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Contents

Intellectual Property Rights	2
Foreword.....	2
Modal verbs terminology.....	2
Foreword.....	5
Introduction	5
1 Scope	6
2 References	6
3 Definitions, symbols and abbreviations	6
3.1 Definitions	6
3.2 Abbreviations	7
4 Personal UE networks	7
4.1 General description.....	7
4.2 PN UE Redirecting application	8
4.2.1 Requirements for PN UE redirecting application	8
4.2.2 Usability requirements for PN UE redirection application	10
4.2.3 Security for PN UE redirection application	10
4.2.4 Charging for PN UE redirection application.....	10
4.2.5 Interaction with supplementary services.....	10
4.3 PN access control	11
4.3.1 Requirements for PN access control	11
4.3.2 Usability requirements for PN access control	11
4.3.3 Security for PN access control.....	11
4.3.4 Charging for PN access control	11
5 PNE networks.....	12
5.1 General description.....	12
5.2 Personal area network management	12
5.2.1 Personal area network requirements	13
5.2.2 Usability requirements of personal area network management	14
5.2.3 Security	14
5.2.3.1 General	14
5.2.3.2 PNE management requirements	15
5.2.4 Charging	15
5.3 PNE redirecting application	15
5.3.1 Requirements for PNE redirecting application	15
5.3.2 Usability requirements	16
5.3.3 Security	16
5.3.4 Charging	16
5.4 PN access control for PNE networks.....	16
5.4.1 Requirements for PN access control for PNE networks	16
5.4.2 Usability requirements for PN access control in PNE networks.....	16
Annex A (informative): Use cases	17
A.1 Use case: Connection between PNEs of a PN.....	17
A.2 Use case of UE-PN connection	18
A.2a PN Access control: Parental control.....	19
A.3 Use case of PN-User access a PLMN from their PNEs	19
A.4 Use case for connection between guest UE and PN.....	20
A.5 Use case on UE redirection of terminating services.....	21

A.6	Use case on PNE redirection of terminating services	22
A.7	Use case: Selective update based on capability lists	23
A.8	Use case: Combination of two PANs	23
A.9	Use case: Separation of PAN	25
Annex B (Informative):	Change history	26
	History	28

Foreword

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

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Introduction

Traditionally a single integrated device with integrated radio access means formed the User Equipment (UE) for access to mobile communication services. Now, however, many subscribers possess more than one device for running mobile communication services, which may be connected to form a Personal Network (PN). The devices differ in their capabilities and these capabilities qualify the devices more or less for specific end-to-end applications or particular media like audio, video and pictures. A part of the devices offers own network access means for accessing the PLMN via UTRA, WLAN, or other access technologies. The other devices are Terminal Equipments without radio access capabilities.

Personal Network Management (PNM) allows the users to manage their devices and PN's. This TS specifies requirements for allowing the users to manage their devices. The considered management functions of Personal Network Management comprise the setup and configuration of Personal Networks, the personalization for the termination of services within the Personal Network as well as the enabling of secure connections between the Personal Network Elements. This includes the management of Personal Area Networks with their local device connections and their available radio access means.

Two different scenarios are distinguished for Personal Network Management:

- 1 Personal UE Networks: This addresses the management of multiple UEs belonging to a single PN-User. It contains the UE Redirecting application that provides for redirect terminating services to selected UEs and PN Access Control that provide for privacy and enable restricted access to a PN.
- 2 PNE Networks: This extends the scope of considered managed objects from UEs to physically separated UE components and to attached MEs. It does not only extend the PN UE Redirecting application and PN Access Control by PAN-specific aspects but addresses the PAN Management with interactions of TEs and MEs.

These two scenarios are handled separately within the TS as the requirements of Personal UE Networks and PNE Networks are focussed on different types of services. Personal UE Networks aim at an easy-to-use UE management whereas PNE Networks enable complex scenarios of local networks with alternative network access means.

1 Scope

The present document describes the service requirements for the Personal Network Management (PNM). Aspects of data synchronisation and management of user data are out of scope.

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 22.004: "General on supplementary services".
 - [2] 3GPP TS 22.101: "Service aspects; Service principles".
 - [3] 3GPP TS 22.105: "Service aspects; Services and service capabilities".
 - [4] 3GPP TR 22.944: "Report on service requirements for UE functionality split".
 - [6] Void
 - [7] 3GPP TS 23.101: "General Universal Mobile Telecommunications System (UMTS) architecture".
 - [8] 3GPP TS 22.082: "Call Forwarding (CF) supplementary services".
 - [9] 3GPP TS 22.228: "Service requirements for the Internet Protocol (IP) multimedia core network subsystem"..
 - [10] 3GPP TS 23.228: "IP Multimedia Subsystem (IMS)".
 - [11] 3GPP TS 23.279: "Combining Circuit Switched (CS) and IP Multimedia Subsystem (IMS) services".
 - [12] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
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3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in TR 21.905 [12] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in TR 21.905 [12].

Personal Network: A Personal Network (PN), in the context of Personal Network Management, consists of more than one Personal Network Element under the control of one PN-User providing access to the serving PLMNs. There shall be at least one Personal Network Element with a USIM subscription in a PN. Authentication of the user for each PLMN access is based on the USIM(s) of the PN. The Personal Network Elements are managed in a way that the user perceives a continuous secure connection regardless of their relative locations. The Personal Network Elements belonging to the PN-User's PN maybe registered to different PLMNs at a time. The PN-User controls the PN using facilities provided by the Personal Network Management (PNM).