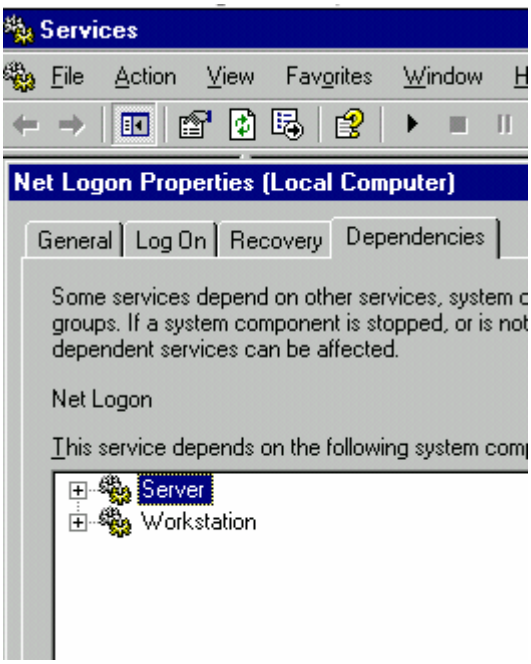


You have now set recovery options for the IIS Admin Service.

SkillCheck

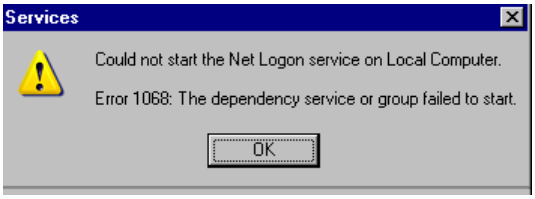
Suppose the FTP Publishing Service fails once, you want the operating system to attempt restarting the service. If it fails again, you want the computer to reboot. And if it still fails after a reboot, you want the operating system to execute a program named page_admin.bat, which is located on the C: drive. To configure these options, you have navigated to the Recovery tabbed page of the Properties dialog box for the service.

To set the appropriate recovery options, you select **Restart the Service** from the First failure drop-down list, **Restart the Computer** from the Second failure drop-down list, and **Run a Program** from the Subsequent failures drop-down list, type `c:\page_admin.bat` in the Program text box, and click **OK**.



In another scenario, the Net Logon service has stopped. You've tried to restart it, but without any success.

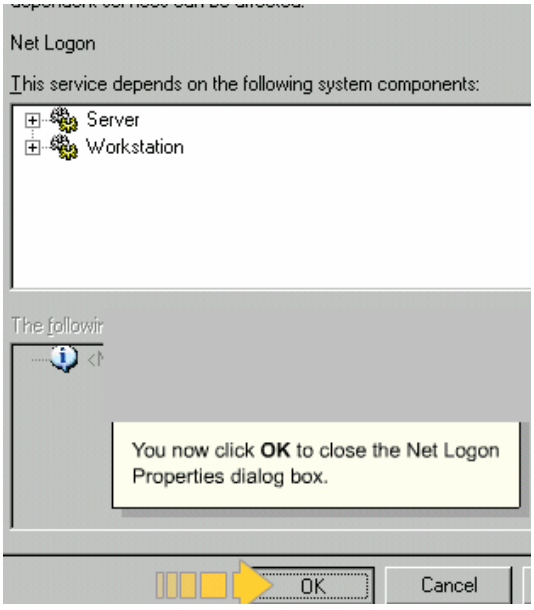
The Dependencies tabbed page shows that the Net Logon service depends on the Server and Workstation services.

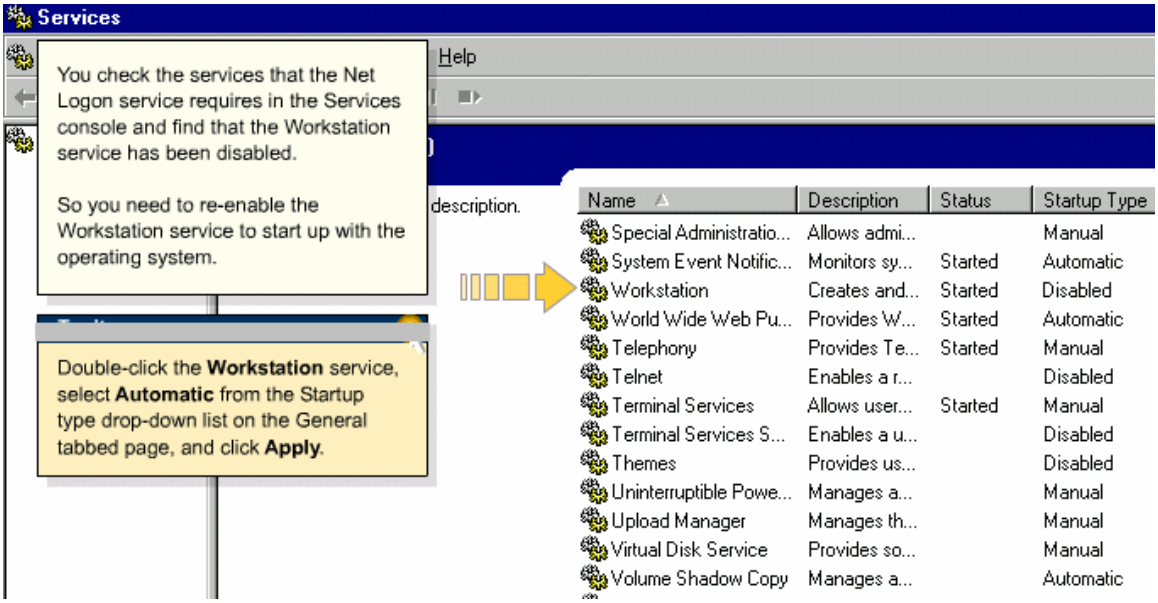


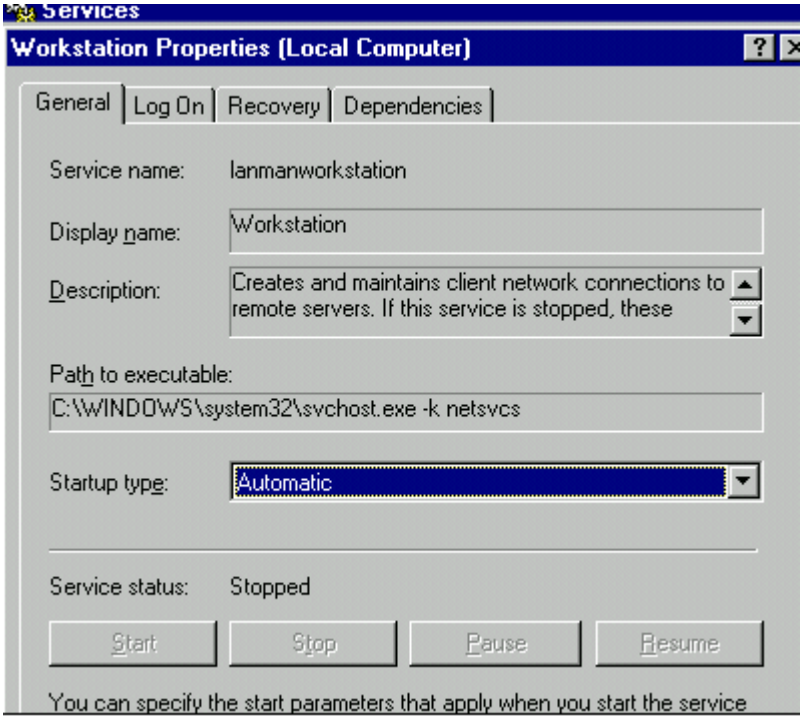
To troubleshoot the problem with the service, you need to check which system components the service depends on.

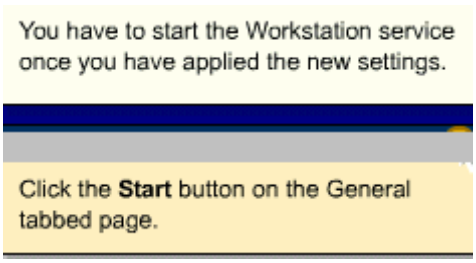
This service... Manual

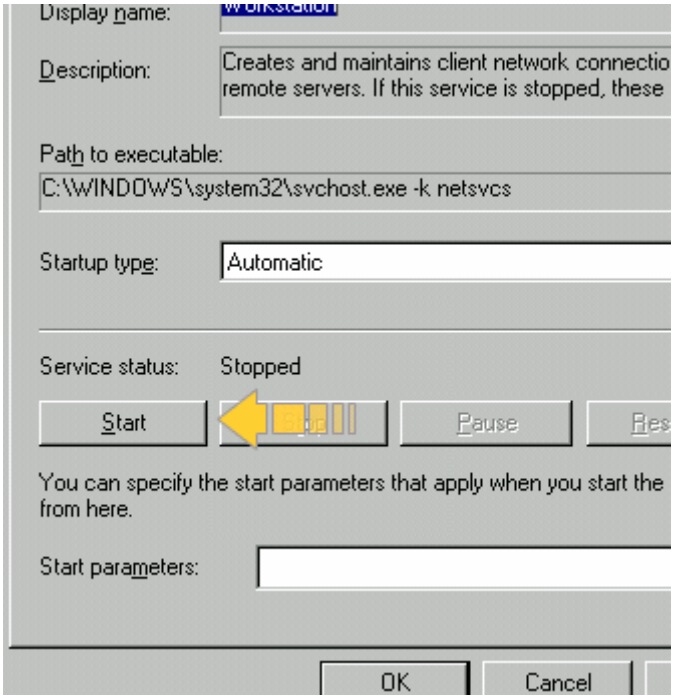
Double-click the **Net Logon** service and click the **Dependencies** tab in the Properties dialog box for the service.

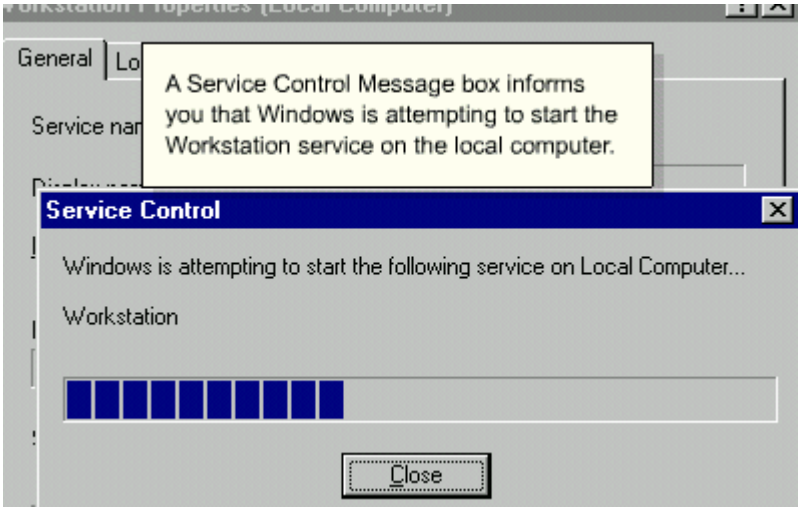


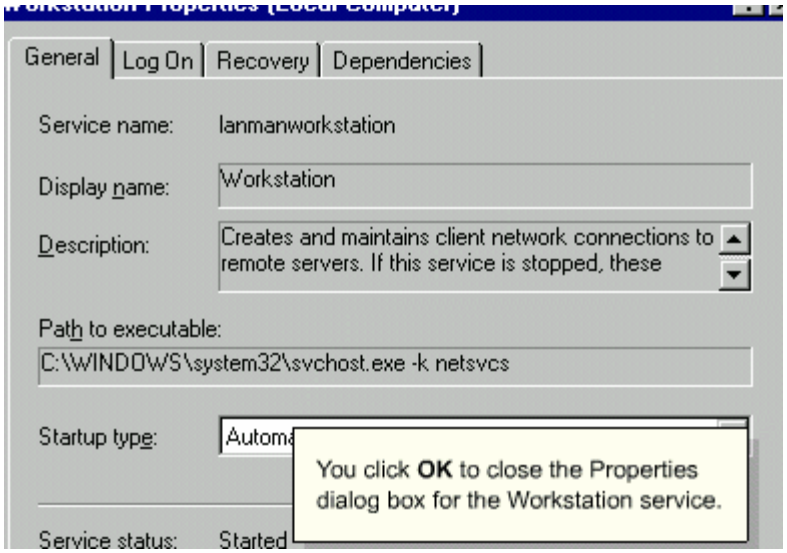

Services
Help
You check the services that the Net Logon service requires in the Services console and find that the Workstation service has been disabled.
So you need to re-enable the Workstation service to start up with the operating system.
description.
Name
Description
Status
Startup Type
Special Administratio... Allows admi... Manual
System Event Notific... Monitors sy... Started Automatic
Workstation Creates and... Started Disabled
World Wide Web Pu... Provides W... Started Automatic
Telephony Provides Te... Started Manual
Telnet Enables a r... Disabled
Terminal Services Allows user... Started Manual
Terminal Services S... Enables a u... Disabled
Themes Provides us... Disabled
Uninterruptible Powe... Manages a... Manual
Upload Manager Manages th... Manual
Virtual Disk Service Provides so... Manual
Volume Shadow Copy Manages a... Automatic
Double-click the Workstation service, select Automatic from the Startup type drop-down list on the General tabbed page, and click Apply.


Services
Workstation Properties (Local Computer)
General
Log On
Recovery
Dependencies
Service name: lanmanworkstation
Display name: Workstation
Description: Creates and maintains client network connections to remote servers. If this service is stopped, these
Path to executable:
C:\WINDOWS\system32\svchost.exe -k netsvcs
Startup type: Automatic
Service status: Stopped
Start
Stop
Pause
Resume
You can specify the start parameters that apply when you start the service


You have to start the Workstation service once you have applied the new settings.
Click the Start button on the General tabbed page.

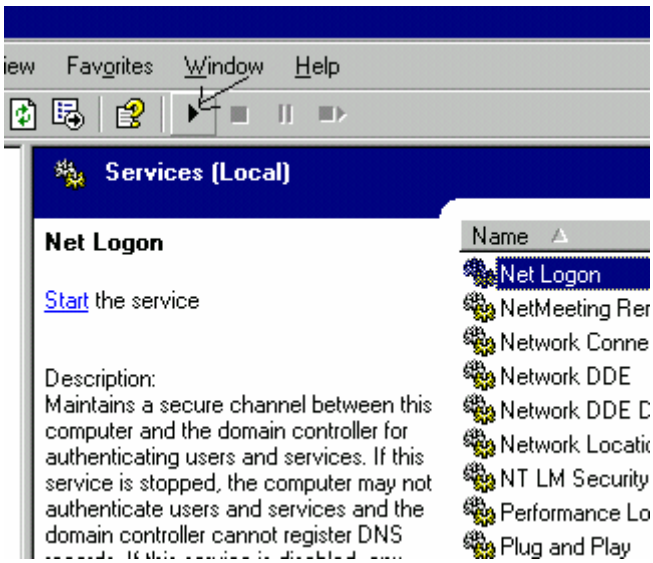

Display name:
Description:
Creates and maintains client network connectio
remote servers. If this service is stopped, these
Path to executable:
C:\WINDOWS\system32\svchost.exe -k netsvcs
Startup type:
Automatic
Service status:
Stopped
Start
Pause
You can specify the start parameters that apply when you start the
from here.
Start parameters:
OK
Cancel

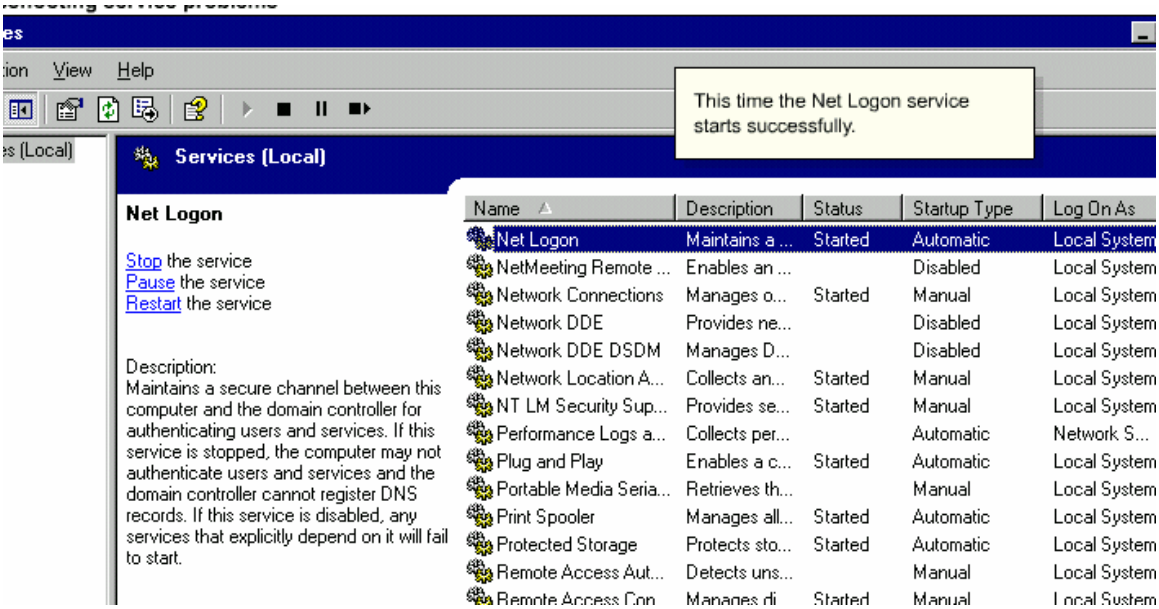

General
A Service Control Message box informs you that Windows is attempting to start the Workstation service on the local computer.
Service Control
Windows is attempting to start the following service on Local Computer...
Workstation
Close



You've re-enabled the Workstation service, so you now attempt to restart the Net Logon service from the Services console.

Select the **Net Logon** service and click the **Start** button on the Standard toolbar.





SkillCheck

Suppose that the Net Logon service fails to start and you've identified the Server service – which has been disabled – as the problem.

To enable the Server service to restart when the OS starts, you double-click the **Server** service to access its Properties dialog box, select **Automatic** from the Startup type drop-down list, click **Apply**, click **Start**, and then click **OK**.

Summary

The Services console allows you to manage services on local and remote computers. For each installed service, it displays information in the Name, Description, Status, Startup Type, and Log On As columns. You can also start, stop, pause, restart, and disable services using the console.

You access the Services console from the **Start** menu. In addition to using the console to view service information or to change the status of a service, you can use it to set recovery actions for when a service fails. You can also use it to specify whether a service starts automatically with the operating system (OS).

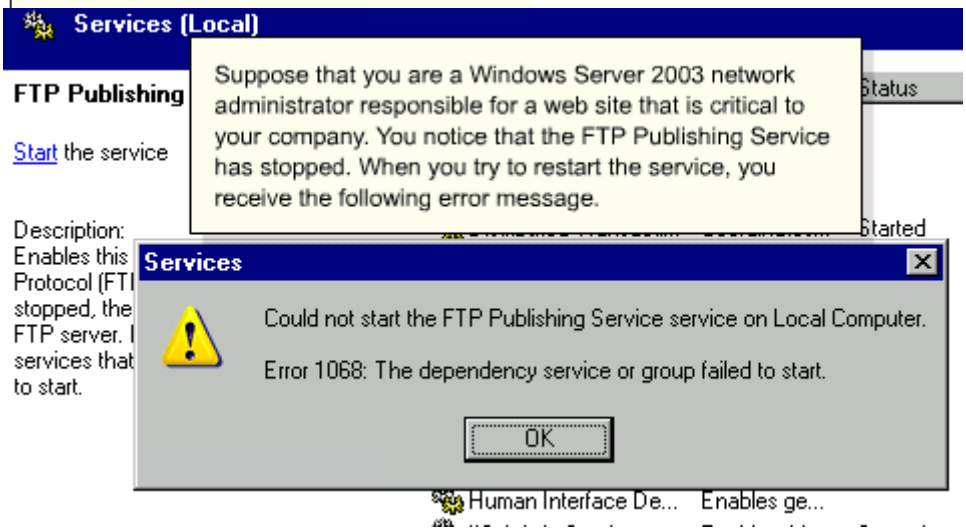
You can view detailed information and access settings for a service by accessing its Properties dialog box from the Services console.

Exercise

In this exercise, you're required to resolve a service dependency issue and specify service failure actions.

This involves the following tasks:

- Resolving a dependency issue
- Specifying failure actions



Task 1 of 2

From the Services console, check for and restart any disabled services on which the FTP Publishing Service service depends. Then restart the FTP Publishing Service service.

Steps

1. Double-click **FTP Publishing Service**
2. Click the **Dependencies** tab
3. Identify the service on which the FTP Publishing Service service depends and click **OK**
4. Double-click **IIS Admin Service**
5. Select **Automatic** from the Startup type drop-down list and click **Apply**
6. Click **Start** and click **OK**

Task 2 of 2

Set recovery actions for the DNS Server service so that the operating system (OS) attempts to restart it after a first failure and restarts the computer after a second failure. If the OS needs to restart the computer, enter the message "The server is temporarily unavailable."

Steps

1. Double-click **DNS Server**
2. Click the **Recovery** tab
3. Select **Restart the Service** from the First failure drop-down list
4. Select **Restart the Computer** from the Second failure drop-down list
5. Click the **Restart Computer Options** button
6. Type **`The server is temporarily unavailable`** and click **OK**
7. Click **OK**

Services