Enabler Release Definition for Standard Transcoding Interface

Candidate Version 1.0 – 04 Jul 2005

Open Mobile Alliance

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1. Scope

The scope of this document is limited to the Enabler Release Definition of STI (Standard Transcoding Interface) according to OMA Release process and the Enabler Release specification baseline listed in section 5.

This document presents the normative and informative elements of a transcoding interface between the Transcoding Platform and the Application Platforms. The primary purpose of the interface is to request transcoding of media Content files based on specified transcoding parameters, User Equipment capabilities and Application policies and to return the corresponding transcoded media files.

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2. References

2.1 Normative References

[IOPPROC] "OMA Interoperability Policy and Process", Version 1.1, Open Mobile Alliance™, OMA-IOP-Process-V1_1, URL:http://www.openmobilealliance.org/

[STI_REQ] "OMA STI Requirements V1.0". Open Mobile Alliance™. OMA-RD-STI-V1_0. http://www.openmobilealliance.org/

[STI] "Standard Transcoding interface, Version 1.0", Open Mobile Alliance™. OMA-TS-STI-V1.0. URL:http://www.openmobilealliance.org/

[STI_XSD] "OMA STI Schema V1.0". Open Mobile Alliance™. OMA-TS-SCHEMA-STI-V1_0. http://www.openmobilealliance.org/

2.2 Informative References

[STI_ARCH] "OMA STI Architecture V1.0". Open Mobile Alliance™. OMA-AD_STI-V1_0. http://www.openmobilealliance.org/

[STI_ETR] "Enabler Test Requirements for STI V1.0". Open Mobile Alliance™. OMA-ETR_STI-V1_0. 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.

The formal notation convention used in sections 8 and 9 to formally express the structure and internal dependencies between specifications in the Enabler Release specification baseline is detailed in [CREQ].

3.2 Definitions

Application Platform	Combination of hardware and software that provide the functionality of an application. Note that rather than implementing all components to provide the functionality of an application the implementation can integrate the necessary components from other platforms.
Content	Subject matter or information that is processed, stored, or transmitted electronically. It includes such things as text, SMIL, audio, images, video, etc. Content may have properties such as media type, mime type, etc.
Enabler Release	Collection of specifications that combined together form an enabler for a service area, e.g. a download enabler, a browsing enabler, a messaging enabler, a location enabler, etc. The specifications that are forming an enabler should combined fulfil a number of related market requirements.
Minimum Functionality Description	Description of the guaranteed features and functionality that will be enabled by implementing the minimum mandatory part of the Enabler Release.
Policy	A set of rules that are specified by the Application Platform to the Transcoding Platform, that can be used to give general limitations and preferences as well as specific variations of the transcoding parameters up to the transcoding job granularity.
Terminal Equipment	Equipment that provides the functions necessary for the operation of the access protocols by the user. A functional group on the user side of a user-network interface.
Transcoding Platform	Combination of hardware and software that provide transcoding functionality.
User Equipment	A device allowing a user access to network services. For the purpose of OMA specifications the interface between the UE and the network is the radio interface

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3.3 Abbreviations

ERDEF	Enabler Requirement Definition
ERELD	Enabler Release Definition
FTP	File Transfer Protocol
HTTP	HyperText Transfer Protocol
HTTPS	Secured HTTP
OMA	Open Mobile Alliance
SOAP	Simple Object Access Protocol
STI	Standard Transcoding Interface

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4. Introduction

This document outlines the Enabler Release for STI 1.0 and the respective conformance requirements for clients and servers implementing claiming compliance to it as defined by Open Mobile Alliance across the specification baseline.

STI V1.0 provides a transcoding interface between the Transcoding Platform and the Application Platforms. The primary purpose of the interface is to request transcoding of media Content files based on specified transcoding parameters, User Equipment capabilities and Application policies and to return the corresponding transcoded media files.

The notion of "Content adaptation" or "transcoding" in STI V1.0 refers to the transformation and manipulation of Content (images, audio, video, text, presentation…etc.) to meet the desired targets (defined by the terminal capabilities and the application needs). Those adaptations include: media format transcoding, scaling, re-sampling, file size compression…etc.

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5. Enabler Release Specification Baseline

This section is normative.

The Enabler comprises the following specifications:

"STI Requirements V1.0"	[STI_REQ]	Defines the requirements for the STI 1.0 specifications
"STI Architecture V1.0"	[STI_ARCH]	Defines the overall architecture for STI 1.0 including informative descriptions of the technologies and their uses
"STI Specification V1.0"	[STI]	Defines the the format and semantics of the STI transcoding request and response as well as protocols and bindings for request and response and access to external content and reference information.
"STI SCHEMA V1.0"	[STI_XSD]	Defines the XML Schema of the STI specification.

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6. Minimum Functionality Description for STI V1.0

The minimum functionality description for the STI Version 1.0 enabler release is the support for the minimum requirements of :
Standard Transcoding Interface, Version 1.0 [STI].
Application Platforms ability to send an STI compliant request to a Transcoding Platform.
Transcoding platform capability to send back STI compliant response with appropriate result codes.

STI is implemented using SOAP over HTTP or HTTPS. Furthermore, acess to external databases or servers for content and other reference information may be done with protocol such as HTTP, HTTPS, FTP, or FILE.

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7. Conformance Requirements Notation Details

This section is informative

The tables in following chapters use the following notation:

Item: Entry in this column MUST be a valid ScrItem according to [IOPPROC].

Feature/Application: Entry in this column SHOULD be a short descriptive label to the **Item** in question.

Status: Entry in this column MUST accurately reflect the architectural status of the **Item** in question.

- M means the **Item** is mandatory for the class
- O means the **Item** is optional for the class
- NA means the **Item** is not applicable for the class

Requirement: Expression in the column MUST be a valid TerminalExpression according to [IOPPROC] and it MUST accurately reflect the architectural requirement of the **Item** in question.

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8. ERDEF for STI V 1.0 - Client Requirements

This section is normative.

Item	Feature / Application	Status	Requirement
OMA-ERDEF-STI-C-001	STI V1.0 Client	M	STI:MCF

Table 1 ERDEF for STI V1.0 Client-side Requirements

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9. ERDEF for STI V 1.0 - Server Requirements

This section is normative.

Item	Feature / Application	Status	Requirement
OMA-ERDEF-STI-S-001	STI-V1.0 Server	M	STI:MSF

Table 2 ERDEF for STI V1.0 Server-side Requirements

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Appendix A. Change History (Informative)

A.1 Approved Version History

Reference	Date	Description
n/a	n/a	No prior version –or- No previous version within OMA

A.2 Draft/Candidate Version 1.0 History

Document Identifier	Date	Sections	Description
OMA-STI-2004-0133-LATE-ERLD	23 Sept 2004	ALL	Initiatl Draft
OMA-STI-2004-0165R01-ERLD	06 Dec 2004	ALL	Updated draft
Draft versions: OMA-ERELD_STI-V1_0	14 Dec 2004	All	Changes after group review
	2 Feb 2005	All	Final Review before Consistency Review
	16 May 2005	2.1	Spec and Schema now have “TS” in the document name
Candidate versions: OMA-ERELD-STI-V1_0	07 Jun 2005	n/a	Status changed to Candidate by TP TP ref #OMA-TP-2005-0181-STI-V1_0-for-Candidate-approval
	04 Jul 2005	n/a	Minor changes CR: OMA-STI-2005-0080-SCR-Tables-Correction to OMA-TS-STI-V1_0

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