

**Human Factors (HF);
Supplementary Services;
A review of ETSI deliverables**



Reference

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Foreword

This Technical Report (TR) has been produced by ETSI Technical Committee Human Factors (HF).

1 Scope

The present document gives the results of a review of the current TC-HF deliverables on Supplementary Services and makes recommendations for improvement.

2 References

For the purposes of this Technical Report (TR), the following references apply:

- [1] ETSI TR 102 083: "Human Factors (HF); Supplementary service codes for use in public network services".
- [2] ETSI ES 201 382: "Human Factors (HF); Procedure for registering a supplementary service code".
- [3] ETSI ETR 261-1: "Human Factors (HF); Assessment and definition of a harmonized minimum man-machine interface (MMI) for accessing and controlling public network based supplementary services; Part 1: General approach and summary of findings".
- [4] ETSI ETR 261-2: "Human Factors (HF); Assessment and definition of a harmonized minimum man-machine interface (MMI) for accessing and controlling public network based supplementary services; Part 2: Literature review - Memory and related issues for dialling supplementary services using number codes".
- [5] ETSI ETR 261-3: "Human Factors (HF); Assessment and definition of a harmonized minimum man-machine interface (MMI) for accessing and controlling public network based supplementary services; Part 3: Experimental comparison of two MMIs - Simulated UPT access and prototype ISDN supplementary services".
- [6] ETSI ETR 261-4: "Human Factors (HF); Assessment and definition of a harmonized minimum man-machine interface (MMI) for accessing and controlling public network based supplementary services; Part 4: Experimental comparison of the effect of categorized and non-categorized formats within user instructions".
- [7] ETSI ETR 261-5: "Human Factors (HF); Assessment and definition of a harmonized minimum man-machine interface (MMI) for accessing and controlling public network based supplementary services; Part 5: Experimental evaluation of the CEPT and GSM code schemes".
- [8] ETSI ETR 261-6: "Human Factors (HF); Assessment and definition of a harmonized minimum man-machine interface (MMI) for accessing and controlling public network based supplementary services; Part 6: Survey of existing PSTN, ISDN and mobile networks, and a user survey of supplementary service use within Centrex and PBX environments".
- [9] ETSI ETR 261-7: "Human Factors (HF); Assessment and definition of a harmonized minimum man-machine interface (MMI) for accessing and controlling public network based supplementary services; Part 7: Experimental evaluation of draft ETS 300 738".
- [10] ETSI ETS 300 738: "Human Factors (HF); Minimum Man-Machine Interface (MMI) to public network based supplementary services".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

centrex: centralized PBX service provided by a local exchange for private (business) customers

service code: two or three digit string used within a user command dialogue to identify a Supplementary Service

supplementary service: additional service provided by a network which modifies or supplements a basic telecommunications service or services

3.2 Abbreviations

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

CEPT	European Conference of Postal and Telecommunications Administrations
GSM	Global System for Mobile communication
ISDN	Integrated Services Digital Network
MMI	Man-Machine Interface
PBX	Private Branch eXchange
PSTN	Public Switched Telephone Network
UPT	Universal Personal Telecommunications

4 Current HF deliverables

4.1 TR 102 083

TR 102 083 [1], Supplementary service codes for use in public network services, is a report that describes the use of those service codes for supplementary services used in public networks that were identified in the answers to a questionnaire sent out to the ETSI membership. The document provides categorized listing of supplementary services and gives a set of network independent definitions.

It also describes the creation of an ETSI register of codes. The application and registration procedures are described in ES 201 382 [2].

4.2 ES 201 382

ES 201 382 [2], "Procedure for registering a supplementary service code", is a short document that provides a brief description of the use of supplementary service codes and sets out the procedures to be followed when applying for a code for use in a public network. It provides the necessary application form for registration in the ETSI register of supplementary service codes.

4.3 TC HF Web site

Under the link "Supplementary Service Codes", the ETSI TC HF web site provides a brief definition and description of the use of supplementary service codes. It provides a link to a pdf document described as a report that provides an alphabetical listing of the supplementary services that require codes. Another link is to a copy of the application form provided in the annex to ES 201 382 [2].

4.4 Other TC HF documents

ETR 261-1, Assessment and definition of a harmonized minimum man-machine interface (MMI) for accessing and controlling public network based supplementary services; Part 1: "General approach and summary of findings" [3], presents the results of research to develop a harmonized MMI particularly for supplementary services. The ETR 261-1 [3] describes the approach to the work and summarizes results from the data collected. It sets out a useful introduction to the elements to be considered in the design of an MMI for supplementary services.

Part 2: "Literature review - Memory and related issues for dialling supplementary services using number codes" [4], gives a review on memory and other issues related to supplementary services accessed and controlled with numeric codes, provides a basic tutorial on memory and related issues and provides a useful bibliography of the subject.

Part 3: "Experimental comparison of two MMIs - Simulated UPT access and prototype ISDN supplementary services" [5] describes the experimental comparison of two MMIs, one a phase 1 UPT simulation and the other an ISDN prototype. The experiment compared interfaces using a 12-button keypad, tones and announcements with another that also had a text display. The results were limited and somewhat inconclusive.

Part 4: "Experimental comparison of the effect of categorized and non-categorized formats within user instructions" [6], describes the experimental comparison of two forms of instruction manual. One form of manual is structured to reflect a user model of a supplementary service and the other is structured to reflect the necessary user procedures. The report is at times difficult to follow due to editorial errors in the figure and table numbering.

Part 5: "Experimental evaluation of the CEPT and GSM code schemes" [7] describes the experimental comparison of CEPT and GSM code schemes used to access and control supplementary services.

Part 6: "Survey of existing PSTN, ISDN and mobile networks, and a user survey of supplementary service use within Centrex and PBX environments" [8] describes the questionnaire and survey data collected in two surveys of supplementary services, one in public networks and the other in Centrex and PBX environments.

Part 7: "Experimental evaluation of draft ETS 300 738" [10], presents the results of an experimental evaluation of the harmonized MMI proposed in a draft ETS for the minimum MMI for the control of public supplementary services

ETS 300 738: "Minimum Man-Machine Interface (MMI) to public network based supplementary services" [10], defines the format of the control actions required to gain access to and to control public network based supplementary services. It describes the necessary information to be provided by the network during the resultant dialogue.

It sets out to provide a complete listing of supplementary services and their codes based upon information derived from CEPT, ETSI standards and common usage. Some of the codes listed appear never to have been brought into use. No definitions are provided for the service names listed

5 Proposals for improvement

5.1 TR 102 083

Although the listing of supplementary service codes in TR 102 083 [1] is currently slightly out of date, as the document is a historical record of the results of a questionnaire it should not be changed.

5.2 ES 201 382

ES 201 382 [2] was criticized because it failed to set out a procedure covering other ETSI Technical Bodies (TBs). Minor revisions have now been made to the document to make it applicable to other ETSI Technical Bodies, mainly by changing the use of the term "Service provider" to "applicant". The document is currently passing through the approvals process.

5.3 TC HF Web site

The current ETSI web site is not fully up to date and its presentation is in need of improvement to make it easier for users to find the desired information.

It is suggested that the initial listing of the supplementary services and codes is given in the form of a categorized listing of the harmonized titles as given in table 1 of TR 102 083 [1]. Each title should have a link to the full definition, abbreviation, status and source that is given in annex A of TR 102 083 [1].

The information from annex A should be supplemented by a list of alternative titles for each supplementary service code.

An alphabetical listing of supplementary service titles should also be given. This alphabetical listing should include the alternative titles for the services but the format of harmonized and alternative titles should clearly differ. This listing should also be linked to the full data set.

5.4 Other TC HF documents

There is no need to make any changes to the content or status of the documents listed in clause 4.4.

History

Document history		
V1.1.1	November 2001	Publication