

Mark Craig

ForgeRock AS 201 Mission St., Suite 2900 San Francisco, CA 94105, USA +1 415-599-1100 (US) www.forgerock.com

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#### Abstract

Notes covering OpenIG prerequisites, fixes, known issues. OpenIG provides a high-performance reverse proxy server with specialized session management and credential replay functionality.



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# **Table of Contents**

1. What's New in OpenIG	1
1.1. Feature Changes	
1.2. OpenIG Documentation	
2. Before You Install	
2.1. JDK Version	3
2.2. Web Application Containers	
2.3. OpenAM Policy Agents	
3. Changes & Deprecated Functionality	
3.1. Important Changes to Existing Functionality	
3.2. Deprecated Functionality	5
3.3. Removed Functionality	
4. Fixes, Limitations, & Known Issues	
4.1. Fixes	9
4.2. Limitations	
4.3. Known Issues	10
5. How to Report Problems & Provide Feedback	11
6. Support	

# Chapter 1 What's New in OpenIG



### **Important**

OpenIG 3.1.1 is a maintenance release that resolves a number of issues. It is recommended that you update to this release to take advantage of important functional fixes. ForgeRock customers can contact support for help and further information.

Before you install or update OpenIG, read these release notes.

# 1.1 Feature Changes

This maintenance release introduces the following improvement:

OpenIG now provides an array(strings...) function (OPENIG-474).

The array() function returns an array given a series of strings. This function is useful when constructing a string array argument to pass to the join() function as in the following example expression that joins the first values of two request headers with a space:

```
${join(array(exchange.request.headers['part_1'][0],
exchange.request.headers['part_2'][0], ' ')}
```

# 1.2 OpenIG Documentation

This is the latest published documentation that corresponds to this maintenance release.

You can find the following additional product documentation online.

- OpenIG 3.1.0 Release Notes
- Guide to OpenIG
- OpenIG Reference
- OpenIG Javadoc

# Chapter 2 Before You Install



#### Note

This chapter has not changed since the release of OpenIG 3.1.0.

This chapter covers requirements for running OpenIG software.



### Tip

If you have a special request to support a component or combination not listed here, contact ForgeRock at info@forgerock.com.

### 2.1 JDK Version

This release of OpenIG requires Java Development Kit 6, 7, or 8. ForgeRock recommends the most recent update to ensure you have the latest security fixes.

If you install an OpenAM policy agent in the same container as OpenIG, then you must use a Java release that is supported with the policy agent as well.

### 2.2 Web Application Containers

OpenIG runs in the following web application containers.

- Apache Tomcat 7
- Jetty 8 (8.1.13 or later)

You must deploy OpenIG to the root context of the container. Deployment in other context causes unexpected results, and cannot be supported.

OpenIG expressions depend on Unified Expression Language 2.2, which is available in containers that support Servlet 3.0 or later. Some expressions can lead to a <code>java.lang.NoSuchMethodError</code> in containers that support only Servlet 2.5 (and  $\rm EL~2.1$ ).

See the *Guide to OpenIG* section, *Configuring Deployment Containers*, for details on setting up your web application container.

# 2.3 OpenAM Policy Agents

When installing an OpenAM policy agent in the same container as OpenIG, use an OpenAM Java EE policy agent version 3.5 or later. Earlier versions of OpenAM policy agents might not shut down properly with the web application container (OPENIG-258).

# Chapter 3 Changes & Deprecated Functionality

This chapter covers both major changes to existing functionality, and also deprecated and removed functionality.

# 3.1 Important Changes to Existing Functionality

This release includes configuration changes for OpenIG 3.1.0 compared to OpenIG 3.0.0. See Section 3.2, "Deprecated Functionality" for a list of configuration changes resulting in deprecation of earlier features.

## 3.2 Deprecated Functionality

Support for Java 6 is scheduled to be discontinued in the next major or minor release of OpenIG.

The following changes were already listed for OpenIG 3.1.0.

This release deprecates the following configuration settings. Deprecation is defined in the *Reference* appendix on *ForgeRock Product Interface Stability*.

Table 3.1. Configuration settings

<b>Configuration Object</b>	<b>Deprecated Settings</b>	<b>Newer Evolving Settings</b>
CaptureFilter	Entire object	Use a CaptureDecorator instead
gateway servlet	"handlerObject"	New name: "handler"
	Deprecated format: "heap": { "objects": [ configuration object, ] }	New format: "heap": [ configuration object, . ]
HttpClient	"keystore"	Replaced by "keyManager", which takes one or more KeyManager names
	"truststore"	Replaced by "trustManager", which takes one or more TrustManager names
OAuth2ResourceServerFilter	"enforceHttps"	New name: "requireHttps"
	"httpHandler"	New name: "providerHandler"
	"requiredScopes"	New name: "scopes"
RedirectFilter	Entire object	Use LocationHeaderFilter instead
Route	Deprecated format: "heap": { "objects": [ configuration object, ] }	New format: "heap": [ configuration object, . ]

This release deprecates the following API classes, which are likely to be removed in a future release.

- org.forgerock.openig.filter.CaptureFilter
- org.forgerock.openig.heap.NestedHeaplet

# 3.3 Removed Functionality

No functionality has been removed in this release.

# Fixes, Limitations, & Known Issues

OpenIG issues are tracked at https://bugster.forgerock.org/jira/browse/OPENIG. This chapter covers the status of key issues and limitations at release 3.1.1.

### 4.1 Fixes

The following issues were fixed in release 3.1.1.

- OPENIG-589: Backport CHF-52 MutableUri doesn't preserve encoded values when updating a field value
- OPENIG-587: OpenIG can not connect to TLSv1.2 (TLSv1.1) secured resources
- OPENIG-503: Fix resource leak on route loading
- OPENIG-491: Using groovy script embedded in json route doesn't work on windows
- OPENIG-470: Connections are not released after modifying HttpClient connections pool size
- OPENIG-454: Capture decorator impacts the entity returned in GET
- OPENIG-426: Multiple Host header
- OPENIG-315: POST JSON payload not delivered unless CaptureFilter used

### 4.2 Limitations

For HTTPS, OpenIG can check server certificates. However mutual authentication, where OpenIG presents its client certificate, is not supported if the client certificate is not the first certificate in the HttpClient key store.

OpenIG scripts are not sandboxed, but instead have access to anything in their environment. You must make sure that the scripts that OpenIG loads are safe.

When acting as an OpenID Connect 1.0 relying party, OpenIG does not support dynamic registration.

### 4.3 Known Issues

The following known issues remained open at the time release 3.1.1 became available.

- OPENIG-647: SSL and JDK1.6 handshake failures
- OPENIG-322: Cannot access both an OpenAM (self-signed) and a Google HTTPS endpoint
- OPENIG-290: Null pointer exception when capturing SAML federation response
- OPENIG-234: Federation doesn't work if we used incomplete user in IDP

# Chapter 5 How to Report Problems & Provide Feedback



#### Note

This chapter has not changed since the release of OpenIG 3.1.0.

If you have questions regarding OpenIG that are not answered by the documentation, there is a mailing list which can be found at <a href="https://lists.forgerock.org/mailman/listinfo/openig">https://lists.forgerock.org/mailman/listinfo/openig</a> where you are likely to find an answer.

If you have found issues or reproducible bugs within OpenIG, report them in https://bugster.forgerock.org.

When requesting help with a problem, include the following information:

- Description of the problem, including when the problem occurs and its impact on your operation
- Machine type, operating system version, web container and version, Java version, and OpenIG release version, including any patches or other software that might be affecting the problem
- Steps to reproduce the problem

• Any relevant logs or stack traces

# Chapter 6 Support



### Note

This chapter has not changed since the release of OpenIG 3.1.0.

You can purchase OpenIG support, subscriptions and training courses from ForgeRock and from consulting partners around the world and in your area. To contact ForgeRock, send mail to info@forgerock.com. To find a partner in your area, see <a href="https://forgerock.com/">https://forgerock.com/</a>.