11/30/94

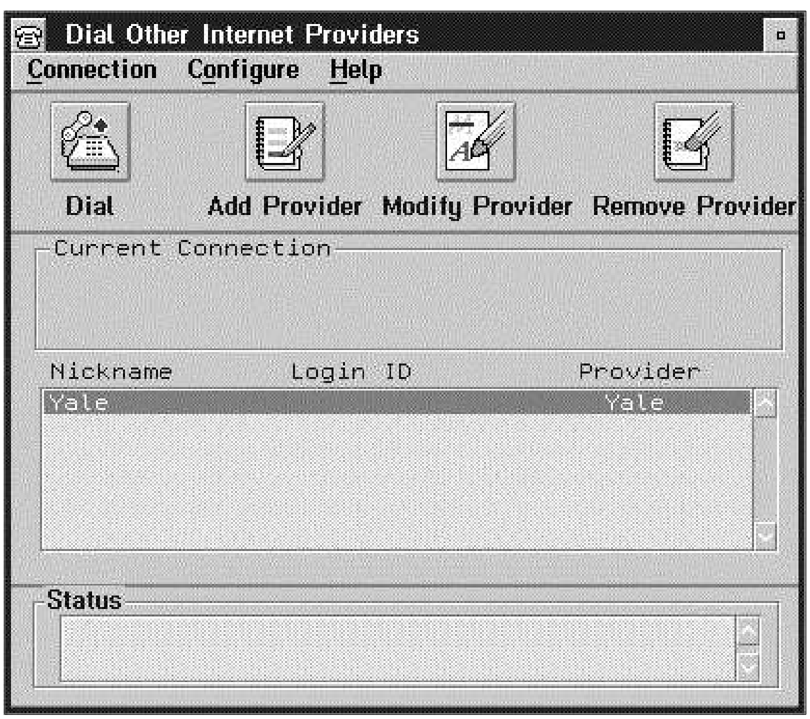
Defining a "Provider"

For the PC to access the Internet over a SLIP line, it must first

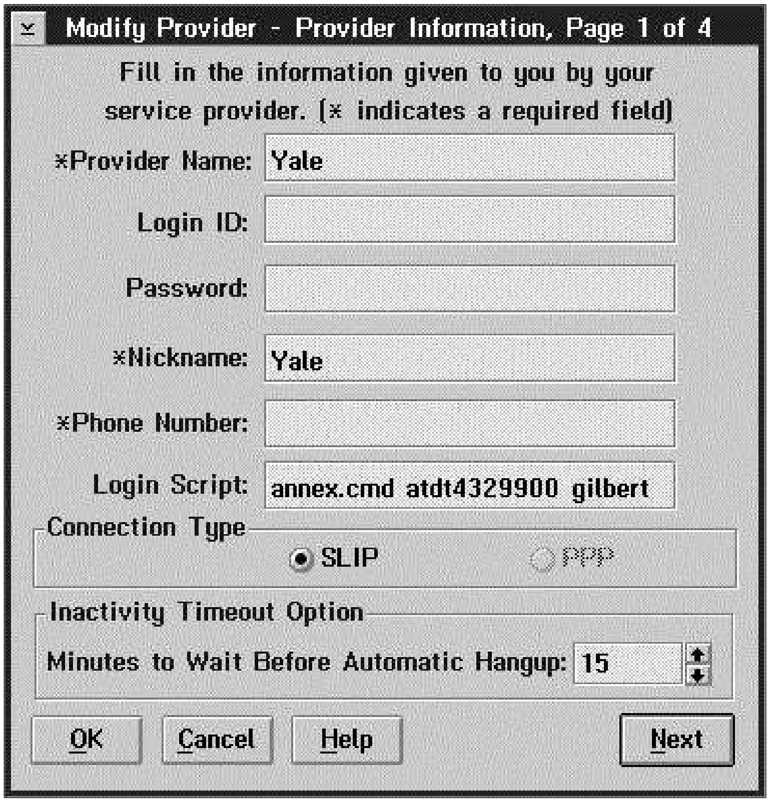
1. Initialize the COM port to the correct speed and settings (no parity, eight bits per character, hardware pacing).
2. Initialize the modem to the correct settings
3. Dial the phone number and wait for a connection
4. Receive a greeting from the communications controller, present a userid, password, and "SLIP" command in some order.
5. Examine the response from the communications controller to determine the IP address assigned to this phone line.
6. Configure the TCP/IP protocol with the IP address, subnet mask, and a default route either to the IP address of the communications controller or the address of the LAN gateway.

In addition, there are other TCP/IP configuration files that must be set to determine the name server, news server, default gopher server, and other parameters.

The earlier TCP/IP for OS/2 product accomplished this configuration through an icon in the TCP/IP folder that expanded to a notebook of configuration information. This product was designed to be used primarily through a permanent LAN connection, though SLIP was provided as an alternative. Since Warp provides SLIP as the primary (and initially the only) method of connection, this original design has been modified. Under Warp, a SLIP user may have several different accounts on different service providers. Each network that the remote user dials into would have different addresses, routers, and servers. IBM created a new utility, SLIPPM.EXE, which goes under the name, "Dial Other Internet Providers."

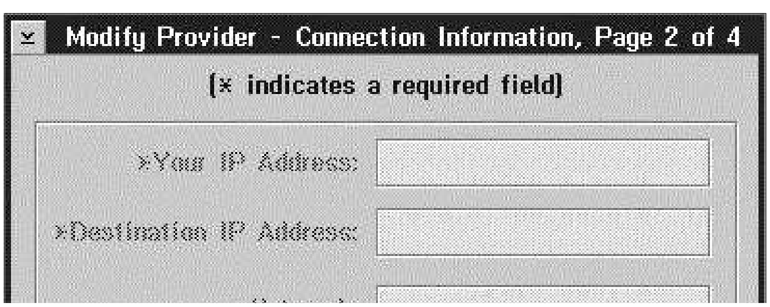


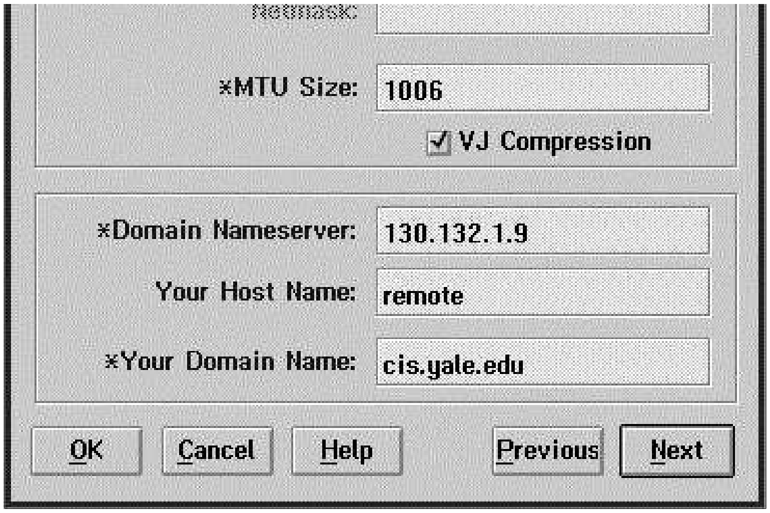
SLIPPM maintains a phonebook of different service providers. Most users would have only one entry in this book. Select the entry and click the Dial button. After configuration, this utility will initialize the line, dial the phone, and logon. Output from the connection dialog will appear in the Status window at the bottom. Select the Add or Modify button to define a new Internet access service or to change the parameters of an existing entry.



There are two protocols used to connect to the Internet over a modem. The more modern protocol is PPP. The advantage of PPP is that it can exchange the Userid and Password information, fetch the IP address, and configure the line automatically. Warp will support PPP in the near future, but doesn't support it now. Therefore, the Login ID and Password fields in this panel, which would apply to the automatic PPP protocol, are not used. Instead, this information must be added at the end of the Login Script field near the bottom of the panel.

Given the limitations of SLIP and the requirements of most communications controllers, all the important information ends up jammed into the Login Script. It supplies the name of a file, ususally a REXX program, that will manage the connection dialog. This is followed by three parameters: the phone number in the form of a modem command, a userid, and a password. The field is long enough that the password has strategically disappeared off to the right and does not show up in this image. The process of modifying the REXX code will be explained below.



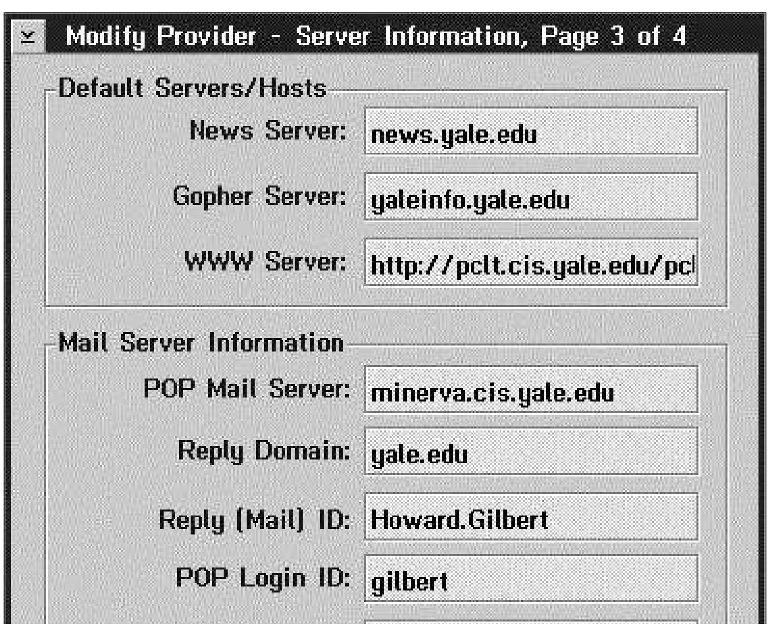


If a SLIP user dials into a dedicated phone line, then the same IP address will always be assigned. This panel suggests that there is provision for the IP address to be configured in advance. However, in normal use one dials a pool of modems and is assigned an IP address randomly from the pool. The REXX program will have to discover the assigned address and configure things dynamically.

The Maximum Transmission Unit (MTU) is the largest packet that can be sent on the link. The size here of 1006 appears to be standard for communications controllers. VJ compression should be selected if the controller supports it (most do). The Domain Nameserver address and domain suffix would be supplied by the system administrator.

The decision to *require* a name server is unusually strong. Nameservers are certainly part of every modern, well run network, but there are still quite a number of smaller private networks that are managed by exchanging HOSTS files that list all the machines by name and IP address. Although the underlying TCP/IP product supports this, it would appear that IBM has chosen not to allow such old- fashioned configuration in the Warp package.

The Host Name field defines this remote machine. It is not required because, in general, a remote dial-in machine will not have a fixed IP address or name and will not act as a server for any function. Nobody will ever need to find it by name.



The third panel brings home the wide ranging effect of the SLIPPM utility design. These fields are supposed to configure many of the other Internet Connection programs.

The News Server name identifies a Network News Transfer Protocol (NNTP) server that will be used by the News Reader utility to fetch news. The name configured here works within the Yale environment but will not support requests from outside.

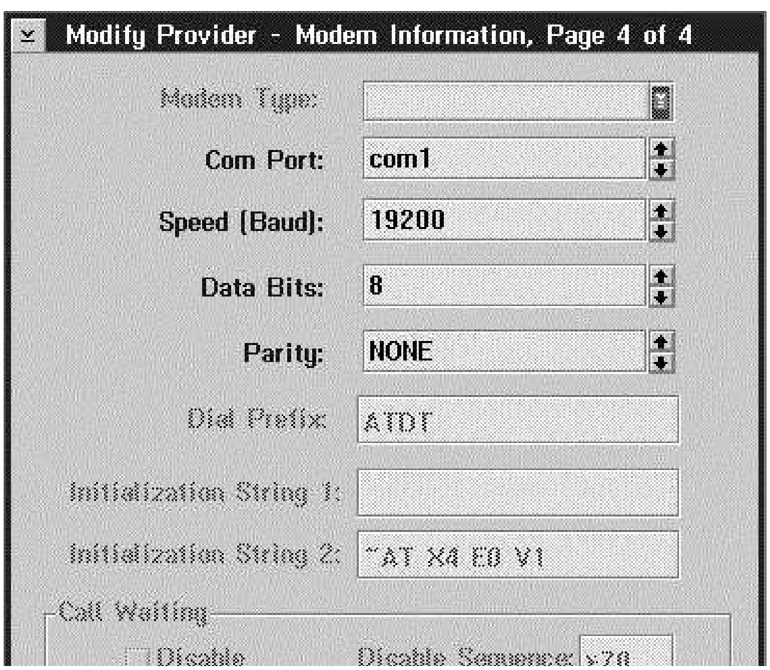
The Gopher Server identifies a "Home" machine to which the Gopher client program will send its first query when it starts up. YALEINFO is the campus information and bulletin board system.

The WWW Server is misnamed. It is actually a WWW URL that will be used to load the initial page when the Web Explorer starts up. Obviously "http://pclt.cis.yale.edu/pclt/default.htm" is not a bad place to get started. Unfortunately, this field is too small and the help for it is inaccurate.

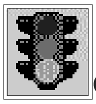
The Mail Server information is supposed to provide a starting configuration for the Ultimail Lite package. It identifies a Post Office Protocol server that receives mail on your behalf. When requested, Ultimail contacts this server to fetch any new mail. Mail sent by Ultimail or by the News Reader goes out through this server.

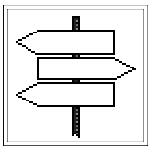
The mail configuration is rather complicated. In Ultimail itself there are six panels of parameters to establish a signature field at the end of each mail item, to annotate mail quoted during a reply, and handle other special features. Information provided here many not be successfully transferred. It is best to start Ultimail and check all the settings there directly.

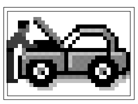
Information about servers is specific to the particular network to which one dials in. Warp is designed, after all, for a home machine. In a lot of homes, one party may need to connect to one network at one phone number, while the other party needs to use an entirely different phone number. Warp not only allows two phone numbers, but also two mail servers, news servers, and Gopher servers. Of course, everyone will still want to configure PCLT has their Web home page.



The last panel selects the COM port and sets the modem speed. The only meaningful choice for SLIP is 8 data bits and no parity.

Continue with Adapting a REXX Login Script

 Back to Warp Table of Contents

 Return to PC Lube and Tune