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Title:	**New Rel-6 TS 32.341 (File transfer Integration Reference Point (IRP): Requirements) - for Information**
Document for:	**Information**
Agenda Item:	**7.5.3**

3GPP TSG-SA5 (Telecom Management)   S5-036532
Meeting #34, Sophia Antipolis, FRANCE, 19-23 May 2003

Presentation of Technical Specification to TSG SA

Presentation to:	**TSG SA Meeting #20**
Document for presentation:	**TS 32.341, Version 1.0.0**
	File Transfer IRP: Requirements
Presented for:	**Information**

Abstract of document: This is a Technical Specification defining the requirements for the File Transfer IRP.

Work done against the WID contained in SP-020754 (Work Item ID: OAM-NIM).

Purpose of These Specifications:
This requirements document is intended for Release 6 and is part of the File Transfer IRP, which consists of this Requirements Specification, the File Transfer IRP Information Service specification as well as the File Transfer IRP CORBA & CMIP Solution Set specifications.

The purpose of this set of specifications is to provide a generic file transfer controlling mechanism enabling the transfer of bulk management information for Release 6.

Changes since last presentation to TSG-SA:
New.

Outstanding Issues:
None.

Contentious Issues:
None.

3GPP TS 32.341 V1.0.0 (2003-06)

Technical Specification

**3rd Generation Partnership Project;
Technical Specification Group Services and System Aspects;
Telecommunication Management;
File transfer Integration Reference Point (IRP):
Requirements
(Release 6)**

Keywords

Telecommunication Management, IRP

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Contents

Foreword

This Technical Specification (TS) has been produced by the 3rd Generation Partnership Project (3GPP).

The present document is part the 32.34x-series covering the 3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Telecommunication Management; File transfer Integration Reference Point (IRP), as identified below:

32.341 **"Requirements";**

32.342 "Information service";

32.343 "Common Object Request Broker Architecture (CORBA) solution set".

32.344 "Common Management Information Protocol (CMIP) solution set".

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

    x the first digit:

        1 presented to TSG for information;

        2 presented to TSG for approval;

        3 or greater indicates TSG approved document under change control.

    y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

    z the third digit is incremented when editorial only changes have been incorporated in the document.

Introduction

The Itf-N interface is built up by a number of Integration Reference Points (IRP's) and a related Name Convention, which realise the functional capabilities over this interface. The basic structure of the IRP's is defined in 3GPP TS 32.101 [1] and 3GPP TS 32.102 [02].

Network Elements (NEs) under management, element managers as well as network managers generate various management information stored in file format. This IRP is addressing how these file are exchanged through Itf-N as well as certain aspects of file management and maintenance. It is anticipated that all management functions (e.g. PM, Call Trace, CM) as well as associated IRP's making reuse of capabilities provided by this File Transfer IRP.

1 Scope

The present document specifies the overall requirements for the File Transfer Integration Reference Point (FT IRP) as it applies to the Itf-N.

2 References

The following documents contain provisions that, 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 32.101: "Telecommunication management; Principles and high level requirements".

[2]   3GPP TS 32.102: "Telecommunication management; Architecture".

[3]   3GPP TS 32.111-series: "Telecommunication management; Fault Management; Alarm Integration Reference Point (IRP)".

[4]   3GPP TS 32.30x-series: "Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP)".

[5]   3GPP TS 32.33x-series: "Telecommunication management; Notification log Integration Reference Point (IRP)".

[6]   3GPP TS 32.32x-series: "Telecommunication management; Test management Integration Reference Point (IRP)".

[7]   3GPP TS 32.401: "Telecommunication management; Performance Management (PM); Concept and requirements".

[8]   3GPP TS 32.41x-series: "Telecommunication management; Performance Management (PM) Integration Reference Point (IRP)".

[9]   3GPP TS 32.421: "Telecommunication management; Subscriber and equipment trace: Trace concepts and requirements".

[10]   3GPP TS 32.61x-series: "Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP)".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms defined in TS 32.101 [1] and TS 32.102 [2] are used.

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

CM   Configuration Management
EM   Element Manager
FT   File Transfer
FTP   File Transfer Protocol
IRP   Integration Reference Point
NE   Network Element
NM   Network Manager
PM   Performance Management

4 File Transfer IRP concept

Network Elements (NEs) under management, element managers as well as network managers generate various management information that is stored in files. This IRP is addressing how these file are exchanged through Itf-N as well as certain aspects of file management and maintenance. It is anticipated that all management functions (e.g. PM, Call Trace, CM) as well as associated IRP's making reuse of capabilities provided by this File Transfer IRP.

It should be noted that this File Transfer IRP is not defining a file transfer protocol (applicable file transfer protocols are defined by 32.101 [1]) but will make reuse of generic concepts defined by these file transfer protocol.

5 File Transfer IRP requirements

5.1 General requirements for File Transfer IRP

The FT IRP shall ensure preservation of file content:

- The used file transfer protocol implementation shall preserve the formatting of the file during exchange.

- The used file transfer protocol implementation shall preserve the encoding of the file during exchange.

Note: Above requirement(s) are considered as being satisfied by FTP.

The FT IRP shall support the following file transfer protocols:

- FTP

The FT IRP shall specify all necessary descriptive file information and parameters, to enable exchange of files between IRPManager and IRPAgent and to ensure respective file management capabilities (such as listing).

File Name conventions:

- In the context of this File Transfer IRP an overall applicable file name convention should be specified, ensuring the use of meaningful and uniform names of files generated by various IRP's. This convention should reuse the current PM File Naming Conventions to the greatest extent possible [7].

- This file name convention should address issues with potential Operating System based changes in file names during or after file exchange (e.g. upper case / lower case).

5.2 File type requirements

The FT IRP shall support the exchange and management/maintenance of the following file types:

- Performance measurement results as defined in [7], [8]

- Test results as defined in [6]

- Bulk CM files as defined in [10]

- Call trace records as defined in [9]

- Vendor-specific files containing management information

Subsequently this File Transfer IRP shall consider requirements from management applications listed above.

Future 3GPP management information file types shall be supported as well (e.g. notification log files, inventory information).

5.3   File exchange requirements

The IRP Manager shall be able to request the IRP Agent to:

- Upload one or more files

- Download one or more files

The IRP Manager should be able to request the IRP Agent to:

- Emit notifications announcing completion status of file exchange (success or failed)

Subsequently: the IRP Agent will always act as the initiator (client) of file transfer actions, while the IRP Manager shall provide the corresponding server capabilities.

This File Transfer IRP shall define the following generic notification, to be used/imported by other IRP's as applicable (e.g. PM IRP):

- Generic notification "File Preparation Completed";

- Generic notification "File Preparation Error".

Note that the File Transfer IRP does not emit these notifications.

5.4   File management/maintenance/security requirements

The IRP Manager shall be able to request the IRP Agent to:

- Provide a list of available files, based on file name and file creation date/time filter criteria.

In addition the following requirements should be considered:

- Security mechanisms supported by applicable file transfer protocols defined in [1] shall be supported (e.g. username, password, encryption).

- File system overload mechanism on IRP Agent side (e.g. automatic deletion of transmitted files, automatic deletion of outdated files, emission of notifications in case of automatic deletion).

- The IRP Manager shall indicate to the IRP Agent if received files are not accessible or not readable.

6 Overview of IRP's related to File Transfer (FT)

Itf-N is built up by a number of IRP's. The basic structure of the IRP's is defined in 3GPP TS 32.101 [1] and 3GPP TS 32.102 [2].

For the purpose of the File Transfer IRP the following IRP's are needed:

- Notification IRP [4]

- Alarm IRP [3]

The following IRP/specifications shall use this FT IRP for file transfer purposes (future IRP or IRP capabilities not listed here shall also reuse this FT IRP for file transfer purposes):

- Performance measurement results as defined in [7], [8]

- Test results as defined in [6]

- Bulk CM files as defined in [10]

- Call trace records as defined in [9]

- Notification log exports as defined in [5]

Annex A (informative):
Change history

<table>
<tr><td colspan="9" align="center">**Change history**</td></tr>
<tr><td>**Date**</td><td>**TSG #**</td><td>**TSG Doc.**</td><td>**CR**</td><td>**Rev**</td><td>**Subject/Comment**</td><td>**Old**</td><td>**New**</td></tr>
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