

# NIR\_049: Setting up Dual Analog for dedicated dial-in

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This document describes how to use the Dual Analog router for dedicated dial-in access.

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**Problem:**

This document details configuration for using the Netopia Dual Analog router as a dedicated dial-in access PPP server for a network , with another router acting as the internet gateway. This document covers the configuration of the Dual Analog router in detail, and provides general guidelines for configuration of the gateway router and the dial-in client software. For specific information on the configuration of the gateway router or client side software, consult the documentation or technical support for that product.

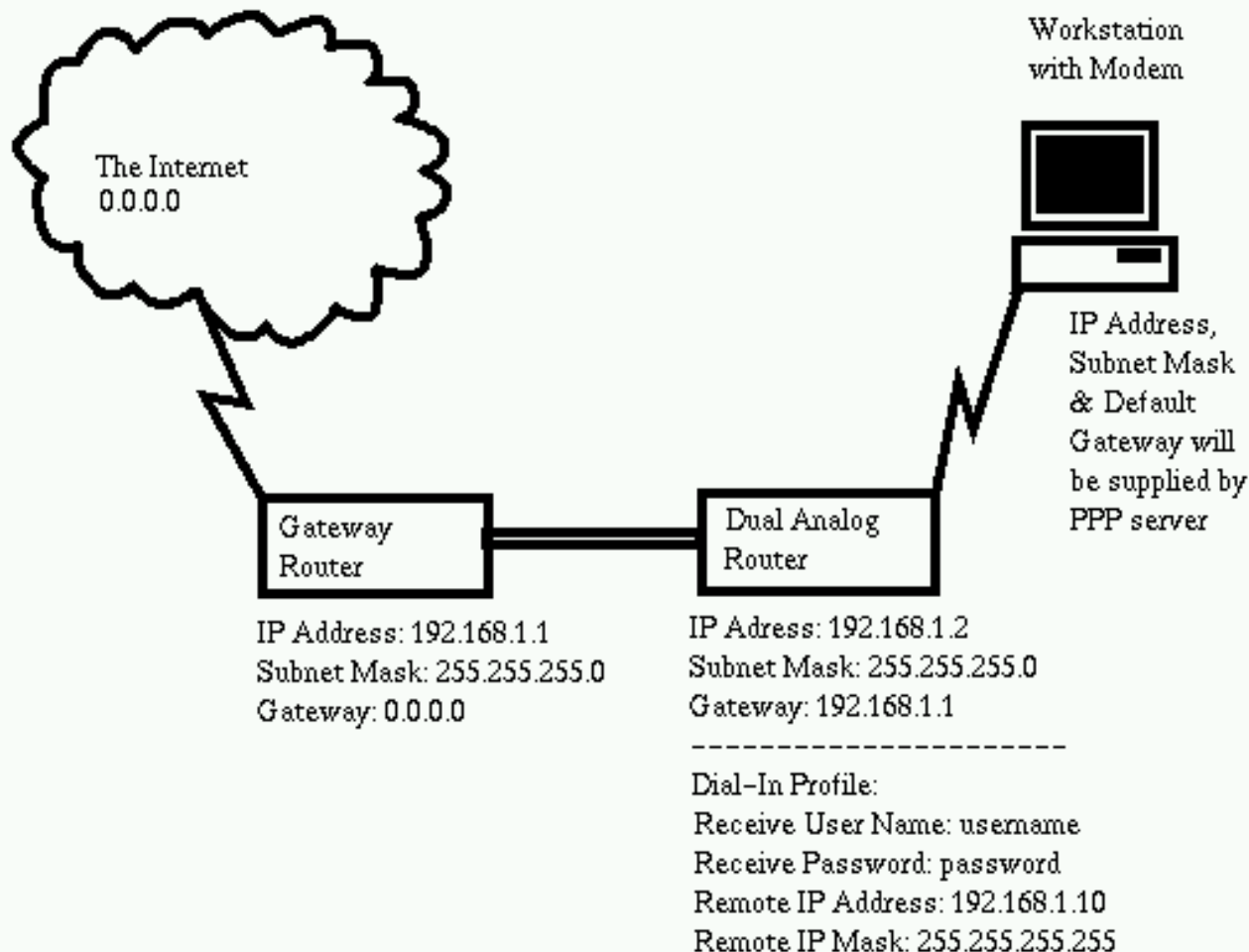
**Parameters:**

Below is a list of hardware and firmware loads that this Technical Note is based upon:

| <u>Hardware</u>            | <u>Firmware/Version</u> | <u>Installed Options</u> |
|----------------------------|-------------------------|--------------------------|
| Netopia Dual Analog router | 4.0 or better           | None                     |
| Workstation with modem     | N/A                     | PPP software             |
| Gateway router             | N/A                     | N/A                      |

**Network Configuration:**

Below is a diagram of the network referenced in this Technical Note.



## Background:

While the Dual Analog router is primarily intended as an outgoing access device for small or home office users, it also makes an excellent incoming access device for providing network access to remote users. The Netopia firmware includes a PPP server and an IP address server, which allows the remote user to connect to the router and acquire an IP address on the local network, from which the user can access the available network services, including the internet gateway. Essentially, the remote client functions as a node of the local network.

This technote assumes that both the Dual Analog router and the internet gateway router are on the same physical ethernet segment, and the same logical IP or IPX network. While the Dual Analog router can also be used on networks with multiple ethernet segments or logical networks using the same general configuration principles covered here, the static routing options that need to be covered in a multiple router LAN scenario are beyond the immediate scope of this technote. Please call Netopia technical support for assistance in adding static routes to the Netopia Dual Analog router.

## Configuration:

When changing your configuration, do not change any settings unless specifically instructed to do so by the instructions below. All settings germane

to this configuration will be covered below; other settings can and should be safely ignored.

First, go to the Quick Menu -> Default Answer Profile and confirm that Must Match A Defined Profile is set to "yes", and PPP Authentication is set to PAP.

When using the Dual Analog router as a dial-in device, the Netopia Dual Analog router must have specified as its default gateway the IP address of the router that is acting as the internet gateway for the LAN. In the above illustration, the IP address of the gateway router is 192.168.1.1 - this should be entered in the Netopia Dual Analog router under Quick Menu -> IP Setup -> Default IP Gateway. The Dual Analog router should be assigned an IP address on this same subnet. In the example, the Dual Analog router is set to 192.168.1.2. A connection profile has been added for the dial-in user, by going to Quick Menu -> Add Connection Profile. Name the profile whatever you like, then go to the DataLink options, and specify a login name and password for the remote user in the receive user name and password fields, respectively. These fields are case sensitive.

There are two possible ways to assign IP addresses to the remote users. Keep in mind that the addresses you assign to the remote users must be free and available on your LAN. The addresses will be reserved for use by the Dual Analog router even if there are no currently dialed in users, so addressing conflicts will occur if the addresses are assigned elsewhere on the LAN.

The most efficient way to assign addresses to the dial-in user is to open the connection profile that you created for them and go to the IP Profile Parameters. Set Address Translation Enabled to No(*Note:Use the tab key to toggle this option between Yes and No. Hit enter to save your changes*). In the Remote IP Address, specify the address that you wish this particular user to acquire whenever they call in. For the subnet mask, specify 255.255.255.255 if the remote user is dialing in with a modem or a router using NAT. Router-to-router connections are also possible, but are beyond the scope of the current technote.

After you have specified the user name, password, remote IP address, and mask for the dial-in user, escape back to the Add Connection Profile Screen and select Add Profile Now to add the profile. Repeat this procedure for each dial-in user, up to the maximum of 16 profiles.

It is also possible to dynamically assign an IP address to the dial-in client, though this approach is less efficient. See the [Netopia Quick Guide](#) for information on Dynamic WAN Server setup.

Note that the Dual Analog router supports a maximum of two simultaneous WAN connections, or three with an analog modem on the Auxiliary port.

### **Summary:**

The above technote documents the most efficient way to configure the Dual Analog router to serve as a dedicated dial-in access server to a single subnet LAN, granting the remote user access to the network resources, such as file and print servers, as well as the internet gateway. Other more complex configurations are also possible using these same basic principals with some minor additions and revisions.