

May 30, 1997

---

## **Dial-Up Networking in Windows® 95**

---

The following information will help you set up your Internet connection in Windows 95. To connect to the Internet, you need a PPP with an Internet provider. You also need the following information from your Internet service provider:

- User name
- Password
- Local access phone number
- Host and domain names
- DNS server IP address
- Authentication technique (whether or not a terminal window is used)

Your Internet service provider may also supply you with an IP address and an IP subnet mask. These optional items are needed only if your provider gives you a dedicated IP address to use every time you dial in.

### **How to Install the TCP/IP Protocol**

Once Dial-Up Networking is installed, follow these steps to install the TCP/IP protocol:

1. In Control Panel, double-click the Network icon.
2. On the Configuration tab, click Add, click Protocol, click Add, click Microsoft in the Manufacturers box, click TCP/IP in the Network Protocols box, and then click OK.
3. If you want to connect only to the Internet, you need only the following network components:  
Client for Microsoft Networks  
Dial-Up Adapter  
TCP/IP  
To remove a component, click the component, and then click Remove.

NOTE: You can have additional protocols bound to the dial-up adapter if you need them for connection to other Dial-Up Networking servers.

4. Once the necessary components are installed, click OK, and then restart your computer when you are prompted to do so.

NOTE: You do not need to configure any TCP/IP settings at this time. Instructions for configuring these settings are included later in this article. The default TCP/IP settings are as follows:

IP address set to Obtain An IP Address Automatically  
WINS Configuration set to Use DHCP For WINS Resolution  
Installed Gateways: None  
DNS Configuration set to Disable DNS

### **How to Create and Configure a New Connection for PPP Accounts**

1. Click the Start button, point to Programs, point to Accessories, and then click Dial-Up Networking.
2. If this is the first time you have used Dial-Up Networking, the Welcome To Dial-Up Networking Wizard appears. If the wizard does not appear, double-click Make New Connection and follow the instructions for creating a Dial-Up Networking connection.
3. Once the connection is created, an icon appears in the Dial-Up Networking folder. You can double-click this icon to connect to the Internet.

If your Internet service provider requires that you manually log in to your PPP account after you have connected, you must enable the necessary support. Perform the following steps to enable this support:

1. Use the right mouse button to click the newly created icon in the Dial-Up Networking folder, and then click Properties on the menu that appears.
2. On the General tab, click Configure.
3. On the Options tab, click the "Bring up terminal window after dialing" check box to select it, and then click OK.
4. On the General tab, click Server Type.
5. Click "PPP: Windows 95, Windows NT 3.5, Internet" in the Type Of Dial-Up Server box, and then click the TCP/IP check box in the Allowed Network Protocols area to select it. The TCP/IP selection allows for a quicker connect time after dialing your Internet service provider. The other options are not relevant to connecting to the Internet.
6. Click TCP/IP Settings.

To use resources on the Internet, you must enter your DNS server address. You can also enter your IP address if your Internet service provider supplied you with a fixed IP address.

### **How to Connect to Your PPP Account**

1. Click the Start button, point to Programs, point to Accessories, and then click Dial-Up Networking.
2. Double-click the Dial-Up Networking icon you created in the section above.
3. In the Connect To dialog box, enter your user name and password, and then click Connect.

If you clicked the "Bring up terminal window after dialing" check box earlier, a terminal window appears in which you enter your log-in information. After you enter your user name and password, click Continue. The order in which you log in and the information you have to provide may vary for your Internet service provider. Please contact your provider if you have any questions about the log-in procedure.

After the Connected To dialog box appears, you are connected to the Internet.

Note: This will assist you to configure Dial-Up Networking and establish that a connection can be made. If you have problems after the connection is made, please contact your Internet Service Provider.

### **How to Connect to Your PPP Account**

1. Click the Start button, point to Programs, point to Accessories, and then click Dial-Up Networking.
2. Double-click the Dial-Up Networking icon you created in the section above.
3. In the Connect To dialog box, enter your user name and password, and then click Connect.

If you clicked the "Bring up terminal window after dialing" check box earlier, a terminal window appears in which you enter your log-in information. After you enter your user name and password, click Continue. The order in which you log in and the information you have to provide may vary for your Internet service provider. Please contact your provider if you have any questions about the log-in procedure.

After the Connected To dialog box appears, you are connected to the Internet.

### **How to Create and Configure a New Connection for SLIP Accounts**

NOTE: If you do not have a SLIP account, you do not need to perform the steps in this section.
------------------------------------------------------------------------------------------------

1. Click the Start button, point to Programs, point to Accessories, and then click Dial-Up Networking.
2. If this is the first time you have used Dial-Up Networking, the Welcome To Dial-Up Networking Wizard appears. If the wizard does not appear, double-click Make New Connection and follow the instructions for creating a Dial-Up Networking connection.
3. Once the connection is created, an icon appears in the Dial-Up Networking folder that you can double-click to connect to the Internet.
4. Use the right mouse button to click the newly created icon in the Dial-Up Networking folder, and then click Properties on the menu that appears.
5. On the General tab, click Server Type.
6. Click SLIP: UNIX Connection in the Type Of Dial-Up Server box, and then click the TCP/IP check box in the Allowed Network Protocols area to select it. The TCP/IP selection allows for a quicker connect time after dialing your Internet service provider. The other options are not relevant to connecting to the Internet.

NOTE: If you have a CSLIP (compressed SLIP) account click "CSLIP: UNIX Connection with IP Header Compression." Your Internet service provider can tell you which type of SLIP account you have.
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

7. Click TCP/IP Settings.

To use resources on the Internet you must enter your DNS server address. You can also enter your IP address if your Internet service provider supplied you with a fixed IP address.

### **How to Connect to Your SLIP Account**

1. Click the Start button, point to Programs, point to Accessories, and then click Dial-Up Networking.
2. Double-click the icon you created earlier. In the Connect To dialog box, click Connect.
3. After modem negotiation, a terminal window appears in which you enter your log-in information. After you enter your user name and password in the terminal window, you should receive a message from your Internet service provider informing you of your IP address for the session. Most providers use a message such as "Your IP address is" or "SLIP session from ####.####.####.#### to ####.####.####.####" where the second set of numbers is your IP address.

Note: The order in which you log in and the information you have to provide may vary for your Internet service provider. Please contact your provider if you have any questions about the log-in procedure.
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

4. Make a note of your IP address, and then click Continue.
5. Confirm your IP address in the SLIP Connection IP Address dialog box by entering the IP address noted in step 4, and then click OK.

Note: If you are not sure what your IP address is, please contact your Internet provider and ask how to determine your IP address for your SLIP account.

### **Advantages of PPP Over SLIP**

If you have a SLIP account, you may want to investigate the possibility of obtaining a PPP account. PPP accounts are faster, offer error correction, may not require you to use the terminal window to log in, and do not require you to enter your IP address manually.

### **Troubleshooting Tips**

If you experience problems connecting to the Internet:

- Make sure your server type is correct. For example, if you have a PPP account, make sure the server type is set to PPP, not SLIP or CSLIP.
- If you have a SLIP account, make sure you enter the correct IP address when you are prompted to do so during the log-in process.
- If you experience problems after you connect to the Internet:
  - If you use a SLIP account and you can successfully ping another computer but you cannot use Winsock programs to connect to Internet resources, change the server type from SLIP to CSLIP (or from CSLIP to SLIP).
  - To make sure your Internet connection is working properly, ping a known IP address by typing the following command at an MS-DOS prompt: ping <IP address> where <IP address> is a known IP address e.g. (198.105.232.1).
  - If you can ping a known IP address successfully, basic TCP/IP connectivity is functioning properly. Next, try to ping the Microsoft FTP server using "ftp.microsoft.com" instead of its IP address. To do so, type the following command at an MS-DOS prompt: ping ftp.microsoft.com
  - If this works, your DNS settings are functioning properly.

Note: This will assist you to configure Dial-Up Networking and establish that a connection can be made. If you have problems after the connection is made, please contact your Internet Service Provider.