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General description
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Contents

Foreword

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The 3GPP packet-switched streaming service (PSS) specification consists of seven 3GPP TSs; 3GPP TS 22.233 'Transparent end-to-end packet switched streaming service; Stage 1 [6], 3GPP TS 26.234 [1], 3GPP TS 26.244 [7], 3GPP TS 26.245 [8], 3GPP TS 26.246 [9], 3GPP TS 26.247 [15] and the present document. The service requirements for PSS are listed in [6]. The present document provides an overview of the 3GPP PSS and [1] specifies the set of PSS protocols and codecs used by the service; [7] defines the 3GPP file format, [8] defines the 3GPP Timed Text, and [9] defines the 3GPP SMIL Language Profile, [15] defines the protocols and codecs for 3GP-DASH which are all used by the 3GPP PSS.

Introduction

Streaming refers to the ability of an application to play synchronised media streams like audio and video streams in a continuous way while those streams are being transmitted to the client over a data network.

Applications, which can be built on top of streaming services, can be classified into on-demand and live information delivery applications. Examples of the first category are music and news-on-demand applications. Live delivery of radio and television programs are examples of the second category.

Streaming over fixed-IP networks is already a major application today. While IETF and W3C have developed a set of protocols used in fixed-IP streaming services, no complete standardised streaming framework has yet been defined. For 3G systems, the 3G packet-switched streaming service (PSS) fills the gap between 3G MMS, e.g. downloading, and conversational services.

PSS enables mobile streaming applications, where the protocol and terminal complexity is lower than for conversational services, which in contrast to a streaming terminal require media input devices, media encoders and more complex protocols.

The present document describes the transparent 3G packet-switched streaming services (3G PSS) on a general application level.

1 Scope

The present document contains a general description of a transparent packet-switched streaming service in 3GPP-defined networks. In particular, it defines the usage scenarios, overall high-level end-to-end service concept, and lists terminal related functional components. It also lists any identified service interworking requirements.

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.
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[1] 3GPP TS 26.234:"Transparent end-to-end packet switched streaming service (PSS); Protocols and codecs".

[2] 3GPP TR 41.001: "GSM Specification set".

[3] 3GPP TS 22.140: "Service aspects; Stage 1; Multimedia Messaging Service".

[4] 3GPP TS 23.140: "Multimedia Messaging Service (MMS), Functional description stage 2/3".

[5] 3GPP TS 23.060: "General Packet Radio Service (GPRS); Service description; Stage 2".

[6] 3GPP TS 22.233: 'Transparent end-to-end packet switched streaming service; Stage 1'.

[7] 3GPP TS 26.244: "Transparent end-to-end packet switched streaming service (PSS); 3GPP file format (3GP)".

[8] 3GPP TS 26.245: "Transparent end-to-end packet switched streaming service (PSS); Timed text format".

[9] 3GPP TS 26.246: "Transparent end-to-end packet switched streaming service (PSS); 3GPP SMIL Language Profile".

[10] Open Mobile Alliance: 'OMA DRM Specification, V2.0'.

[11] 3GPP TS 26.237: "IP Multimedia Subsystem (IMS) based Packet Switch Streaming (PSS) and Multimedia Broadcast/Multicast Service (MBMS) User Service; Protocols".

[12] 3GPP TS 26.142: "Dynamic and Interactive Multimedia Scenes (DIMS)".

[13] 3GPP TS 26.430: "Timed Graphics".

[14] 3GPP TS 23.401: "General Packet Radio Service (GPRS) enhancements for Evolved Universal Terrestrial Radio Access Network (E-UTRAN) access".

[15] 3GPP TS 26.247: "Transparent end-to-end Packet-switched Streaming Service (PSS); Progressive Download and Dynamic Adaptive Streaming over HTTP (3GP-DASH)".

[16] 3GPP TS 21.905: "Vocabulary for 3GPP Specifications".