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**Universal Mobile Telecommunications System (UMTS);  
LTE;  
Telecommunication management;  
Self-configuration of network elements  
Integration Reference Point (IRP);  
Information Service (IS)  
(3GPP TS 32.502 version 12.1.0 Release 12)**



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## Foreword

This Technical Specification has been produced by the 3<sup>rd</sup> Generation Partnership Project (3GPP).

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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, as identified below:

- 32.501: Self-Configuration of Network Elements; Concepts and Integration Reference Point (IRP) Requirements
- 32.502: Self-Configuration of Network Elements Integration Reference Point (IRP); Information Service (IS)**
- 32.503: Self-Configuration of Network Elements Integration Reference Point (IRP); Common Object Request Broker Architecture (CORBA) Solution Set (SS)



---

# 1 Scope

The present document defines the Information Service (IS) part of the Self-Configuration IRP (SCIRP). It 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 (IOCs) and the interactions by means of operations and notifications. The present document does not specify the syntax (encoding) of the information.

The scope of this version of the TS is restricted to self-configuration of eNBs.

The present documents also describes how already defined Itf-N functionalities are used in the context of Self-Configuration.

---

# 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 TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 32.101: "Telecommunication management; Principles and high level requirements".
- [3] 3GPP TS 32.102: "Telecommunication management; Architecture".
- [4] Void.
- [5] 3GPP TR 32.816: "Telecommunication management; Study on Management of Evolved Universal Terrestrial Radio Access Network (E-UTRAN) and Evolved Packet Core (EPC)".
- [6] 3GPP TS 32.501: "Telecommunication management; Self-Configuration of Network Elements; Concepts and Requirements".
- [7] 3GPP TS 32.532: "Telecommunication management; Software management Integration Reference Point (IRP); Information Service (IS)".
- [8] 3GPP TS 32.622: "Telecommunication management; Generic network resources Integration Reference Point (IRP); Network Resource Model (NRM)".
- [9] 3GPP TS 32.312: "Telecommunication management; Generic Integration Reference Point (IRP) management: Information Services".
- [10] 3GPP TS 32.612: "Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP): Information Services (IS)".
- [11] 3GPP TS 32.642: "Telecommunication management; Configuration Management (CM); UTRAN network resources Integration Reference Point (IRP): Information Network Resource Model (NRM)".
- [12] 3GPP TS 32.342: "Telecommunication management; File Transfer (FT) Integration Reference Point (IRP): Information Service (IS)".

---

## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in TS 32.101 [2], TS 32.102 [3] and TR 21.905 [1], 32.501 [6] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in TS 32.501 [6], TS 32.101 [2], TS 32.102 [3] and TS 21.905 [1], in that order.

### 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in TR 21.905 [4], TS 32.501 [6] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in TR 21.905 [4] and TS 32.501 [6].

DNS	Domain Name System
-----	--------------------

**ITEH STANDARD PREVIEW**  
(standards.iteh.ai)  
Full standard:  
<https://standards.iteh.ai/catalog/standards/sist/e2167b99-e47a-433c-ba07-ffa5c0ab0960/etsi-ts-132-502-v12.1.0-2019-10>

## 4 Stage 2 descriptions

### 4.1 General

For the logical/Physical architecture of functional blocs and their interactions see in TR 32.816 [5] and TS 32.501 [6].

### 4.2 Management and Monitoring of Self-Configuration

#### 4.2.1 Usage of Itf-N

For specifically defined interface see 6.4.1.

##### 4.2.1.1 Usage of alarmIRP

AlarmIRP is re-used for alarm reporting of self-establishment.

Specific definitions:

##### 4.2.1.1.2 Usage of information object classes

No specific definitions.

##### 4.2.1.1.2 Usage of notifications

No specific definitions.

##### 4.2.1.1.3 Usage of notifications

For notification without sub-clause no specific definitions exist.

##### 4.2.1.1.3.1 Usage of notifyNewAlarm

The parameter “probableCause” shall use one of the values “softwareDownloadFailure” (already defined), “softwareInstallationError” or “softwareFallbackError” (the latter two values need to be introduced)

For parameter alarmType the value “ProcessingErrorAlarm” should be used.

Parameters trendIndication and thresholdInfo should not be used.

##### 4.2.1.1.3.2 Usage of notifyObjectCreation/-deletion/-attributeValueChange

For notifyObjectCreation/-deletion/-attributeValueChange notifications which are triggered by a self-configuration functionality the value SON\_operation shall be used for parameter sourceIndicator. The parameter additionalInformation may indicate that this was triggered by self-configuration.

### 4.3 Inventory Update

#### 4.3.1 Usage of Itf-N

##### 4.3.1.1 Usage of Inventory Management IRP NRM (32.69n)

The Inventory Management NRM IRP shall be used.

## 5 Information Object Classes

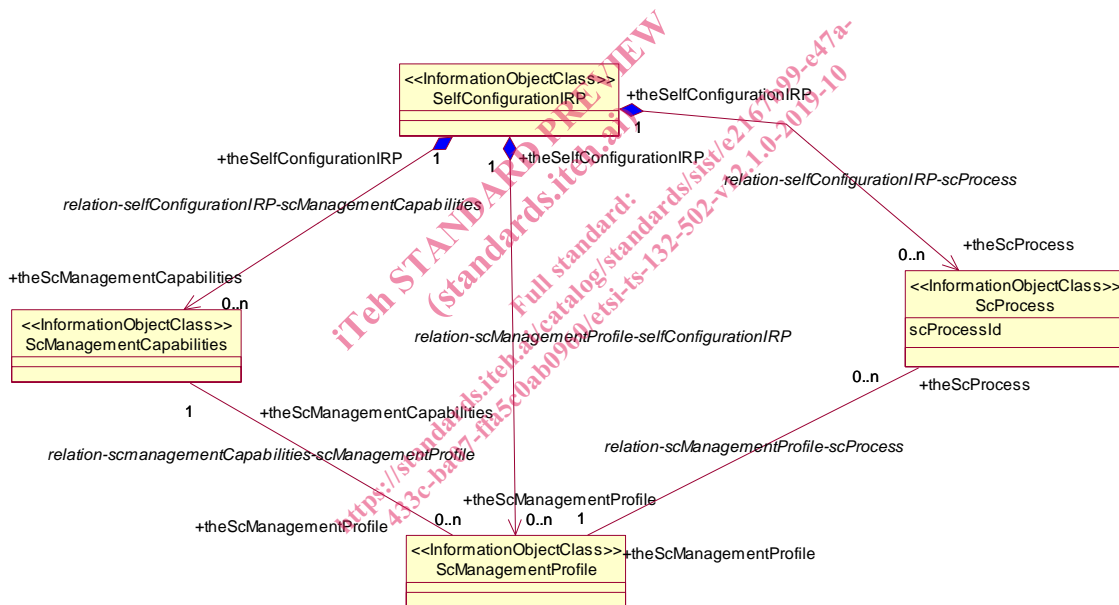
### 5.1 Imported information entities and local labels

Label reference	Local label
32.532 [7], information object class, SwMCapabilities	SwMCapabilities
32.532 [7], information object class, SwMProfile	SwMProfile
32.532 [7], information object class, SwMProcess	SwMProcess
3GPP TS 32.622 [8], information object class, Top	Top
3GPP TS 32.312 [9], information object class, ManagedGenericIRP	ManagedGenericIRP

### 5.2 Class diagram

#### 5.2.1 Attributes and relationships

The diagram reflects the definitions in the text of the following clauses. In case of conflict text takes precedence.



The following UML diagram describes the objects required for ARCF.