Ordering Primary Rate ISDN for the Remote Annex 6300

This guide tells you how to order Primary Rate ISDN (PRI) lines for use with the Remote Annex 6300 PRI module in the USA and Canada only. For the most up-to-date version of this document, please see the Bay Networks World Wide Web site at *http://www.baynetworks.com*.

Primary Rate ISDN

In North America, Primary Rate ISDN is provided over the same physical circuit as a T1 leased line, from what is known as the 'trunk side' of your telephone company's central office switch. The main difference between a T1 and a PRI line lies in how a PRI line is split up into 23 B (or 'bearer') channels plus one D ('delta' or signaling) channel, and in how calls are set up and controlled. As with Basic Rate ISDN, the B channels each have a 64 kpbs capacity. Unlike Basic Rate ISDN, however, the D channel also has a 64 kbps capacity, rather than 16 kpbs.

This edition of the guide covers product versions which require an external Channel Service Unit (CSU). A CSU is a device that provides electrical isolation between the telephone company's line and your equipment, along with remote diagnostic capabilities so that the phone company can test the line. An External CSU is bundled with Remote Annex shipments for the U.S. and Canada. Follow the installation instruction included with the CSU.

Service Options

You should be aware that both local and long distance phone companies can provide PRI services, but that exact service options may differ between them. Contact your carriers for more details. For North America, the Remote Annex 6300 supports 5ESS, DMS100 and NI-2 switches.

You should select the following options (where available) when ordering your PRI line:

- **Framing and line encoding:** ask for Extended Superframe Format (ESF) with B8ZS line encoding. These options are necessary to ensure 64 kbps clear channels are available. The Remote Annex 6300 supports both Circuit Switched Data (56/64 KB) and Circuit Switched Voice.
- **Bearer capabilities:** ask that the PRI line is provided as circuit-switched data only or that the bearer capability is selected on a call-by-call basis. For maximum flexibility, we recommend that you ask for call-by-call service selection.
- **Incoming calling line identification:** we recommend enabling this option, if available, as it can provide a strong level of access security.
- **Clock source:** set your CSU to receive clock signals from your telephone company's switch, i.e. to be a slave rather than a master.
- **Called party number:** request delivery of this option; typically, the Remote Annex 6300 is configured with this option to decide how to handle specific incoming call (the user will configure the 6300 to handle called number xxxx voice calls, called number yyyy as V.120 calls and called number zzzz as synchronous PPP calls). Order at least three distinct phone numbers associated with the PRI line. They should each be setup as a hunt group spanning all the B channels. DID service or MSN service will satisfy this requirement. Three phone numbers is the fastest way to insure calling type.

The Remote Annex 6300 can detect the difference between digital and analog calls. You can use a single phone number for a combination of analog and V.120 calls or analog and synchronous PPP calls. Separate phone numbers are required for a mixture of V.120 and synchronous PPP calls.