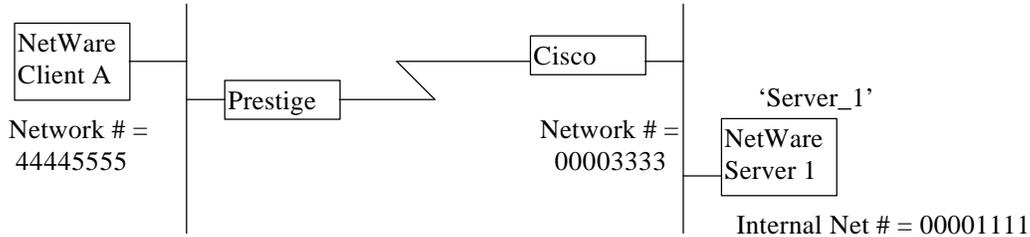Last modified: July 31, 1996

**LAN to LAN Connection w/ Cisco**
      **Routing IPX with PC client on Prestige side and Novell Server on Cisco side**



Note: The IPX network numbers shown above are examples only!

This configuration note explains how to set up a workstation on a network to use a Cisco 2503 to make a connection to a Prestige to route IPX. In this configuration, the workstation has NetWare client software so that you will be able to log into the NetWare server on the remote network. There will be three items that you need to set up. These are the workstation, Cisco 2503 and the Prestige.

I.   Workstation Setup (NetWare Client)

    To set up the workstation (W/S), you will need to set the following parameters:

- **IPX Frame Type** - First determine the frame type that the Prestige router is using, and set the same frame type on the NetWare client workstation.
- **Server Name** - In some cases, you may need the name that has been configured for the NetWare server you wish to login to. In the previous example, that would be 'Server_1'.

    The procedure for configuring these parameters for your workstation may differ depending on the type of IPX client software you are using on your workstation. If you are unfamiliar with how to set these parameters, you can refer to the technical notes corresponding to your software.

- DOS workstation w/ NetWare Client (VLM) software
- Windows 95/NT - see section 'LAN-to-LAN'

II.  Prestige Setup

    In order to configure the Prestige on the Novell server side for this application, make sure you have the following menus configured correctly.

    Note that the fields are indicated in **bold** type.

Menu 1:

```
                      Menu 1 - General Setup

            System Name= Prestige
            Location= San Jose
            Contact Person's Name= CC


            Route IP= Yes
            Route IPX= Yes
            Route AppleTalk= N/A
            Bridge= No




            Press ENTER to Confirm or ESC to Cancel:
```

- In menu 1, make sure the **Route IPX** field is set to 'Yes'.


Menu 2:

```
                      Menu 2 - ISDN Setup

            Switch Type= Northern Telecom Custom

            B Channel Usage= Switch/Switch
            1st Phone #= 5551212
              SPID #= 408555121200
              Analog Call= Modem
            2nd Phone #= 5551213
              SPID #= 408555121300
              Analog Call= Voice




            Press ENTER to Confirm or ESC to Cancel:
```

- In menu 2, set your switch type, phone numbers, and SPIDs (if necessary).
- After saving this menu, you will be asked if you want to perform an ISDN connection test. Select 'Yes' to perform the test. If the test fails, refer to the User's Manual Troubleshooting section for corrective action.

Menu 3.3:

```
         Menu 3.3 - Novell IPX Ethernet Setup

      Seed Router= Yes

      Frame Type 802.2= No
        IPX Network #= N/A

      Frame Type 802.3= Yes
        IPX Network #= 44445555

      Frame Type Ethernet II= No
        IPX Network #= N/A

      Frame Type SNAP= No
        IPX Network #= N/A

      Press ENTER to Confirm or ESC to Cancel:
```

- Make sure that you have set the correct **Frame Type**(s) to 'Yes'. You should enable the frame type that the PC client is enabled.
- Since Prestige is connected on the Novell server side, set that **Seed Router** field to 'Yes', and set a network number that is unique to your Novell network. In this example, the number is '44445555'.

Menu 11:

```
               Menu 11 - Remote Node Profile

   Rem Node Name= cisco              Route= IP+IPX
   Active= Yes                       Bridge= No
   Call Direction= Outgoing
                                     Edit PPP Options= No
   Incoming:                         Rem IP Addr= 192.68.135.175
     Rem Login=                      Edit IP/IPX/AppleTalk/Bridge= No
     Rem Password=
     Rem CLID= N/A                   Telco Option:
     Call Back= N/A                    Transfer Rate= 64K or 56K

   Outgoing:                         Session Options:
     My Login= Prestige               Input Filter Sets=
     My Password= ********            Output Filter Sets=
     Pri Phone #= 5551000             Call Filter Sets=
     Sec Phone #=                     Idle Timeout(sec)= 300

            Press ENTER to Confirm or ESC to Cancel:
```

- The **Call Direction** should be set to 'Outgoing'.
- Make sure the remote node is enabled by setting **Active** to 'Yes'.
- **My Login** and **My Password** is the login information that this Prestige will use to send to Cisco.
- **Route** should be set to 'IPX'.
- Set **Edit IP/IPX/AppleTalk/Bridge** to 'Yes' and press ENTER.

Menu 11.2:

```

```

```
                  Menu 11.2 - Remote Node Network Layer Options

    IP Options:                          AppleTalk Options:
      Rem IP Addr: 192.68.135.175          Dial-On-Query= N/A
      Rem Subnet Mask= 255.255.255.0       Rem LAN Net Range= N/A
      My WAN Addr= 0.0.0.0                  1st Zone Name= N/A
      Metric= 2                            2nd Zone Name= N/A
      Private= No                         My WAN Net #= N/A
      RIP= Both                            My WAN Node ID= N/A
    IPX Options:                          Metric= N/A
      Dial-On-Query= Yes                 ZIP Timeout(min)= N/A
      Rem LAN Net #= 00001111
      My WAN Net #= 00000000             Bridge Options:
      Hop Count= 1                         Dial-On-Broadcast= N/A
      Tick Count= 2                        Ethernet Addr Timeout(min)= N/A
      W/D Spoofing(min)= 255
      SAP/RIP Timeout(min)= 255

                   Enter here to CONFIRM or ESC to CANCEL:
```

- **Dial-On-Query** should be 'Yes'.
- The **Rem LAN Net #** field should be set to equal the internal network number of the remote NetWare server station. This number can be obtained by that network's system administrator. In our example, this value is '00001111'.
- **SAP/RIP Timeout** can be set to a greater value, so if your ISDN connection drops for an extended period of time, the Prestige will still retain the proper SAP and RIP tables.

III. Cisco 2503 Setup

Following is a capture of 'wr t' command. Please note those the fields are indicated in **bold** type.

```
#####
Current configuration:
!
version 10.2
service password-encryption
!
hostname csco2503
!
enable password 7 03085A09
!
username Prestige password 7 00554155500E
ip subnet-zero
no ip domain-lookup
ipx routing
isdn switch-type basic-dms100
!
interface Ethernet0
ip address 192.68.135.175 255.255.255.0
ipx network 00003333
!
interface Serial0
no ip address
shutdown
!
interface Serial1
no ip address
shutdown
!
interface BRI0
ip unnumbered Ethernet0
encapsulation ppp
ipx network 44445555
dialer idle-timeout 300
dialer map ip 204.247.203.176 name Prestige 5551212
dialer map ipx 44445555.00a0.c510.0074 name Prestige broadcast
!              **** 00a0:c510:0074 is the Mac address in Prestige
```

```
dialer-group 1
ppp authentication pap
!
ip classless
ip route 204.247.203.0 255.255.255.0 BRI0
ip route 204.247.203.156 255.255.255.255 BRI0
no logging console
!
!
dialer-list 1 protocol ip permit
dialer-list 1 protocol novell permit
!
    :
    :
!
end
```