NGSI Multimedia List Handling Extension

Approved Version 1.0 – 29 May 2012

Open Mobile Alliance

OMA-TS-NGSI_Multimedia_List_Handling_Extension-V1_0-20120529-A

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1. Scope

This document is the technical specification for the NGSI-8 interface. It specifies the extensions from NGSI enabler to the multimedia streaming control as defined in [3GPP TS 29.199-19].

NGSI v1.0 defines abstract interfaces. This technical specification builds the basis for the definition of binding technologies based on the abstract interface definitions given in the TS.

The TS is not basis for testing without a respective binding.

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2. References

2.1 Normative References

[3GPP TS 29.199-1] "Open Service Access (OSA) Parlay X web services; Part 1", URL:http://www.3gpp.org/

[3GPP TS 29.199-14] "Open Service Access (OSA) Parlay X web services; Part 14", URL:http://www.3gpp.org/

[3GPP TS 29.199-19] "Open Service Access (OSA) Parlay X web services; Part 19", URL:http://www.3gpp.org/

[NGSI_Common_TS] "NGSI Requirements", Open Mobile Alliance™, OMA-TS-NGSI_Common-V1_0, URL:http://www.openmobilealliance.org/

[NGSI-RD] "NGSI Requirements", Open Mobile Alliance™, OMA-RD-NGSI-V1_0, URL:http://www.openmobilealliance.org/

[RFC2119] "Key words for use in RFCs to Indicate Requirement Levels", S. Bradner, March 1997, URL:http://www.ietf.org/rfc/rfc2119.txt

[RFC4234] "Augmented BNF for Syntax Specifications: ABNF". D. Crocker, Ed., P. Overell. October 2005, URL:http://www.ietf.org/rfc/rfc4234.txt

[SCRRULES] "SCR Rules and Procedures", Open Mobile Alliance™, OMA-ORG-SCR_Rules_and_Procedures, URL:http://www.openmobilealliance.org/

2.2 Informative References

[3GPP TS 29.199-21] "Open Service Access (OSA) Parlay X web services; Part 21", URL:http://www.3gpp.org/

[OMADICT] "Dictionary for OMA Specifications", Version 2.7, Open Mobile Alliance™, OMA-ORG-Dictionary-V2_7, URL:http://www.openmobilealliance.org/

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3. Terminology and Conventions

3.1 Conventions

The key words “MUST”, “MUST NOT”, “REQUIRED”, “SHALL”, “SHALL NOT”, “SHOULD”, “SHOULD NOT”, “RECOMMENDED”, “MAY”, and “OPTIONAL” in this document are to be interpreted as described in [RFC2119].

All sections and appendixes, except “Scope” and “Introduction”, are normative, unless they are explicitly indicated to be informative.

3.2 Definitions

The definitions of the OMA Dictionary [OMADICT] are valid for this document unless otherwise stated below. Additionally the definitions given in [3GPP TS 29.199-1] apply.

Multimedia List See [NGSI-RD]

3.3 Abbreviations

NGSI	Next Generation Service Interfaces
OMA	Open Mobile Alliance
OSA	Open Service Access
TS	Technical Specification
URI	Uniform Resource Identifier
URL	Uniform Resource Locator

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4. Introduction

Multimedia streaming APIs as defined in OSA/Parlay [3GPP TS 29.199-19] provide interfaces in order to create a service to stream content (one by one) to either built-in players on mobile terminals, or any installed applications. The provided extension from the NGSI enabler allows the configuration of a Multimedia List compared to the setup of a single media.

This allows configuring multimedia lists to be utilizable by different applications and services e.g. usage in jukebox or waiting service for call centres.

This TS is part of the specifications for the NGSI enabler.

4.1 Version 1.0

The NGSI TS Multimedia List Handling Extension document specifies the NGSI-8 interface with the following functions:

- management (create, read, update, delete) of a Multimedia List composed of
  - media identifiers (e.g. URI) or/and any media types and combination theirof.
  - usage mode / order
- management of the multimedia list conditions

4.1.1 Backward Compatibility to the Parlay Specifications

The NGSI-8 interface provides an extension to the service API related to consumption of streaming of Multimedia described in [3GPP 29.199-19]. NGSI-8 Interface provides a scenario for creation and control of Multimedia Lists in addition to the given Sequence Diagrams. NGSI-8 interface uses the data types as defined in [3GPP 29.199-19] and [3GPP 29.199-1]. The name space definition given in [3GPP 29.199-19] applies unchanged.

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5. Technical Details to Multimedia List Handling

5.1 Service Description

The NGSI-8 interface provides an extension to the service API related to consumption of streaming of multimedia whose basic scenario, interface descriptions and operations is described in [3GPP 29.199-19].

NGSI-8 extends by providing functionality to setup of the Multimedia List utilizable by different applications and services.

5.2 Sequence Diagrams

NGSI-8 Interface provides a scenario for the setup and control of Multimedia Lists in addition to the sequence diagrams given in [3GPP TS 29.199-19].

5.2.1 Setting up and Control of a Multimedia List

The figure below shows a scenario for creating and automatically controlling Multimedia List.

Outline of flow:

- The content provider obtains content information in advance and creates a multimedia list, e,g, using “queryContent” request as defined in [3GPP TS 29.199-21].
- If an end user makes a request for content, the stream is automatically controlled according to multimedia handling list.

The notification is performed only at the start and end of the streaming, whereby the stream control is exercised automatically.

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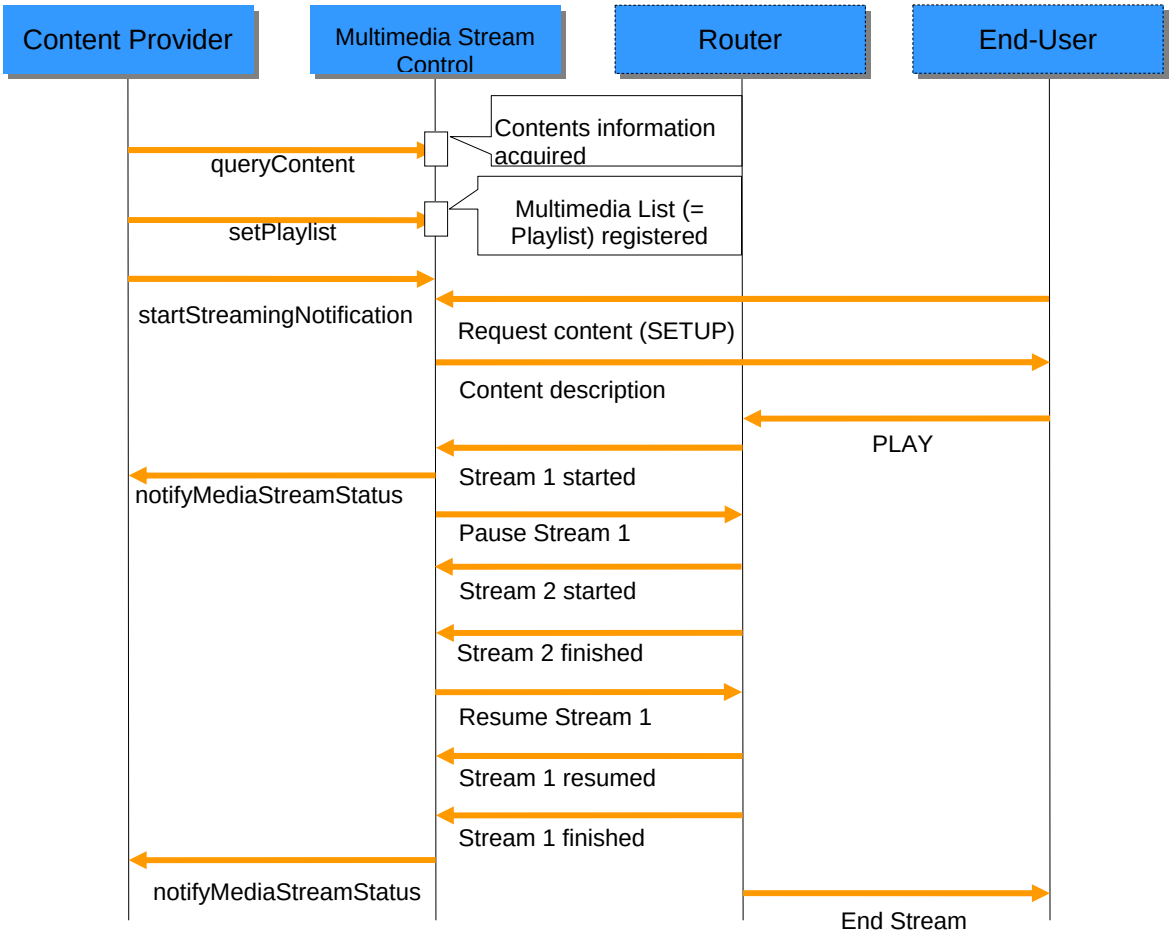

Figure 1 Scenario for creating and automatically controlling multimedia list

5.3 Data Type Definition

NGSI-8 interface uses the data type definition as defined in [NGSI_Common_TS], [3GPP 29.199-19] and [3GPP 29.199-1].

5.4 Interface definition

5.4.1 Interface: Streaming

NGSI-8 interface provides the additional operations *setPlaylist* and *clearPlaylist* to the streaming interface defined in [3GPP 29.199-19].

The operations *startMediaStream*, *getStreamingRequests*, *controlMediaStream*, and *getMediaStreamStatus* as defined in [3GPP 29.199-19] apply to fulfil the scenario shown in the section 5.2.

5.4.1.1 Operation: setPlaylist

The operation *setPlaylist* allows the content provider to set content for a Multimedia List on the Multimedia Stream Control.

In addition, an application can optionally specify *UserIdentifier* to indicate a set of Identifiers of users or groups to which the indicated playlist will be applied.

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An application can also optionally specify *OnPresenceStatusRules* to indicate the condition to decide when the specified Multimedia List will be played.

5.4.1.1.1 Input message: setPlaylistRequest

The operation *setPlaylist* allows the content provider to set content for a Multimedia List on the Multimedia Stream Control.

Part Name	Part Type	Optional	Description	New parameters
ContentIdentifier	xsd:anyURI	No	Content ID representing a playlist	NGSI-8
PlaylistData	xsd:anyURI	No	Data defining a playlist (Example: SMIL, defined by W3C.)	NGSI-8
UserIdentifier	xsd:anyURI[0..unbounded]	Yes	A set of Identifiers of users or groups to which the indicated playlist will be applied	NGSI-8
OnPresenceStatusRules	common: PresenceData [0..unbounded]	Yes	The condition when the indicated playlist will be used	NGSI-8

Table 1: setPlaylistRequest

5.4.1.1.2 Output message: setPlaylistResponse

Part Name	Part Type	Optional	Description
None			

Table 2: setPlaylistResponse

5.4.1.1.3 Referenced Faults

ServiceException from [3GPP TS 29.199-1]:

- SVC0001: Service error.
- SVC0002: Invalid input value.

PolicyException from [3GPP 29.199-1]:

- POL0001: Policy error.

5.4.1.2 Operation: clearPlaylist

The operation *clearPlaylist* allows the content provider to clear the Multimedia List on the Multimedia Stream Control.

5.4.1.2.1 Input message: clearPlaylistRequest

Part Name	Part Type	Optional	Description
ContentIdentifier	xsd:anyURI	No	Content ID representing a playlist to be cleared

Table 3: clearPlaylistRequest

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5.4.1.2.2 Output message: clearPlaylistResponse

Part Name	Part Type	Optional	Description
None			

Table 4: clearPlaylistResponse

5.4.1.2.3 Referenced Faults

ServiceException from [3GPP 29.199-1]:

- SVC0001: Service error.
- SVC0002: Invalid input value.

PolicyException from [3GPP 29.199-1]:

- POL0001: Policy error.

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Appendix A. Change History (Informative)

A.1 Approved Version History

Reference	Date	Description
OMA-TS-NGSI_Multimedia_List_Handling_Extension-V1_0-20120529-A	29 May 2012	Status changed to Approved by TP Ref TP Doc # OMA-TP-2012-0203-INP_NGSI_V1_0_ERP_for_final_Approval

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Appendix B. Static Conformance Requirements (Normative)

As NGSI v1.0 specifies the level of abstract interfaces, no testing of those is applicable. Therefore, the Static Conformance Requirements (SCR) tables are not defined. Those are subject for definitions in the related technical specification defining the bindings.

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