Technical Specification Group Services and System Aspects    **TSGS#9(00) 0393**
Meeting #9, Hawaii, USA, 25-28 September 2000

| | |
|---|---|
| **Source:** | **TSG SA1** |
| **Title:** | **New work Item Descriptions for VHE and OSA** |
| **Document for:** | **Approval** |
| **Agenda Item:** | **7.1.3** |

## VHE Adhoc Group meeting         Vhe ad (00) 028

**Arundel GB**

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**Source:**           **VHE  adhoc group**

## Work Item Description

**Title:**           **Scope of VHE in Release 2000**

**1**          **3GPP Work Area**

|   |              |
|---|--------------|
|   | Radio Access |
| X | Core Network |
| X | Services     |

Terminals are an area specifically to be addressed for the support of services.

**2**          **Linked work items**

MExE Release 2000
CAMEL Phase 4
(U)SIM Application Toolkit (WID name to be confirmed)
OSA Release 2000

**3**          **Justification**

The work item describes the work to be done from a services point of view on VHE work remaining from Release 1999, together with support of Release 2000 IP Multimedia service requirements.

**4**          **Objective**

The objective of this work item is to define concepts regarding general VHE service requirements and service features for Release 2000.  The work item will address:-

♦ Detailed definition of the VHE user profile
♦ Support of extensions to existing toolkits, and new toolkits where determined

- ♦ Interaction between toolkits to enable IP multimedia services
- ♦ Transparent roaming for services
- ♦ Completion of work which cannot be achieved in R99

## 5          Service Aspects

The focus of the work shall be:

- Identify the impact of IP based multimedia services on the VHE concept.
  The IP multimedia architecture is not considered to make any difference to the service concept provided by VHE. VHE should in general be transparent to the transport mechanisms.
  However in this section the impact of roaming between different types of networks on the level of service continuity of  services within the VHE concept will need to be considered.

Personal Service Environment.

Clearly identify the user profile. In this section a user profile model shall be elaborated with respect to:

- Identify the areas of the user profile, which need standardisation for the format and content.
- Identify the minimum content to be standardised.
- Identify accessibility, including security aspects of information in the user profile
- Identify relationship of 3$^{rd}$ party applications from VASP and HE-VASP to the user Profile
- Identify the role of the user, VASP, and operator in relation to the integrity of data within the user profile (e.g. user, VASP and operator)
- Distribution-model of user profile information over various entities
- Identify to which extent backup of terminal user profile information is needed.

   Multiple Profile

- Identifying the handling of user profiles e.g identify which user is active at any given time in a multiple subscriber profile.
- Identify the relationship and interworking between multiple user profiles. Experience from the work done with the Multiple Subscriber Profile should be reconsidered as far as useful.
  Note that this work will require co-operation and support between S1 VHE, S2, T2 SWG1 MExE, T2 SWG2 and CN5

   **Re-introduction of capabilities removed from R99.**

- This section will also consider (re) introduction of capabilities that have been removed from R'99 due to lack of time for completion of the study. How the existing toolkits can be used to enhance VHE R00  will include the study of:
  - **Enhanced Security;**
    The security mechanisms that allows encryption of sensitive user data.
  - **Enhanced Session Control;**
    This provides the enhancements of the bearer  manipulation and creation of bearers/sessions (in particular negotiation of the QoS).
  - **Enhanced  UserProfileManagement**
    The integration of the Personal Service Environment Management (PSEM) within the Network and Framework SCFs (is handled above).
  - **User Location**
    Further integration of the Location Services within the provisioning of geographical positioning information, taking into account the evolution of the 3G networks associated with this capability.
  - **Terminal Capabilities**
    This needs to be studied in collaboration with T and T2. In R99, the mechanism to retrieve the terminal capabilities is only applicable to WAP and MExE phones. R00 should provide a mechanism that is applicable to all types of phones.  Security mechanisms for the display of terminal capabilities information shall be addressed.

**Interoperability between toolkits.** It has been identified  that study on interaction between MExE/USAT/CAMEL/OSA  is important and needed. Some requirements will probably/certainly have to be taken into account by S1. for example, services could be executed in different ways with the same result for the subscriber which might require different toolkits to interwork.

**Service Continuity.**
VHE shall be access network independent. Here continuity from the user prospective is considered. Requirement on

how this is realised needs to be specified in R00 specification. The following aspects should be realised:

Identify the service capabilities to allow for the ability to have predictable behaviour of services when moving.

- - Provision of Home Services
    A user roaming to a visited PLMN must be able to use services as provided in the home PLMN.
- - Sevices awareness of roamed-to network capability
    The home network might need to notify the application or services about a change of the capability of the far end network in order to provide VHE. This is needed for example to ensure that handling of Incoming Multimedia Calls when roaming in CS network are handled appropriately from the subscriber and operator point of view.

Independence of Access Technology

The capability to support different access network should be realised. e.g mobile terminal requiring access to a
- - fixed network,
- - a bluetooth network,
- - a 2G/3G network

It is anticipated that not everything can be done in R00 for this topic but care must be taken not to preclude future development. Currently to realise this level of support there needs to be a close collaboration with other standardisation groups in this area such as ETSI SPAN group.


# 6        MMI-Aspects

None Identified.


# 7        Charging Aspects

Charging mechanism and tracebility aspects shall be available to enable the ability to record usage of network resource.

# 8        Security Aspects

Security aspects for user profiles, including but not limited to storage of profiles, access to profiles, and modification of profiles shall be addressed. See detailed requirements given in the above sections.


# 9        Impacts

| Affects: | USIM | ME | AN | CN | Others |
|----------|------|----|----|----|--------|
| **Yes** | X | X | | X | |
| **No** | | | X | | |
| **Don't know** | | | | | X |


# 10        Expected Output and Time scale (to be updated at each plenary)

The results of this Workitem shall be provided in a Technical Standard (as CR to existing standards).

In order to clearly state the TSG-S1 Service Requirements to other TSG's and WG's in a timely fashion the following Work Plan is proposed.

| *S1* | *Dates* | *Actions* |
|------|---------|-----------|
| S1 VHE /OSA adhoc | May 31 2000 | • Start the work<br>• Produce the Work Item Description<br>• |
| VHE/OSA e-mail list | June 19-20 | • Email Discussion to include:<br>•  Finalise WID to be submitted to and approved at SA#8<br>• Prepare CRs  for R00 |

| | | |
|---|---|---|
| VHE adhoc | June 23 | • Conference call (3pm BST)<br>• Prepare CRs for R00 |
| | | • |
| | | • |
| S1 VHE Drafting Session | July 3/4- 2000<br><br>(Possible additional dates July 5/6) | • Produce CR to Stage 1 document.<br>•<br>•  Meeting same venue as R00 adhoc |
| VHE /OSA e-mal list | July 10 - 11 | • Email Discussion |
| VHE adhoc | July 13 | • Conference call (3.00pm BST) |
| S1 VHE Drafting Session | Copenhagen | • CR to stage 1 document, discussion for presentation to SA plenary. |
| S1 | July 17 – 21 2000 Copenhagen | • Present  CR to  S1 Plenary for approval |
| S1 VHE Drafting Session | August?? | • Further CR to stage 1 document |
| S1 VHE Drafting Session | Early/Mid September | • Approval of CR to stage 1 document for presentation at SA plenary |
| SA | 25 – 28 September | Submit Work Item for approval<br>Approval of CR at SA #9 plenary |
| | | |
| | | |

| New specifications | | | | | | |
|---|---|---|---|---|---|---|
| Spec No. | Title | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for information at plenary# | Approved at plenary# | Comments |
| | | | | | | |
| | | | | | | |
| **Affected existing specifications** | | | | | | |
| Spec No. | CR | Subject | | Approved at plenary# | | Comments |
| TS 22.121 | | Virtual Home Environment R99 | | | | |
| TS 23.127 | | VHE/OSA for R99 | | | | |
| | | | | | | |
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| | | | | | | |
| | | | | | | |

**11**         **Work item raporteurs**

         **Jumoke Ogunbekun Fujitsu Europe Telecom**

**12**         **Work item leadership**

         TSG S1

**13          Supporting Companies**

[Fujitsu Telecom Europe, Ericsson, Motorola, Siemens , France Telecom, Nortel Networks, Alcatel]


**14          Classification of the WI (if known)**

| | |
|---|---|
| | Feature (go to 14a) |
| | Building Block (go to 14b) |
| | Work Task (go to 14c) |

14a      The WI is a Feature: List of building blocks under this feature
Source:  3GPP TSG SA WG 2

| Feature | Building Blocks | Expected delivery from other groups |
|---|---|---|
| **VHE** | **Evolution of VHE concepts** | End of July: first draft of the stage 1 specification including a clear scope of the VHE concept |
| | Service Continuity | End of July: clear definition and requirements from 3GPP TSG SA WG 1 are required |
| | **Personal Service Environment (PSE), user profiles and user profile management** | End of July: first draft of the stage 1 specification including a clear scope of the PSE concept |
| | **Interaction between VHE Toolkits** | End of August: first description and requirements from 3GPP TSG SA WG 1 are required |
| | **VHE management aspects** | Currently no urgent delivery is identified. |
| | **Improvements to VHE security** | A more detailed description of the requirements and their granularity is required until end of August. |


14b      The WI is a Building Block: parent Feature

(one Work Item identified as a feature)

14c      The WI is a Work Task: parent Building Block

(one Work Item identified as a building block)

TSG-SA WG 1 (Services) meeting #9          TSG S1 (00) 647
Taastrup, Denmark 18th to 21st July 2000          Agenda Item:

TSG-SA1 OSA ad hoc          S1-OSA-0007
Retz / Austria, 11th - 12th July, 2000

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**VHE Adhoc Group meeting #1**          **Vhe ad (00) 017**
**Stockley Park London**
**31st May 2000**

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**Source:**          **3GPP TSG-SA WG1**

## Work Item Description

**Title:**          **Scope of Network Interface for the Provision of Services**

**1          3GPP Work Area**

|   |   |
|---|---|
|   | Radio Access |
| X | Core Network |
| X | Services |

**2          Linked work items**

VHE Release 2000

**3          Justification**

The work item describes the requirements on the Network Interface for the Provision of Services (NIPS) to offer sufficient opportunities for the creation of value added services by third parties.

**4          Objective**

The objective of this work item is to enhance the open interface for service provision for the communication between Applications and Service Capability Features (OSA Release 1999).
The interface will be standardised in accordance to the functions 3GPP R00 networks will provide.

**5          Service Aspects**

The NIPS API shall be independent of the 3GPP R00 toolkits.
The Service Capability Features shall be summarised in the NIPS set of specifications.

This area of study could include identification of enhancements to the NIPS interface based on the evolved network capabilities within the Core Networks. Examples of these are:
- Call Control (IP)
  This takes into account the ongoing development of the IP multimedia scenario and addresses the Call Control capabilities based on SIP. This could be for example: creation, deletion, splitting ... of call legs.
- E-Commerce

This takes into account the charging capabilities as described in (7) (e.g. E-Pay). It will also involve the enhancements of the security to be provided by the network and by the application.

## Enhancements to OSA Release 99

This section will consider enhancements of SCFs that were not included in R'99. For example enhancements to SCFs to be included in the study of R00 should be :

- **User Location**
  Further integration of the Location Services within the provisioning of geographical positioning information, taking into account the evolution of the 3G networks associated with this capability.
- **Terminal Capabilities**
  .In R99, the mechanism to retrieve the terminal capabilities is only applicable to MExE and WAP phones. It is needed to study for R00 a mechanism that is applicable to all types of phones. Security mechanisms for the display of terminal capabilities information have to be studied too.
- **Enhanced  UserProfileManagement**
  The integration of the Personal Service Environment Management (PSEM) within the Network and Framework SCFs.

- **Enhanced Session Control;**
  This provides the enhancements to report the QoS whenever it is negotiated or changed.

## 6          MMI-Aspects

none identified

## 7          Charging Aspects

The NIPS API shall offer sufficient charging options to:
       Supervise user activities for online charging features,
       allow applications to access the account. This could be done by e.g. accessing an online account or impact the postprocessing.
       Allow applications to add charging information to network based charging records
       Inform applications on network based charging event
       etc.

## 8          Security Aspects

The NIPS API shall provide security facilities to guarantee secure access to user confidential information. Sensitive information has to be prevented from unauthorised access .

## 9          Impacts

| Affects: | USIM | ME | AN | CN | Others |
|----------|------|----|----|----|--------|
| Yes      |      |    |    | X  |        |
| No       | X    | X  | X  |    |        |
| Don't know |    |    |    |    | X      |

## 10          Expected Output and Time scale (to be updated at each plenary)

The results of this Workitem shall be provided in a Technical Standard (stage 1, 2 and 3). The work shall be aligned as far as possible with other bodies, such as ETSI SPAN and Parlay.

In order to clearly state the TSG-S1 Service Requirements to other TSG's and WG's in a timely fashion the following Work Plan is proposed.

| S1 | Dates | Actions |
|----|-------|---------|

| | | |
|---|---|---|
| S1 VHE/OSA adhoc | May 31 2000 | • Start the work<br>• Produce the Work Item Description |
| VHE/OSAe-mail list | June 19 | • Siemens sends out initial draft of NIPS stage 1. Subsequent Email Discussion, seek for comments and contributions. Updated draft will be distributed at the end of each week. (as version 0.1, 0.2 ...) |
| | | |
| SA | June 26 – 28 2000 | • WI to SA for approval ???? subject to advice of S1 chairman |
| | | |
| S1 NIPS adhoc Drafting Session | July 11 - 12 | • Physical meeting,  produce version  0.9. |
| S1 | July 17 – 21 2000 Copenhagen | • ½ day NIPS ad-hoc during S1 meeting to produce final draft Stage 1 at version  1.0.0 |
| CN 5 / SPAN | 5-7 September | Bristol, colocated with SA2 4-8th use Stage 1 as coming from S1 as first input |
| S1 NIPS | 14th to 15th of September | Stage 1 drafting, Sophia Antipolis |
| S1 / S2 / CN5 | Week before 20th sept. to be decided | chairmen coordination,<br>input for SA plenary milestone.<br>(S3 WI needs to be taken into account as well) |
| CN #9 | 20-22 September | |
| SA | 25 – 28 September | Stage 1 Presented to SA #9 for information<br>  Input for decision by SA whether content of December release is sufficient or release in March + |
| CN5 | 18-19 October | Vienna |
| CN5 | 7-8 November | Sophia-Antipolis |
| CN5 | mid December? | |
| SA | 11- 14 December | Approval of final version at SA#10 |
| | | |
| | | |
| | | |

| New specifications | | | | | | |
|---|---|---|---|---|---|---|
| Spec No. | Title | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for information at plenary# | Approved at plenary# | Comments |
| TS 22.osa | Open Service Architecture Network Interface | S1 | | #9 | #10 | |
| | | | | | | |
| **Affected existing specifications** | | | | | | |
| Spec No. | CR | Subject | | Approved at plenary# | | Comments |
| | | | | | | |
| TS 23.127 | | Open Service Architecture; | | | | |
| TS 29.198 | | Open Service Architecture;API Part 1 | | | | |
| TR29.998 | | Open Service Architecture;API Part 2 | | | | Equivalent TR for Rel'2000 needed ? |
| | | | | | | |
| | | | | | | |

## 11          Work item raporteurs

**Dr. Jörg Swetina, Siemens AG**

## 12          Work item leadership

TSG S1

## 13          Supporting Companies

Alcatel, Ericsson, Siemens, Fujitsu Telecom Europe, Nortel Networks,

## 14          Classification of the WI (if known)

| | |
|---|---|
| | Feature (go to 14a) |
| | Building Block (go to 14b) |
| | Work Task (go to 14c) |

14a      The WI is a Feature: List of building blocks under this feature

(list of Work Items identified as building blocks)

14b      The WI is a Building Block: parent Feature

(one Work Item identified as a feature)

14c      The WI is a Work Task: parent Building Block

(one Work Item identified as a building block)