Ordering ISDN BRI Service for Ascend Products

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What is in this document?

This document explains how to order ISDN Basic Rate Interface (BRI) service in North America for all Ascend products that use BRI service except the Pipeline 25 and Pipeline 75. It also provides information that your telephone company needs to provision (configure) an ISDN BRI line for your Ascend product. The latest version of this document is available from the Ascend Communications World Wide Web site; see

`http://www.ascend.com/techdocs/brilinep.html`

for the HTML version or

`http://www.ascend.com/techdocs/brilinep.pdf`

for a version in Adobe Acrobat format.

For information on ordering ISDN BRI service in North America for a Pipeline 25 or Pipeline 75, see the document “Ordering ISDN Service for the Pipeline 25 and 75” that is included in Pipeline 25 and 75 packages. This document is also available from the Ascend Communications World Wide Web site; see

`http://www.ascend.com/techdocs/isdnlinep.html`

for the HTML version or

`http://www.ascend.com/techdocs/isdnlinep.pdf`

for a version in Adobe Acrobat format.

For information on ordering Primary Rate Interface (PRI) ISDN service, see the manuals for Ascend products that use this service.

Note: Use the information in this document in place of any BRI provisioning information in the manuals for your Ascend product.

This document contains the following sections:

- Ordering ISDN service
- Provisioning the AT&T 5ESS
- Provisioning the Northern Telecom DMS-100
- Service profile identifiers (SPIDs)

Ordering ISDN service

To order ISDN BRI service for your Ascend product, follow these steps:

1. Call your telephone company's ISDN ordering center and ask what type of switch the telephone company uses for your ISDN service.

   In most cases, the switch is an AT&T 5ESS or a Northern Telecom DMS-100.

2. Ask what type of ISDN service is available to you.

   If the switch for your area is an AT&T 5ESS, this is National ISDN-1 (NI-1), AT&T Custom Multipoint, or AT&T Custom Point-to-Point. If the switch for your area is a Northern Telecom DMS-100, this is National ISDN-1 (NI-1) or DMS-100 Custom.

3. Read the section in this document that applies to your switch type.

4. Place the order.

   Request 2 ISDN telephone numbers and 2 service profile identifiers (SPIDs) for your ISDN line if they are available for your ISDN service.

5. If the telephone company does not already have the correct provisioning settings for your Ascend product, fax or mail them the provisioning information for your switch and service type that is included in this document.

6. When the telephone company installs your ISDN BRI line, obtain the following information:

   – The type of telephone switch used for the line

   – The telephone number or numbers for the line

   – The Service Profile Identifiers (SPIDs), if any, for the line

   Note: AT&T Custom Point-to-Point service includes only one telephone number. There are no SPIDs for Custom Point-to-Point service.

Provisioning the AT&T 5ESS

The following table lists the proper provisioning settings for the AT&T 5ESS switch used for any the following service types:

- National ISDN-1 (NI-1)
- AT&T Custom Multipoint
- AT&T Custom Point-to-Point

Table 1. Switch settings for AT&T 5ESS switches

Provisioning Feature	Setting
Terminal Type	A
Circuit Switched Data (CSD)	2
Circuit Switched Voice (CSV)	1
Call Appearances Quantity (CA QTY)	1

Provisioning Feature	Setting
Display is Y/N	No
Ringing/Idle Call Appearances	Idle
Autohold is Y/N	No
Onetouch is Y/N	No

Provisioning the Northern Telecom DMS-100

The following table lists the proper provisioning settings for the Northern Telecom DMS-100 switch used for either of the following service types:

- National ISDN-1 (NI-1)
- DMS-100 Custom (NTI)

Table 2. Switch settings for Northern Telecom DMS-100 switches

Provisioning Feature	Setting
Signaling	Functional
Protocol version control (PVC)	1 or 2
TEI assignment	Dynamic
Maximum number of keys (maxkeys)	3 (although any number from 1 to 64 is OK)
Release key	No
Ringing indicator	No
Electronic Key Telephone System (EKTS)	No

Service profile identifiers (SPIDs)

A Service Profile Identifier (SPID) is a number that identifies ISDN equipment attached to your ISDN line. Depending on the type of ISDN service you have, there are one, two, or no SPIDs. When you order ISDN service, the telephone company should give you the necessary SPID or SPIDs, which you then use when configuring your Ascend product.

Note: You normally don't need to know about SPIDs; you simply enter the numbers when configuring the Ascend product. If, however, the telephone company does not provide the necessary SPIDs or provides SPIDs that are incorrect, the information in the following sections can help you explain to the telephone company what you need.

About SPID formats

A SPID is normally derived from a telephone number for the ISDN BRI line. It may or may not include the area code, and it may have a special prefix and/or suffix. The SPID formats used by most telephone companies are described in the following sections.

Generic SPIDs for NI-1 and NI-2 service

A generic SPID format for National ISDN-1 (NI-1) and National ISDN-2 (NI-2) service is used by some telephone companies. The format for these generic SPIDs, which is the same for all switches, is as follows:

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aaannnnnnnsstt
```

- aaa is the 3-digit area code and nnnnnnn is the 7-digit phone number for the ISDN BRI line.
- ss is the Sharing Terminal Identifier (ID), which a two-digit number from 01 to 32. These two digits are normally 01.
- tt is a 2-digit code Terminal ID code (TID), which is a two-digit number from 01 to 08. These two digits are normally 01.

For example, if the telephone company assigns the telephone numbers 510-769-6001 and 510-769-6002 to the ISDN BRI line, the SPIDs are most likely to be 51076960010101 and 51076960020101.

SPIDs for an AT&T 5ESS switch

For National ISDN-1 (NI-1) service from an AT&T 5ESS switch, SPIDs are normally in this format:

01nnnnnnn0tt

- nnnnnnn is a 7-digit phone number (not including the area code) of the ISDN BRI line.
- tt is a 2-digit code Terminal ID code (TID) from 00 to 62, which you must assign. We recommend that you always use 00 for this 2-digit code.

For example, if the telephone company assigns the telephone numbers 769-6001 and 769-6002 to the ISDN BRI line, and you use 00 for the two-digit code for both numbers, the SPIDs are 017696001000 and 017696002000.

SPIDs for AT&T Custom Multipoint service are normally in this format:

01nnnnnnn0

- nnnnnnn is a 7-digit phone number (not including the area code) of the ISDN BRI line.

For example, if the phone number is 555-1212, the SPID is 0155512120.

There are no SPIDs for AT&T Custom Point-to-Point service.

SPIDs for a Northern Telecom DMS-100 switch

For National ISDN-1 (NI-1) service from a Northern Telecom DMS-100 switch, SPIDs are normally in this format:

aaannnnnnnsstt

- aaa is the 3-digit area code and nnnnnn is the 7-digit phone number for the ISDN BRI line.
- ss is the SPID suffix, which can be empty or can be 1 or 2 digits:
  - 1 and 2 (one for each number used by the ISDN BRI line)
  - 01 and 02 (one for each number used by the ISDN BRI line)
- tt is a 2-digit code from 00 to 62, which you must assign. We recommend that you always use 00 for this 2-digit code.

For example, if the phone numbers assigned to the ISDN BRI line are 510-769-6001 and 510-769-6002, and you use 00 for the two-digit code for both numbers, the SPIDs are 51076960010100 and 51076960020200.

For DMS-100 Custom service from a Northern Telecom DMS-100 switch, SPIDs are normally in this format:

`aaannnnnnss`

- `aaa` is the 3-digit area code and `nnnnnn` is the 7-digit phone number of the ISDN line.
- `ss` is the SPID suffix, which can be optional or can be 1 or 2 digits:
  - `1` and `2` (one for each number used by the ISDN BRI line)
  - `01` and `02` (one for each number used by the ISDN BRI line)

For example, if the phone number is `415-555-1212`, the SPID is `415555121201`.