

**TRIAL DISCLOSURE OF
ASYNCHRONOUS TRANSFER MODE
(ATM)
USER-TO-NETWORK INTERFACE**

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DOCUMENT HISTORY

1 April 1994 Initial issue

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, utilisation 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 INTRODUCTION

Stentor's ATM services are based on the ATM Forum User-Network Interface (UNI) Specification, Version 3.0 and more specifically the Public UNI part of this specification.

The trial equipment covered by this document, in general, are in alignment with sections of the ATM Forum UNI Specification, Version 3.0.

The ATM Forum UNI Specification was developed to include markets in addition to those of Stentor, and thus may contain information which may not be applicable to Stentor.

1.1 ATM SERVICES

Services/capabilities that may be provided under this specification include:

- **VIRTUAL LAN INTERCONNECTION**
ATM provides the capability for LAN to LAN connectivity at native speeds of 10 Mbit/s for Ethernet (IEEE 802.3) and 4 and 16 Mbit/s for Token Ring (IEEE 802.5) interfaces.
- **HIGH QUALITY VIDEO**
ATM provides the capability for a near broadcast quality video transmission and/or conferencing service using the National Television Systems Committee (NTSC) baseband video interface.
- **CELL RELAY**
This basic ATM service provides for the interconnection of ATM cell based products/applications to the ATM network. This connectivity can be at DS-3 or OC-3c interface speeds and is aligned with the ATM parameters found in the ATM Forum User-Network Interface Specification, Version 3.0 and supported by this disclosed interface.

Figure 1.1 illustrates the User-Network Interface that is described in this document. The various services/applications described above can be provided at that point using the appropriate terminal equipment.

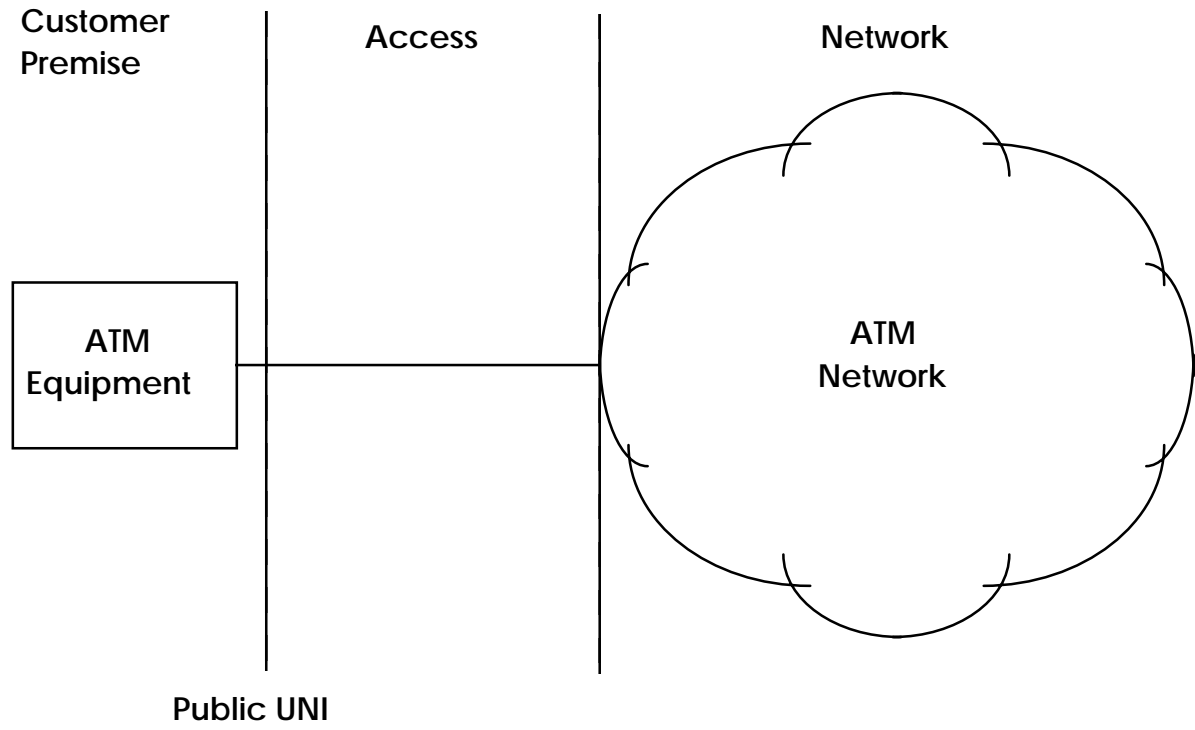


Figure 1.1 ATM Public UNI Interface

2.0 TECHNICAL SPECIFICATION

2.1 PHYSICAL LAYER

The physical layer is as specified in the ATM Forum UNI Specification, Version 3.0 with the following exceptions:

- Section 2.1 (SONET STS-3c Physical Layer Interface) - No support for Path FERF (Far End Receiver Failure) and Line FEBE (Far End Block Error) at this time.
- Section 2.3 (Physical Layer for 100 Mbit/s Multimode Fibre Interface) is not supported at this time.
- Section 2.4 (Physical Layer for 155 Mbit/s Interface) is not supported at this time.
- Section 2.5 (E3 Physical Layer Interface) is not supported at this time.
- Section 2.6 (E4 Physical Layer Interface) is not supported at this time.

2.2 DATA LINK LAYER

The data link layer is as specified in the ATM Forum UNI Specification, Version 3.0 with the following exceptions:

- Section 3.4 (ATM Layer Functions Involved at the UNI (U-Plane)) - Do not support F5 End-to-End Cells (passed transparently) at this time.
- Section 3.4.3 (Cells Discrimination based on pre-defined Header Field Values) is not supported at this time.
- Section 3.4.4 (Cells Discrimination based on Payload Type (PT) Identifier Field Values) is not supported at this time.
- Section 3.5 (ATM Layer Management Specification (M-Plane)) is not supported at this time.
- Section 3.6 (Traffic Control and Congestion Control) is not supported at this time.

2.3 NETWORK LAYER

The basic call requirements for the network layer are defined in the ATM Forum UNI Specification, Version 3.0. Only PVC service is supported for this trial; SVC service is not supported at this time. Therefore, Section 5.0 (UNI Signalling) is not supported at this time.

2.4 INTERIM LOCAL MANAGEMENT INTERFACE (ILMI) SPECIFICATION

Section 4.0 (Interim Local Management Interface Specification) of the ATM Forum UNI Specification, Version 3.0 is not supported at this time.

APPENDIX A: REFERENCES

1. ATM Forum User-Network Interface Specification, Version 3.0, Sept. 10, 1993.
2. IEEE 802.3, "Information Technology - Local and Metropolitan Area Networks - Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications".
3. IEEE 802.5, "IEEE Standards for Local Area Networks: Token Ring Access Method and Physical Layer Specification".

APPENDIX B: LIST OF TERMS AND ACRONYMS

ATM	Asynchronous Transfer Mode
DS-3	Digital Signal - Level 3 (44.736 Mbit/s)
FERF	Far End Receiver Failure
FEBE	Far End Block Error
IEEE	Institute of Electrical and Electronics Engineers
ILMI	Interim Local Management Interface
Mbit/s	Mega bits per second
NTSC	National Television Systems Committee
OC-3c	Optical Carrier - Level 3 concatenated (155.52 Mbit/s)
PT	Payload Type
PVC	Permanent Virtual Circuit
SONET	Synchronous Optical Network
SRCI	Stentor Resource Centre Inc.
STS-3c	Synchronous Transport Signal - Level 3 concatenated (155.52 Mbit/s)
SVC	Switched Virtual Circuit
UNI	User-Network Interface