

3GPP TS 22.101 5.8.0 (2002-12)

Technical Specification

3rd Generation Partnership Project; Technical Specification Group Services and System Aspects Service aspects; Service principles (Release 5)



The present document has been developed within the 3rd Generation Partnership Project (3GPP™) and may be further elaborated for the purposes of 3GPP.

The present document has not been subject to any approval process by the 3GPP Organisational Partners and shall not be implemented. This Specification is provided for future development work within 3GPP only. The Organisational Partners accept no liability for any use of this Specification. Specifications and reports for implementation of the 3GPP™ system should be obtained via the 3GPP Organisational Partners' Publications Offices.

Keywords

UMTS, service, stage 1

3GPP

Postal address

3GPP support office address

650 Route des Lucioles - Sophia Antipolis
Valbonne - FRANCE
Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Internet

<http://www.3gpp.org>

Copyright Notification

No part may be reproduced except as authorized by written permission.
The copyright and the foregoing restriction extend to reproduction in all media.

© 2002, 3GPP Organizational Partners (ARIB, CWTS, ETSI, T1, TTA, TTC).
All rights reserved.

Contents

| | |
|---|----|
| Foreword..... | 5 |
| 1 Scope | 6 |
| 2 References | 6 |
| 2.1 Normative references..... | 7 |
| 3 Definitions, symbols and abbreviations | 8 |
| 3.1 Definitions..... | 8 |
| 3.2 Abbreviations..... | 8 |
| 4 General | 8 |
| 4.1 Aims of 3GPP specifications..... | 8 |
| 4.2 Standardisation of Service Capabilities | 8 |
| 4.3 Efficient Use of Network Resources | 9 |
| 4.4 Compatibility with Global Standards..... | 9 |
| 4.5 Virtual Home Environment | 9 |
| 4.6 Functionality of Serving Network and Home Environment..... | 10 |
| 4.7 PLMN Architecture | 10 |
| 5 Evolution | 10 |
| 5.1 Support of 2G services | 10 |
| 5.2 Provision and evolution of services | 10 |
| 6 Classification of services..... | 11 |
| 7 Principles for new service capabilities | 12 |
| 7.1 General..... | 12 |
| 7.2 Multimedia..... | 12 |
| 7.2.1 Circuit Switched (CS) multimedia calls..... | 12 |
| 7.2.2 IP multimedia (IM) sessions..... | 13 |
| 7.2.3 Multimedia Messaging Service (MMS)..... | 13 |
| 7.2.4 Text Conversation..... | 13 |
| 7.2.5 Packet Switched Streaming Service | 14 |
| 7.3 Service Management Requirements..... | 14 |
| 8 Service architecture | 14 |
| 9 Quality of Service (QoS)..... | 15 |
| 10 Emergency Calls | 15 |
| 10.1 General requirements..... | 15 |
| 10.2 Emergency calls when attached to a CS CN Domain..... | 16 |
| 10.3 Emergency calls when attached to a data only network | 16 |
| 10.4 Emergency calls when attached to an IM CN subsystem..... | 17 |
| 11 Numbering principles..... | 17 |
| 11.1 Number portability..... | 17 |
| 11.1.1 Requirements for CS CN domain..... | 17 |
| 11.1.2 Requirements for PS CN domain | 17 |
| 11.1.3 Requirements for IM CN subsystem | 17 |
| 11.2 Evolution path..... | 18 |
| 11.3 User / USIM Identification | 18 |
| 11.4 Terminal Identification | 18 |
| 11.5 Home Environment / Serving Network Identification..... | 18 |
| 11.6 Private numbering..... | 18 |
| 11.7 Numbering schemes..... | 18 |
| 11.7.1 Multiple numbering scheme | 18 |
| 11.7.2 Single numbering scheme..... | 18 |
| 11.8 Optimal routing for CS CN domain | 19 |

| | | |
|--------|--|-----------|
| 12 | Human Factors and user procedures..... | 19 |
| 13 | UICC, USIM and Terminal | 19 |
| 13.1 | The USIM/ISIM and User Profiles..... | 19 |
| 13.1.1 | The USIM..... | 19 |
| 13.1.2 | User Profiles..... | 20 |
| 13.1.3 | UICC usage in GERAN only Terminals | 20 |
| 13.1.4 | Multiple USIMs per UICC | 20 |
| 13.1.5 | The ISIM | 20 |
| 13.2 | The UICC | 21 |
| 13.2.1 | The UICC and Applications other than the USIM or ISIM..... | 21 |
| 13.3 | Terminals and Multiple UICCs | 21 |
| 14 | Types of features of UEs..... | 21 |
| 15 | Relationship between subscription and service delivery | 23 |
| 15.1 | Subscription..... | 23 |
| 15.2 | Other concepts associated with services | 23 |
| 15.3 | Requirements concerning service delivery | 24 |
| 16 | Charging principles | 24 |
| 17 | Roaming | 25 |
| 17.1 | Assumptions..... | 25 |
| 17.2 | Principle | 25 |
| 17.3 | Requirements..... | 25 |
| 18 | Handover Requirements | 26 |
| 19 | Network Selection..... | 27 |
| 20 | Security | 27 |
| | Annex A (normative): Description of optional user equipment features..... | 28 |
| A.1 | Display of called number..... | 28 |
| A.2 | Indication of call progress signals..... | 28 |
| A.3 | Country/PLMN indication..... | 28 |
| A.4 | Service Provider Name indication..... | 28 |
| A.5 | Keypad | 29 |
| A.6 | Short message indication and acknowledgement | 29 |
| A.7 | Short message overflow indication | 29 |
| A.8 | International access function | 29 |
| A.9 | Service Indicator (SI)..... | 29 |
| A.10 | Dual Tone Multi Frequency (DTMF)..... | 30 |
| A.11 | On/Off switch..... | 30 |
| A.12 | Sub-Address | 30 |
| A.13 | Short Message Service Cell Broadcast..... | 30 |
| A.14 | Short Message Service Cell Broadcast DRX | 30 |
| A.15 | Support of the extended Short message cell broadcast channel | 30 |
| A.16 | Network Identity and Timezone | 30 |
| A.17 | Network's indication of alerting in the UE..... | 31 |
| A.18 | Network initiated Mobile Originated (MO) connection | 32 |
| A.19 | Abbreviated dialling | 32 |
| A.20 | Barring of Dialed Numbers | 32 |
| A.21 | DTMF control digits separator | 33 |
| A.22 | Selection of directory number in messages..... | 33 |
| A.23 | Last Numbers Dialed (LND)..... | 34 |
| A.24 | Service Dialling Numbers..... | 34 |
| A.25 | Fixed number dialling..... | 34 |
| A.26 | Message Waiting Indication | 35 |
| | Annex B (informative): Change history..... | 36 |

Foreword

This Technical Specification has been produced by the 3GPP.

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.

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.