STENTOR

The Power of Telecommunications

ISDN Basic Rate Access

Terminal-to-Network Interface

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DOCUMENT HISTORY

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   1   November 1991   Initial issue

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   2   November 1995   Reference change from NIS S208-6, Issue 1.0 to Issue
1.1 and miscellaneous editorial revisions. The
regulatory restriction on Transit Network Selection
has been removed (Section 2.3.1). Addition of
Appendix C listing technical changes.

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.

STENTOR SHALL NOT BE LIABLE FOR ANY DAMAGES OR INJURIES INCURRED BY ANYONE, INCLUDING BUT NOT LIMITED TO CORPORATIONS, ARISING DIRECTLY OR INDIRECTLY FROM ANY INCOMPATIBILITY BETWEEN THE NETWORK OF STENTOR AND ANY OTHER NETWORK, OR FROM ANY CAUSE WHATSOEVER.

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

If further information is required, please contact:

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1.0   SERVICE DESCRIPTION

Stentor's **ISDN BRA**, is based on the Northern Telecom DMS-100^{TM} Central Office switch. The interface requirements are defined in relevant portions of the following Northern Telecom publication:

1. NIS S208-6, Issue 1.1, "ISDN Basic Rate User-Network Interface Specification", including Addendum A.

NIS S208-6, Issue 1.1, is in alignment with National ISDN-1, as specified in Bellcore Special Reports, SR-NWT-001937 and SR-NWT-001953.

The Northern Telecom publication, NIS S208-6, Issue 1.1, was developed to include markets in addition to Stentor, and thus contain information which may not be applicable within Stentor .

They may be obtained from:

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2.0   FEATURE DESCRIPTION

2.1   Physical Layer

The physical layer is as specified in NIS S208-6, Issue 1.1, Section B. The network interface, located at the U reference point using 2B1Q line coding, is described in Sub-Section 2.

The physical layer interface specification is based on the CAN/CSA-T541-90 standard.

2.2   Data Link Layer

The data link layer is as specified in NIS S208-6, Issue 1.1, Section C.   The requirements for this layer are based on the CAN/CSA-T542-90 standard.

Stentor will not provide support for SAPI 17.

2.3   Network Layer

2.3.1 Basic Call Capabilities

The basic call requirements for the network layer are defined in Section D of NIS S208-6, Issue 1.1.

Stentor initially has no plans to support the following capabilities:

- 7 kHz bearer capability

- the Modem Pool network resource described in Section G of NIS S208-6, Issue 1.1

- circuit mode data interworking with the U.S. based Public Switched Digital Service (PSDS), as described in Section F of NIS S208-6, Issue 1.1

2.3.2   Packet Mode Data

The packet mode data service is based on Addendum A of NIS S208-6, Issue 1.1, which conforms to the DataPac X.25 service offered by Stentor. There are currently no plans to support the SDLC services described in Addendum A. Terminal addressing is based on the use of the CCITT X.121 Numbering Plan for public data networks.

2.3.3   Supplementary Service Capabilities

The network layer for supplementary service capabilities is defined in Section E of NIS S208-6, Issue 1.1.

Meridian Feature Transparency (MFT) is not supported.

2.4   Rate Adaptation

Interworking to Stentor's data network services will be supported using V.120 (as specified in ANSI T1.612) and T-Link rate adaptation protocols.

2.5   Network Protection

Terminal equipment must satisfy CS-03 requirements for connection to the network.

APPENDIX A - References

Northern Telecom Specifications

1.   NIS S208-6, Issue 1.1, August 1992, "ISDN Basic Rate User-Network Interface Specification".

2.   NIS D302-1, September 1986, "T-Link Protocol for Rate Adaptation Over a 64 Kbps Channel".

Canadian Standards

1.   CAN/CSA T544-91 "Integrated Services Digital Network (ISDN) - Minimal Set of Bearer Services for the Basic Rate Access Interface".

2.   CAN/CSA T542-90 "Integrated Services Digital Network (ISDN) - Data Link Signalling Specification for Application at the User-Network Interface".

3.   CAN/CSA T541-90 "Integrated Services Digital Network (ISDN) - Basic Access Interface for Use on Metallic Loops for Application on the Network Side of the NT (Layer 1 Specification)".

ANSI Standards

1.   ANSI T1.612 - 1990, "ISDN - Terminal Adaptation Using Statistical Multiplexing".

CCITT Standards

1.   CCITT, Red Book, Volume VIII, Fascicle VIII.4, Recommendation X.121, 1984, "International Numbering Plan for Public Data Networks".

2.   CCITT, Red Book, Volume VIII, Fascicle VIII.3, Recommendation X.25, 1984, "Interface Between Data Terminal Equipment (DTE) and Data Circuit Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit".

Bellcore Documents

1.   SR-NWT-001937, Issue 1, February 1991, "National ISDN-1".

2.   SR-NWT-001953, Issue 1, June 1991, "Generic Guidelines for ISDN Terminal Equipment on Basic Access Interfaces".

Industry Canada Documents

1.   CS-03 Certification Standard for Terminal Equipment, Terminal Systems, Network Protection Devices, Connection Arrangements and Hearing Aid Compatibility, Issue 7, February 1990.

APPENDIX B - Glossary

2B1Q: Two Binary One Quaternary

ANSI: American National Standards Institute

Bellcore: Bell Communications Research

BRA: Basic Rate Access

CCITT: The International Telephone and Telegraph Consultative Committee

CSA: Canadian Standards Association

ISDN: Integrated Services Digital Network

kbps: kilo bits per second

kHz: kilo hertz

MFT: Meridian Feature Transparency

NIS: Network Interface Specification

PSDS: Public Switched Digital Service

SAPI: Service Access Point Identifier

SDLC: Synchronous Data Link Control

T1:   Committee T1 of the Exchange Carrier Standards Association

APPENDIX C - LIST OF REVISIONS BETWEEN NIS S208-6 , ISSUE 1.0 AND ISSUE 1.1

This list is intended to help terminal vendors to identify those differences between the two documents that may impact terminals designed to Issue 1.0. Issue 1.1 also incorporates changes, not identified here, that are primarily editorial in nature as well as identify additionally supported information elements.

SECTION D -- Functional Call Control Signaling

Section D, 5.5.1.10	A National Specific table has been added and some Cause values have been moved from the Network Specific table to the National Specific table.
Section D, 5.5.1.22	The "Call Diverted" Notification Indicator is no longer supported.
Section D, 5.5.2.2	A note has been added that identifies the Display Text and Control Tags that have been implemented. *(The lack of the note in Issue 1.0 implied that all have been implemented)*
Section D, 7.2	Timer T309 was added as a User-Side Timer. If initiated the second time, Timer T303 (2nd) is required. Timer 310 is not supported on the User-Side.

SECTION E -- Supplementary Services

Section E, 4.3.1	The Initialization procedure has changed, requiring the terminal to repeat the request for initialization until receiving the correct ACK message from the network.
Section E, 4.3.4; 4.4	The cause value for "Different SPID; Same TEI; on Active Call" has been changed from #100 to #53.
Section E, 6.14.4	For the "Ring Again" feature, Call Offer Notification, the following IE's in the NOTIFY message are not supported at this time: • The Bearer Capability IE matches the call type of the original calling party. • The Calling Party IE contains Party B's number. • The Called Party IE contains Party A's number.

Further information on these revisions may be obtained from:

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