



ATIS-1000112.a.2006

SUBSYSTEM NUMBER ASSIGNMENT GUIDELINES



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ATIS-1000112.a.2006, Subsystem Number Assignment Guidelines

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(Supplement to ATIS-1000112-2005)

American National Standard for Telecommunications

SUBSYSTEM NUMBER ASSIGNMENT GUIDELINES

Secretariat

Alliance for Telecommunications Industry Solutions

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Abstract

This supplement to ATIS-1000112.2005 reassigns some of the subsystem number code points previously shown as spare to be ANSI standard. These code points may be used to support applications which require internetwork messaging, but which do not qualify for international standardization. This addendum also provides the administrative procedures for requesting and assigning these subsystem number code points.

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 administrative procedures in this supplement are loosely modeled on the corresponding procedures for assigning internetwork Translation Type code values. As such, references to United States CCS networks should be taken to refer to those networks that employ ANSI SS7 signaling for non-ISUP messaging. It is assumed that other, non-U.S. networks will follow the same guidelines and procedures as United States CCS networks and will use the same code point values.

The expectation is that addenda to ATIS-10000111 through ATIS-10000115 will be published as necessary to promptly document the assignment of any new code points or code point values in these standards.

The Alliance for Telecommunication Industry Solutions (ATIS) serves the public through improved understanding between carriers, customers, and manufacturers. The Packet Technologies and Systems Committee (PTSC) -- formerly T1S1 -- 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 Secretariat, 1200 G Street NW, Suite 500, Washington, DC 20005.

The Interoperability (IOP) Subcommittee was responsible for the development of this document.

American National Standard for Telecommunications –

Subsystem Number Assignment Guidelines

1 CHANGES TO EXISTING TEXT

The changes made to the existing ATIS-1000112.2005 are shown below:

1.1 Add new Annex D to ATIS-1000112.2005, Chapter 3:

Annex D (normative)

D Guidelines and Procedures for Assigning Internetwork Subsystem Number Code Values

D.1 Introduction

This Annex contains the administrative procedures for requesting an internetwork subsystem number code value and also contains the criteria and guidelines for the assignment of subsystem number code values to be used by the United States CCS networks for internetwork messaging.

D.2 Assumptions

The following assumptions have been made:

1. These guidelines and procedures apply to subsystem numbers in the internetwork range only. The usage of subsystem numbers in the international or network specific range is not affected.
2. A particular application is addressed by the combination of Destination Point Code and subsystem number. Therefore, the use of a (national or international) standard subsystem number at a particular Point Code where the corresponding (national or international) application is not implemented will not lead to routing failure or misrouting of messages.

D.3 Procedures for Requesting a Subsystem Number Code Value Assignment

A request for assignment of a new standard a subsystem number code value must be submitted to the PTSC. This request must contain a proposal for use and must be submitted by contribution or by liaison to the PTSC. The PTSC can only assign a subsystem number code

value in response to such a request. The minimum required content of a request is described below:

1. *Application Description*: The application should be described in a high level fashion. This statement must unambiguously describe the new application. The application need not be a standard application.
2. *Internetwork Needs*: The statement must explain why the application requires MTP internetwork messaging currently or in the near future, and why Global Title Translation is less desirable for deriving the subsystem number used to address the application within the destination node.

D.4 Guidelines for Assigning Standard Internetwork Subsystem Number Code Values

1. Only subsystem number code values in the internetwork range can be assigned.
2. At most one subsystem number code value can be assigned to an Application Process. In addition, subsystem functionality must be sufficiently narrow that any reasonable implementation will not be divisible into functions that could fail separately (requiring separate subsystem management).
3. In order to assign a subsystem number for a particular application, the application must currently require or in the future require internetwork MTP routing.

The assignment of subsystem number values is given in ATIS-1000112.2005, Chapter 3, clause 3.4.2.1.

D.5 Guidelines for Using Subsystem Number Code Values

1. Network providers may initially implement services within the network specific range. If a particular service evolves to the point that it requires an internetwork subsystem number, the network providers must use -- at the interface -- the assigned internetwork value.
2. A descending order of assignment is recommended for network specific values.

1.2 Replace ATIS-1000112.2005, Chapter 3, clause 3.4.2.1 with the following text:

3.4.2.1 Subsystem number

The subsystem number (SSN) identifies a SCCP user function and, when provided, consists of one octet coded as follows:

Bits	87654321	
	00000000	SSN not known/not used
	00000001	SCCP Management
	00000010	reserved
	00000011	ISDN User Part
	00000100	OMAP
	00000101	Mobile Application Part (MAP) ⁵
	00000110	Home Location Register (HLR) ⁵
	00000111	Visited Location Register (VLR) ⁵
	00001000	Mobile Switching Center (MSC) ⁵
	00001001	Equipment Identification Register (EIR) ⁵
	00001010	Authentication Center (AC) ⁵
	00001011	Reserved (used in ITU-T for ISDN supplementary services)
	00001100	Reserved for international use
	00001101	Reserved (used in ITU-T for broadband ISDN edge-to-edge applications)
	00001110	Reserved (used in ITU-T for TC test responder)
	00001111	}
	to	} Reserved for international use
	00011111	}
	00100000	}
	to	} Reserved for ANSI assignment for national internetwork applications
	01100000	}
	01100001	}
	to	} Reserved for ANSI use
	10000000	}
	10000001	}
	to	} Network-specific applications
	11111110	}
	11111111	Reserved for expansion

Network specific subsystem numbers should be assigned in descending order starting with "11111110."

⁵ These codes are assigned to the MAP application defined by EIA/TIA for North American networks.

ATIS-1000112.a.2006

Guidelines and procedures for assigning internetwork subsystem number code values are described in ATIS-10000112.2005, Chapter 3, normative Annex D.

Subsystem number codes are assigned as described in ATIS-10000112.2005, Chapter 3, normative Annex D.

1.3 Add the following sentence at the end of ATIS-10000112.2005 Chapter 6, clause 3.2.1:

Detailed procedures for requesting standardization of a subsystem number are given in ATIS-10000112.2005, Chapter 3, normative Annex D.