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**Digital cellular telecommunications system (Phase 2+) (GSM);  
Universal Mobile Telecommunications System (UMTS);  
LTE;  
Telecommunication management;  
Test management Integration Reference Point (IRP);  
Information Service (IS)  
(3GPP TS 32.322 version 14.0.0 Release 14)**



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## Foreword

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## Foreword

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## Introduction

The present document is part of a TS-family covering the 3<sup>rd</sup> Generation Partnership Project; Technical Specification Group Services and System Aspects; Telecommunication management; Test management Integration Reference Point (IRP), as identified below:

32.321: "Test management Integration Reference Point (IRP); Requirements"

**32.322: "Test management Integration Reference Point (IRP): Information Service (IS)"**

32.326: "Test management Integration Reference Point (IRP): Solution Set (SS) definitions"

A 3G telecommunication network is composed of a multitude of different Network Elements (NE). For a successful operation of the network the operator must be provided with mechanisms allowing him to manage the network. These management activities can be grouped into several areas: configuration management, fault management, performance management, accounting management and security management.

A management function assisting in different high level management areas such as fault management and performance management is test management. The purpose of testing is to get information about the functionality and performance of the 3G managed network subject to the test.

The present document is part of a TS-family defining the Telecommunication Management (TM) of 3G systems. The TM principles are described in 3GPP TS 32.101 [5]. The TM architecture is described in 3GPP TS 32.102 [6]. The other specifications define the interface (Itf-N) between the managing system (manager), which is in general the Network Manager (NM) and the managed system (agent), which is either an Element Manager (EM) or the managed NE itself. The Itf-N is composed of a number of integration reference points (IRPs) defining the information in the agent that is visible for the manager, the operations that the manager may perform on this information and the notifications that are sent from the agent to the manager. One of these IRPs is the Test Management IRP.

Each IRP is specified by the requirements part, the IS part and at least one SS (e.g. CORBA SS).

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# 1 Scope

The present document defines the IS part of the Test Management IRP, which describes the semantics of the information and the interactions visible across Itf-N in a protocol independent way. The information is specified by means of information object classes and the interactions by means of operations and notifications. The present document does not specify the syntax (encoding) of the information.

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# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TS 32.302: "Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP): Information Service (IS)".
- [2] 3GPP TS 32.312: "Telecommunication management; Generic Integration Reference Point (IRP) management; Information Service (IS)".
- [3] 3GPP TS 32.622: "Telecommunication management; Configuration Management (CM); Generic network resources Integration Reference Point (IRP): Network Resource Model (NRM)".
- [4] ITU-T Recommendation X.733: "Information technology - Open Systems Interconnection - Systems Management: Alarm reporting function".
- [5] ITU-T Recommendation X.745: "Information technology - Open Systems Interconnection - Systems Management: Test management function".
- [6] 3GPP TS 32.101: "Telecommunication management; Principles and high level requirements".
- [7] 3GPP TS 32.102: "Telecommunication management; Architecture".
- [8] 3GPP TS 32.321: "Telecommunication management; Test management Integration Reference Point (IRP): Requirements".
- [9] 3GPP TS 32.672: "Telecommunication management; Configuration Management (CM); State Management Integration Reference Point (IRP): Information Service (IS)".
- [10] ITU-T Recommendation X.737: "Information technology - Open Systems Interconnection - Systems Management: Confidence and diagnostic test categories".
- [11] 3GPP TS 32.150: "Telecommunication management; Integration Reference Point (IRP) Concept and definitions".
- [12] IETF RFC4656: "A One-way Active Measurement Protocol (OWAMP)".
- [13] IETF draft-ietf-ippm-twamp-06: "A Two-way Active Measurement Protocol (TWAMP)".