Technical Specification Group Services and System Aspects
Meeting #8, Düsseldorf, Germany, 26-28 June 2000

TSGS#8(00)0216

Source: **TSG SA1**

Title: **Work Item Descriptions for Release 2000**

Document for: **Approval**

Agenda Item: **6.1.3**

Doc-1st-Level	Status-1st-Level	Subject		Rapporteur
SP-000216	S1-000278	WI on Support of Localised Service Area (SoLSA) in Release 2000		Nokia
SP-000216	S1-000299	WI on Support of IP multimedia services in UMTS		Mark Cataldo
SP-000216	S1-000337	Global Text Telephony, work item proposal		Gunnar Hellström
SP-000216	S1-000354	WI on Bearer modification without pre-notification		Wayne Ashwell
SP-000216	S1-000381	WI on Global Text Telephony work item proposal		Gunnar Hellstrom
SP-000216	S1-000446	WI on Scope of VHE in Release 2000		Jumoke Ogunbekun
SP-000216	S1-000447	WI on Scope of Open Interface for Service Provision in Release 2000		Jumoke Ogunbekun

3GPP TSG-SA, WG1 meeting #8 **TDoc S1#8 (00)0278**
Peking, China, April 10-15, 2000

Source: **Nokia**

Title: **Work Item Description 'Support of Localised Service Area (SoLSA) in Release 2000**

Document for: **Decision**

Work Item Description

Title

Support of Localised Service Area (SoLSA) in Release 2000

1. 3GPP Work Area

X	Radio Access
X	Core Network
X	Services

2. Linked work items

None identified.

3. Justification

Support of Localised Service Area (SoLSA) provides the mechanisms to support LSA services related to the radio resources. Currently in Release 99, SoLSA is supported only in the GSM access network, but some aspects of SoLSA are included also in common 3GPP specifications, even though SoLSA is not yet supported in UTRAN.

In order to achieve service continuity between GERAN and UTRAN, SoLSA should be specified in Release 2000 for UTRA FDD and TDD, as applicable. There is anyhow a need to define how the SoLSA specifications are to be continued in release 2000.

4. Objective

The objective of this Work Item is to have well defined SoLSA specifications in Release 2000.

The purpose of this work item is to define the service requirements, signalling, protocol elements and operations in UTRAN and GERAN to support localised services related to the radio network cells in the Release 2000 network configuration.

Some possible study items regarding SoLSA are:
- OSA-API for SoLSA.
- SoLSA applicability for IP multimedia services/PS domain
- Geographically defined LSAs

One initial task is to study and verify what parts of Release 99 SoLSA specifications are applicable as such in R00. Many SoLSA specifications will have to be modified and made applicable for UTRAN, but it is possible that some SoLSA features are less feasible in UTRAN than in GERAN and this should be reflected in the specifications.

The following time schedule is considered for 3GPP:

Task	**Planned Start**	**Planned Finish**
Work Item Creation	4/2000	4/2000
Work Item Approval		6/2000
Drafting and discussion, updates of specifications	4/2000	12/2000
Submission to TSG SA for approval		12/2000
Possible remaining corrections and clarifications	09/2000	12/2000

5. Service Aspects

Possible service enhancements to SoLSA in R00 or limitations due to differences between GERAN and UTRAN should be studied.

6. MMI-Aspects

No changes identified.

7. Charging Aspects

No charging aspects to be standardised have been identified, although one main feature of SoLSA is to support varying tariffs in different areas.

8. Security Aspects

Protection against fraud usage must be included. User privacy must not be jeopardized.

9. Impacts

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

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

New specifications						
Specification No.	Title	Prime rsp. WG	2nd ary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
Affected existing specifications						
Specification No.	CR	Subject		Approved at plenary#		Comments
		to be identified				

Note: GSM 10.43, Support of Localised Service Area (SoLSA); Work Item Status SoLSA, lists all SoLSA related GSM specifications and CRs. Corresponding changes to 3GPP specifications are to be identified.

11. Work item raporteurs

NN /Nokia.

12. Work item leadership

To be decided.

13. Supporting Companies

Nokia,

14. Classification of the WI (if known)

X	Feature (go to 14.1)
	Building Block (go to 14.2)
	Work Task (go to 14.3)

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

Inter Group Co-ordination	*Feature*	*Building block*[1]	*(involved WG) work task*[2]
Location related issues (Jan Kall, Nokia)	**Support of Localised Service Area (SoLSA)**	**Basic concept of SoLSA**	Creation of Work Item for UTRAN-SoLSA
			Development of SoLSA service descriptions, S1
			LSA definition, S1, RAN
			LSA selection, S1, RAN
			LSA information broadcast, R2
			Iu signalling support for SoLSA, R3
			Adapt GSM stage 2 SoLSA for UTRAN, S2, R2
			Adapt SoLSA core network CRs in CN WGs
			SoLSA specifications for UTRAN in RAN WGs
			Adapt SoLSA UE and USIM specifications in T WGs
			Study the usage of geographical information for SoLSA, S1
		Localised Service Area (LSA) indication	LSA display in UE, S1
		Preferential access (cell access priority for LSA users)	Iu interface and MAP signalling, SA, CN and RAN WGs
		Idle mode support (favouring LSA cells in idle mode)	Adapt GSM specifications for UTRAN and UE S2, RAN and T WGs
		Active mode support (favouring LSA cells in active mode)	Adapt GSM specifications for UMTS, UTRAN and UE, SA, CN, RAN and T WGs
		Exclusive access (private cells)	To be studied if supported in UTRAN, S1
		LSA only access (type cordless or WLL)	To be studied if supported in UTRAN, S1
		SoLSA interoperation aspects	GERAN-SoLSA and UTRAN-SoLSA interoperation, S2

The Work Tasks per WG should be made more concrete and detailed.

[1] please note that the building blocks not very stable at the moment
[2] please note that work tasks are not stable at all at the moment

14.2 The WI is a Building Block: parent Feature

(one Work Item identified as a feature)

14.3 The WI is a Work Task: parent Building Block

(one Work Item identified as a building block)

Work Item Description

Title: Support of IP multimedia services

1 3GPP Work Area

X	Radio Access
X	Core Network
X	Services

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

2 Linked work items

Proposed S2 Workitem: An architecture for Call control and roaming to support IP-based multimedia services in UMTS

Proposed T2 Workitem: MExE Release 2000

It is understood that other work items are currently being proposed which are related to this workitem.

3 Justification

The work item describes the work to be done – from a services point of view – on R00 IP Multimedia service requirements.

4 Objective

The objective is to define concepts regarding general service requirements and service features for Release 2000, consisting of an evolved Release 99, and IM (IP Multimedia) services. IP multimedia services shall support multiple media components per call based on existing multimedia call control standards.

The focus of work shall be:-

- Support and evolution of 3GPP Release 99
- High level vision of multimedia services
- Examination of potential service drivers
- New and evolved service capabilities and end user benefits
- Case study of realisation of some services (e.g. CFU)
- Evaluation of what does and does not need to be standardised
- Release a roadmap of time of delivery expectations for standards and products
- Release a Feature List of global interest and potential service candidates

Requirements shall be identified for support of supplementary services and their IP multimedia services equivalent. Requirements for roaming and handover shall be stated.

5 Service Aspects

In contrast to 2G systems new services will not be standardised in 3GPP. New services and service continuity will be enabled by Service Capabilities, which are based on toolkits (e.g. CAMEL, MExE, SAT, and VHE/OSA). Any additions to existing toolkits, or new toolkits, to support IP multimedia services and service continuity shall be identified.

IP multimedia call control shall make use of existing multimedia call control standards (e.g. H.323, SIP).

6 MMI-Aspects

The MMI to access IP multimedia services will not be standardised but will be manufacturer specific and/or will be left to applications based on toolkits in the terminal. Standardisation will be made however of the functions that the user or application will be expected to access/perform via any MMI, e.g. setting up a service specific parameter list.

7 Charging Aspects

Charging of IP-based multimedia services shall be addressed

8 Security Aspects

Security requirements for IP-based multimedia Service Capabilities shall be be addressed.

9 Impacts

Affects:	USIM	ME	AN	CN	Others
Yes	X	X	X	X	
No					
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 Report: TR 22.976.

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#7	February 9-11, 2000	• Work on TR22.976 so it is suitable for v1.0.0 at SA#7 • Liase TR22.976 to S2#12.
S1 R2000 adhoc	February 29-March 2, 2000	• Scope widened to encompass all of Release 2000 • Forward TR22.976 as v1.0.0 to TSG-SA for information
S1#8	April 10-14, 2000	• Prepare TR22.976 for approval at SA#8 • Liase TR22.976 to S2#13. • Work on of any new Stage 1's required so they are suitable for v1.0.0 at SA#8. • Produce initial CR's to the existing 22-series
S1 R2000 adhoc	3rd-5th May, 2000	• Progress and finalise work on the TR
S1#9	July 17-21, 2000	• Prepare any new Stage 1's for approval at SA#9. • Complete CR's to the 22-series.
S1#10	November 13-17, 2000	• Revise Stage 1's in line with feedback from other TSG's and WG's. • Begin TR on R2001.

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
22.976	Study on Release 2000 services and capabilities	S1		SA#7		
Ed comment: there will be potentially other new specs, yet to be identified						

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
Ed comment: there will be probably various R99 specifications impacted, yet to be identified				

11 Work item raporteurs

Mark Cataldo (Motorola Limited)

12 Work item leadership

TSG S1

13 Supporting Companies

Motorola, Nokia, Siemens, BT, Vodafone, Nortel Networks, Lucent Technologies, France Telecom, Mercury One2One, Ericsson, AT&T

14 Classification of the WI (if known)

TSG-SA Working Group 1 (Services) meeting
Meeting #8, Beijing, China, 10-15 April 2000

TSGS1#8(00)0337

Source: **Ericsson**

Title: **Global Text Telephony, work item proposal**

Document for: **Approval**

Agenda Item: **6.6.1**

This work item was approved at the recent 3GPP SA meeting, and modified in the S1 meeting #8. It is now presented to S1 for approval

Work Item Description

Title

Global Text Telephony

1 3GPP Work Area

	Radio Access
	Core Network
x	Services

2 Linked work items

(none)

3 Justification

Deaf, hard-of-hearing and speech-impaired persons use specific "Text Telephone" equipment in the fixed network since many years to transmit text and speech through ordinary speech traffic channels. Modern digital cellular systems, however, with their sophisticated error concealment technique, do not provide satisfying character error rates for text transmitted in the voice channel with the modulation from the fixed network. The US government in form of the FCC requires an urgent solution for all emergency (911) calls for one specific text telephone version ("Baudot"). The proposed work item shall address these FCC requirements quickly in a first phase, but shall aim at a global solution for all text telephony systems world wide. In the second phase support for multimedia calls is added.

4 Objective

Provide a solution for "Global Text Telephony" that supports real time text conversation fulfilling the FCC requirements. The ITU standard V.18 should be considered when designing interworking with fixed textphones and T.140 for the text coding and presentation. The solution shall be applicable for existing and future traffic channels in GSM and UMTS. The solution shall take modern multimedia capabilities of 3G systems into account.
The impact to existing or future cellular networks shall be minimal.
Interworking with messaging systems shall be considered.

5 Service Aspects

Emergency calls shall be possible as for ordinary speech calls, even without registration.

6 MMI-Aspects

The necessary interaction of the user shall be minimal, especially in case of emergency calls.

7 Charging Aspects

Nothing specific: like ordinary speech calls

8 Security Aspects

Same as for ordinary speech calls, especially in emergency cases.

9 Impacts

Affects:	USIM	ME	AN	CN	Others
Yes				potentially	
No					
Don't know	x	x	x		Gateway between mobile and landline Text Telephony may be required

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

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
22.GTT	Global Text Telephony,, Stage 1 service description	S1	S1, S4, T2	3GPPSA#9 (Sep 2000)	3GPPSA#10 (Dec 2000)	FCC requirements fulfilled, internationally applicable
23.GTT	Global Text Telephony, phase one, Stage 2: Architecture	S2		3GPPSA#9 (Sep 2000)	3GPPSA#10 (Dec 2000)	
27.GTT	Global Text Telephony, terminal aspects	T2		3GPPT#9 (Sep 2000)	3GPPT#10 (Dec 2000)	
26.GTT	Global Text Telephony, transport of text in the voice channel	S4		3GPPSA#9 (Sep 2000)	3GPPSA#10 (Dec 2000)	
23.GT2	Global Text Telephony, phase two, Stage 2 architecture.	S2	S1, T2	3GPPSA#9 (Sep 2000)	(Dec 2001)	Globally applicable 2G and 3G with multimedia support

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
26.111		C/S Multimedia :Add T.140 data protocol support	3GPPSA#10	
26.110		C/S Multimedia :Add T.140 data protocol support	3GPPSA#10	
26.911		C/S Multimedia : Add T.140 data protocol support	3GPPSA#10	
22.976		IP Multimedia: Add text conversation feature	3GPPSA#10	
23.976		IP Multimedia: Add text conversation feature	3GPPSA#12	

11 Work item raporteurs

Gunnar Hellström, Ericsson Radio Systems AB,
email: **gunnar.hellstrom@omnitor.se** tel: +46 708 204 288

12 Work item leadership

SA-WG2

13 Supporting Companies

Ericsson Radio Systems AB, Nokia, Voicestream, BT

14 Classification of the WI (if known)

x	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

Service Description.
Architecture Specification.
Interaction with external equipment.
Interaction with messaging services.
Transmission across the radio interface.
Terminal aspects.

15 Document History

Date	**Doc name**	**Comment**
17 March 2000	TSGSA#7(00)0162	**Proposed to SA#7**
18 March 2000	TSGSA#7(00)0162R2	**Adjusted according to SA#7 decision**
14 April 2000	TSGS1#8(00)0337	**List of expected output expanded**

3GPP TSG-SA, WG1 meeting #8 **TDoc S1#8 (00)0354**
Peking, China, April 10-15, 2000

Source: NTT DoCoMo, Vodofone Air Touch, BT, PBW.,NEC

Title: **Work Item Description 'Support of Bearer Modification Without Pre-notification in Release 2000'**

Document for: **Decision**

Work Item Description

Title

'Support of bearer Modification Without Pre-notification in Release 2000'

1. 3GPP Work Area

	Radio Access
X	Core Network
X	Services

2. Linked work items

None identified.

3. Justification

In section 5.2 of TS22.105 there is the requirement:

'It shall be possible to negotiate / re negotiate the characteristics of a bearer service at session / connection establishment and during an on going session / connection'.

The latter part of this requirement that requires the bearer change during a session is defined as 'Bearer modification without pre-notification'. It has been agreed that this feature was not part of Release 99.

TSG N3 have indicated that it is technically feasible to introduce the feature in Release 2000 and several operators have indicated that they wish to have this facility in Release 2000. Further details of the feature and potential applications are detailed by NTT DoCoMo in ANNEX A.

4. Objective

The objective of this Work Item is to create a new section in TS 22.105 to enhance the definition of this feature

The following time schedule is considered for 3GPP:

Task	**Planned Start**	**Planned Finish**
Work Item Creation	4/2000	4/2000
Work Item Approval		6/2000

Drafting and discussion, updates of specifications	4/2000	7/2000
Submission to TSG SA1 for approval		7/2000
Submission to TSG SA for approval		

5. Service Aspects

Editing of TS 22.105.

6. MMI-Aspects

No changes identified.

7. Charging Aspects

No changes identified.

8. Security Aspects

No changes identified.

9. Impacts

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

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

New specifications						
Specification No.	Title	Prime rsp. WG	2nd ary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments

Affected existing specifications				
Specification No.	CR	Subject	Approved at plenary#	Comments
TS22.105			SA1#9	

11. Work item raporteur

BT

12. Work item leadership

SA1

13. Supporting Companies

NTT DoCoMo, Vodofone Air Touch, BT, PBW.,NEC

14. Classification of the WI (if known)

	Feature (go to 14.1)
	Building Block (go to 14.2)
X	Work Task (go to 14.3)

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

The Work Tasks per WG should be made more concrete and detailed.

14.2 The WI is a Building Block: parent Feature

(one Work Item identified as a feature)

14.3 The WI is a Work Task: parent Building Block

Creation of new section in TS22.105

ANNEX A

The re-negotiation of bearer / QoS is used for modifying its capability during CS calls or PS sessions. This functionality may be caused by an application, the user via an application or a change in the radio conditions (handover, cell load modification etc.). It may be initiated by mobile station or network.
There is a requirement to provide the possible flexibility within the existing technical solutions utilized, allowing the end users change type of bearer and/or QoS parameters within a call as easily as possible.
Single numbering scheme shall be considered. In this case, subscription check may not be necessary.

- When Multimedia call setup is initiated and if the called party has a plain speech phone, automatic fallback to speech prevents the call from clearing.
- In case the called party doesn't want to receive Multimedia call, the called party may answer by speech. In this case, the calling party fallback to speech.
- Due to the radio conditions, Multimedia calls may not be able to continue communicating. In this case the calls may fallback to lower bit rate of Multimedia call or speech and continue communication.
- Speech call is initiated first and there may be the case that visual information is necessary. In such a case, the capability will be modified to adequate bearer.
- In case that the single numbering scheme is used and the call originates from PSTN (3.1KHz audio), the called MS may answer by speech and then modify bearer / QoS accordingly.
- Due to the radio conditions, PS sessions may not be able to keep the quality of service. In this case, QoS of sessions may be modified to lower quality to continue communication.

The followings are the examples of the application.

a) Information delivery service
   Information delivery service by FAX and FAX storage service is considered. These information services are instructed by voice announcements, the user selects the information by voice recognition or DTMF tones. Finally the required information is transmitted to the user by FAX.
b) Single media speech from/to multimedia (video telephony)

It may because of lower charge, the user communicates by speech at first. And during the communication the request to show something to the called party occurs often (e.g. during shopping). Then the user shifts to video telephony.

c) Speech from/to Modem

Car navigation system / Mobile office will be the potential situation whereby speech and data transfer occur. The user requests information by voice from the operator. Then the operator sends the information to car navigation system or PC. Finally, a speech conversation takes place to explain further details again.

d) QoS re-negotiation of packet service

Real time application over packet session is taking place and due to the radio condition, it may be difficult to keep the quality of service. The user may want to keep continue the session rather than disconnect the session. Then lower QoS (e.g. best effort type of packet) will be applied and continue the session.

TSG-SA Working Group 1 (Services) ~~meeting~~ *TSGS1#~~8(00)0337~~#9 (00)381*
~~Meeting #8, Beijing, China, 10-15 April 2000~~

Source: **Ericsson**

Title: **Global Text Telephony, work item proposal**

Document for: **Approval**

Agenda Item: **~~6.6.1~~**

This work item was approved at the recent 3GPP SA meeting, and modified in the S1 meeting #8. It is now presented to S1 for approval

Work Item Description

Title

Global Text Telephony

1 3GPP Work Area

	Radio Access
X	Core Network
x	Services

2 Linked work items

(none)

3 Justification

Deaf, hard-of-hearing and speech-impaired persons use specific "Text Telephone" equipment in the fixed network since many years to transmit text and speech through ordinary speech traffic channels. Modern digital cellular systems, however, with their sophisticated error concealment technique, do not provide satisfying character error rates for text transmitted in the voice channel with the modulation from the fixed network. The US government in form of the FCC requires an urgent solution for all emergency (911) calls for one specific text telephone version ("Baudot"). The proposed work item shall address these FCC requirements quickly in a first phase, but shall aim at a global solution for all text telephony systems world wide. In the second phase support for multimedia calls is added.

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The impact to existing or future cellular networks shall be minimal.
Interworking with messaging systems shall be considered.

5 Service Aspects

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6 MMI-Aspects

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7 Charging Aspects

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8 Security Aspects

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9 Impacts

Affects:	USIM	ME	AN	CN	Others
Yes				potentially	
No					
Don't know	x	x	x		Gateway between mobile and landline Text Telephony may be required

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

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
22.226~~G TT~~	Global Text Telephony,~~ne~~, Stage 1 service description	S1~~2~~	S2~~1~~, S4, T2	3GPPSA#9 (Sep~~Oct~~ 2000)	3GPPSA#10 (Dec 2000)	FCC requirements fulfilled, internationally applicable
23.226~~G TT~~	Global Text Telephony, ~~phase one,~~ Stage 2: Architecture	S2		3GPPSA#9 (Sep 2000)	3GPPSA#10 (Dec 2000)	Phase 2 additions approved Dec 2001
27.226~~G TT~~	Global Text Telephony, terminal aspects	T2		3GPPT#9 (Sep 2000)	3GPPT#10 (Dec 2000)	
26.226~~G TT~~	Global Text Telephony, transport of text in the voice channel	S4		3GPPSA#9 (Sep 2000)	3GPPSA#10 (Dec 2000)	
~~23.GT2~~	~~Global Text Telephony, phase two, Stage 2 architecture.~~	~~S2~~	~~S1, T2~~	~~3GPPSA#9 (Sep 2000)~~	~~(Dec 2001)~~	~~Globally applicable 2G and 3G with multimedia support~~
24.226	Global Text Telephony, Stage 3: Protocols	S2		3GPPSA#9 (Sep 2000)	3GPPSA#10 (Dec 2000)	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
26.111		C/S Multimedia :Add T.140 data protocol support	3GPPSA#10	
26.110		C/S Multimedia :Add T.140 data protocol support	3GPPSA#10	
26.911		C/S Multimedia : Add T.140 data protocol support	3GPPSA#10	
22.976		R00 and IP Multimedia requirements : Add text conversation feature	3GPPSA#9	

11 Work item raporteurs

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email: **gunnar.hellstrom@omnitor.se** tel: +46 708 204 288

12 Work item leadership

SA-WG2

13 Supporting Companies

Ericsson Radio Systems AB, Nokia, Voicestream, BT

14 Classification of the WI (if known)

x	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

Service Description.
Architecture Specification.
Interaction with external equipment.
Interaction with messaging services.
Transmission across the radio interface.
Terminal aspects.

15 Document History

Date	**Doc name**	**Comment**
17 March 2000	TSGSA#7(00)0162	**Proposed to SA#7**
18 March 2000	TSGSA#7(00)0162R2	**Adjusted according to SA#7 decision**
14 April 2000	TSGS1#8(00)0337r2	**List of expected output expanded**

TSG-SA WG 1 (Services) meeting #9 TSG S1 (00) 446
Taastrup, Denmark 17th to 21st July 2000 Agenda Item:

VHE Adhoc Group meeting #1 **Vhe ad (00) 013**
Stockley Park London: 31st May

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:-

IP Multimedia architecture.

The IP multimedia architecture is not considered to make any difference to the service concept provided by VHE. VHE should be transparent to the transport mechanisms. There may be new service capabilities that are realised due to IP architecture and need to be realised in R00 specification.
Under this section some VHE service scenarios need to be considered e.g what happens when a CS only user roams into a PS domain what level of VHE should they expect.

Personal Service Management.

Identifying the handling of user profiles e.g Identify which user is active at any given time in a multiple subscriber profile.
The following are issues for standardisation:

Format
Minimum content
User privacy issues
Application extension of the profile.

- terminal configuration preferences

Applicability of existing toolkits.

This section will also consider (re) introduction of capabilities that have been removed from R'99. 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 sessions (in particular negotiation of the QoS).
- **Enhanced UserProfileManagement**
  The integration of the Personal Service Environment Management (PSEM) within the Network and Framework SCFs.
- **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 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.

Interoperatability between toolkits

Are there cases were interoperatability between toolkits becomes an issue? It has been identified by SMG9 that study on interaction between WAP and SAT is important and needed. Some requirements will probably/certainly have to be taken into account by S1. In the list above, it can affect the following points: Enhanced Security, Enhanced Session control, Enhanced UserProfileManagement, User Location.

Service Continuity

VHE shall be access network independent. Requirement on how this is realised needs to be specified in R00 specification.

The following aspects have to be considered:

- **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

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

The MMI to access IP multimedia services will not be standardised but will be manufacturer specific and/or will be left to applications based on toolkits in the terminal. Standardisation will be made however of the functions that the user or application will be expected to access/perform via any MMI, e.g. setting up a service specific parameter list.

7 Charging Aspects

Charging of IP-based multimedia services shall be addressed

8 Security Aspects

Security of IP-based multimedia services shall be addressed.

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.

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 • Produce the Work Item Description •
VHE/OSA e-mail list	June 19-20	• Email Discussion to include: • Finalise WID to be submitted to and approved at SA#8 • Prepare CRs for R00

VHE adhoc	June 23	• Conference call (3pm BST) • Prepare CRs for R00
		•
SA	June 26 – 28 2000	• WI to SA for approval
S1 VHE Drafting Session	July 3/4- 2000 (Possible additional dates July 5/6)	• Produce CR to Stage 1 document. • • 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	July 17 – 21 2000 Copenhagen	• Present CR to S1 Plenary for approval
SA	25 – 28 September	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		

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

(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)

TSG-SA WG 1 (Services) meeting #9 TSG S1 (00) 447
Taastrup, Denmark 17th to 21st July 2000 Agenda Item:

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

Source: VHE Adhoc group

Work Item Description

Title: **Scope of Open Interface for Service Provision in Release 2000**

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 Open Service Architecture 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 OSA interface for the communication between Applications and Service Capability Features (SCF).
The interface will be standardised in accordance to the functions 3GPP R00 networks will provide.

5 Service Aspects

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

This area of study could include identification of enhancements to the OSA 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 and/or H.323
- E-Commerce
  This takes into account the capabilities provided by the network to use the capabilities provided by the post processing of the charging capabilities (e.g. E-Pay). It will also involve the enhancements of the security to be provided by the network work and by the application.

Enhancements to OSA Release 99

This section will consider enhancemnts of SCFs that were not included in R'99. For example enhancement 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 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 of the bearer manipulation and creation of bearers/sessions sessions (in particular negotiation of the QoS).

6 MMI-Aspects

none identified

7 Charging Aspects

The OSA API shall offer sufficient charging options to:
Supervise user activities for online charging features,
allow applications to access the online account
Allow applications to add charging information to network based charging records
Inform applications on network based charging event
etc.

8 Security Aspects

The OSA API shall provide security facilities to guarantee secure access to user confidentially 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). Protocol solutions shall be harmonised with other bodies, such as SPAN3 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 • Produce the Work Item Description
VHE/OSA e-mail list	June 19	• Siemens sends out initial draft of OSA 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 OSA adhoc Drafting Session	July 11 - 12	• Physical meeting, produce version 0.9.
S1	July 17 – 21 2000 Copenhagen	• ½ day OSA ad-hoc during S1 meeting to produce final draft Stage 1 at version 1.0.0
SA	25 – 28 September	Presented to SA #9 for information
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		

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)