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22.75 UMTS Advanced Addressing

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Addressing Framework

- **The ETSI SMG1 requirements concerning numbering and addressing are aimed at generating discussion and should agreed with ETSI NA2.**
- **The responsibility for developing of Numbering and Addressing schemes for all networks and network elements being in ETSI NA2.**

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User Related Requirements

- **The user shall be able to initiate communications with another party using a label to identify that party.**
- **Users also have requirements with regard to addressing for receipt of communications.**
- **When receiving communications, the recipient shall perceive the caller's label in the appropriate role.**
- **Some labelling schemes should be fully independent of the supporting serving network and the home environment.**
- **Labels may be used to identify groups as well as individual terminals or people.**
- **Name labels shall allow extended character sets.**

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Operational Requirements 1

- **Serving network shall be able to resolve the ownership of any USIM to the home environment.**
- **Serving networks need to be able to communicate with, authenticate and commercially deal with the home environment associated with any USIM being registered on their network.**
- **Serving networks require to to route efficiently any communication to and from USIMs and to identify the serving networks.**

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Operational Requirements 2

- **The possibility to address a terminal (rather than a subscriber) may be required for some applications and shall be supported.**
- **The UMTS system shall allow a end to end transparent application addressing of a large variety of different applications and services on a terminal.**
- **3rd party services should be reached by a label. Based on the charging policy different identities shall be transmitted.**
- **Interworking with common legacy network addressing shall be supported (E.164, E.212, ASEA, Internet, ...)**

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Layered Architecture

- **Label scheme: This scheme is used by users to establish a communication (standardisation ?).**
- **Enviroment addressing scheme: This scheme allows to identify home environments and subscribers (e.g. HLR, SSP, SCP).**
- **Routing scheme: This scheme shall allow serving networks to route communication effiently and to identify other serving networks.**

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Labeling Addressing Schemes

World Wide Labels

Country / Regional Labels

Country / Regional Labels

Environment Labels

Environment Labels

Environment Labels

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Example Label Translation 1

Label Translation Server

User A
Label Translation Application

Home Environment User A

Serving Network

User B

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Example Label Translation 2

MS

User A   **Switch**   **Service Node**   **User B (Paul)**

Call Paul → Local Data

(No Paul)

Database Request: Paul

Label Database

Database Respose:Paul +49172xxxxxxx

CALL_SETUP to B   (destination address / Routing Number=+49172xxxxxxx)

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Summary / Outlook

- **Numbering and addressing has to be more flexible in the future.**
- **Future proof schems for the various requirements have to be developed soon.**
- **Not all labeling schemes might need standardisation.**
- **Interworking to existing schemes is required.**
- **Schemes for labeling and routing have to be seperated.**

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