

Important Router Information

Dear Valued Customer:

This packet includes **important information about your equipment** which should be reviewed by you prior to speaking with our Installations Group.

It is not a replacement for our Technical Support but is designed to help us help you get your internet connection up and running as quickly as possible.

Our Installations Group will work with you via one hour appointments. **Please review this packet and follow the setup flowchart prior to your initial appointment with your Installations Representative**

Thank you very much and welcome to the Internet.

Technical Support: (888) 774-4206

Enclosed are the following documents regarding your Internet equipment:

- **Router Setup Flowchart**
- **Connectivity Flowchart**
- **Configuration Print Out**
- **Configuration Instructions**

Additional documents for Leased Line Customers:

- **Important Circuit Information**

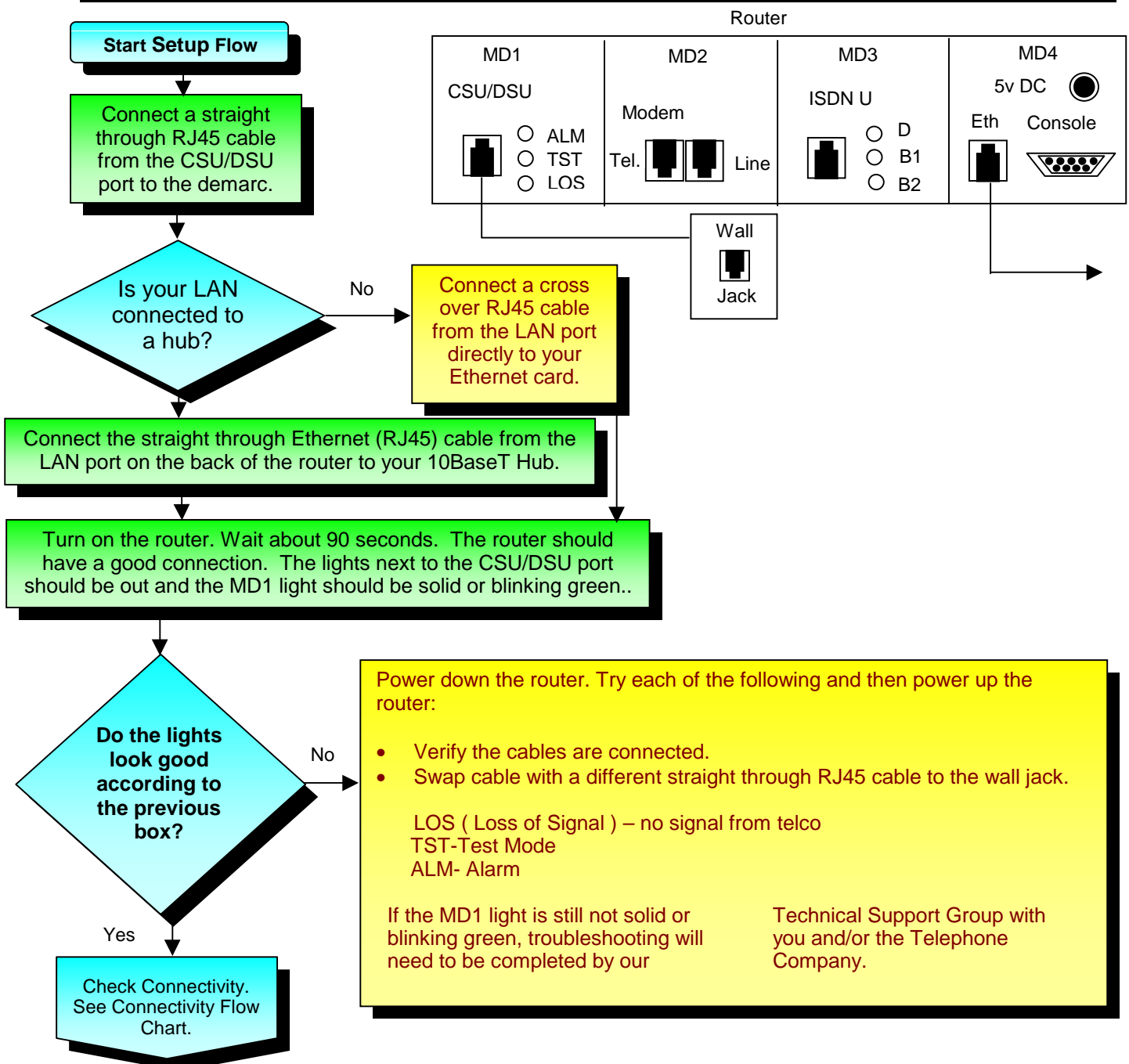
Setup: OpenROUTE GTX1000 – Leased Line

Instructions for connecting your OpenROUTE GTX1000 Router:

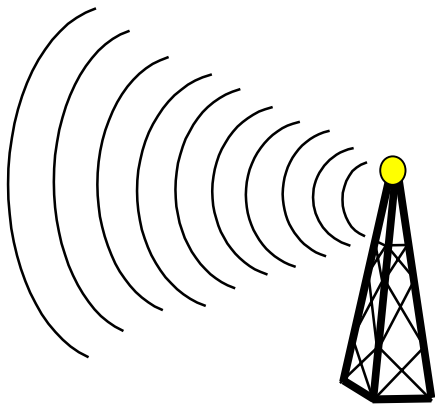
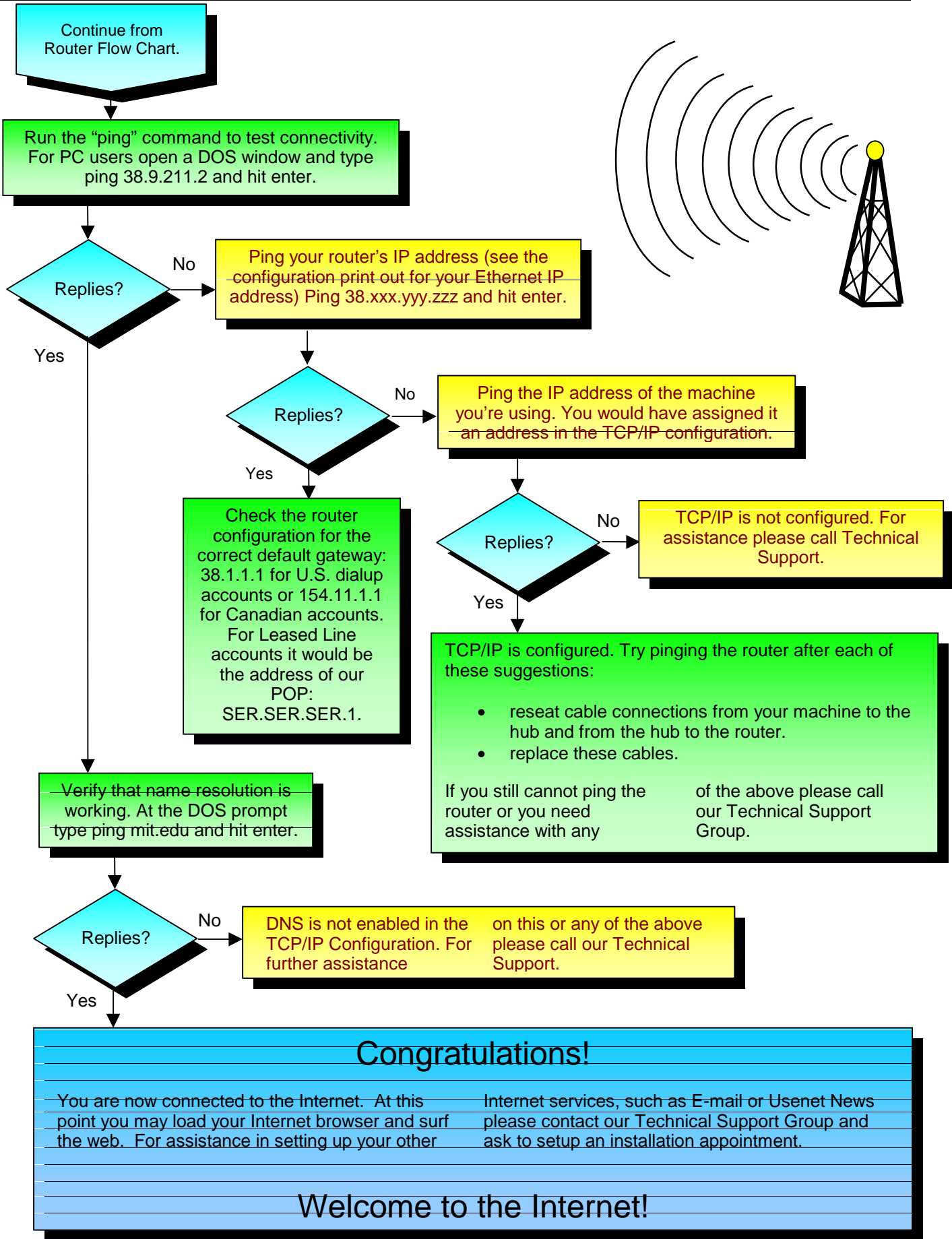
Prerequisites: Please run through the following flowchart to connect your equipment prior to scheduling your initial appointment with our Installations Group.

- Local Area Network (LAN) already setup
- TCP/IP configured on the individual workstations
- Circuit installed and tested - you will receive a message from us asking you to call for your installation appointment. Equipment should not be connected until this message is received.

Your router has been shipped to you preconfigured. Please check the configuration print out to verify that your Serial IP address and the DLCI number for your connection has been included. Also, when the connection is up and running, don't forget to change the router password.



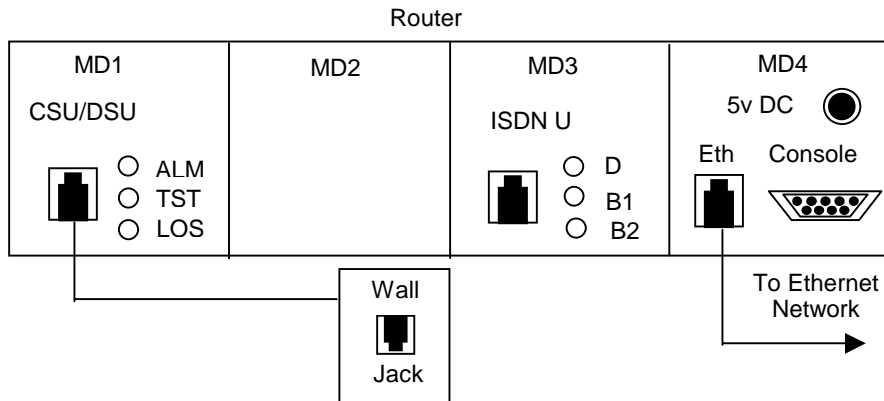
Connectivity:



Configuring the OpenROUTE GTX1000-T1-with ISDN Backup

If you received the router from us it should be preconfigured. You can telnet into the box using the default account of admin with the password of letmein.

If not preconfigured you can connect a console to the console port of the router. A null modem adapter is provided. Connect the Null Modem to the console cable provided and then to the serial port of a PC (or Mac with proper cables) with VT100 emulation software set to 9600, 8, none 1. If the router has not been preconfigured, it will run through an interactive script upon bootup. **NOTE: Connect the console port prior to powering up the router, otherwise the router will not see that the console port is available for use.**



Interface Configuration

Type 'Yes' to Configure Interfaces
Type 'No' to skip Interface Configuration
Type 'Quit' to exit Quick Config

Configure Interfaces? (Yes, No, Quit): [Yes] <enter>
Type 'r' any time at this level to restart Interface Configuration

Interface 0 is Ethernet

Configure this interface ? (Yes, No): [Yes] <enter>

Ethernet interface auto-configured

Interface 1 is WAN Frame Relay

Configure this interface ? (Yes, No): [Yes] <enter>
Data-link protocol (Point to Point, Frame Relay): [Point to Point] **Frame Relay**
Enable LAN emulation (Yes, No): [No] <enter>
Enter circuit number (16 - 1007): [16] **DLCI**
Enter circuit name (1-23 characters): [] **Internet**
Enter Committed Information Rate (CIR) in bps (300 - 2048000): [64000] **1536000**
Enter Committed Burst Size (Bc) in bits (300 - 2048000): [64000] **1536000**
Enter Excess Burst Size (Be) in bits (0 - 2048000): [0] <enter>
T1 Circuit Identifier: [] **Internet**
Please specify range of T1 timeslots to enable
Enter first timeslot of range (1 - 24): [1] <enter>
Enter last timeslot of range (1 - 24): [24] <enter>

Configuring the OpenROUTE GTX1000-T1-with ISDN Backup (cont'd)

T1 channels speed (56, 64): [64] <enter>
T1 CRC type (ANSI, Japanese): [ANSI] <enter>
T1 Long-haul (CSU) or short-haul (DSX-1) ? (Long, Short): [Long] <enter>
T1 Line build out (-dB) (0, 7.5, 15, 22.5): [0] <enter>

Interface 2 is Basic Rate ISDN

Configure this interface ? (Yes, No): [Yes] <enter>

Switch Variant Model (5ESS, DMS100, NET3, INS64, USNI1, USNI2, VN3, AUS, JPNLSD_64, JPNLSD_128): [USNI1]
Point/Multi-Point Selection (PP, MP): [MP] <enter>

Enter your first ISDN phone number (number or number:extension): [] 999-9999
Enter your second ISDN phone number (number or number:extension): [] 999-9999

Enter Service Profile ID 0 (19 digits max): [] 9999999999
Enter Service Profile ID 1 (19 digits max): [] 9999999999

Specify remote router name (1-23 chars): [] Internet
Enter 'Internet' ISDN phone number (number or number:extension): [] 999-9999
Enter a second ISDN phone number? (Yes, No): [Yes] no

Enable DOSBS mode? (Yes, No): [No] <enter>

Place Outbound Calls (Yes, No): [Yes] <enter>
Accept Inbound Calls (Yes, No): [Yes] no

Multilink PPP (Disable, Enable): [Enable] <enter>
PPP STAC Data Compression (Disable, Enable): [Disable] <enter>
PPP Call-Back (Disabled, Request, Accept, Always): [Disabled] <enter>

Setup CHAP authentication? (Yes, No): [Yes] no

Setup PAP authentication? (Yes, No): [No] yes

Local Name used for PAP Identification: [LICSG] INFRxxxx
Local Password: [] [Enter Password Here]
Enable PAP authentication (Yes, No): [No] yes
Remote Password: [] [Enter Password Here]

This is all configured device information:

Interface 0 is Ethernet, connector (10baseT UTP) auto-configured
Interface 1 is WAN with Frame Relay encapsulation, connector auto-configured
LAN Emulation: Disabled
Circuit name: Internet
Circuit number: DLCI
Committed Information Rate: 1536000
Committed Burst Size: 1536000
Excess Burst Size: 0
T1 with 64K channels speed, ANSI CRC, line build out 0 - 133 feet/0 dB
Timeslots: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24

Configuring the OpenROUTE GTX1000-T1-with ISDN Backup (cont'd)

Circuit Identifier: Internet

Interface 2 is Basic Rate ISDN

Switch-Variant-Model: USNI1
Multipoint Selection: MP
DN0 (Directory-Number-0): 999-9999
DN1 (Directory-Number-1): 999-9999
Service Profile ID (SPID) 0: 9999999999
Service Profile ID (SPID) 1: 9999999999
Terminal Endpoint ID (TEI) 0: AUTO
Terminal Endpoint ID (TEI) 1: AUTO

Remote Router Name: Internet
Remote Router Phone Number: 999-9999:

DOSBS Mode: Disabled

Outbound Calls: Enabled
Inbound Calls: Disabled
Multilink PPP: Enabled
PPP STAC Data Compression: Disabled
PPP Call-Back: Disabled

PAP options

Local router name: INFRxxxx
Enable PAP authentication: Enabled

Router	Password
-----	-----
INFRxxxx	[Enter Password Here]
Internet	[Enter Password Here]

Save this configuration? (Yes, No): [Yes] <enter>

Interface configuration saved

Bridging Configuration

Type 'Yes' to Configure Bridging
Type 'No' to skip Bridging Configuration
Type 'Quit' to exit Quick Config

Configure Bridging? (Yes, No, Quit): [Yes] no

Protocol Configuration

Type 'Yes' to Configure Protocols
Type 'No' to skip Protocol Configuration
Type 'Quit' to exit Quick Config

Configuring the OpenROUTE GTX1000-T1-with ISDN Backup (cont'd)

Configure Protocols? (Yes, No, Quit): [Yes] <enter>
Type 'r' any time at this level to restart Protocol Configuration

Configure IP? (Yes, No): [Yes] <enter>
Type 'r' any time at this level to restart IP Configuration

IP Configuration is already present
Configure IP anyway? (Yes, No): [No] yes
Configuring Per-Interface IP Information

Configuring Interface 0 (Ethernet)
Enable IP on this interface? (Yes, No): [Yes] <enter>
Use Dynamic IP Address Assignment via DHCP? (Yes, No): [Yes] no
IP Address: [192.168.1.1] LAN.LAN.LAN.1
Address Mask: [255.0.0.0] 255.255.255.0

Configuring Interface 1 (WAN Frame Relay)
Enable IP on this interface? (Yes, No): [Yes] <enter>
IP Address: [] SER.SER.SER.SER
Address Mask: [255.0.0.0] 255.255.255.0

Configuring Interface 2 (Basic Rate ISDN)
Enable IP on this interface? (Yes, No): [Yes] <enter>
Use Unnumbered IP Addressing? (Yes, No): [Yes] <enter>
Use Dynamic IP Address Assignment? (Yes, No): [No] <enter>

Per-Interface IP Configuration complete

Configuring IP Routing Information

Enable Dynamic Routing via RIP or OSPF? (Yes, No): [No] <enter>

Only Static Routing Enabled

Specify a Default Route? (Yes, No): [Yes] <enter>
Specify default route via an Unnumbered or Address Assigned Interface?
(Yes, No): [Yes] no
Default Route Gateway IP Address?: [0.0.0.0] SER.SER.SER.1

Routing Configuration Complete

SNMP will be configured with the following parameters:
Community: public
Access: READ-ONLY

This is the information you have entered:

Interface #	IP Address	Address Mask
0	LAN.LAN.LAN.1	255.255.255.0
1	SER.SER.SER.SER	255.255.255.0
2	Unnumbered	

Only STATIC Routing present

Configuring the OpenROUTE GTX1000-T1-with ISDN Backup (cont'd)

Default route is via gateway at SER.SER.SER.1

All other IP configuration will be reset to default values

Save this configuration? (Yes, No): [Yes] <enter>

IP configuration saved

Configure IPX? (Yes, No): [Yes] no

Booting Configuration

Type 'Yes' to Configure Booting

Type 'No' to skip Booting Configuration

Type 'Quit' to exit Quick Config

Configure Booting? (Yes, No, Quit): [Yes] <enter>

Type 'r' any time at this level to restart Booting Configuration

Previous Boot information

Booting Method: IBD Boot

IBD Load Name: gtx1000.ldc

Create an IBD boot record using this information? (Yes, No): [Yes] <enter>

Boot configuration saved

Enable Console Modem-Control? (Yes, No, Quit): [No] <enter>

Quick Config Done

Restart the router for this configuration to take effect

Restart the router? (Yes, No): [Yes] <enter>

RESTARTING THE ROUTER.....

After the reboot, simply add the Internet default username and password.

MOS Operator Control

*TALK 6

Gateway user configuration

Config>>ADD USER admin

Enter authentication type: (N)one, (P)assword, (C)hallenge, or (Q)uit [C]? p

Enter password: letmein

Enter password again: letmein

Enter permission: (A)dmin, (O)perations, (M)onitor, or (Q)uit [A]? <enter>

Configuring the OpenROUTE GTX1000-T1-with ISDN Backup (cont'd)

User 'admin' has been added

Do you want to add Technical Support access? (Y)es, (N)o, or (Q)uit [Y]? no

Config>>PROTOCOL ip

Internet protocol user configuration

IP config>DISABLE DIRECTED-BROADCAST

IP address (CR for all)? <enter>

IP config>ADD ROUTE

IP destination [0.0.0.0]? <enter>

Address mask [0.0.0.0]? <enter>

Via gateway at [0.0.0.0]? 0.0.0.2

Cost [1]? 5

IP config> exit

config>NETWORK 1

Circuit Configuration

Circuit Config <NET-1> set DESTINATION Internet

Circuit Config <NET-1> exit

config>FEATURE wrp

WAN Reroute user configuration

WRP config>ADD ALTERNATE-CIRCUIT

Alternate interface number [0]? 2

Primary interface number [0]? 1

WRP config>ENABLE ALTERNATE-CIRCUIT

Alternate interface number [0]? 2

WRP config>ENABLE wrp

WRP config>exit

config> ctrl p

* restart

Are you sure you want to restart the gateway? (Yes or [No]): yes

LAN.LAN.LAN.1 = Ethernet address of Customer Router

LAN.LAN.LAN = Customer Network Number

SER.SER.SER.SER = Serial address of Customer Router

SER.SER.SER.1 = Address of POP Router

DLCI = Customer DLCI

Important Circuit Information

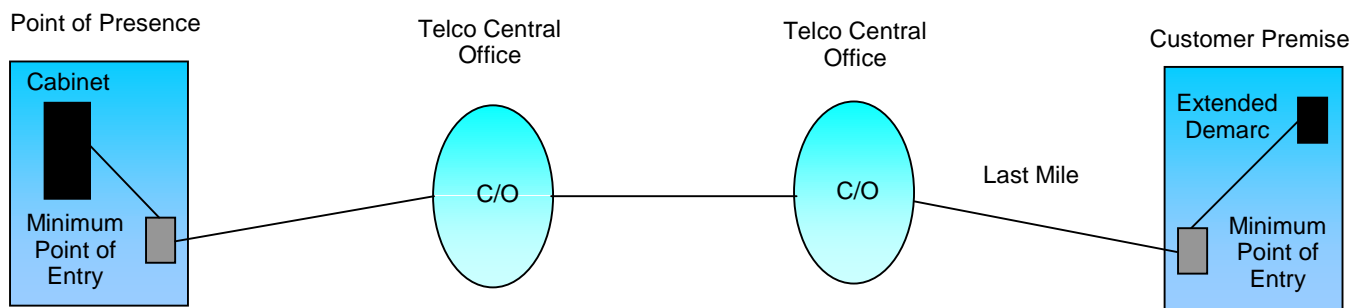
This document is designed to give you a general idea of what is involved in building a circuit for your Internet use.

You will be receiving weekly status updates which include the following dates concerning your Leased Line Circuit:

- Date the circuit was ordered by us.
- Estimated date of circuit installation (unconfirmed)
- Scheduled date of circuit installation (if provided by the telco)
- Date circuit turn up was accepted by our Network Operations Group

Once the circuit has been accepted by NOPs you will receive an “available” message indicating that the circuit is ready and to call our Corporate Installations Group to setup your initial appointment.


Please be aware that the circuit is not ready until you receive this message. It is often thought that when the circuit is installed at your site that all is ready to go. Sometimes it is, sometimes it is not. The following is a simple diagram of a circuit:



General Process:

1. The circuit is ordered by us with the telco. The telco “designs” the circuit from our Point of Presence (POP) to your site’s Minimum Point of Entry (MPOE).
2. The telco completes the circuit from our POP, through the Central Office(s), to your MPOE. An extended demarc needs to be run from the MPOE to your equipment room which is usually handled by the telco.
3. When the telco is done they will contact us to test the line. When test is complete and satisfactory you will be sent a message asking you to setup your initial appointment.

Some Pitfalls:

1. Due to timing, design changes may be required at one or more Telco Central Office.
2. Facilities problems occur, usually in the “Last Mile.” For example, construction requirements, repeaters required to “clean up” the signal. 
3. All looks ready to go but you still cannot get a good connection. It may be that a loop has been left at one of the Telco Central Offices not allowing the signal to reach your site. We have no way of knowing this at the time of testing but our Operations Group will work with the Telco to resolve.