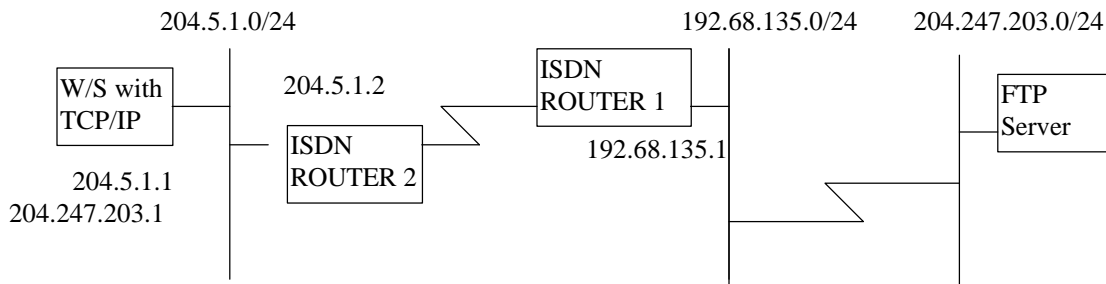


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LAN to LAN Connection Routing IP



Note: The IP addresses 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 IP. In this configuration, the workstation has the TCP/IP software installed so that it will be able to run any applications with stations on the remote network (e.g., FTP, telnet, etc.). There will be three items that you need to set up. These are the workstation and the two ISDN ROUTERS.

I. Workstation Setup

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

- IP Address** - the IP address assigned to the workstation itself, in the above example, '204.5.1.1'
- Subnet Mask** - the subnet mask used for your network. Class C networks generally use a 24-bit netmask, '255.255.255.0'.

The procedure for configuring these parameters for your workstation may differ depending on the type of TCP/IP networking 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.

- Trumpet LAN Setup - Setting up Trumpet TCP/IP
- Chameleon LAN Setup - Setting up Chameleon TCP/IP
- Windows 95/NT TCP/IP LAN Setup
- MacTCP Setup

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= Yes
Route IPX= No
Bridge= Yes

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

In menu 1, make sure the **Route IP** 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 3.2:

```
Menu 3.2 - TCP/IP and DHCP Ethernet Setup

DHCP Setup:
  DHCP= None
  Client IP Pool Starting Address= N/A
  Size of Client IP Pool= N/A
  Primary DNS Server= N/A
  Secondary DNS Server= N/A

TCP/IP Setup:
  IP Address= 204.5.1.2
  IP Subnet Mask= 255.255.255.0
  RIP Direction= Both
                  Version= RIP-v1

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

In menu 3.2, the **IP Address** and **IP Subnet Mask** field must be set correctly. In our example, the IP address of this ISDN ROUTER should be set to '204.5.1.2'.

The **RIP Direction** field must be set to either 'Both' or 'Out' in order for your workstation to receive the route to the remote network (destination 192.68.135.0/24, gateway, 204.5.1.2). If this field is not set in this way, you will need to create a static route in your workstation or another router that sends this RIP information.

Menu 11:

```
Menu 11.1 - Remote Node Profile

Rem Node Name= IP_user           Route= IP
Active= Yes                     Bridge= No
Call Direction= Outgoing

Incoming:
  Rem Login=
  Rem Password= *****
  Rem CLID= N/A
  Call Back= N/A
Outgoing:
  My Login= username
  My Password= *****
  Authen= CHAP/PAP
  Pri Phone #= 5551214
  Sec Phone #=

Edit PPP Options= No
Rem IP Addr= 192.68.135.1
Edit IP/IPX/Bridge= Yes
Telco Option:
  Transfer Type= 64K
  Allocated Budget(min)= 0
  Period(hr)= 0
Session Options:
  Input Filter Sets=
  Output Filter Sets=
  Call Filter Sets=
  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 'IP'.

Set **Rem IP Addr** equal to the IP address of the remote router. In our example, this would be '192.68.135.1'.

Menu 12.1 (optional):

```
Menu 12.1 - Edit IP Static Route

Route #: 1
Route Name= To_FTP
Active= Yes
Destination IP Address= 204.247.203.1
IP Subnet Mask= 255.255.255.0
Gateway IP Address= 204.5.1.1
Metric= 2
Private= No

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

If you need to set up a static route to reach a station or device that is not directly connected to the remote network you are accessing, you can configure menu 12. In our example, let's say the workstation wants to log into the FTP server on the 204.247.203.0/24 network. He will need to create a static route to access this device.

In menu 12, make sure to set the **Active** field to 'Yes'.

Set the **Destination IP Address** field to the IP address of the device/network you want to access.

In our example, this would be '204.247.203.1'.

Set the **Gateway IP Address** field to the first hop in which to route your packets to the desired destination address; in this case, it would be '192.68.135.1'.

III. ISDN ROUTER 1 Setup

In order to configure ISDN ROUTER 1 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_1
Location= Taipei
Contact Person's Name= CC

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

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

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

Menu 2:

```
Menu 2 - ISDN Setup

Switch Type= Northern Telecom Custom

B Channel Usage= Switch/Switch
1st Phone #= 1234567
SPID #= 408123456700

2nd Phone #= 1234568
SPID #= 408123456800

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 3.2:

```
Menu 3.2 - TCP/IP and DHCP Ethernet Setup

DHCP Setup:
DHCP= None
Client IP Pool Starting Address= N/A
Size of Client IP Pool= N/A
Primary DNS Server= N/A
Secondary DNS Server= N/A

TCP/IP Setup:
IP Address= 192.68.135.1
IP Subnet Mask= 255.255.255.0
RIP Direction= Both
                Version= RIP-v1

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

In menu 3.2, the **IP Address** and **IP Subnet Mask** field must be set correctly. In our example, the IP address of this ISDN ROUTER should be set to '192.68.135.1'.

The **RIP Direction** field must be set to either 'Both' or 'Out' in order for your workstation to receive the route to the remote network (destination 204.5.1.0/24, gateway, 192.68.135.1). If this field is not set in this way, you will need to create a static route in your workstation or another router that sends this RIP information.

Menu 11:

```
Menu 11.1 - Remote Node Profile

Rem Node Name= IP_user           Route= IP
Active= Yes                     Bridge= No
Call Direction= Incoming

Incoming:
  Rem Login= username
  Rem Password= *****
  Rem CLID=
  Call Back= N/A
Outgoing:
  My Login= username
  My Password= *****
  Authen= N/A
  Pri Phone #= N/A
  Sec Phone #= N/A

Edit PPP Options= No
Rem IP Addr= 204.5.1.1
Edit IP/IPX/Bridge= Yes
Telco Option:
  Transfer Type= 64K
  Allocated Budget(min)= 0
  Period(hr)= 0
Session Options:
  Input Filter Sets=
  Output Filter Sets=
  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 this ISDN ROUTER will expect from the remote router.

- **Route** should be set to 'IP'.

Set **Rem IP Addr** equal to the IP address of the remote router. In our example, this would be ISDN ROUTER 2 which is '204.5.1.2'.

Menu 13:

```
Menu 13 - Default Dial-in Setup

Telco Options:                                IP Address Supplied By:
  CLID Authen= None                          Dial-in User= Yes
                                           IP Pool= No
                                           IP Start Addr= N/A
                                           IP Count(1,2)= N/A

PPP Options:
  Recv Authen= PAP/CHAP
  Compression= No
  Mutual Authen= No
  PAP Login= N/A
  PAP Password= N/A
  Multiple Link Options:
    Max Trans Rate(Kbps)= 128
  IPX Net Num Supplied By:
    IPX Pool= No
    IPX Start Net Num= N/A
    IPX Count(2,16)= N/A

Callback Budget Management:
  Allocated Budget(min)= 0
  Period(hr)= 0
  Session Options:
    Input Filter Sets=
    Output Filter Sets=
    Idle Timeout= 300

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

Set the **Recv Authen** field to the type of authentication you want use (CHAP, PAP, or none).