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BSI Standards Publication

Intelligent transport systems — Using web services (machine-machine delivery) for ITS service delivery

Part 3: Quality of service

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National foreword

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A list of organizations represented on this committee can be obtained on request to its secretary.

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Foreword

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This document was prepared by Technical Committee ISO/TC 204, *Intelligent transport systems*.

A list of all parts in the ISO 24097 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

In order to provide high quality ITS services, various types of service coordination are indispensable, e.g. coordination between financial industries in an Electronic Fee Collections service. Service systems are constructed in a heterogeneous platform, e.g. hardware, OS, middleware, and/or application development language. Web services are technologies for heterogeneous distributed systems coordination.

To provide web services in an agile and interoperable manner, the use of standard based metadata was proposed in ISO 24097-1. Web service (WS) metadata is a formal description of a web service. It is expressed by: ***Interface metadata*** and ***QoS (Quality of Service) metadata***. WS metadata is a technical contract between a web service provider and its consumers, so both sides are aware of this interface. This provides the base of interoperability between a service provider's program and a service consumer's program. Because metadata is based on standards, software tools can support the WS lifecycle through design to servicing and upgrading.

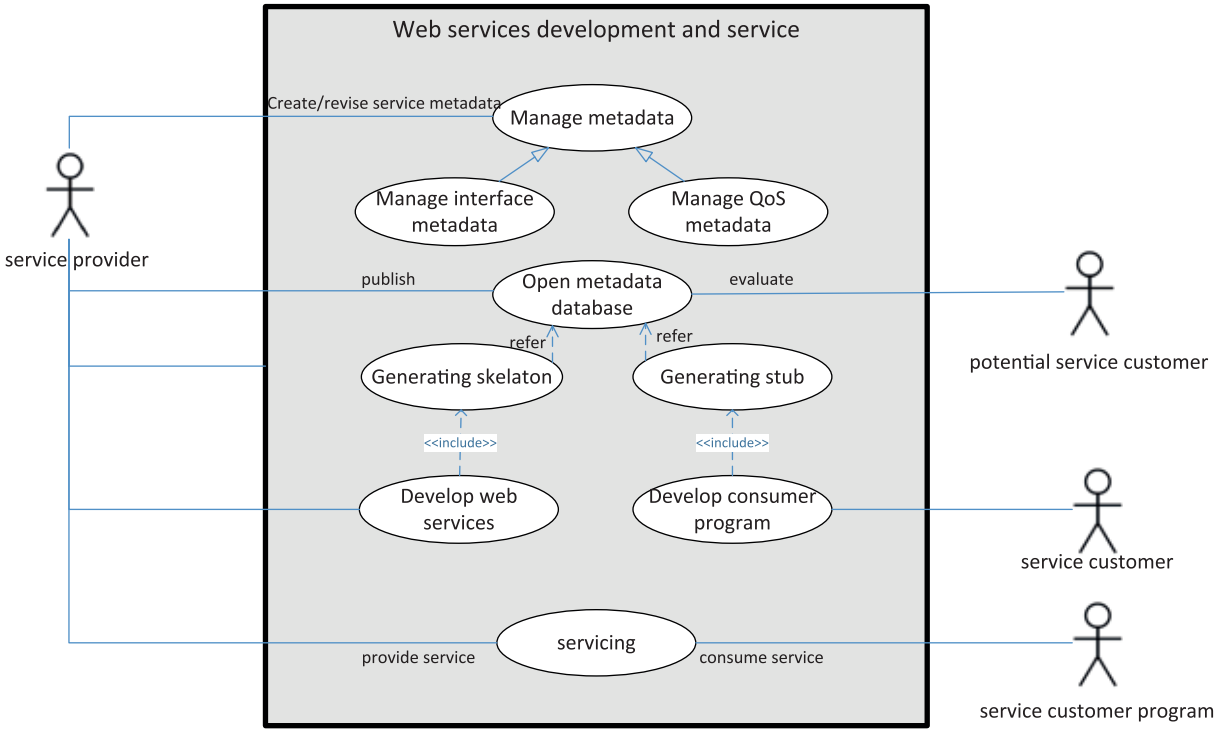

Figure 1 — ITS WS metadata use case

The ***interface metadata*** standard is the WSDL. This topic was covered in ISO/TR 24097-2.

QoS metadata is a combination of domain specific requirements and constraints such as security, reliable messaging, message addressing, and SOAP message transmission optimization.

This document focuses on these QoS topics.

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1 Scope

This document aims to promote ITS web services interoperability. Historically, web services interoperability evolved through activities shown in Figure 2. Applying the first two steps properly is the key to interoperability.

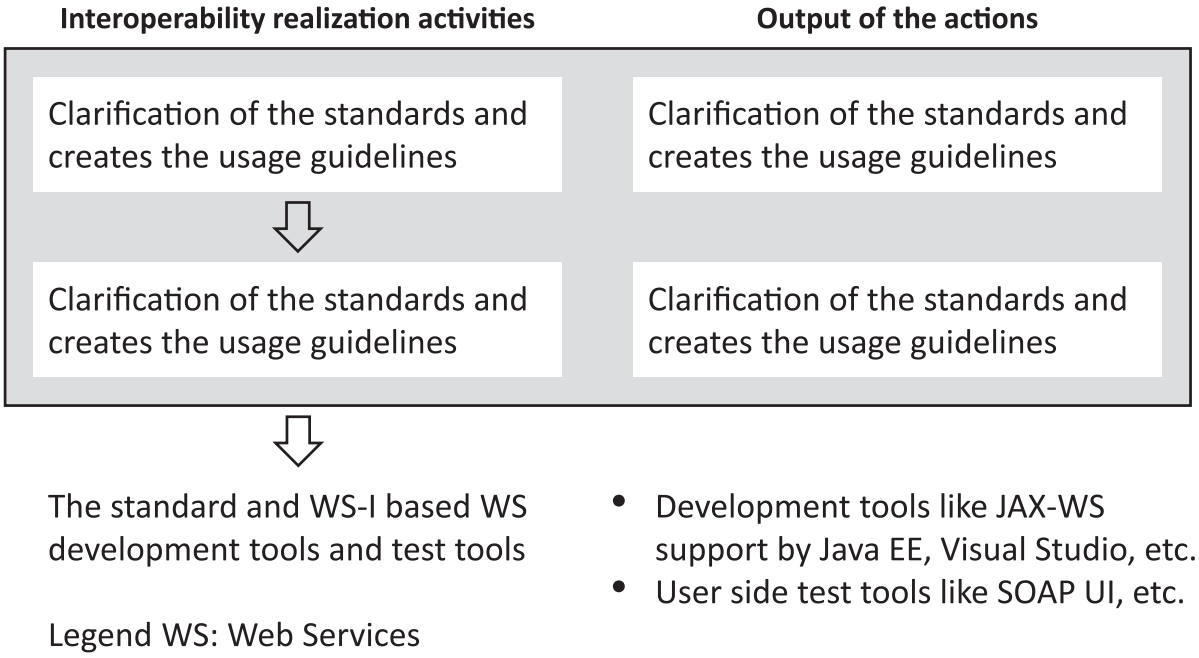

Figure 2 — Evolution of web services developing circumstances

This document focuses on the following topics:

— WS-policy language;

— domain specific policy metadata:

  — WS-Aaddressing policy metadata;

  — WS-ReliableMessaging policy metadata;

  — WS-Security Policy metadata;

  — SOAP Message transmission optimization Policy;

  — other policies.