Ordering ISDN Service (OR-U only) A

This appendix applies only to OR-U users installing the unit in the USA and Canada.

Call your local telephone carrier to find out about ISDN service availability, pricing, and features. Typically there is an ISDN installation cost, a monthly flat-rate service cost, and usage costs.

For a list of ISDN providers in the USA and Canada see page A-4.

Ordering Instructions

Your telephone carrier may inquire about your ISDN interface. Read the following information to the carrier:

"I have an ISDN device with a BRI (Basic Rate Interface) port which provides two "B" channels for data and one "D" channel for signalling. The BRI port has an integrated NT1, providing a U interface."

Step-by-step instructions for ordering ISDN service are provided on the following pages.

1. **Ask your provider what the costs are for CSV/CSD (Circuit-Switched Voice/Circuit-Switched Data) and for CSD (Circuit-Switched Data) and select the less expensive service.**

   The OR-U can be used for data transmission only. However, many ISDN providers offer both data and voice service over ISDN at less cost than data only, and the router can use channels configured that way for transmitting data.

   If ordering voice and data is less expensive than data only, have both ISDN B channels configured for CSV/CSD, even though the router will only transmit data over the line. If data is less expensive than voice and data service, have the two ISDN B channels configured for CSD. The OR-U will work with either configuration.

Ask your provider:

"Does it cost more to configure my ISDN line for both voice and data than it does for just data?

If the answer is no, tell the provider:

"Provision both ISDN B channels for voice and data and the D channel for call signalling."

If the answer is yes (voice and data costs more than just data) tell the provider:

"Provision both ISDN B channels for data only and the D channel for call signalling."

2. **Be ready to provide switch type translations.**

   Ask your provider:

"What ISDN switch type will I be connected to?"

Based on the answer, FAX or read them the appropriate one-page table from this chapter:

If the response is	FAX (or read) from
"National ISDN-1" or "NI-1 compliant"	Table A-3
"AT&T 5ESS Custom Multi-Point"	Table A-4
"AT&T 5ESS Custom Point-to-Point"	Table A-5
"Northern Telecom DMS-100 Custom" or "DMS-100"	Table A-6

3. **Choose a carrier for long-distance ISDN service.**

   It may be easiest to stay with the same company that provides your existing analog long-distance service, though this is not a requirement.

4. **Configure your site wiring to support ISDN service.**

   Ask your provider what additional wiring is necessary to support ISDN on your premises.

   Depending on your existing wiring, you may need to have an extra pair of copper wires brought to your premises or additional inside wiring installed.

   Make sure your ISDN wall jack is RJ-11 (four pins, like a telephone jack). If it is an RJ-45 jack (8 pins), you will need to use an RJ-45 to RJ-45 cable, rather than the RJ-11 cable provided with the OR-U.

5. **Get your Switch Type, SPID(s) and Directory Number(s).**

   Table A-1 provides a form to record your ISDN service information. You need this information to configure the OR-U.

Table A-1 Personal ISDN Service Information

ISDN information	**Value**
Switch Type	❑ National ISDN-1 (NI-1) ❑ AT&T 5ESS Custom Multi-Point ❑ AT&T 5ESS Custom Point-to-Point[1] ❑ Northern Telecom DMS-100 Custom
SPID 1	
SPID 2	
Directory Number 1	
Directory Number 2	

1. In most cases, 5ESS Custom Point-to-Point does not require SPIDs. In addition, the service provider will only issue one directory number, used for S1 and S2.

The SPID (Service Profile Identifier) identifies your equipment to the ISDN switch. Directory Numbers are the telephone number(s) assigned to your ISDN B channels by the Telephone Company.

To configure the ISDN Switch Type, SPID, and/or port directory numbers on the OR-U, see the "ISDN Connections" chapter of the *Configuration Guide for PortMaster Products*.

6. **Get the ISDN phone number from your Internet Service Provider.**

   Contact your Internet (or other) Service Provider for a phone number that supports ISDN connections. Record it here for later use:

   Note that your ISDN Provider is the company that provides ISDN service to your house. This company may be different than your Internet Service Provider, the company that you call using ISDN in order to connect to the Internet.

ISDN Providers

Table A-2 provides a list of ISDN providers in the USA and Canada and their phone numbers.

Table A-2 ISDN Providers

Contact Information	State
Ameritech 1-800-TEAMDATA	Illinois, Indiana, Michigan, Ohio
Bell Atlantic 1-800-570-ISDN	Delaware, Maryland, New Jersey, Pennsylvania, Virginia, Washington DC, West Virginia
Bell South 1-800-428-ISDN	Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee
Cincinnati Bell 513-566-DATA	Ohio, Kentucky
Nevada Bell 702-688-7124	Nevada

Table A-2 ISDN Providers *(Continued)*

Contact Information	State
NYNEX 1-800-GET-ISDN 617-743-1333	Massachusetts, Maine, New Hampshire, New York (except Rochester), Rhode Island, and Vermont
Pacific Bell 1-800-472-ISDN	California
Rochester Telephone 716-777-1234	Rochester, NY area
Southern New England Telephone 1-800-430-ISDN	Connecticut
Southwestern Bell 1-800-SWB-ISDN	Arkansas, Kansas, Missouri, Oklahoma, Texas
US West 1-800-358-4513	Arizona, Colorado, Idaho, Iowa, Minnesota, Montana, N. Dakota, Nebraska, New Mexico, Oregon, S. Dakota, Utah, Washington, Wyoming
AGT 403-530-7100	Alberta
BC TEL 604-432-5529	British Columbia
Bell Canada 1-800-334-4736 514-870-4636	 Ontario Quebec
MT&T - Island Tel 902-487-4723	Nova Scotia - PEI
MTS 204-941-8784	Manitoba
NBTel 506-658-7980	New Brunswick
Newfoundland Tel 709-739-2023	Newfoundland
SaskTel 306-777-5454	Saskatchewan

Table A-3 National ISDN-1 (NI-1) Switch Translations

Attribute	**Parameter**
Line	2B+D
Line Code	2B1Q
Terminal Type	A
MAX B Channels	2
B1	CSD (or CSVD)
B2	CSD (or CSVD)
D	signalling
CSD	2
CSD CHANNEL	any
CSD LIMIT	2
ACT USR	Yes
Dynamic TEI	Yes
EKTS	No
MTERM	1
CA PREF	1
Call Appearances	Idle
Protocol Version Control	2
Release Key	No
Ringing Indicator	No

Table A-4 5ESS Custom Multi-Point Switch Translations

Attribute	**Parameter**
Line	2B+D
Line Code	2B1Q
Terminal Type	A
MAX B Channels	2
B1	CSD (or CSVD)
B2	CSD (or CSVD)
D	signalling
CSD	2
CSD CHANNEL	any
ACT USR	Yes
Dynamic TEI	Yes
EKTS	No
MTERM	1
CA PREF	1
Autohold	No
OneTouch	No
Display	No
Call Appearances	Idle

Table A-5 5ESS Custom Point-to-Point Switch Translation

Attribute	**Parameter**
Terminal Type	A
Call Appearances	1
Display	No
Channels for CSV per DN	1
Channels for CSD per DN	1

Table A-6 DMS-100 Custom Switch Translations

Attribute	**Parameter**
Line	2B+D
Line Code	2B1Q
Terminal Type	A
MAX B Channels	2
Circuit Switched Service	Yes
CSD/CSV Channel	Any
Signalling	Functional
Dynamic TEI	Yes
EKTS	No
Protocol Version Control	1
Max # Programmable Keys	3
Release Key	No
Ringing Indicator	No