ATIS-1000627.2014(R2019)

Broadband ISDN – ATM Layer Functionality and Specification

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Is an American National Standard developed by the **Signaling, Architecture, and Control (SAC)** Subcommittee under the **ATIS Packet Technologies and Systems Committee (PTSC).**

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Broadband ISDN – ATM Layer Functionality and Specification

Alliance for Telecommunications Industry Solutions

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Abstract

This standard is one a series of standards on Broadband Integrated Services Digital Network (B-ISDN). These standards describe the B-ISDN capabilities, architectural model, and network interfaces including protocol functionalities and specifications, and signaling characteristics. In particular, this standard describes the protocol of the ATM Layer.

Foreword

The information contained in this Foreword is not part of this American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for an ANS. As such, this Foreword may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to the Standard.

The Alliance for Telecommunications Industry Solutions (ATIS) serves the public through improved understanding between carriers, customers, and manufacturers. The Packet Technologies and Systems Committee (PTSC) develops and recommends standards and technical reports related to services, architectures, and signaling, in addition to related subjects under consideration in other North American and international standards bodies. PTSC coordinates and develops standards and technical reports relevant to telecommunications networks in the U.S., reviews and prepares contributions on such matters for submission to U.S. ITU-T and U.S. ITU-R Study Groups or other standards organizations, and reviews for acceptability or per contra the positions of other countries in related standards development and takes or recommends appropriate actions.

ANSI guidelines specify two categories of requirements: mandatory and recommendation. The mandatory requirements are designated by the word *shall* and recommendations by the word *should*. Where both a mandatory requirement and a recommendation are specified for the same criterion, the recommendation represents a goal currently identifiable as having distinct compatibility or performance advantages.

Suggestions for improvement of this document are welcome. They should be sent to the Alliance for Telecommunications Industry Solutions, PTSC, 1200 G Street NW, Suite 500, Washington, DC 20005.

At the time of consensus on this document, PTSC, which was responsible for its development, had the following leadership:

M. Dolly, PTSC Chair (AT&T)
V. Shaikh, PTSC Vice-Chair (ACS)
M. Dolly, PTSC SAC Chair (AT&T)

The **SAC** Subcommittee was responsible for the development of this document.

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1 Scope

This standard is one of a series of ANSI standards on Broadband Integrated Services Digital Network (B-ISDN). These standards describe the B-ISDN capabilities, architectural models and network interfaces including protocol functionalities and specifications, and signaling characteristics. In particular, this standard describes the protocol of the ATM Layer. This document specifies:

- the service provided by the ATM Layer;
- the service required from the PhysicalLayer (PHY);
- the interrelation with Layer Management;
- the encoding of the protocol data units;
- the protocol procedures.

In specifying the service, it defines:

- the primitives and the resulting actions and events;
- the parameters and format associatedwith each primitive;
- interrelationship between the primitives;
- valid sequence of primitives.

The primitives and their associated parameters describe in an abstract manner the logical exchange of information between the ATM Layer and its service users (e.g., the ATM Adaptation Layer and the ATM Layer Management). They do not specify nor con- strain the implementation of entities or inter- faces.

2 Normative Reference

The following standard contains provisions which, through reference in this text, constitute provisions of this American National Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this American National Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

ANSI T1.624-1993, Broadband ISDN User- Network Interfaces: Rates and Formats Specifications