

# **Oracle® Service Architecture Leveraging Tuxedo (SALT)**

Release Notes

12c Release 1 (12.1.1)

June 2012

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# Oracle SALT 12*c* Release 1 (12.1.1) Release Notes

**Oracle SALT 12*c* Release 1 (12.1.1)**  
**Date: June 2012**

**Table 1 Revision History**

Revision Date	Summary of Change
June 2012	GA Release

The following topics are discussed in this section:

- [About This Oracle SALT Release](#)
- [Upgrade Considerations](#)
- [Oracle SALT Installation Prerequisites](#)
- [Oracle SALT Platform Support](#)
- [Interoperability Considerations](#)
- [Known Issues](#)
- [Where to Get Product Documentation](#)
- [Contacting Oracle Customer Support](#)

# About This Oracle SALT Release

## Release 12c R1 (12.1.1)

### What's New and Improved

Oracle SALT 12c R1 (12.1.1) introduces the following features:

#### Web Services Configuration Tool

Oracle SALT 12c provides an HTTP-based configuration tool to expose existing Oracle Tuxedo services as Web services without manually editing configuration files. It allows you to learn service definitions for existing Oracle Tuxedo services, edit service definitions in metadata repository, and create Web services definitions and SALTDEPLOY files through an easy to use graphical user interface.

For more information, see Enabling the Oracle SALT Configuration Tool in the [Oracle Salt Configuration Guide](#).

#### Security Assertion Markup Language (SAML) Single Sign-On (SSO) Support

Provides the ability to recognize an SAML token inside a SOAP message request received by the Oracle SALT Web Services Gateway (GWWS). Based on the token contents, GWWS makes the decision to grant or deny access to Oracle Tuxedo resources.

For more information, see Configuring Oracle Tuxedo Web Services/Configuring Security Features in the [Oracle SALT Configuration Guide](#).

#### New Data Type Support

Supports nested View32 data types. It also supports mapping of additional View and View32 primitive types to and from XML.

For more information, see [Data Type Mapping and Message Conversion](#) in the Oracle SALT Programming Guide.

**Note:** Oracle SALT Python, Ruby and SCA features are now part of Oracle Tuxedo 12c Release 1 (12.1.1). For more information, see [Oracle Tuxedo 12c Release \(12.1.1\) documentation](#).

## Upgrade Considerations

For information on installing Oracle SALT 12c Release 1 (12.1.1) on top of a previous SALT release, see the [Oracle SALT Installation Guide](#).

For information, see [Migrating from Oracle SALT 1.1 Application in the Oracle SALT Configuration Guide](#).

## Oracle SALT Installation Prerequisites

Before installing Oracle SALT 12c Release 1 (12.1.1), you must ensure that Oracle Tuxedo 11g Release (11.1.1.2.0) is installed.

For more information, see [System Requirements](#) in the Oracle SALT Installation Guide.

## Oracle SALT Platform Support

Oracle SALT 12c Release 1 (12.1.1) supported platforms are listed in [Appendix A: Oracle SALT 12c Release 1 \(12.1.1\) Supported Platforms](#) in the Oracle SALT Installation Guide.

## Interoperability Considerations

Oracle SALT 12c Release 1 (12.1.1) is compatible with, and fully supports, most industry-standard Web service development toolkits. For more information, see [Interoperability Considerations](#) in the Oracle SALT Interoperability Guide.

## Known Issues

The following sections describe known problems in Oracle SALT 12c Release 1 (12.1.1). Entries include a description of the problem, and a workaround or solution where appropriate.

Each problem is listed by the Change Request (CR) or BugDB number.

- [GWWS Runtime](#)
- [Interoperability](#)

# GWWS Runtime

CR Number	Description and Workaround or Solution	Found In
CR334161	<p><b>Problem:</b> GWWS rejects non UTF-8 inbound SOAP request messages when SignBody WS-Security Policy is enabled.</p> <p>When GWWS is configured with multiple encoding support, it can accept non UTF-8 encoded SOAP requests; however, the GWWS internally converts all non UTF-8 encoding messages into UTF-8 encoding messages for later operation.</p> <p>If a service requires &lt;soap:Body&gt; signature verification, the GWWS always verify the signature against the converted UTF-8 encoded &lt;soap:Body&gt; instead of the original &lt;soap:Body&gt; content. Thus the signature verification always failed.</p>	2.0
	<b>Platform:</b> All	
	<p><b>Workaround:</b></p> <p>Web service client programs must initiate SOAP requests using UTF-8 encoding when the WS-Security Policy Assertion SignBody is enabled for the corresponding services.</p>	
CR328329	<p><b>Problem:</b> GWWS may reject valid SOAP requests if the target Tuxedo service consumes XML typed buffer as input and the input buffer is defined with “size” restriction in the Tuxedo Service Metadata definition.</p> <p>GWWS automatically adds an additional ‘\0’ to the end of the converted XML buffer. This additional byte may result the XML buffer length exceed the “size” value, hence reject by later Tuxedo buffer validation routine in the GWWS.</p>	2.0
	Platform: All	
	<p><b>Workaround:</b></p> <p>Enlarge or remove the “size” restriction for XML typed buffer in the Tuxedo Service Metadata Definition.</p>	



CR Number	Description and Workaround or Solution	Found In
CR306710	<p><b>Problem: Tuxedo service may not receive the exact same non UTF-8 encoding string as the string prepared in the SOAP request message.</b></p> <p>If multiple encoding capability is turned on for the GWWS, and Web Service client programs written in Java send messages with non UTF-8 encoding, GWWS may not send exact the same string value to the Tuxedo service.</p> <p>This is a general problem if different encoding conversion implementations are used. Java encoding implementation has slight difference from ICU encoding implementation (which is used by Tuxedo and SALT), hence an encoding string prepared by the Java program, after ICU “to UTF-8” and “from UTF-8” conversion, may not revert to the exact original string.</p>	2.0
	Platform: All	
	<p><b>Workaround:</b></p> <p>None. Customers rarely use those characters. If some characters mapping are confirmed due to ICU bugs, please contact Oracle Tuxedo Customer Support.</p>	
9281764	<p><b>Problem: WCF (.Net) C# clients may not handle SOAP 1.2 faults sent back by the GWWS gateway.</b></p> <p>When an Tuxedo service is exposed as a Web Service using the SOAP 1.2 style, GWWS may return faults such as service unavailable, problems during invocation, etc. When this happens, a C# client will receive an exception indicating that an invalid SOAP fault was received.</p> <p>This is due to the fact that GWWS does not specify an @xml:lang attribute in the /Fault/Reason/Text element returned.</p>	11gR1
	Platform: All	
	<p><b>Workaround:</b></p> <p>Code the C# client so that it receives the fault as an XML document which can then be parsed, as follows:</p> <pre>... catch (FaultException ex) {     MessageFault mf = ex.CreateMessageFault();     XmlReader xr = mf.GetReaderAtDetailContents();     ... }</pre> <p>--</p>	

# Interoperability

CR Number	Description and Workaround or Solution	Found In
CR330363	<p><b>Problem:</b> SALT multiple encoding feature does not interoperable with Microsoft .NET WCF 3.0 engine.</p> <p>If SALT enables multiple encoding feature, when the inbound call Tuxedo service returns MBSTRING or XML typed buffer with non UTF-8 encoding, the SOAP response message is encoded the same as the MBSTRING or XML buffer. Such SOAP response message cannot be accepted by those Web Service client applications developed using Microsoft .NET WCF 3.0 engine.</p>	2.0
	<p><b>Third-Party Web Service Toolkit:</b> Microsoft .NET WCF 3.0</p>	
	<p><b>Workaround:</b></p> <p>Customers may need to develop custom encoder/decoder if the Tuxedo service may return non UTF-8 typed buffers and GWWS multiple encoding feature is turned on.</p> <p>Alternatively, you may explicitly turn off the GWWS multiple encoding feature if you are aware all Tuxedo services in your Tuxedo domain never return non UTF-8 buffers.</p>	
CR296594	<p><b>Problem:</b> SOAP fault response message cannot be accepted by Microsoft .NET 3.0 when the HTTP Content-Length exceeds 65536.</p> <p>If the GWWS server returns a SOAP fault message when the HTTP Content-Length exceeds 65536, the .NET WCF 3.0 engine sends an exception to report the response is not well-formed.</p> <p><b>Note:</b> If the GWWS server returns a normal SOAP message (non SOAP fault) when the HTTP Content-Length exceeds 65536, the .NET Web service engine can accept.</p>	2.0
	<p>Third-Party Web Service Toolkit: Microsoft .NET WCF 3.0</p>	
	<p><b>Workaround:</b></p> <p>None. Avoid to return big buffer when invoking tpreturn() along with TPFail status code in the Tuxedo service.</p>	

CR Number	Description and Workaround or Solution	Found In
CR294785	<p><b>Problem: Apache Axis2/Java fails to handle Tuxedo FML32 TPFail response buffers that have field names with initial uppercase.</b></p> <p>If a Tuxedo service returns TPFail with FML32 buffer, SALT maps each field as an XML segment in the SOAP fault detail, and the field name is used directly as the XML element tag name.</p> <p>If the FML32 buffer contains field names with initial letter uppercase, Axis2 may not recognize the SOAP fault messages that converted from this Tuxedo FML32 buffer.</p>	2.0
	Third-Party Web Service Toolkit: Apache Axis2/Java	
	<p><b>Workaround:</b></p> <p>Modify the FML32 field name to avoid use initial uppercase name. Corresponding Tuxedo application also needs to be changed and re-compiled.</p>	
CR306978	<p><b>Problem: Apache Axis2/Java does not recognize the SOAP with Attachment (SwA) featured WSDL file generated by Oracle SALT.</b></p> <p>If SwA featured WSDL file is generated by Oracle SALT, Apache Axis2 wsdl2java utility generates Java stub code which is different from Apache Axis. Axis2 generated stub code cannot initiate a successful call to Oracle SALT service.</p>	2.0
	Third-Party Web Service Toolkit: Apache Axis2/Java	
	<p><b>Workaround:</b></p> <p>Use Apache Axis instead for SwA featured soap calls.</p> <p>MTOM is an alternative attachment format that supported by Oracle SALT. You may also use MTOM feature with Apache Axis2/Java for CARRAY buffer stream.</p>	

CR Number	Description and Workaround or Solution	Found In
CR296221	<b>Problem: Apache Axis wsdl2java utility fails to compile the Oracle SALT generated WSDL file if soap 1.2 binding with soap fault is defined in the WSDL file.</b>	2.0
	<b>Third-Party Web Service Toolkit:</b> Apache Axis	
	<b>Workaround:</b> <p>This is an Apache Axis bug, please refer to <a href="https://issues.apache.org/jira/browse/AXIS-2614">https://issues.apache.org/jira/browse/AXIS-2614</a>.</p> <p>You may define SOAP version 1.1 for SALT WSDL if Apache Axis has to be used for Web Service client programming. Or you should manually re-compile Apache Axis classes using Apache Axis source code with the fix provide in the above URL link.</p> <p>You may also choose another third-party Web Service client toolkit for soap 1.2 binding with soap fault feature, such as Oracle WebLogic 9.x Web Services, Apache Axis2, Microsoft .NET WCF 3.0, etc.</p>	

CR Number	Description and Workaround or Solution	Found In
CR323477	<p><b>Problem: GWWS fails to call external Web Service applications built upon Microsoft .NET WCF 3.0 if asynchronous WS-Addressing feature is enabled.</b></p> <p>Oracle SALT supports WS-Addressing feature that conforms to WS-Addressing standard 200408 submission. While initiating an asynchronous outbound call, GWWS always defines a &lt;wsa:ReplyTo&gt; endpoint reference in the WS-Addressing soap header. See the following sample &lt;wsa:ReplyTo&gt; segment:</p> <pre>&lt;wsa:ReplyTo&gt;   &lt;wsa:Address&gt;     http://myhost:7102/?wsa_Msg_ID=uuid:B437A4F4-AF2 3-111E-FFFFFFFAC1622FFFFFFF9F0000-6BBE   &lt;/wsa:Address&gt; &lt;/wsa:ReplyTo&gt;</pre> <p>Host name “myhost” and port number “7102” in the above sample indicates the listening endpoint that is created by the GWWS which is used to accept asynchronous soap response messages for outbound calls.</p> <p>But Microsoft .NET WCF 3.0 does not recognize the &lt;wsa:ReplyTo&gt; endpoint in the request, and always returns the synchronous response through the request connection.</p> <p>GWWS then always encounters time out in receiving asynchronous response because Microsoft .NET WCF 3.0 never send the response to GWWS expected endpoint.</p> <p><b>Third-Party Web Service Toolkit:</b> Microsoft .NET WCF 3.0</p> <p><b>Workaround:</b></p> <p>None. You should disable WS-Addressing feature when initiating outbound call to external Web Service applications built upon Microsoft .NET WCF 3.0. For more information about configuring WS-Addressing feature, see “<a href="#">Configuring Advanced Web Service Messaging Features</a>” in the <i>Oracle SALT Administration Guide</i>.</p>	2.0

## Where to Get Product Documentation

Documentation for this product is available from the Oracle corporate Web site. From the Oracle home page at <http://www.oracle.com>.

To access the .PDF files, open the Oracle SALT documentation home page, click the PDF files button and select the document you want to view or print. If you do not have the Adobe Acrobat Reader, you can get it for free from the Adobe Web site at <http://www.adobe.com>.

## Contacting Oracle Customer Support

If you have any questions about this Oracle SALT version, or if you have problems installing and running Oracle SALT, contact Oracle Customer Support at:

<http://www.oracle.com/us/support/contact-068555.html>.

You can also contact Customer Support by using the contact information provided on the Customer Support Card, which is included in the product package.

When contacting Customer Support, be prepared to provide the following information:

- Your name, e-mail address, phone number, and fax number
- Your company name and company address
- Your machine type and authorization codes
- The name and version of the products you are using
- A description of the problem and the content of pertinent error messages

## See Also

- [Oracle SALT 12c Release 1 Product Overview](#)
- [Oracle SALT 12c Release 1 Installation Guide](#)
- [Oracle SALT 12c Release 1 Administration Guide](#)
- [Oracle SALT 12c Release 1 Configuration Guide](#)
- [Oracle SALT 12c Release 1 Programming Guide](#)
- [Oracle SALT 12c Release 1 Reference Guide](#)