ATIS-1000035.2009(S.2019)

NEXT GENERATION NETWORK (NGN) IDENTITY MANAGEMENT (IDM) FRAMEWORK

AMERICAN NATIONAL STANDARD FOR TELECOMMUNICATIONS

ATIS is the leading technical planning and standards development organization committed to the rapid development of global, market-driven standards for the information, entertainment and communications industry. More than 200 companies actively formulate standards in ATIS' Committees, covering issues including: IPTV, Cloud Services, Energy Efficiency, IP-Based and Wireless Technologies, Quality of Service, Billing and Operational Support, Emergency Services, Architectural Platforms and Emerging Networks. In addition, numerous Incubators, Focus and Exploratory Groups address evolving industry priorities including Smart Grid, Machine-to-Machine, Networked Car, IP Downloadable Security, Policy Management and Network Optimization.

ATIS is the North American Organizational Partner for the 3rd Generation Partnership Project (3GPP), a member and major U.S. contributor to the International Telecommunication Union (ITU) Radio and Telecommunications' Sectors, and a member of the Inter-American Telecommunication Commission (CITEL). ATIS is accredited by the American National Standards Institute (ANSI). For more information, please visit < http://www.atis.org >.

AMERICAN NATIONAL STANDARD

Approval of an American National Standard requires review by ANSI that the requirements for due process, consensus, and other criteria for approval have been met by the standards developer.

Consensus is established when, in the judgment of the ANSI Board of Standards Review, substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made towards their resolution.

The use of American National Standards is completely voluntary; their existence does not in any respect preclude anyone, whether he has approved the standards or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standard.

The American National Standards Institute does not develop standards and will in no circumstances give an interpretation of any American National Standard. Moreover, no person shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute. Requests for interpretations should be addressed to the secretariat or sponsor whose name appears on the title page of this standard.

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute require that action be taken periodically to reaffirm, revise, or withdraw this standard. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute.

Notice of Disclaimer & Limitation of Liability

The information provided in this document is directed solely to professionals who have the appropriate degree of experience to understand and interpret its contents in accordance with generally accepted engineering or other professional standards and applicable regulations. No recommendation as to products or vendors is made or should be implied.

NO REPRESENTATION OR WARRANTY IS MADE THAT THE INFORMATION IS TECHNICALLY ACCURATE OR SUFFICIENT OR CONFORMS TO ANY STATUTE, GOVERNMENTAL RULE OR REGULATION, AND FURTHER, NO REPRESENTATION OR WARRANTY IS MADE OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR AGAINST INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS. ATIS SHALL NOT BE LIABLE, BEYOND THE AMOUNT OF ANY SUM RECEIVED IN PAYMENT BY ATIS FOR THIS DOCUMENT, WITH RESPECT TO ANY CLAIM, AND IN NO EVENT SHALL ATIS BE LIABLE FOR LOST PROFITS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES. ATIS EXPRESSLY ADVISES ANY AND ALL USE OF OR RELIANCE UPON THIS INFORMATION PROVIDED IN THIS DOCUMENT IS AT THE RISK OF THE USER.

NOTE - The user's attention is called to the possibility that compliance with this standard may require use of an invention covered by patent rights. By publication of this standard, no position is taken with respect to whether use of an invention covered by patent rights will be required, and if any such use is required no position is taken regarding the validity of this claim or any patent rights in connection therewith.

ATIS-1000035.2009(S2019), *Next Generation Network (NGN) Identity Management (IdM) Framework*

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

Published by
Alliance for Telecommunications Industry Solutions
1200 G Street, NW, Suite 500
Washington, DC 20005

ATIS-1000035.2009(S2019)

American National Standard for Telecommunications

NEXT GENERATION NETWORK (NGN) IDENTITY MANAGEMENT (IDM) FRAMEWORK

Alliance for Telecommunications Industry Solutions

Approved May 5, 2009

American National Standards Institute, Inc.

Abstract

This standard provides a framework for Identity Management (IdM) in NGN. The primary purpose of this framework is to describe a structured approach for designing, defining, and implementing IdM solutions and facilitate interoperability in heterogeneous environment.

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 Telecommunication Industry Solutions (ATIS) serves the public through improved understanding between providers, 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 it approved this document, PTSC which is responsible for the development of this Standard, had the following members:

M. Dolly, PTSC Chair (AT&T)

W. Downum, Technical Editor (Telcordia)

C. Underkoffler, ATIS Chief Editor

The Signalling, Architecture, and Control (SAC) Subcommittee, which was responsible for the development of this document, had the following members:

Table of Contents

Table of Figures

Table of Tables

American National Standard for Telecommunications –

Next Generation Network (NGN) Identity Management (IdM) Framework

1 Scope

This standard provides an Identity Management (IdM) framework for Next Generation Network (NGN). The primary purpose of this standard is to describe the fundamental concepts, functional components and capabilities of IdM that can be used to organize and guide structured solutions for NGN. The scope of this standard includes to:

- Describe the business motivations, benefits, and advantages of IdM services, and the generic capabilities used to provide identity assurance and defining IdM concepts applicable to NGN and based on the NGN Functional Requirements and Architecture (FRA) as defined in ITU-T Recommendation Y.2012 [Y.2012] and ATIS standard, *NGN Architecture* [ATIS-1000018]
- Identify and describe the functional entities, roles, relationships, enablers and communications supporting IdM services and capabilities for NGN
- Identify and describe the (intra-network) relationships for supporting IdM services and capabilities within an NGN,
- Identify and describe the relationships for supporting IdM services and capabilities between NGN providers (e.g., within a federation), and between NGN providers and other providers (e.g., inter-federation)

The framework provided in this standard is intended for NGN (i.e., managed packet networks) as defined in [ITU-T Y.2001], *General overview of NGN*. However, it could be applied as appropriate to other types of networks (e.g., private corporation and enterprise networks).

This framework is intended to be used as a foundation to develop and specify specific aspects of IdM for NGN such as detailed requirements, mechanisms and procedures as needed. It also provides a clear and coherent overview of the totality of IdM in NGN.
Note: the use of the term 'identity' in this standard relating to Identity Management (IdM) does not indicate its absolute meaning. In particular, it does not constitute any positive validation of a person.

2 References

The following standards contain 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.