**ATIS-10000xx**

ATIS Standard on

**SHAKEN Roadmap**

**Alliance for Telecommunications Industry Solutions**

Approved Month DD, YYYY

**Abstract**

This Technical Report provides a roadmap view of the subtending suite of ATIS standards, technical reports, and requirements documents showing the applicability of particular standard specifications in the context of enabling deployment of the needed National Security/Emergency Preparedness (NS/EP) priority related functions and capabilities supporting end-to-end priority communications in Next Generation Networks (NGNs). The ATIS set of standards includes national specific applications of 3GPP, IETF and ITU-T specifications for the support of ETS. This document includes a roadmap of the dependent 3GPP, IETF and ITU-T specifications and standards.

**Foreword**

**Revision History**

| **Date** | **Version** | **Description** | **Author** |
| --- | --- | --- | --- |
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# Scope, Purpose, & Application

## Scope

There are numerous industry standards, technical reports, and requirements documents addressing various aspects for

This Technical Report (TR) provides a roadmap view of the subtending suite of IPNNI standards, technical reports, and requirements documents showing the applicability of particular standard specifications in the context of enabling deployment of . This TR includes a roadmap of the dependent 3GPP, IETF and ITU-T specifications and standards.

## Purpose

The purpose of this TR is to consolidate various ETS related specifications and provide a roadmap view to enable ETS deployment in NGNs. The objective is to provide a roadmap view showing the applicability of particular specifications to specific network layer, network procedure, interfaces or network element functional capabilities and segments making up the end-to-end NGN infrastructure.

## Application

This document is applicable to the support of NS/EP priority services (e.g., GETS, WPS, and NGN Priority Services) in the public NGN infrastructure.

# Normative References

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

**ATIS**

[ATIS-1000065] Emergency Telecommunications Service (ETS) Evolved Packet Core (EPC) Network Element Requirements

**3GPP**

[TR 22.950] Priority service feasibility study

**IETF**

[RFC 4412] Communications Resource Priority for the Session Initiation Protocol (SIP)

**ITU-T**

[ITU-T E.107] Emergency Telecommunications Service (ETS) and interconnection framework for national implementations of ETS

# Definitions, Acronyms, & Abbreviations

For a list of common communications terms and definitions, please visit the *ATIS Telecom Glossary*, which is located at < <http://www.atis.org/glossary> >.

## Definitions

None.

## Acronyms & Abbreviations

|  |  |
| --- | --- |
| 1xBS | 1x Base Station |
| 1xIWS | 1x Interworking Solution |
| 1XRTT | Single-Carrier Radio Transmission Technology |
| 3GPP | 3rd Generation Partnership Project |
| AAA | Authentication Authorization and Accounting |
| AC | Access Class |
| AMS | Advanced Multimedia System |
| APN | Access Point Name |
| ARP | Allocation and Retention Priority |
| ATIS | Alliance for Telecommunications Industry Solutions |
| AVP | Attribute-Value Pair |
| BICC | Bearer Independent Call Control |
| CS | Circuit Switched |
| CSFB | Circuit Switched Fallback |
| DRMP | Diameter Routing Message Priority |
| DSCP | DiffServ Code Point |
| DSL | Digital Subscriber Loop |
| EBI | EPS Bearer ID |
| ECN | Explicit Congestion Notification |
| eHRPD | evolved High Rate Packet Data |
| eMLPP | Enhanced Multi Level Precedence and Pre-emption |
| eNB | eNodeB |
| EPC | Evolved Packet Core |
| EPS | Evolved Packet System |
| ETS | Emergency Telecommunication Service |
| E-UTRA | Evolved Universal Terrestrial Radio Access |
| E-UTRAN | Evolved Universal Terrestrial Radio Access Network |
| FCC | Federal Communications Commission |
| GBR | Guaranteed Bit Rate |
| GCSNA | Gateway GPRS Support Node |
| GERAN | GSM EDGE Radio Access Network |
| GETS | Government Emergency Telecommunications Service |
| GETS-AN | GETS Access Number |
| GETS-FC | GETS Feature Code |
| GPRS | General Packet Radio Service |
| GTP | GPRS Tunnelling Protocol |
| HPC | High Probability of Completion |
| HSS | Home Subscriber Server |
| IBCF | Interconnection Border Control Functions (IBCF) |
| IdM | Identity Management |
| IEPS | International Emergency Preference Scheme for Disaster Relief Operations |
| IETF | Internet Engineering Task Force |
| IM | IP Multimedia |
| IM-MGW | IMS Media Gateway |
| IMS | IP Multimedia Service |
| IMS-AGW | IMS Access Gateway |
| IMS-ALG | IMS Application Level Gateway |
| IP | Internet Protocol |
| IP CAN | IP Connectivity Access Network |
| ISDN | Integrated Services Digital Network |
| ITU-T | International Telecommunication Union - Telecommunications |
| LIR | Location-Info-Request |
| LTE | Long-Term Evolution |
| MGC | Media Gateway Controller |
| MGCF | Media Gateway Control Functions |
| MGW | Media Gateway |
| MLPP | Multi-Level Precedence and Preemption |
| MME | Mobility Management Entity |
| MPS | Multimedia Priority Service |
| MRFC | Multimedia Resource Function Controller |
| MRFP | Multimedia Resource Function Processor |
| MTP | Message Transfer Part |
| NAS | Non-Access-Stratum |
| NGN | Next Generation Network |
| NGN GETS | Next Generation Network GETS |
| NGN-PS | Next Generation Network Priority Service |
| NNI | Network to Network Interconnection |
| NS/EP | National Security / Emergency Preparedness |
| NSS | Narrowband Signaling Syntax |
| PCC | Policy and Charging Control |
| PCN | Pre-Congestion Notification |
| PCRF | Policy and Charging Rules Function |
| PDN | Packet Data Network |
| PD-PE | Policy Decision Physical Entity |
| PE-PE | Policy Enforcement Physical Entity |
| PMIP | Proxy Mobile IP |
| PP | Priority Paging |
| PSTN | Public Switched Telephone Network |
| QCI | QoS Class Identifier |
| QoS | Quality of Service |
| RAN | Radio Access Network |
| RANAP | Radio Access Network Application Part |
| RRC | Radio Resource Control |
| RTP | Real Time Protocol |
| SAR | Server-Assignment-Request |
| S-CSCF | Serving CSCF |
| SDO | Standard Development Organization |
| SDP | Session Description Protocol |
| SGSN | Serving GPRS Support Node |
| SIP | Session Initiation Protocol |
| SS7 | Signaling System Number 7 |
| TPS | Telecommunications Priority System |
| TR | Technical Report |
| TrGW | Transition Gateway (TrGW) |
| TRIP | Telephony Routing over IP |
| TSG | Technical Specification Group |
| UDP | User Datagram Protocol |
| UDR | User-Data-Request |
| UE | User Equipment |
| UMTS | Universal Mobile Telecommunications System |
| VLR | Visitors Location Register |
| VoIP | Voice over IP |
| WPS | Wireless Priority Service |

# Roadmap Overview

This section describes the methodology used to categorize and provide a roadmap view of the applicable documents.

## Reference Model

Figure 4.1 –Reference Model

# IP-NNI

# 3GPP

# IETF

This section provides a roadmap of dependent IETF RFCs. The IETF RFCs are organized into two tables as follows:

* Documents providing normative requirements and/or protocols for support of ETS.
* Documents providing general IP capabilities or features that can be used to benefit ETS.

Editor’s Note: add level 1 section heading on regulatory activity