

Windows NT 4.0 RAS for LAN-Dial – Non-Subnetted

Category: Lan-Dial Software
 Product: Microsoft Windows NT 4.0 RAS

Description:

The following instructions are for setting up Windows NT 4.0 RAS for Lan-Dial accounts without using subnetting.

Instructions:

The following identifiers are used during this setup but should be replaced by the real settings supplied by your ISP:

Identifier	Description	Example
<domain name>	Domain name	abc.com
<network>	Network number	38.100.100
<subnet mask>	Subnet mask	255.255.255.0
<account id>	Account ID	LDxxxx
<password>	Account password	xxxxxxxx
<pop phone>	POP phone number	123-4567
<name servers>	Up to 3 name servers	38.9.213.2 38.9.223.2 38.9.233.2

- 1). Install TCP/IP the Windows NT machine that will serve as the Internet gateway.
- 2). Configure the TCP/IP protocol on the gateway using the Network control panel:

Select the 'IP Address' tab:

Select the network adapter connected to the internal LAN.

Select 'Specify an IP address'.

IP Address: <network>.2
 Subnet Mask: <subnet mask>
 Default Gateway: leave this blank

Select the 'DNS' tab:

Host Name: (anything appropriate can be entered)

Domain Name: <domain name>

Add the name servers from above.

Select the 'Routing' tab:

Select 'Enable IP Forwarding'.

Close the TCP/IP configuration dialog, but DO NOT exit the Network control panel.

- 3). Select the 'Services' tab and verify that the Remote Access Service is installed. If necessary, install it. Configure the Remote Access Service as follows:

If necessary, add a modem. Configure the selected modem to 'Dial out only'.

Set the Network options to use only TCP/IP for dial out. No configuration of TCP/IP for remote clients is necessary. When done configuring RAS, close the Network control panel, but DO NOT restart the machine if prompted to.

Windows NT RAS for LAN-Dial – Non-Subnetted (cont'd)

- 4). Start the registry editor by running REGEDIT and make the following changes:

Key: HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\TCPIP\Parameters
Value: IpEnableRouter : REG_DWORD : 1

This value will most likely need to be added:

Key: HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\RasArp\Parameters
Value: DisableOtherSrcPackets : REG-DWORD : 0

- 5). Restart the machine.
- 6). Open 'My Computer' and 'Dial-up Networking'.

If the Dial-up Networking wizard starts, enter a connection name of Internet and select 'I've used this before' and press 'Next'.

Select the 'Basic' tab:

The entry name should already be filled in.

Enter the area code the computer is dialing from for 'Area code'.

Enter the POP phone number <pop phone> for 'phone number'.

If dialing codes are necessary to dial out through a PBX or dial long distance, use the Telephony control panel to make these adjustments.

Select the installed modem for 'Dial using'.

Select the 'Server' tab:

For the 'Dial-up server type', select 'PPP: Windows NT, Windows 95 Plus, Internet'.

Select TCP/IP and deselect everything else, including 'Enable software compression' and 'Enable PPP LCP extensions'.

Press the 'TCP/IP Settings . . .' button

TCP/IP Settings:

Select 'Specify an IP address'.

IP address: <network>.1

Select 'Specify name server addresses' and enter the name server addresses.

Deselect 'Use IP header compression'.

Select 'Use default gateway on remote network'.

Select the 'Script' tab: Select 'None'.

Select the 'Security' tab: Select 'Accept any authentication including clear text'.

Select the 'X.25' tab: Leave the defaults.

Windows NT RAS for LAN-Dial – Non-Subnetted (cont'd)

7). Initiate the dial up connection. Enter <account id> and <password> for the user name and password and nothing for the domain, when prompted. If errors occur, ensure all settings are set as described above.

8). After a successful connection, open a command window and type the following commands:

```
route delete <network>.0  
route add <network>.0 mask <subnet mask> <network>.2
```

9). Test the connection by pinging a non LAN address, like one of the name servers. If this doesn't work, and you've double checked all of the settings above, and you have Service Pack 2 installed, run REGEDIT again and add the following entry:

```
Key: HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\RasMan\PPP  
Value: DisableMultiLink : REG_DWORD : 1
```

After adding this value, restart the computer and return to step 7.

10). Steps 7 and 8 need to be performed manually every time a connection is desired. This can be automated using the following batch file:

```
@echo off  
rasdial Internet <account id> <password>  
route delete <network>.0  
route add <network>.0 mask <subnet mask> <network>.2
```

This batch file can have an icon assigned to it for easy startup.

11). To configure the LAN clients, each one must have TCP/IP installed and configured. Each client should have a unique IP address on the same network as the NT server (<network>.3, <network>.4, etc.), the same netmask (<subnet mask>) and a default gateway of <network>.2 (the NT machine).