
# ATIS-0300002.2018(R2023)

# XML Schema Interface for POTS Service Test



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# XML Schema Interface for POTS Service Test

**Alliance for Telecommunications Industry Solutions**

Approved June 2018

**American National Standards Institute, Inc.**

**Abstract**

This standard provides an XML schema information model for POTS Service Test based on ATIS-0300262 and an XML schema interface for POTS Service Test function specified in the same ANSI standard.

## 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 carriers, customers, and manufacturers. The Telecom Management and Operations Committee (TMOC) – formerly T1M1 -- develops operations, administration, maintenance and provisioning standards, and other documentation related to Operations Support System (OSS) and Network Element (NE) functions and interfaces for communications networks - with an emphasis on standards development related to U.S.A. communication networks in coordination with the development of international standards.

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, TMOC, 1200 G Street NW, Suite 500, Washington, DC 20005.

At the time it approved this document, TMOC, which is responsible for the development of this Standard, had the following leadership:

P. Galarza, TMOC Chair (iconectiv)
T. Barrett, Technical Editor (AT&T)

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# 1 Introduction

## *1.1 Scope*

The scope of this document is to develop an American National Standards (ANS) standard for testing services by extending the object model in ITU-T Recommendation X.745 for the purpose of testing Plain Old Telephone Service (POTS). This standard will allow service customers to request a test and to receive subsequent test results for one of their POTS services.

## *1.2 Application*

The model described in this standard defines management information to be exchanged for testing POTS services through use of an uncontrolled test function. The application of this model is for the service level. The service level test functions are documented in ITU-T Recommendation M.3400.

The information exchanged to perform the above test function utilizes the *tML Framework* (ITU-T Recommendation M.3030). ITU-T Recommendation M.3020 defines a three-phase methodology for developing interface specifications related to management information exchanges. The requirements phase is derived from existing standard ITU-T Recommendation X.745 for the generic test management architecture and from previous work done in ATIS-0300262 for specific POTS service level tests including tone tests. The requirements are shown here in clause 3. The second, formal analysis phase from M.3020 is provided in the UML model of clause 4. Clause 5 presents the third, design phase using XML schemas (tML POTS schemas) for POTS Service Test functions and services. The design phase is a result of analyzing ATIS-0300262 data definitions shown in Informative Annex A. The general architecture for service level test is based on the "uncontrolled test" formalism in X.745. The test action performer is the agent in the managing system that performs the test based on the request from the managing system. Note that there is no coupling to a transport protocol. While mapping to a transport protocol is required for interoperability, it is outside the scope of this document, and should be addressed by each pair of bonded companies as a joint implementation issue.

Informative Annex A defines an information model using GDMO (ITU-T Recommendation X.722) and ASN.1 (ITU-T Recommendation X.680) for the TMN X-interface (ITU-T Recommendation M.3010) to support the service test function. These clauses are applicable when Common Management Information Service Element (CMISE) is used for conveying inquiry information across an OS-OS interactive interface.

Informative Annex B specifies a functionally equivalent interface using the Common Object Request Broker Architecture (CORBA)/Interface Definition Language (IDL), as defined in *The Common Object Request Broker Architecture and Specification, Revision 2.2, Object Management Group*.

## *1.3 Purpose*

The purpose of this document is to provide an XML schema interface (tML ServiceTest interface) for uncontrolled POTS Service Test function specified in clause 3.