



BSI Standards Publication

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

Part 3: Quality of service

National foreword

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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	2
3 Terms and definitions	2
4 Abbreviated terms	3
5 Notation and conventions	4
5.1 Namespace URI and prefixes used in this document	4
5.2 Web service syntax notation: pseudo-schemas	5
5.3 XPath 1.0 expression	6
5.4 XML infoset	6
5.5 SOA stack name notation	6
5.6 Examples	6
6 Web services overview	6
7 QoS overview	7
8 QoS standards	8
8.1 WS-Policy language	9
8.2 WS-Policy 1.5 — Framework	10
8.2.1 Policy authoring style	10
8.2.2 A policy description by combining domain specific policies	13
8.3 WS-Policy 1.5 — Attachment	13
8.3.1 Combining multiple policies	14
8.3.2 Policy attachment points, policy subjects, and policy scope	15
9 Domain specific policy overview	17
9.1 <i>Messaging metadata</i> (WS-Addressing metadata)	18
9.1.1 WS-Addressing standard	18
9.1.2 WS-Addressing 1.0 — Core and Web Services Addressing 1.0 — SOAP Binding	19
9.1.3 WS-Addressing 1.0 — Metadata	20
9.1.4 Elaboration of WS-AddressingMetadata	20
9.2 WS-SecurityPolicy (WSSP)	21
9.2.1 WSSP standard	21
9.2.2 WSSP scope	22
9.2.3 WS-SecurityPolicy fundamental	23
9.2.4 Cryptographic algorithms and key length	24
9.2.5 WSSP use case	24
9.2.6 Validation of WS-SecurityPolicy document	29
9.3 Web Services Reliable Messaging Policy Assertion	29
9.3.1 RM Policy Assertions	30
9.4 <i>MTOM policy</i> (MTOM Serialization Policy Assertion 1.1)	30
9.5 <i>SOAP usage policy</i> (Web Services SOAP Assertions)	31
10 Metadata versioning	31
11 Security considerations	32
Annex A (informative) Security relevant web services standards	34
Annex B (informative) JAX-WS	38
Bibliography	39

Foreword

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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.

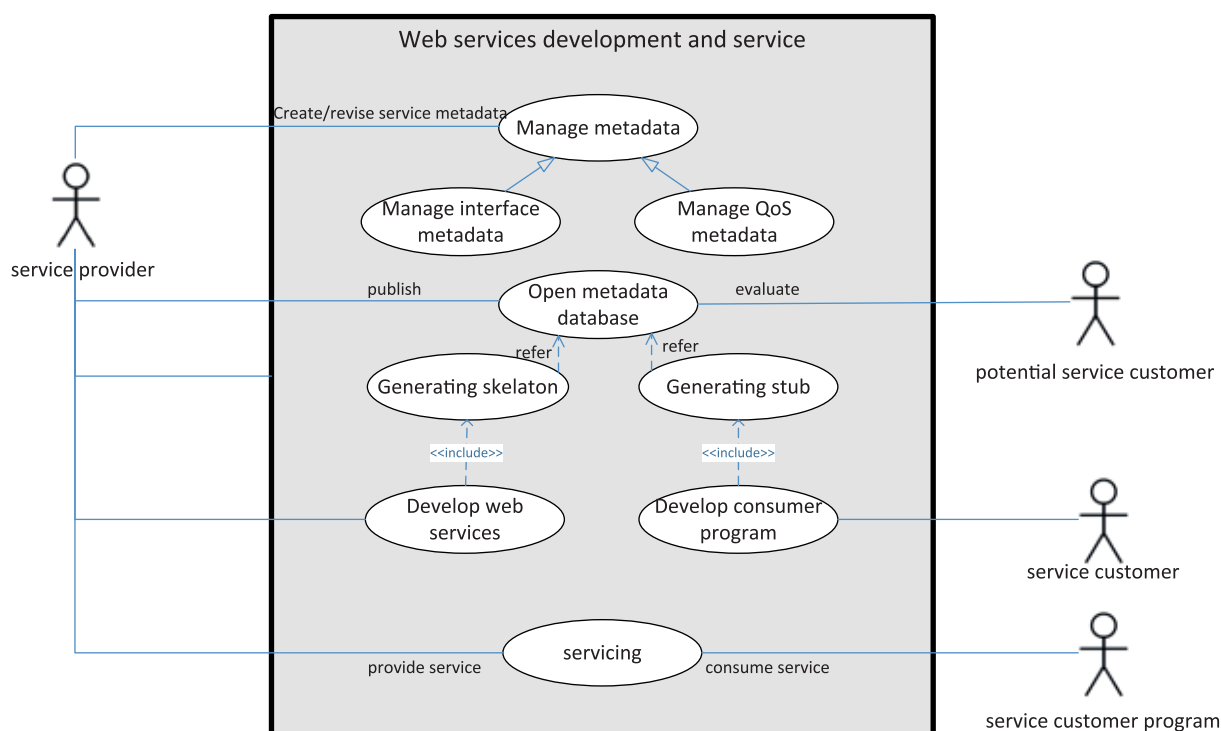


Figure 1 — ITS WS metadata use case

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.

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

Part 3: Quality of service

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.

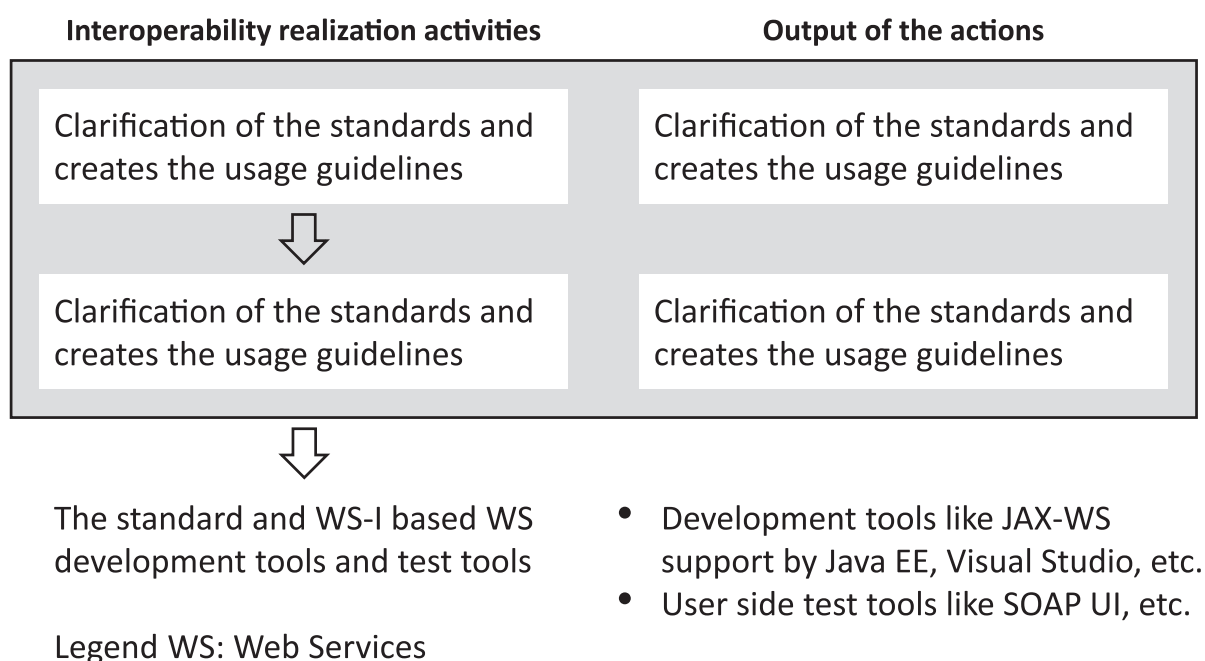


Figure 2 — Evolution of web services developing circumstances

This document focuses on the following topics:

- WS-policy language;
- domain specific policy metadata:
 - WS-Addressing policy metadata;
 - WS-ReliableMessaging policy metadata;
 - WS-Security Policy metadata;
 - SOAP Message transmission optimization Policy;
 - other policies.