
**Information technology —
Telecommunications and information
exchange between systems —
WS-Session — Web services for
application session services**

*Technologies de l'information — Télécommunications et échange
d'information entre systèmes — Session WS — Services web pour
services de session d'application*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO/IEC 25437:2009

[https://standards.iteh.ai/catalog/standards/sist/6e6de49d-67e4-4433-8141-
defebca7c9cf/iso-iec-25437-2009](https://standards.iteh.ai/catalog/standards/sist/6e6de49d-67e4-4433-8141-defebca7c9cf/iso-iec-25437-2009)

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO/IEC 25437:2009](https://standards.iteh.ai/catalog/standards/sist/6e6de49d-67e4-4433-8141-defebca7c9cf/iso-iec-25437-2009)

<https://standards.iteh.ai/catalog/standards/sist/6e6de49d-67e4-4433-8141-defebca7c9cf/iso-iec-25437-2009>



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2009

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Conformance	1
3 Normative references	2
4 Terms, definitions and namespaces	2
5 Service Provider WSDL Abstract Definitions	4
6 Service Provider WSDL SOAP Binding	6
7 Event Subscription and Notification	8
Annex A (normative) Subscription Using WS-BaseNotification Option	9
Annex B (normative) Asynchronous Response to Subscription Request Option	10
Annex C (informative) Event Subscription Using WS-Eventing	11
Annex D (informative) Service Provider WSDL with SOAP/HTTP Binding	14
Annex E (informative) SOAP XML Templates for ISO/IEC 22534 (ECMA-354) Messages	15
Annex F (informative) WS-Eventing SOAP XML Message Templates	20
Annex G (informative) WS-BaseNotification SOAP XML Message Templates	23
Annex H (informative) Summary of Changes	26

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 25437 was prepared by Ecma International (as ECMA-366) and was adopted, under a special “fast-track procedure”, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, in parallel with its approval by national bodies of ISO and IEC.

This second edition cancels and replaces the first edition (ISO/IEC 25437:2006), which has been technically revised.

[ISO/IEC 25437:2009](https://standards.iteh.ai/catalog/standards/sist/6e6de49d-67e4-4433-8141-defebca7c9cf/iso-iec-25437-2009)

<https://standards.iteh.ai/catalog/standards/sist/6e6de49d-67e4-4433-8141-defebca7c9cf/iso-iec-25437-2009>

Introduction

ISO/IEC 22534, Application Session Services, specifies XML protocols that can be used to create and manage application sessions that are independent of the transport layer protocols. This International Standard (WS-Session) specifies Web services for ISO/IEC 22534.

The ApplicationSessionTerminated operation of this International Standard is an outbound asynchronous event notification. For the Service Requester to receive the event notification from the Service Provider and from web services (e.g. ECMA-348) that use this International Standard for session management, it standardized the WS-BaseNotification Option and illustrated the use of WS-Eventing.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[ISO/IEC 25437:2009](https://standards.iteh.ai/catalog/standards/sist/6e6de49d-67e4-4433-8141-defebca7c9cf/iso-iec-25437-2009)

<https://standards.iteh.ai/catalog/standards/sist/6e6de49d-67e4-4433-8141-defebca7c9cf/iso-iec-25437-2009>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO/IEC 25437:2009

<https://standards.iteh.ai/catalog/standards/sist/6e6de49d-67e4-4433-8141-defebca7c9cf/iso-iec-25437-2009>

Information technology — Telecommunications and information exchange between systems — WS-Session — Web services for application session services

1 Scope

This International Standard specifies Web Services (in WSDL) and a SOAP binding for the Application Session Services defined in ISO/IEC 22534. The Application Session Services allow Applications to create and maintain a relationship with Servers termed Application Session. The Web services specified herein allow Service Requesters (Applications in ISO/IEC 22534) and Service Providers (Servers in ISO/IEC 22534) to create and maintain such Application Sessions.

This International Standard builds upon and imports the XML schema definitions from ISO/IEC 22534. The method of making the WSDL description of the specified services available to Service Provider and Requester is out of the scope of this International Standard.

The ApplicationSessionTerminated operation of this International Standard is an outbound asynchronous event notification that Service Requesters receive from the Service Provider. Service Requester may also receive the event notification from web services, e.g. ECMA-348, that use this International Standard for session management.

This International Standard specifies the event subscription and notification behaviors.

Annex A specifies the event subscription mechanism using WS-BaseNotification Option.

Annex B specifies the asynchronous subscription response Option for the two event subscription mechanisms.

Annex C illustrates the event subscription mechanism using WS-Eventing.

Annex D shows an example WS-Session WSDL binding with SOAP/HTTP.

Annex E lists SOAP XML Templates for ISO/IEC 22534 messages.

Annex F lists some SOAP XML Templates for WS-Eventing messages.

Annex G lists some SOAP XML Templates for WS-BaseNotification messages.

Annex H provides a summary of changes.

2 Conformance

The Service Requester and Service Provider conform to the Application and Server conformance specified in ISO/IEC 22534, using the WSDL definitions, SOAP bindings, and event subscription and notification specified in Clauses 5, 6 and 7 respectively.

The Service Provider may implement the WS-BaseNotification event subscription Option as specified in Annex A.

The Service Provider's WSDL shall include the implemented event subscription operations in the WSDL specified in Clause 5.

The Service Requester shall itself initiate or delegate event subscription.

The Service Provider supports synchronous responses to event subscriptions and may implement the asynchronous response Option specified in Annex B.

3 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 22534:2005 (ECMA-354), *Information technology — Telecommunications and information exchange between systems — Application session services*

SOAP 1.1	Simple Object Access Protocol 1.1, W3C Note 08 May 2000
WSDL 1.1	Web Service Description Language 1.1, W3C Note 15 March 2001
XML Schema 1.0:	XML Schema Language Part 1: Structure, W3C Recommendation 28 October 2004 XML Schema Language Part 2: Data Types, W3C Recommendation 28 October 2004
WS-Addressing 1.0	Web Services Addressing 1.0 – Core W3C Recommendation 9 May 2006 Web Services Addressing 1.0 - SOAP Binding W3C Recommendation 9 May 2006 Web Services Addressing 1.0 – Metadata, W3C Recommendation 4 September 2007 https://standards.iteh.ai/catalog/standards/sist/6e6de49d-67e4-4433-8141-100000000000/iso-iec-25437-2009
WS-BaseNotification 1.3	Web Services Base Notification 1.3 (WS-BaseNotification) OASIS Standard, 1 October 2006

4 Terms, definitions and namespaces

4.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

4.1.1

Service Requester

Web Service equivalent of Application in ISO/IEC 22534

4.1.2

Service Provider

Web Service equivalent of Server in ISO/IEC 22534

4.1.3

Application Session

association between an application and a server

4.2 Namespaces

This International Standard uses these Ecma prefixes and namespaces:

1. **aps** (http://www.ecma-international.org/standards/ecma-354/appl_session): This International Standard imports all XML messages defined in ECMA-354 (ISO/IEC 22534) from the **aps** namespace.
2. **wss** (<http://www.ecma-international.org/standards/ecma-366/ws-session/ed2>): The WSDL target namespace for this International Standard.

This International Standard refers to these other prefixes and namespaces:

1. **wSDL** (<http://schemas.xmlsoap.org/wSDL>): This contains the W3C WSDL 1.1 schema.
2. **xs** (<http://www.w3.org/2001/XMLSchema>): This contains the W3C XML Schema definition.
3. **S** (<http://schemas.xmlsoap.org/wSDL/soap>): This contains the W3C SOAP bindings for WSDL 1.1.
4. **wsa** (<http://www.w3.org/2005/08/addressing>): The namespace for WS-Addressing 1.0.
5. **wsnt** (<http://docs.oasis-open.org/wsn/b-2.xsd>): The target namespace for WS-BaseNotification 1.3.

iTeh STANDARD PREVIEW (standards.iteh.ai)

ISO/IEC 25437:2009

<https://standards.iteh.ai/catalog/standards/sist/6e6de49d-67e4-4433-8141-defebca7c9cf/iso-iec-25437-2009>

5 Service Provider WSDL Abstract Definitions

This clause specifies the abstract WSDL definitions to support the services specified in ISO/IEC 22534.

```

<definitions
  xmlns="http://schemas.xmlsoap.org/wsdl/"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:aps="http://www.ecma-international.org/standards/ecma-354/appl_session"
  xmlns:wss="http://www.ecma-international.org/standards/ecma-366/ws-session/ed2"
  targetNamespace="http://www.ecma-international.org/standards/ecma-366/ws-session/ed2">
  <types>
    <xs:schema>
      <xs:import namespace="http://www.ecma-international.org/standards/ecma-354/appl_session"
schemaLocation="http://www.ecma-international.org/standards/ecma-354/appl_session/start-application-session.xsd"/>
      <xs:import namespace="http://www.ecma-international.org/standards/ecma-354/appl_session"
schemaLocation="http://www.ecma-international.org/standards/ecma-354/appl_session/stop-application-session.xsd"/>
      <xs:import namespace="http://www.ecma-international.org/standards/ecma-354/appl_session"
schemaLocation="http://www.ecma-international.org/standards/ecma-354/appl_session/reset-application-session-timer.xsd"/>
      <xs:import namespace="http://www.ecma-international.org/standards/ecma-354/appl_session"
schemaLocation="http://www.ecma-international.org/standards/ecma-354/appl_session/application-session-terminated.xsd"/>
    </xs:schema>
  </types>
  <message name="startApplicationSession">
    <part name="parameter" element="aps:StartApplicationSession"/>
  </message>
  <message name="startApplicationSessionPosResponse">
    <part name="parameter" element="aps:StartApplicationSessionPosResponse"/>
  </message>
  <message name="startApplicationSessionNegResponse">
    <part name="parameter" element="aps:StartApplicationSessionNegResponse"/>
  </message>
  <message name="stopApplicationSession">
    <part name="parameter" element="aps:StopApplicationSession"/>
  </message>
  <message name="stopApplicationSessionPosResponse">
    <part name="parameter" element="aps:StopApplicationSessionPosResponse"/>
  </message>
  <message name="stopApplicationSessionNegResponse">
    <part name="parameter" element="aps:StopApplicationSessionNegResponse"/>
  </message>
  <message name="resetApplicationSessionTimer">
    <part name="parameter" element="aps:ResetApplicationSessionTimer"/>
  </message>
  <message name="resetApplicationSessionTimerPosResponse">
    <part name="parameter" element="aps:ResetApplicationSessionTimerPosResponse"/>
  </message>
  <message name="resetApplicationSessionTimerNegResponse">
    <part name="parameter" element="aps:ResetApplicationSessionTimerNegResponse"/>
  </message>
  <message name="applicationSessionTerminated">
    <part name="parameter" element="aps:ApplicationSessionTerminated"/>
  </message>

```

```
<portType name="ApplicationSessionServicesPortType">
  <operation name="StartApplicationSessionOp">
    <input message="wss:startApplicationSession"/>
    <output message="wss:startApplicationSessionPosResponse"/>
    <fault name="StartFault" message="wss:startApplicationSessionNegResponse"/>
  </operation>
  <operation name="StopApplicationSessionOp">
    <input message="wss:stopApplicationSession"/>
    <output message="wss:stopApplicationSessionPosResponse"/>
    <fault name="StopFault" message="wss:stopApplicationSessionNegResponse"/>
  </operation>
  <operation name="ResetApplicationSessionTimerOp">
    <input message="wss:resetApplicationSessionTimer"/>
    <output message="wss:resetApplicationSessionTimerPosResponse"/>
    <fault name="ResetFault" message="wss:resetApplicationSessionTimerNegResponse"/>
  </operation>
  <operation name="ApplicationSessionTerminatedOp">
    <output message="wss:applicationSessionTerminated"/>
  </operation>
</portType>
</definitions>
```

iTeh STANDARD PREVIEW (standards.iteh.ai)

[ISO/IEC 25437:2009](https://standards.iteh.ai/catalog/standards/sist/6e6de49d-67e4-4433-8141-defebca7c9cf/iso-iec-25437-2009)

<https://standards.iteh.ai/catalog/standards/sist/6e6de49d-67e4-4433-8141-defebca7c9cf/iso-iec-25437-2009>

6 Service Provider WSDL SOAP Binding

This clause specifies the binding template of the abstract WSDL definitions in Clause 5 with SOAP Messages without a specific transport protocol. The binding template uses XML Schema data types instead of values for some attributes. Any actual SOAP binding to a transport shall contain elements and attributes in this binding template where the attributes shall be substituted by permitted values.

```

<definitions
  xmlns="http://schemas.xmlsoap.org/wsdl/"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:aps="http://www.ecma-international.org/standards/ecma-354/appl_session"
  xmlns:wss="http://www.ecma-international.org/standards/ecma-366/ws-session/ed2"
  targetNamespace="http://www.ecma-international.org/standards/ecma-366/ws-session/ed2">
  <import namespace="http://www.ecma-international.org/standards/ecma-366/ws-session/ed2"
    location="http://www.ecma-international.org/standards/ecma-366/ws-session/ed2/ws-session-wsdl-
abstract-definitions.wsdl" />
  <binding name="xs:nmtoken" type="wss:ApplicationSessionServicesPortType">
    <soap:binding style="document" transport="xs:anyURI"/>
    <operation name="StartApplicationSessionOp">
      <input>
        <soap:body use="literal"/>
      </input>
      <output>
        <soap:body use="literal"/>
      </output>
      <fault name="StartFault">
        <soap:fault name="StartFault" use="literal"/>
      </fault>
    </operation>
    <operation name="StopApplicationSessionOp">
      <input>
        <soap:body use="literal"/>
      </input>
      <output>
        <soap:body use="literal"/>
      </output>
      <fault name="StopFault">
        <soap:fault name="StopFault " use="literal"/>
      </fault>
    </operation>
    <operation name="ResetApplicationSessionTimerOp">
      <input>
        <soap:body use="literal"/>
      </input>
      <output>
        <soap:body use="literal"/>
      </output>
      <fault name="ResetFault">
        <soap:fault name="ResetFault " use="literal"/>
      </fault>
    </operation>
    <operation name="ApplicationSessionTerminatedOp">
      <output>
        <soap:body use="literal"/>
      </output>
    </operation>
  </binding>
</definitions>

```