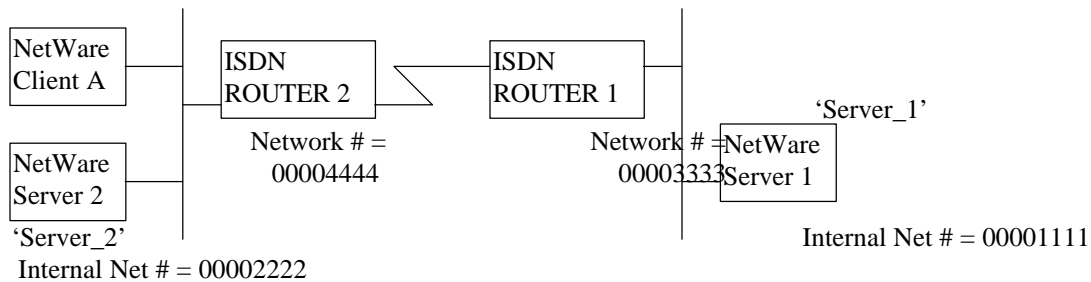


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LAN to LAN Connection Routing IPX with Two NetWare Servers



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

This configuration note explains how to set up a workstation on one network to use a ISDN ROUTER to make a connection to another ISDN ROUTER to route IPX. In this configuration, the workstation, 'NetWare Client A' will be able to log into a NetWare server, 'Server_1'. There will be three items that you need to set up. These are the workstation and the two ISDN ROUTERS.

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 NetWare server that you wish to login to is using (this would be the remote server, 'Server_1'), 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. ISDN ROUTER 2 Setup

In order to configure ISDN ROUTER 2 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= IRT1000_2
Location= Taipei
Contact Person's Name= CC

Route IP= No
Route IPX= Yes
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

2nd Phone #= 5551213
SPID #= 408555121300

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= No

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

Frame Type 802.3= Yes
IPX Network #= N/A

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:
```

Set the **Seed Router** field to 'No', since there is a Novell Server in ISDN ROUTER2's LAN. Make sure that you have set the correct **Frame Type(s)** to 'Yes'. You should enable the frame type or types that the NetWare server you want to logon to is running ('Server_1' in our example). Please note that it is possible to set more than one frame type to 'Yes'.

Menu 11.1:

```
Menu 11.1 - Remote Node Profile

Rem Node Name= ToPres1      Route= IPX
Active= Yes                 Bridge= No
Call Direction= Outgoing

Incoming:                    Edit PPP Options= No
Rem Login=                  Rem IP Addr= N/A
Rem Password=               Edit IP/IPX/AppleTalk/Bridge= Yes
Rem CLID=                   Telco Option:
Call Back= N/A              Transfer Rate= 64K or 56K

Outgoing:                    Session Options:
My Login= username          Input Filter Sets=
My Password= *****       Output Filter Sets=
Pri Phone #= 5551212        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 ISDN ROUTER will use to connect to the remote router.

The **Pri Phone #** field should be set to the correct phone number to dial.

- **Route** should be set to 'IPX'.
Set **Edit IP/IPX/AppleTalk/Bridge** to 'Yes' and press ENTER.

Menu 11.3:

```
Menu 11.3 - Remote Node Network Layer Options

IP Options:
Rem IP Addr= N/A
Rem Subnet Mask= N/A
My WAN Addr= N/A
Single User Account= N/A
Server IP Addr= N/A
Metric= N/A
Private= N/A
RIP= N/A

IPX Options:
Dial-On-Query= Yes
Rem LAN Net #= 00003333
My WAN Net #= 00000000
Hop Count= 1
Tick Count= 2
W/D Spoofing(min)= 3
SAP/RIP Timeout(min)= 3

Bridge Options:
Dial-On-Broadcast= N/A
Ethernet Addr Timeout(min)= N/A

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 external 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 '00003333'.

SAP/RIP Timeout can be set to a greater value, so if your ISDN connection drops for an extended period of time, the ISDN ROUTER will still retain the proper SAP and RIP tables.

This value should be the same as the **W/D Spoofing** field in the server-side ISDN ROUTER.

Menu 12.2:

```
Menu 12.2 - Edit IPX Static Route

Route #= 11
Server Name= Server_1
Active= Yes
Network #= 00001111
Node #= 000000000001
Socket #= 0451
Type #= 0004
Hop Count= 2
Tick Count= 3
Gateway Node= 1

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

Set **Server Name** equal to name assigned to the remote NetWare server you want to login to. In our example, this name is 'Server_1'.

The **Active** field should be set to 'Yes'.

Set **Network #** equal to the unique internal network number of the NetWare server you want to login to. In our example, this number is '00001111'.

Gateway Node should be set equal to the number of remote node (1-4) that has been configured for this application. If you are not sure of the remote node, check menu 11.

You should be able to make the connection by using the default values for the remaining fields. Please note that the **Socket #** and **Type #** fields should correspond to the server you want to login to.

III. ISDN ROUTER 1 Setup

In order to configure ISDN ROUTER 1, 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= IRT1000_1
Location= Taipei
Contact Person's Name= CC

Route IP= No
Route IPX= Yes
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 #= 5551214
    SPID #= 408555121400

2nd Phone #= 5551215
    SPID #= 408555121500

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= No

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

Frame Type 802.3= Yes
    IPX Network #= N/A

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:
```

Set **Seed Router** field to 'No', since there is no Novell Server in ISDN ROUTER1's LAN.

Make sure that you have set the correct **Frame Type(s)** to 'Yes'. You should enable the frame type or types that the NetWare server is running. Please note that it is possible to set more than one frame type to 'Yes'.

Menu 11:

```
Menu 11.1 - Remote Node Profile

Rem Node Name= ToPres2          Route= IPX
Active= Yes                     Bridge= No
Call Direction= Incoming

Incoming:
  Rem Login= username           Edit PPP Options= No
  Rem Password= *****        Rem IP Addr= N/A
  Rem CLID=                     Edit IP/IPX/AppleTalk/Bridge= Yes
  Call Back= N/A               Telco Option:
                                Transfer Rate= 64K or 56K

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

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

The **Call Direction** should be set to 'Incoming'.

Make sure the remote node is enabled by setting **Active** to 'Yes'.

Rem Login and **Rem Password** is the login information that the remote router will use to connect to this ISDN ROUTER.

- **Route** should be set to 'IPX'.
Set **Edit IP/IPX/AppleTalk/Bridge** to 'Yes' and press ENTER.

Menu 11.3:

```
Menu 11.3 - Remote Node Network Layer Options

IP Options:
  Rem IP Addr= N/A
  Rem Subnet Mask= N/A
  My WAN Addr= N/A
  Single User Account= N/A
    Server IP Addr= N/A
  Metric= N/A
  Private= N/A
  RIP= N/A

IPX Options:
  Dial-On-Query= No
  Rem LAN Net #= 000044444
  My WAN Net #= 00000000
  Hop Count= 1
  Tick Count= 2
  W/D Spoofing(min)= 3
  SAP/RIP Timeout(min)= 3

Bridge Options:
  Dial-On-Broadcast= N/A
  Ethernet Addr Timeout(min)= N/A

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

Dial-On-Query should be 'No'.

W/D Spoofing can be set to a greater value, so if your ISDN connection drops for an extended period of time, the ISDN ROUTER will still retain the proper SAP and RIP tables. This value should be the same as the **SAP/RIP Timeout** field in the client-side ISDN ROUTER.

You should be able to make this connection by using the default values for the remaining fields.