OFFICECONNECT 56K LAN MODEM RELEASE NOTE V. 7.2.0

Introduction

This release note describes the following enhancements made to the OfficeConnect 56K LAN Modem as part of this latest firmware release.

- Enhanced Dial-in Support
- Service Provider Callback Feature
- Upgrade Check Feature
- Local DNS Table
- LAN Modem Desktop Manager (Windows 95/98/NT)
- Virtual Fax Modem (Windows 95/98 and NT 4.0)
- Miscellaneous Enhancements

Enhanced Dial-in Support

Previously, the LAN Modem provided limited dial-in capability, such as for accessing a remotely located LAN Modem for remote configuration or to check statistics. Now, Dial-in support has been enhanced to extend access to workstations or servers located behind a remote LAN Modem.

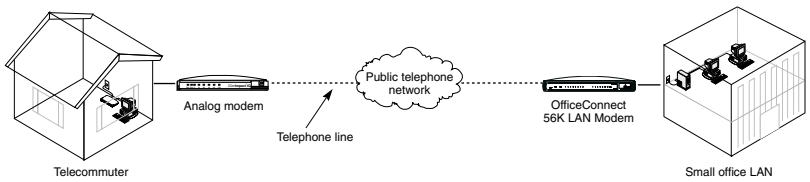
Dial-in Applications

The following dial-in scenarios are supported by the LAN Modem.

- Single User Dial-in
- LAN Modem Site-to-Site Dial-in
- Advanced Dial-in

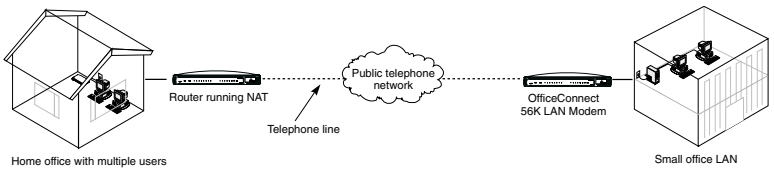
For more detailed descriptions of these scenarios, refer to "Understanding the Three Dial-in Scenarios" later in this release note.

Dial-In Wizard Profile Name	Network Scenario
Single User	Single analog modem calls into a LAN Modem.

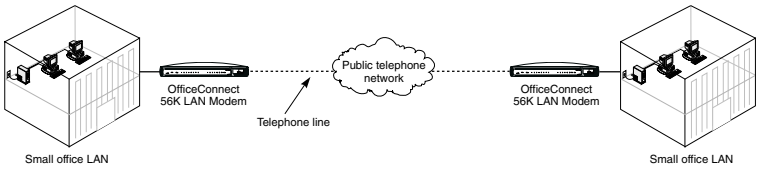


Part No. 1-024-2302
Published November 1999

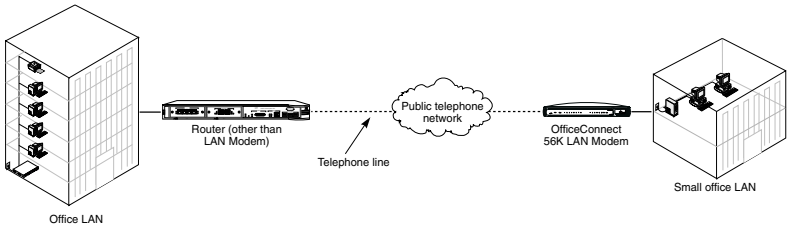
Dial-In Wizard Profile Name	Network Scenario
Single User	Single user on a router (such as a LAN Modem) calls into a LAN Modem.



LAN Modem Site to Site	LAN Modem to LAN Modem



Advanced	Router other than a LAN Modem calls into a LAN Modem



Configuring Dial-In

There are three main steps for configuring dial-in support.

1. Change remote administration password
2. Create dial-in user profile on server or central LAN Modem
3. Create service provider profile on client or remote site

Before you Begin

Before you begin configuration, please note the following:

- Any remotely-located device you wish to access on the remote LAN Modem must be running appropriate software, such as a Web or FTP server.

  Examples of server software are Apple's Personal Web Sharing for the Macintosh or Microsoft's Peer Web Services for Windows 95/98. Check with your computer's accompanying documentation for more information.

- A LAN Modem can only accept dial-in calls from a device that matches its own call type.

  For instance, a 56K LAN Modem will only accept dial-in calls from another 56K LAN Modem, or another analog modem or router. Calls from an ISDN LAN Modem or other ISDN terminal adapters are not permitted for dial-in access.

Changing the Remote Administration Password

Previously, when dialing into a LAN Modem to configure it remotely or check statistics, you were prompted to enter the password associated with the LAN Modem's configuration parameters. Additional security has now been added which requires a unique user name and password for remote access. This is referred to as the Remote Admin account and is reserved for remote configuration only. This account does not provide dial-in access to LAN or WAN resources other than the LAN Modem configuration parameters themselves. By default the user name is **Admin** and the password is **1234**. Note that the username and password is case sensitive.

To change the default username and password (recommended), do the following.

1. Click the *Dial-in* button located on the LAN Modem's mainpage.

   The Dial-in Configuration submenu opens.

2. Click the *Dial-in Users* button.

   The Dial-in User Selection screen opens.

3. Select *Admin* and then click *Next*.
4. In the Username field, delete the default name and then enter a new name.
5. In the Password field, delete the default password and then enter a new password.

Configuring the Server LAN Modem

Configuring the server LAN Modem for Dial-in access requires two main steps:

- Configure global dial-in parameters
- Create a dial-in user profile for each dial-in connection account

Configuring global dial-in parameters

Dial-in Global parameters, described below, allow you to designate a Callback prefix, set the site number for LAN-to-LAN dial-in, and set authentication preferences to be used for all dial-in users.

1 From the LAN Modem's main configuration page, click *Dial-In*.

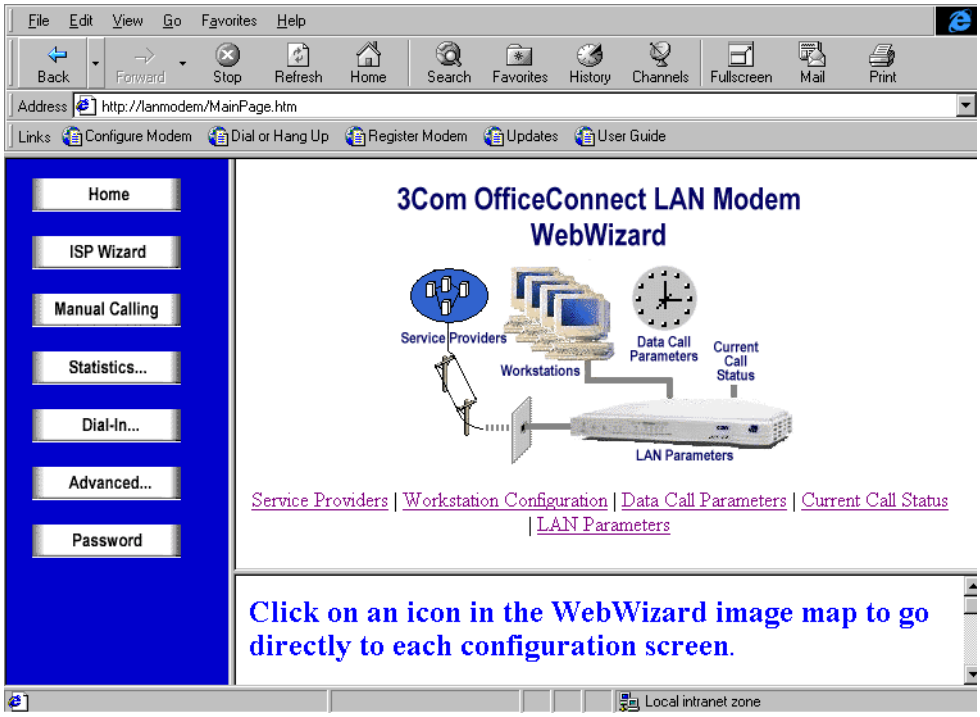


Figure 1 LAN Modem Main Configuration Page

2 Click *Dial-in Global*.

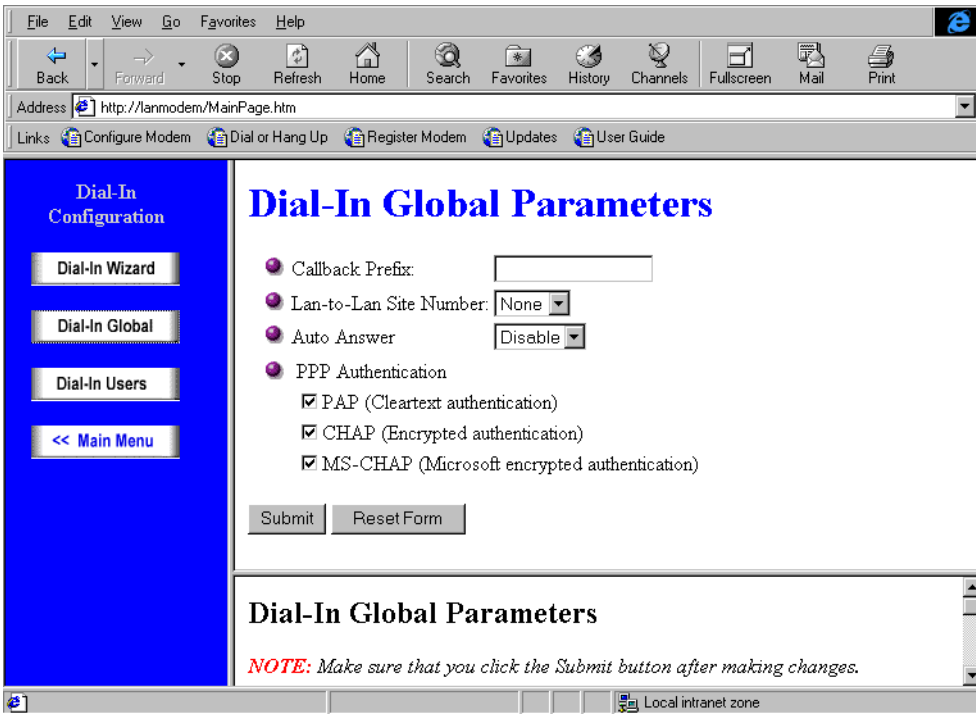


Figure 2 Dial-In Global Parameters Screen

1 If you are planning to use the Callback feature, use the Callback Prefix field to enter the number required to get an outside line, such as a 9. Otherwise, leave this field blank.

2 In the LAN to LAN Site Number, designate the LAN Modem site for dial-in access from other LAN Modems which will employ the LAN Modem Site-to-Site scenario. Note that setting the site number may change the IP address of the LAN Modem, as described below.

- Choose *None* (the default) to leave the LAN Modem's IP address unchanged. You might choose *None* if you will never employ the LAN Modem Site-to-Site scenario with this LAN Modem (that is, all your dial-in users will employ the Single-User Dial-in scenario, and do not require LAN-to-LAN connectivity), or an advanced user might choose *None* if the IP address of the LAN Modem has been manually configured for static IP addressing.
- Choose *Site A* to designate this LAN Modem's IP address as 192.168.1.1 (the LAN Modem default IP address).
- Choose *Site B* if this LAN Modem will place or receive calls to another LAN Modem which has been configured as Site A. Choosing *Site B* will change this LAN Modem's default IP address to 192.168.2.1

  For example, if you have already designated a remote LAN Modem as Site A, and you are now setting up a second LAN Modem for LAN-to-LAN connectivity, you would designate this second LAN Modem as Site B. This will differentiate between the two LAN Modem IP addresses, which by default are the same.

- Choose *Site C* if this LAN Modem will place or receive calls to another LAN Modem previously configured as Site A or Site B. Choosing *Site C* will change this LAN Modem's default IP address to 192.168.3.1

3 In the Auto Answer field, choose the number of rings to wait before the LAN Modem automatically answers dial-in calls. By default Auto Answer is set to *Disable,* which routes all incoming calls directly to any analog equipment attached to the LAN Modem phone port. Note that Auto Answer must be set to *1* or greater if you wish to allow dial-in access to the LAN Modem.

4 In the PPP Authentication field, choose the type of PPP authentication you want the LAN Modem to use when negotiating dial-in access. Note that at least one must authentication type must be enabled. By default, PAP, CHAP and MS-CHAP are enabled. This means that if the client side can do any of the three, authentication will be successful.

5 Click *Submit* to save changes.

If you chose Site B or Site C as the LAN to LAN Site Number, the LAN Modem will re-initialize as its IP address is reset. The front panel LEDs flash, indicating a reset in progress.

Once the LAN Modem's IP address has been changed, you can no longer access the LAN Modem until your workstation has been restarted and has acquired an IP address belonging to the new LAN Modem subnet.

Create a Dial-In User Profile Using the Dial-In Wizard

Before dialing into a LAN Modem, a dial-in user account profile must be created for every user or site that requires access. To create a dial-in user profile on the central or server site using the Dial-In Wizard, refer to the appropriate application below for specific Dial-In Wizard instructions. For more detailed descriptions of these scenarios, refer to "Understanding the Three Dial-in Scenarios" later in this release note.

- Single User dial-in (analog modem or an analog router, such as a LAN Modem, running NAT)
- LAN Modem Site-to-Site dial-in (LAN-to-LAN bidirectional connectivity)
- Advanced dial-in (unknown router dialing into a LAN Modem)

Single User Dial-In Wizard Instructions

1 From the LAN Modem main configuration page, click *Dial-in*.

2 Click *Dial-in Wizard*.

The Dial-in Wizard screen opens, as shown in Figure 3.

Figure 3 Dial-In Wizard Profile Type Selection Page

3 Select *Single User* and click *Next*.

The Username and Password page appears, as shown in Figure 4.

Figure 4 Dial-In WIzard Username and Password Screen

4 Enter a unique name and password to identify and verify this dial-in user when dialing into this LAN Modem. Note that this will match the username and password configured on the client device which dials in to this LAN Modem.

5 Click *Next.*

The Congratulations page opens, indicating the successful creation of a dial-in user.

6 Click *Continue.*

This completes the dial-in configuration for single user. To continue setting up your LAN Modem for dial-in access, go on to "Configuring the Client Site".

LAN Modem Site-to-Site Dial-In Wizard Instructions

1 From the LAN Modem main configuration page, click *Dial-in*.

2 Click *Dial-in Wizard*.

3 Select *LAN Modem Site-to-Site* and then click *Next*.

The Username and Password page appears.

4 Enter a unique name and password to identify and verify this dial-in user when dialing into this LAN Modem. This will match the username and password which will be entered in the client LAN Modem's service provider profile.

5 Click *Next.*

6 Specify the site name you would like to designate for this dial-in user's remote LAN Modem, A, B or C. Note that this site name must be different from the site name designated in this LAN Modem's Dial-In Global Parameters, in order to distinguish between the two networks. The site name specified here will match the site name configured in the client LAN Modem's Dial-in Global Parameters.

7 Click *Next.*

The Congratulations page opens, indicating the successful creation of a dial-in user.

8 Click *Continue.*

This completes the dial-in configuration for LAN Modem Site-to-Site dial-in. To continue setting up your LAN Modem for dial-in access, go on to "Configuring the Client Site".

Advanced Dial-In Wizard Instructions

1 From the LAN Modem main configuration page, click *Dial-in*.

2 Click *Dial-in Wizard*.

3 Select *Advanced* and then click *Next*.

The Username and Password page appears.

4 Enter a unique name and password to identify and verify this dial-in user when dialing into this LAN Modem.

5 Click *Next.*

The dial-in user parameters page appears, allowing you to manually configure the Advanced dial-in user parameters. For further configuration instructions refer to "Dial-in Users Parameters Screen".

Configuring the Client Site

To configure a dial-in user profile on the client site refer to the appropriate section:

- Configuring the client site for a single modem
- Configuring the client site for a LAN Modem

Configuring the Client Site for a Single Modem

If the client dialing into the LAN Modem will be a single modem, use the appropriate software such as Dial-Up Networking for Windows to create a connection to the LAN Modem. The basic steps for creating a Dial-Up Networking connection are as follows.

- Create a Dial-Up Network entry
- Enter the telephone number of the remote LAN Modem
- Enter the username and password

Configuring the Client Site for a LAN Modem

If the client dialing into the LAN Modem is another LAN Modem, you must configure a new service provider profile on the client LAN Modem which will dial into the remote LAN Modem. You then use this service provider to place automatic or manual calls to the server LAN Modem as needed.

When using a client LAN Modem to dial into another LAN Modem via the Single-User dial-in scenario, you must manually change the IP address of the client LAN Modem in order to distinguish between the two networks. Refer to "Changing the IP address on the LAN Modem" for instructions.

Configure a Service Provider for this Dial-In Connection

Configure a service provider for this connection as follows.

Before You Begin

You will need the following information.

- Telephone number of the server LAN Modem
- User ID and password of the Dial-in user
- IP address/subnet mask of the server LAN Modem

Additionally, if you would like to use the Callback feature, you will need the following information:

- Callback telephone number
- Callback username and password

Setting Up a Connection to a Server LAN Modem

To set up a connection on a client LAN Modem to dial into a server LAN Modem, do the following.

1. From the client LAN Modem's main page, click the *Service Providers* icon.

   The Service Provider Selection screen opens.

2. Choose *New (Private Network)* from the drop-down menu and click *Select*.

   The Private Network Parameters screen opens.

If you already have four Service Providers configured on your LAN Modem, one must be deleted before a new Private Network can be created.

3. In the Name field, enter a name for this service provider, such as the location of the server LAN Modem.
4. In the Dial Out Prefix field, enter the number required by your location to reach an outside line, if necessary.
5. In the Call Waiting Disable Command field, enter the appropriate command to disable call waiting.
6. In the Telephone Number field, enter the telephone number of the server LAN Modem.
7. In the Alternate Number field, enter an alternative number, if applicable.
8. Under *Security*, enter the User ID and Password for this Dial-in User to access the server LAN Modem.
9. Leave the *DNS Addresses* fields blank, as these values are assigned by the server LAN Modem upon connection.

10 Under Private Network Parameters, specify your private network parameters.

- Private Network IP Address: Enter the IP address of the server LAN Modem. For example, if the server LAN Modem has been designated as Site A, or is set to its default IP address, enter *192.168.1.1*.
- Private Network Subnet Mask: Enter the subnet mask of the LAN Modem you are dialing into. If you are not sure, leave the default (255.255.255.0).
- Domain Name: Enter the domain name of the server LAN Modem, if applicable. This field may be left blank if you have entered a Private Network IP Address. If you want to access client LAN resources via domain name (that is, "my_net.com") enter an appropriate domain name.

11 Specify Callback parameters if you want to use this feature. Otherwise, leave the defaults.

- Enable Callback: Choose to enable or disable Callback. By default Callback is disabled.
- Callback Delay: Callback Delay is the amount of time the server will wait before calling back the client. By default this field is set to 5 seconds.
- Callback Timeout: Callback Timeout is the amount of time that the client waits for the server to call back. Note that this value is in addition to the Call Back Delay value. By default this field is set to 90 seconds.
- Callback Number: Enter the number that the remote site will call back when the LAN Modem connects to the remote server. This allows for the reversing of toll charges for the dial-in call. Note that if a different number is configured on the server, the server callback number takes precedence.
- Callback Username and Password: Enter the username and password of the callback user. These values are used to verify the server's authenticity to the client. These fields should match the login and password fields on the server LAN Modem's dial-in user parameters. Note that callback authentication is optional.

12 Under Miscellaneous, Do you want to use this Private Network to access the Internet: Set this field to No. Since this service provider will be used to dial into another 56K LAN Modem, a second phone line is not available on the remote LAN Modem in which to launch a call to an Internet Service Provider.

13 Under Miscellaneous, indicate whether or not you would like to use data compression when transferring data by selecting the appropriate radio button.

14 Under Miscellaneous, leave the default, NAT enabled, if the dial-in user will be accessing the remote LAN Modem via the Single-User scenario. For LAN Modem Site-to-Site dial-in, set this field to *None,* as the Site-to-Site scenario does not use NAT.

15 Under WAN Link IP address, leave these fields blank. The LAN Modem will automatically assign these values upon connection.

16 Under Subnet Mask, leave these fields blank. The LAN Modem will automatically assign these values upon connection.

17 For Allow Automatic Call Initiation, leave the default setting which is *Yes*. This will allow you to automatically place a call by entering the IP address of a device on the remote LAN.

18 In the Default Workstation for Incoming Packets field, specify the workstation to which all unsolicited TCP/UDP packets should be delivered. Choose *None* to have unsolicited packets simply dropped.

19 In the Enable Intelligent NAT field, leave the default set to *Yes.*

20 Click *Submit*.

If you would like to configure a connection to another server LAN Modem, repeat steps 1 through 20.

Changing the IP address on the LAN Modem

If you will be accessing a LAN Modem server from a LAN Modem client via the Single-User dial-in scenario, you must manually change the IP address of the client LAN Modem in order to distinguish between the two networks. This is required because by default the subnet addresses for both LAN Modems are the same (192.168.1.x).

Note that this change occurs automatically when creating a LAN Modem Site-to-Site profile via the Dial-in Wizard, but will not automatically occur when creating a Single-User profile.

To change the IP address of the client LAN Modem which will dial into the server LAN Modem, do the following.

1 Access the LAN Parameters page on the LAN Modem which will be placing the outgoing call by clicking the LAN Modem icon on the main page.

The LAN (Ethernet) Parameters page opens.

2 Change the IP address field to 192.168.2.1.

3 Click *Submit*.

The LAN Modem re-initializes itself. The front panel LEDs flash, indicating a rest in progress.

Once the LAN Modem IP address has been changed, you can no longer access the LAN Modem until your workstation has been restarted and has acquired an IP address belonging to the new LAN Modem subnet.

4 Restart your workstation.

The default IP address for the local LAN Modem will have been changed to 192.168.2.1. Similarly, all attached workstations, once restarted, will utilize an IP address belonging to this new subnet (192.168.2.x).

Understanding the Three Dial-in Scenarios

Before you can use the Dial-in Wizard to set up the LAN Modem for dial-in access, it may help to understand the three dial-in scenarios available for each of your ten authorized dial-in users. The scenarios are as follows.

- Single User Dial-in (single modem or another 56K LAN Modem running NAT)
- LAN Modem Site-to-Site Dial-in (LAN-to-LAN bidirectional connectivity)
- Advanced Dial-in (unknown router accessing a LAN Modem)

Single User Dial-in

Single User Dial-in describes a scenario where a client workstation dials into a LAN Modem via a single analog modem (or another 56K LAN Modem, see below). With Single-User Dial-in the server-side LAN Modem assigns a single IP address to the incoming client, as shown in Figure 5.

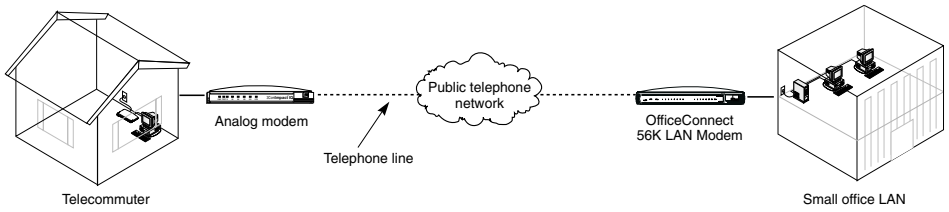


Figure 5 Single User Dial-in

Single-User Dial-in from Another 56K LAN Modem: While Single-User Dial-in provides only one IP address to the dial-in client, the dial-in client may still be another LAN Modem with several attached workstations. In this case, the client-side LAN Modem uses NAT to share the single IP address provided by the server-side LAN Modem, similar to a typical ISP connection, as shown in Figure 6. Note that unlike the LAN Modem Site-to-Site scenario (described later), the Single User scenario does not provide for bidirectional LAN-to-LAN connectivity. While authorized workstations attached to the client LAN Modem can share the connection to the server LAN Modem, workstations connected to the server LAN Modem cannot access client-side resources.

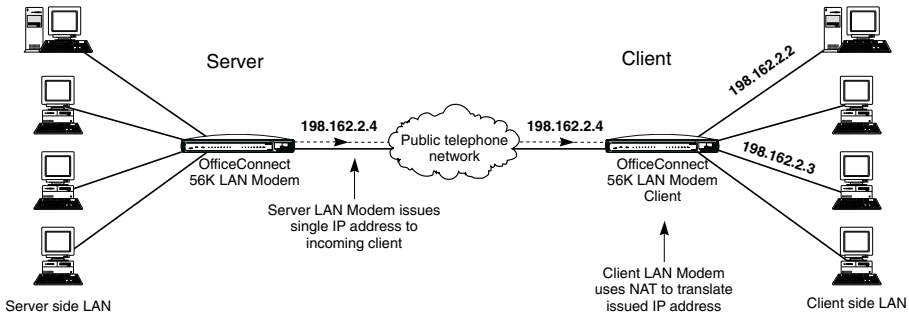


Figure 6 Single User Dial-in with NAT

Choose *Single-User Dial-in* when your dial-in user will access a server LAN Modem via a single analog modem, or via a LAN Modem that will share one IP address for all attached workstations. Note that in this scenario, workstations on the server-side cannot access client-side resources.

LAN Modem Site-to-Site Dial-in

LAN Modem Site-to-Site dial-in describes a scenario where a LAN Modem dials into another LAN Modem, with multiple IP addresses assigned to each LAN device on both sides of the connection, as shown in Figure 7. This scenario allows workstations on both sides of the connection to access servers and resources on each LAN, providing bidirectional LAN-to-LAN connectivity.

When the LAN Modem Site-to-Site scenario is first configured via the Dial-in Wizard, the client LAN Modem (or the LAN Modem which has been designated Site B) will automatically change its default IP address and restart. This is to distinguish between each LAN Modem's subnet address, which by default are identical (192.168.1.x).

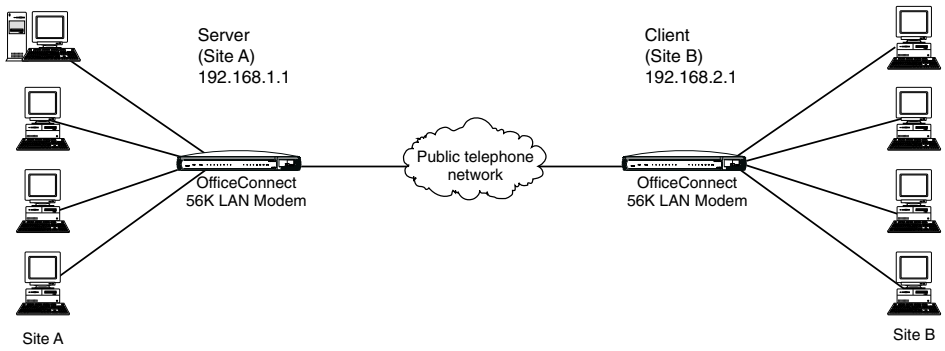


Figure 7 LAN Modem Site to Site Dial-in

In LAN Modem Site-to-Site Dial-in, the target LAN Modem provides its WAN IP address as the DNS server to the client LAN Modem. This scenario allows users across the connection direct access to all available workstations via domain name or IP address.

Choose *LAN Modem Site-to-Site* when your dial-in user will access a LAN Modem from another LAN Modem, where LAN resources are accessible on both ends of the connection.

Advanced Dial-in

Use Advanced Dial-in for scenarios where a router other than a LAN Modem dials into a LAN Modem. Advanced Dial-in assumes that both routers have been manually configured for static IP addressing, and each employs a unique range of addresses.

Choose *Advanced Dial-in* if your LAN is using static IP addressing, or your dial-in user will be accessing the LAN Modem from a router other than a LAN Modem. Note that Advanced Dial-in is the most complex dial-in scenario and may require the assistance of your MIS administrator. Refer to "Configuring the Server-side Dial-in User Parameters Page" for more information.

Once you have chosen a dial-in scenario that best fits your dial-in criteria, you are ready to create a dial-in user profile. Refer to "Create a Dial-In User Profile Using the Dial-In Wizard" or "Configuring the Server-side Dial-in User Parameters Page" to manually create or further define Dial-in users.

Configuring the Server-side Dial-in User Parameters Page

Once the Dial-in Wizard has created a Dial-in User account profile, you can further define the dial-in user parameters or manually create a new Dial-in user via the Dial-in User Parameters page.

You can create a total of ten dial-in user profiles. If you have created ten profiles and would like to add a new user, you must delete one profile before adding a new one.

To access Dial-in User profiles, do the following.

1 Click the *Dial-in Users* button.

The Dial-in User Selection screen opens, as shown in Figure 8.

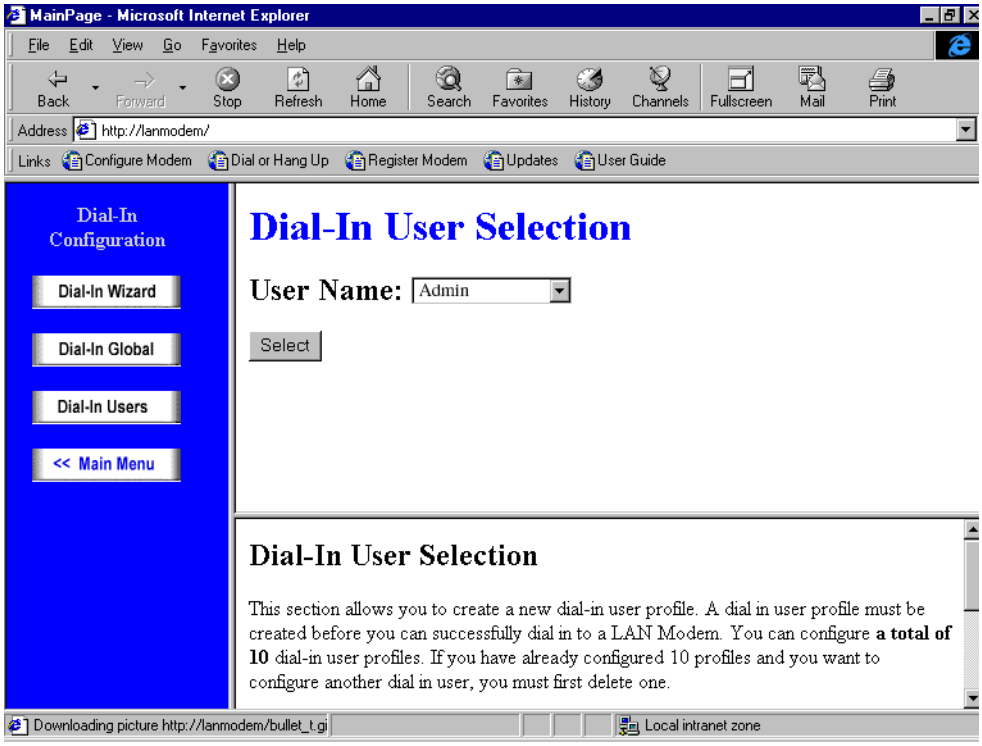


Figure 8 Dial-in User Selection Screen

2 Choose either *New Dial-in User* to manually create a new profile or choose an existing Dial-in User from the drop-down list and click *Select*.

The Dial-in User Parameters screen opens, as shown in Figure 9.

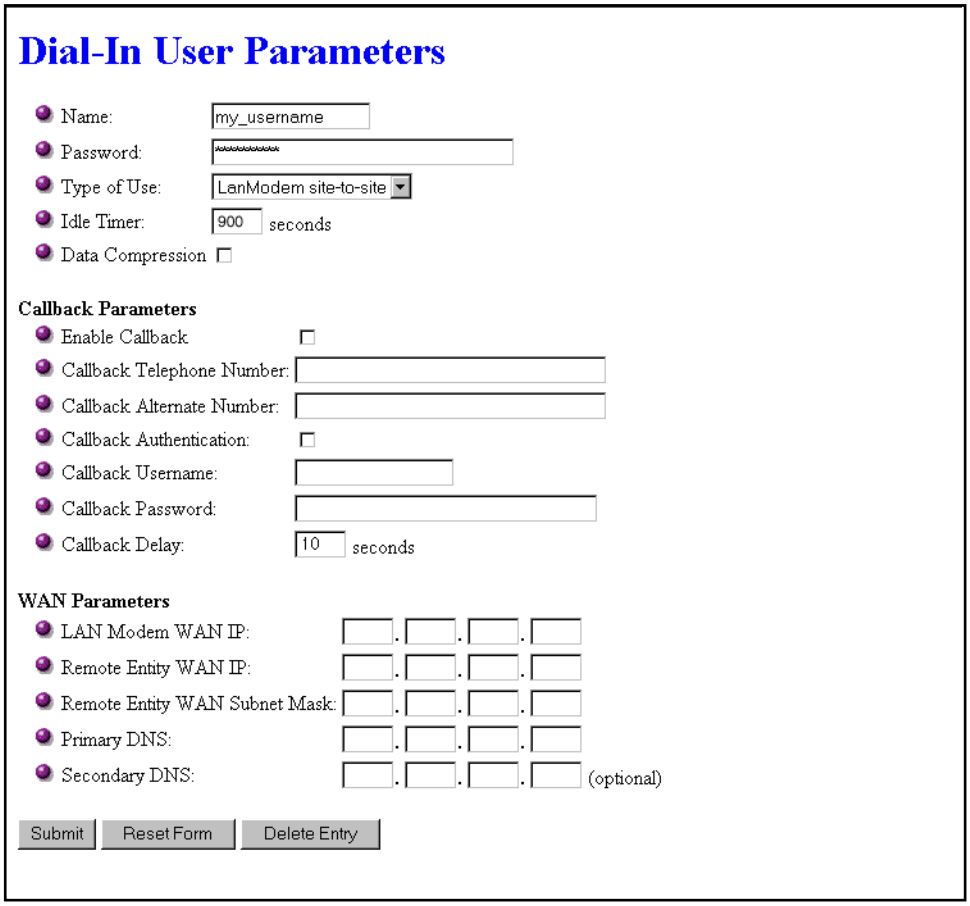


Figure 9 Dial-in Users Parameters Screen

3 In the Name field, enter a unique name to designate this dial-in user. This value should correspond with the username configured on the client.

4 In the Password field, enter a password to verify access when this user dials into the LAN Modem. This value should correspond with the password configured on the client.

5 In the Type of Use field, select the scenario for which your dial-in situation applies. Refer to "Understanding the Three Dial-in Scenarios" for more information.

- Choose *Single-User Dial-in* if this user will be accessing the LAN Modem from an analog modem or from another LAN Modem on which attached workstations can share a single IP address.
- Choose *LAN Modem Site-to-Site* if this user will be dialing in from another LAN Modem which utilizes bidirectional LAN-to-LAN connectivity.
- Choose *Advanced* if this user will be accessing the LAN Modem from a router other than a LAN Modem. This scenario requires that all IP addresses be statically configured, and should be configured by your MIS administrator.

6 In the Idle Timer field, enter the length of inactivity before the LAN Modem drops the incoming call. To disable the Idle Timer, set this field to *0*. In this case all incoming calls must be manually dropped via the LAN Modem's Manual Call Control page. By default this value is 900 seconds (15 minutes).

7 In the Data Compression field, choose to have data compression active or inactive. By default compression is disabled. (In order for compression to occur, the other end of the connection must have the same compression active.)

Callback Parameters

This section allows you to enable and configure callback functionality. Callback occurs when, upon a successful connection of a dial-in a user, the LAN Modem drops the incoming call and places a return call to the dial-in user.

To specify your Callback parameters, do the following. In order for callback to occur, the other end of the connection must support callback functionality and have it enabled. For more information refer to "Service Provider Callback Feature".

1 In the Enable Callback field, check to activate Callback for this dial-in user. By default Callback is disabled.

2 In the Callback Telephone Number field, enter the number the LAN Modem will call back when this dial-in user accesses the LAN Modem, to verify the dial-in user's authenticity. Note that this value will override the telephone number provided by the client, if the client provides a different number.

3 In the Callback Authentication field, check the box to require callback authentication. Note that Callback Authentication is not required for callback functionality, but provides a further level of security by confirming the server's authenticity to the dial-in user.

4 In the Callback Username and Password fields, enter the username and password which the client will use to verify the server's authenticity. If the dial-in client is a LAN Modem, these values will match the username and password of the client LAN Modem's Callback Login and Password fields, located on the client LAN Modem's service provider parameters page.

5 In the Callback Delay field, enter the amount of time in seconds to wait until the dial-in user is called back. By default this is set to 5.

WAN Parameters

1 LAN Modem WAN IP: If the local LAN Modem WAN link has a static IP address, enter the WAN static IP address. Otherwise leave these fields as set by the Dial-in Wizard. If you are using the Advanced dial-in scenario, enter the IP address of the LAN Modem which is receiving the dial-in call.

2 Remote Entity WAN IP: If the remote site of the WAN link has a static IP address, enter the WAN static IP address. Otherwise leave these fields as set by the Dial-in Wizard. For the Advanced dial-in scenario, enter the IP address of the router which is dialing into the LAN Modem.

3 Remote Entity WAN Subnet Mask: If the remote site of the WAN link has a static IP address, enter the WAN subnet mask address. Otherwise leave these fields as set by the Dial-in Wizard. If you are using the Advanced dial-in scenario, enter the subnet mask of the remote LAN.

4 Enter your Primary and Secondary (optional) DNS address as instructed by your MIS administrator, or as set by the Dial-in Wizard. For the Advanced dial-in scenario, enter the IP address of the LAN Modem which is receiving the dial-in call.

5 Click *Submit*.

Placing a Call to a Server LAN Modem

Once you have created a service provider profile on your client LAN Modem, you can place a call in one of two ways: You can use the client LAN Modem's Manual Call Control page to manually place a call, or you can simply enter an IP address or domain name of a server attached to the remote LAN Modem, and place the call automatically.

Once connected, you can use all LAN resources available on the server end of the connection. For further information, such as tech tips and FAQs, visit the LAN Modem's Internet Homepage at **`http://www.3com.com/support/docs/lanmodem`**.

Service Provider Callback Feature

In addition to the callback capability for dial-in calls to the LAN Modem, the LAN Modem now supports callback functionality for outgoing calls to a service provider (such as an ISP or Private Network) that supports callback functionality.

When a LAN Modem places an outgoing call to a service provider which supports callback functionality, once the call connects, the remote server drops the call and places a return call to the LAN Modem, providing a further level of security.

Service Provider Callback options are set via the Service Provider Parameters page. Refer to "Setting Up a Connection to a Server LAN Modem" for more information.

Upgrade Check Feature

The LAN Modem now provides an Upgrade Check feature which will query the LAN Modem's Internet homepage for available firmware updates.

Note that you must have a service provider with Internet access configured in order to use the Upgrade Check feature.

To check for new firmware updates, do the following.

1. Access the LAN Modem main page by entering **`http://3com.oc.lanmodem`** in the location bar of your Web browser.
2. Click the *Advanced* button located in the left frame.

   The Advanced frame opens.
3. Click the *Upgrade Check* button.
4. Click *Check for Upgrades* to check for new firmware which may be available for your LAN Modem.

   A call is launched to your ISP. The LAN Modem compares the latest available firmware against the firmware currently installed.

   If your LAN Modem has the latest firmware installed, a message indicates that you do not need to upgrade at this time.

   If new firmware has been released, you will receive a message indicating that new firmware is available. Click the *Download* link to access the LAN Modem Upgrade page. Follow instructions to download the latest firmware.

Local DNS Table

The LAN Modem now includes a local DNS Table for configuring up to ten static DNS entries, allowing the LAN Modem to resolve designated IP addresses locally. The Local DNS Table can be used to suppress spurious calls caused by an application on the LAN generating packets, which is in turn launching unwanted calls to your service provider.

For example, to suppress spurious calls, do the following. If an application on the LAN is generating packets to "my_net.com", you would enter "my_net.com" in the Domain Name field, and then enter *192.168.1.29* in the IP address field. This is an IP address that resides on the LAN Modem's default subnet, but by default is not used by any attached workstations. Now, packets to "my_net.com" will be routed to this unused IP address, and will no longer launch automatic calls.

Another potential application of the Local DNS Table is to assign a domain name to a frequently visited IP address. In this case, you would enter the IP address in the IP address field, and enter a domain name of your choice, such as "my_site.com" in the Domain Name field. This will resolve the name "my_site.com" to the associated IP address.

Access the DNS Configuration Table by clicking the *Advanced* button from within the LAN Modem's main page. The DNS Configuration table opens, as shown in Figure 10.

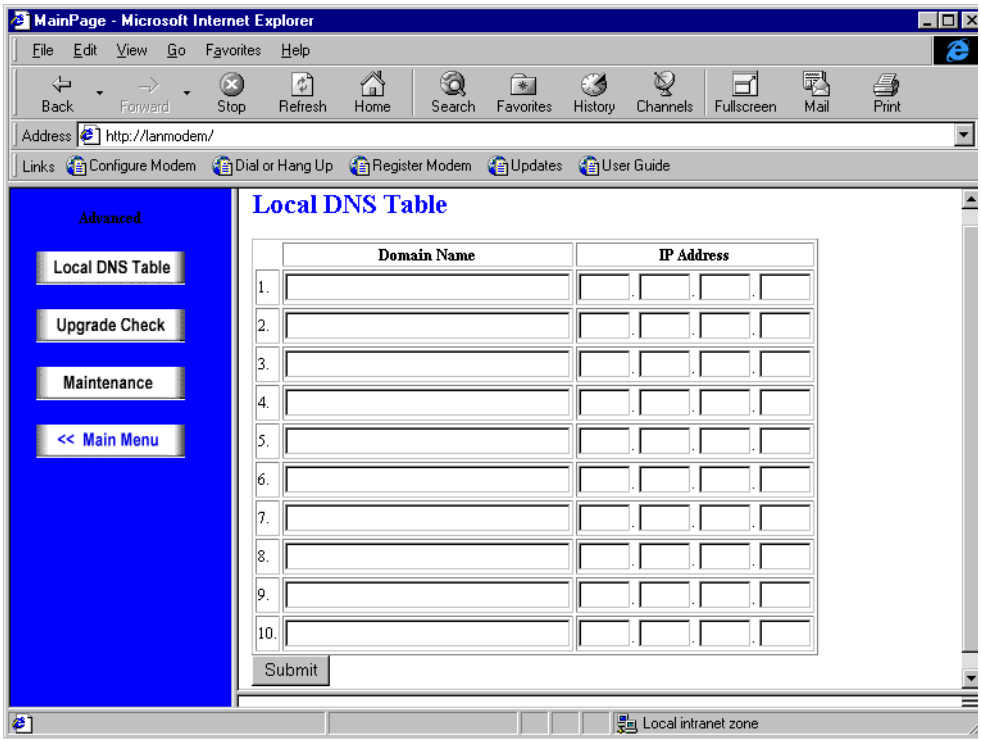


Figure 10 DNS Configuration Table

Enter the domain name and IP address as desired, and click *Submit* to save changes.

LAN Modem Desktop Manager (Windows 95/98/NT)

The LAN Modem Desktop Manager for Windows 95/98/NT provides direct access to LAN Modem call functionality from the Windows desktop, without requiring the use of a Web browser. The LAN Modem Desktop Manager is available for downloading from the LAN Modem Internet homepage, and is also included on the latest *3Com Companion Programs* CD ROM which ships with the unit. The following options are available.

- Place and hang up calls to service providers
- Monitor call status
- Display caller ID information for incoming voice calls (if available)

The LAN Modem Desktop Manager is installed into the Windows 95/98/NT ToolTray. The application may be downloaded directly from the LAN Modem Utilities web page: **`http://www.3com.com/support/docs/lanmodem/util.html`**

Virtual Fax Modem (Windows 95/98 and NT 4.0)

The Virtual Fax Modem for Windows 95/98/NT 4.0 is a 3Com customized application which allows Windows users to access the LAN Modem as if it were directly connected to your computer's COM port. This feature permits connections to on-line services such as America On-line as well as the sending of faxes (class 2.0 or later) from any Windows computer which is attached to the LAN Modem. Note that the Virtual Fax Modem client software must be installed on every computer on the LAN which requires use of this feature. The Virtual Fax Modem has been customized for use with the LAN Modem, and cannot be used in conjunction with other WAN devices, such as routers or other LAN-based modems.

When the Virtual Fax Modem connection is in use, no other calls can be placed or received on your telephone line by any other user on the LAN.

The application, along with complete installation steps and configuration notes, may be found on the latest *3Com Companion Programs* CD-ROM, or downloaded directly from the LAN Modem Utilities homepage: **`http://www.3com.com/support/docs/lanmodem/util.html`**.

Configuring the LAN Modem for use with Virtual Fax Modem

Once you have installed the Virtual Fax Modem client application, you can further define the manner in which the Virtual Fax Modem interacts with the LAN Modem via the Virtual Fax Modem Parameters page.

To Access the Virtual Fax Modem Parameters, do the following.

1. From the LAN Modem mainpage, click the *Advanced* button.

   The Advanced submenu opens.

2. Click the *Virtual Fax* button.

   The Virtual Fax Modem Parameters page opens, as shown in Figure 11.The following options are provided.

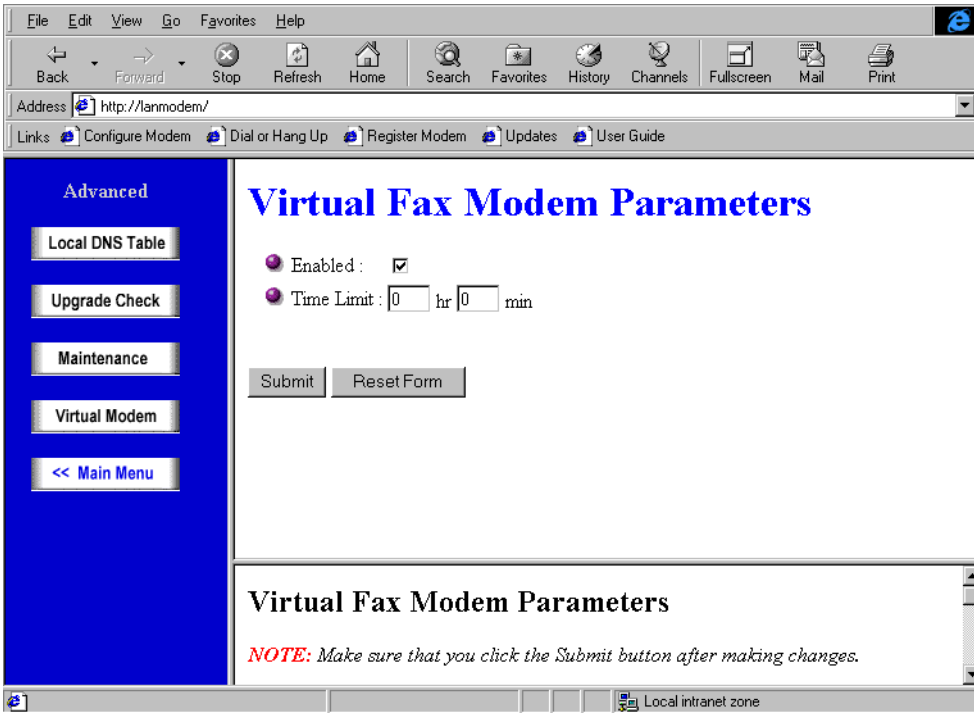


Figure 11 Virtual Fax Modem Parameters Page

3 Enabled: Check this box to enable or disable the Virtual Fax Modem. By default the Virtual Fax Modem is disabled.

4 Time Limit: This field is used to set the maximum time available for a Virtual Fax Modem connection. Once this time limit is reached, the connection will be automatically dropped. Note that when the Virtual Fax Modem connection is in use, no other calls can be placed or received on that telephone line. To disable this feature leave this field set to its default value of *0*. In this case Virtual Fax Modem calls will be dropped when the application using the connection is terminated, or by manually disconnecting the call via the LAN Modem's Manual Call Control page.

5 Click *Submit*.

This completes the LAN Modem configuration options for the Virtual Fax Modem.

The connection established by the Virtual Fax Modem cannot be shared. When in use, no other calls can be placed or received on that telephone line until the Virtual Fax Modem call has been disconnected.

Miscellaneous Enhancements

The latest LAN Modem firmware incorporates the following enhancements, changes, and fixes.

- Last Ten Calls added to Call Statistics

  The LAN Modem Statistics page now includes information regarding the last ten calls made by the LAN Modem. Access LAN Modem statistics by clicking the *Statistics* button from within the LAN Modem main page.

- Workstation configuration enhancements

  Workstation parameters are now configurable from a single page. Access the Workstation Parameters page by clicking the *Workstation* icon from the LAN Modem main page.

- Lock Configuration enhancement

  The LAN Modem Lock Configuration feature now requires that a password be previously set before locking the LAN Modem parameters. If you have not set a password on the LAN Modem, you can no longer lock the LAN Modem configuration parameters.

- Real Time Clock synchronization

  You can now manually synchronize the LAN Modem's internal clock to match the date/time of an attached workstation. Access the Real Time Clock Synchronization via the *Maintenance* button located on the *Advanced* submenu.

- The LAN Modem Maintenance page has been moved to the Advanced Page submenu.

- Modem Control parameters have been consolidated to one page. Access the new Modem Connection Control page by clicking the Modem Settings button from any service provider parameter page.

- The Default Workstation for incoming packets now offers an option of *None.* Setting this value to None will cause incoming packets to simply be ignored. Access the Default Workstation field via the LAN Modem's Workstation Parameters page.

- NetBIOS Filter enhancement

  The Enable NetBIOS Filtering option has been expanded to include three new options:

  - Always Block (default): Choosing this option will block all NetBIOS traffic which has been generated on the local LAN from being passed to the WAN. In this case, calls will not be brought up due to NetBIOS traffic, and NetBIOS traffic will not be sent to the WAN once calls have been initiated.
  - Block Call Initiation: This option will prevent NetBIOS traffic which has been generated on the local LAN from initiating automatic data calls. Note that once a call has been established, choosing this option may prevent a call from coming down.
  - Never Block: Choosing this option will allow all locally-generated NetBIOS traffic to pass to the WAN. Note that enabling this option may cause the launching of spurious calls, and it may prevent these calls from automatically hanging up.

The Enable NetBIOS Filtering field is located on the LAN (Ethernet) Parameters page, which may be accessed by clicking on the LAN Modem icon from the LAN Modem's main configuration page.

Release Note written by Eric Heller