Configuring the Basic Rate Interface (BRI) for ISDN Leased Lines in Spain (NOVACOM)

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Introduction

This document provides a sample configuration for the NOVACOM service, which is an ISDN leased line service from Telefonica in Spain.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

This document is not restricted to specific software and hardware versions.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

For more information on document conventions, refer to Cisco Technical Tips Conventions.

Background Information

The NOVACOM service offers three options:
• A typical ISDN leased line service with two 64k lines. This option is referred to as NOVACOM PERMANENTE but may no longer be offered by the provider. This option is supported by Cisco.
• A less typical ISDN leased line service with one 64k leased line plus one 64k switched channel. This is referred to as NOVACOM SEMI-PERMANENTE. This option is not supported on the same interface.
• A normal ISDN line with two switched 64k channels. This is referred to as NOVACOM CONMUTADO. This option is supported.

Configure

In this section, you are presented with the information to configure the features described in this document.

Note: To find additional information on the commands used in this document, use the Command Lookup Tool (registered customers only).

Two 64k Leased Line Service (NOVACOM PERMANENTE)

The two 64k leased lines service is supported as it works like normal ISDN leased line services. However, you must be aware that the ISDN B channels can be crossed between the two ends. This means that the link from BRI 0:1 on one side may be terminated on BRI 0:2 on the other side. This is important since for leased lines (point-to-point links) the IP addresses on the two sides must be in the same subnet. You can test this by using turning on debug ip icmp and pinging each remote B-channel IP address and verifying that the pings are returned correctly.

Network Diagram

This document uses this network setup:

Configurations

<table>
<thead>
<tr>
<th>Device Name 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>isdn leased-line BRI0</td>
</tr>
<tr>
<td>!</td>
</tr>
<tr>
<td>interface BRI0</td>
</tr>
<tr>
<td>ip address 192.168.97.1 255.255.255.0</td>
</tr>
<tr>
<td>no ip directed-broadcast</td>
</tr>
<tr>
<td>encapsulation ppp</td>
</tr>
<tr>
<td>no fair-queue</td>
</tr>
<tr>
<td>no cdp enable</td>
</tr>
<tr>
<td>!</td>
</tr>
<tr>
<td>interface BRI0:1</td>
</tr>
<tr>
<td>ip address 192.168.97.1 255.255.255.0</td>
</tr>
<tr>
<td>!--- IP address of the corresponding B channel on the !--- remote router is in the same subnet.</td>
</tr>
<tr>
<td>no ip directed-broadcast</td>
</tr>
<tr>
<td>encapsulation ppp</td>
</tr>
</tbody>
</table>
no fair-queue
no cdp enable
!
interface BRI0:2
  ip address 192.168.97.2 255.255.255.0

!--- IP address of the corresponding B channel on the
!--- remote router is in the same subnet.

  no ip directed-broadcast
  encapsulation ppp
  no fair-queue
  no cdp enable
  !

One 64k Leased Channel Plus One 64k Switched Channel (NOVACOM SEMI–PERMANENTE)

Telefonica’s second option, one 64k leased line plus one 64k switched channel, is not currently supported on the same interface. However, it will work with separate interfaces. You must configure one interface for the leased line and the other interface for the switched channel. Both will be connected to the same NT1 via a passive bus.

Two Switched 64k Channels (NOVACOM CONMUTADO)

This option is the same as most ISDN BRI connections. For an example refer to Configuring ISDN DDR with Dialer Profiles.

Verify

There is currently no verification procedure available for this configuration.

Troubleshoot

There is currently no specific troubleshooting information available for this configuration.

Related Information

- Setting Up ISDN Basic Rate Service
- Configuring ISDN
- Leased-Line ISDN at 128 kbps
- Dial Technology Support Pages
- Technical Support – Cisco Systems