

3GPP TSG-SA WG4 #17
Naantali, Finland
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S4-010428

Source: **Drafting Group TSG-SA WG4**
Title: **Work Item Description: Extended Transparent End-to-End Packet Switched Streaming Service (PSS-E)**
Document for: **Approval**
Agenda Item: **7.4.3**

Work Item Description

Title

Extended Transparent End-to-End Packet Switched Streaming Service (PSS-E)

1 3GPP Work Area

	Radio Access
	Core Network
✓	Services

- 2 Linked work items**
IMS (Internet Protocol Multimedia Sub-system)
MMS (Multimedia Messaging Service)
End to End QoS (Concept and Architecture) for PS Domain

3 Justification

Following on from the Simple Streaming specifications developed under Rel4, there is now a need to address more advanced aspects under Rel5, in a number of domains which are listed below.

4 Objective

Standardization of the components of a mobile multimedia content delivery service, including streaming protocols, media transport protocols, multimedia codecs. The Service Requirements defined by SA1, together with technical work in SA4, will lead to the definition of building blocks under this work item.

Harmonization with existing and emerging 3GPP multimedia applications will be considered whenever possible.

The Extended Streaming solution will be based on and therefore should provide full backwards compatibility with the Rel4 Simple Streaming solution.

Impact of handover over Streaming must be studied.

The work in SA4 will be done in response to, and in agreement with, the definition of Services Requirements for Extended Transparent End-to-End packet Switched Streaming Service (PSS-E) which will take place in SA1.

Approval of Service Requirements for PSS-E in SA1 must take place prior to any approval of PSS-E specification in SA4.

In particular, it is proposed that this work item will cover:

Service optimisation

consideration of device capabilities and user preferences in the optimisation of multimedia content delivery

Enhanced transport aspects

consideration of improved robustness and flexibility in the delivery of multimedia content:

- Adaptation to network conditions
- Adaptation to network type (GERAN, UTRAN)
- Enhanced streaming transport mechanisms
- Up-streaming

Multimedia media types

consideration of additional and enhanced media types and scene description:

- Graphics (2D, 3D)
- Synthetic Audio (eg MIDI)
- Enhanced audio and video codecs (eg higher levels and profiles and/or new codecs)
- Enhanced scene description (eg new features and/or functionality)
- Metadata

Interworking with MMS

consideration of the various modes in which PSS-E may be utilised and the impact on other services and network elements:

- File download
- Up-streaming
- File formats

Interoperability

consideration of interoperating with the Internet:

- File Formats
- Codecs

Commercial factors

consideration of the importance of rights management, security and charging aspects in the commercial implementation of PSS-E

Standardization of the components of a mobile multimedia content delivery service, including streaming protocols, media transport protocols, multimedia codecs.

Harmonization with existing and emerging 3GPP multimedia applications will be considered whenever possible.

The Extended Streaming solution will be based on and therefore should provide full backwards compatibility with the Rel4 Simple Streaming solution.

5 Service Aspects

The WI will define the necessary components for a mobile streaming service.

6 MMI-Aspects

None

7 Charging Aspects

The mobile streaming application will allow various charging models.

8 Security Aspects

Transport and content security aspects will be covered. Possibility for harmonization of security mechanisms between different multimedia applications will be considered.

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Impacts

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

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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
	<u>Stage 1</u>	<u>SA1</u>	<u>SA4</u>	<u>SA#13</u>	<u>SA#13</u>	
	<u>Stage 2</u>	<u>SA4</u>	<u>SA2</u>	<u>SA#13</u>	<u>SA#14</u>	
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	
26.233				SA#14	Rel-5	
26.234				SA#14	Rel-5	

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Work item rapporteurs

Olle Franceschi

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Work item leadership

TSG SA WG 4

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Supporting Companies

Ericsson, Motorola, Matsushita, Mitsubishi, Nokia, Microsoft, Vodafone, FhG, NTT DoCoMo, Philips, Siemens, Luxxon, Toshiba, Sharp, Emblaze Systems, France Telecom, Expway, Serome Technology, Celvibe

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

(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)