STENTOR
The Power of Telecommunications

Interface Document
ID-0022
November 1995

NATIONAL ISDN-2 (NI-2)
PRIMARY RATE ACCESS (PRA)

Terminal-to-Network Interface

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DOCUMENT HISTORY

1	September 1995	Initial issue
2	November 1995	Revised issue - commercial service Added reference to manufacturers' AGCS GTD-5® specification. Removed reference to AT&T 5ESS switching technology. Updated implemented/supported capabilities.

DISCLAIMER

Stentor reserves the right to modify the interface described in this document for any reason including, but not limited to, ensuring that it conforms with standards promulgated by various agencies from time to time, utilization of advances in the state of the technical arts, or the reflection of changes in the design of any equipment, techniques or procedures described or referred to herein.

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Readers are specially advised that the technical requirements contained herein may change.

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1.0 GENERAL

National ISDN is a series of North American industry agreements which define uniform, vendor independent implementations of ISDN user-to-network interfaces. National ISDN-1 (NI-1) defined the first phase toward a uniform ISDN format. National ISDN-2 (NI-2) is the second phase of National ISDN implementation which adds to the capabilities of NI-1, and defines a uniform implementation of Primary Rate Access (PRA). Bellcore's definition of National ISDN-2 is provided in Special Report SR-NWT-002120 (Ref. 4.2).

This document provides information on the capabilities and interface characteristics implemented/supported by the Stentor Telecommunications Companies in conjunction with the NI-2 PRA interface.

In the Stentor Telecommunications Companies' networks, NI-2 Primary Rate Access will initially be available from selected AG Communications Systems Ltd. (AGCS) GTD-5 central office switches, according to the respective tariffs and available facilities of the Stentor Telecommunications Companies. The AGCS Feature Specification Document FSD 01-02-40AA (Ref. 4.3) complements the Bellcore documentation.

The ISDN services offered will be according to the respective Stentor Telecommunications Companys' tariffs with the intent to utilize all capabilities designated (R)/(CR) as defined in Bellcore’s National ISDN-2 recommendations and which are implemented by the switch vendor. Capabilities that are implemented, but designated as optional (O) will not be supported at this time.

2.0 EXCEPTIONS

2.1 Capabilities of the AGCS GTD-5® not supported

The Stentor Telecommunications Companies intend to support the capabilities identified in AGCS FSD 01-02-40AA, Issue 001, with the following exceptions:

2.1.1 Capabilities available on the GTD-5®, but not included in NI-2

- PRA User-to-User Signalling

2.1.2 NI-2 capabilities available on the GTD-5®, but not currently offered by the Stentor companies

- Switched Fractional DS-1 service per TR-NWT-001203

2.2 NI-2 Capabilities not supported by the AGCS GTD-5®

- Per Call Privacy Change Allowed parameter per TR-NWT-001187, Setion 4.1.3

- Packet Mode Data (provisioned B-channel) Call Control per TR-NWT-001268, Sections 3.2.2; 3.3.1.11; 3.4.3; 4.2.2.2; 4.2.3; 4.5.3; 4.6.2; 4.7.2; 5.2.5.14; 5.2.5.15; and 5.2.5.16.

3.0 PRA SERVICE PROVISIONING

All PRAs provided by Stentor Telecommunications Companies will be provided in a Call-by-Call service configuration. That is, with the exception of the D-channel, any DS-0/time slot may be used at any time to carry calls of any of the services subscribed to by the customer.

In a single PRA configuration, the D-channel is assigned to time slot 24.

Multiple PRA configurations may be implemented using either Facility Associated Signalling or Non-Facility Associated Signalling. If Facility Associated Signalling is used, a D channel is assigned to time slot 24 within each access DS-1. If Non-Facility Associated Signalling is used, a single D-channel may carry the signalling traffic for up to 20 PRA DS-1s, subject to the availability of sufficient access and switch port facilities. Further, if Non-Facility Associated Signalling is used, one time slot on one other DS-1 may be assigned for use as a backup D channel.

On DS-1's which do not contain a primary or backup D channel, all 24 time slots may be used to carry calls. This is true for both Facility Associated and Non-Facility Associated Signalling.

4.0 REFERENCES

4.1 Industry Canada Certification Standard CS-03

Standard for Terminal Equipment, Terminal Systems, Network Protection Devices, Connection Arrangements and Hearing Aids Compatibility. Current Issue

4.2 Bellcore Special Report SR-NWT-002120

NATIONAL ISDN-2, Issue 1, May 1992 and Revision 1, June 1993, and documents listed in its reference section.

4.3 AG Communications Systems FSD 01-02-40AA, Issue 001

"GTD-5® EAX ISDN PRIMARY RATE INTERFACE"

5.0 GLOSSARY

ACM	Address Complete Message
ADSI	Analog Display Services Interface
ANM	Answer Message
ATP	Access Transport Parameter
CCS#7	Common Channel Signaling # 7
CdPN	Called Party Number
CgPN	Calling Party Number
CLID	Calling Line ID
CPE	Customer Premises Equipment
DN	Directory Number
HLC	High-Layer Compatibility
IAM	Initial Address Message
INF	Information Message
ISDN	Integrated Services Digital Network
ISUP	ISDN User Part
OCN	Original Called Number
OSI	Open Switch Interval
PAM	Pass Along Message
POTS	Plain Old Telephone Service
PRI	Primary Rate Interface
PSTN	Public Switch Telephone Network
RDN	Routing DN
RI	Redirection Information
RN	Redirecting Number
REL	Release Message
RLC	Release Complete Message
SRA	Suppressed Ringing Access
SRS	Suppressed Ringing Service
UDLC	Universal Digital Loop Carrier
UTS	Utility Telemetry Service