



# Release Notes

/Java Agents 5.5

Latest update: 5.5.1.0

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

---

Copyright © 2011-2018 ForgeRock AS.

## Abstract

Notes covering new features, fixes and known issues for ForgeRock® Access Management Java agents. ForgeRock Access Management provides open source authentication, authorization, entitlement and federation software.



This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivs 3.0 Unported License.

To view a copy of this license, visit <https://creativecommons.org/licenses/by-nc-nd/3.0/> or send a letter to Creative Commons, 444 Castro Street, Suite 900, Mountain View, California, 94041, USA.

ForgeRock® and ForgeRock Identity Platform™ are trademarks of ForgeRock Inc. or its subsidiaries in the U.S. and in other countries. Trademarks are the property of their respective owners.

UNLESS OTHERWISE MUTUALLY AGREED BY THE PARTIES IN WRITING, LICENSOR OFFERS THE WORK AS-IS AND MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND CONCERNING THE WORK, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF TITLE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, OR THE ABSENCE OF LATENT OR OTHER DEFECTS, ACCURACY, OR THE PRESENCE OF ABSENCE OF ERRORS, WHETHER OR NOT DISCOVERABLE. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES, SO SUCH EXCLUSION MAY NOT APPLY TO YOU.

EXCEPT TO THE EXTENT REQUIRED BY APPLICABLE LAW, IN NO EVENT WILL LICENSOR BE LIABLE TO YOU ON ANY LEGAL THEORY FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES ARISING OUT OF THIS LICENSE OR THE USE OF THE WORK, EVEN IF LICENSOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

DejaVu Fonts

Bitstream Vera Fonts Copyright

Copyright (c) 2003 by Bitstream, Inc. All Rights Reserved. Bitstream Vera is a trademark of Bitstream, Inc.

Permission is hereby granted, free of charge, to any person obtaining a copy of the fonts accompanying this license ("Fonts") and associated documentation files (the "Font Software"), to reproduce and distribute the Font Software, including without limitation the rights to use, copy, merge, publish, distribute, and/or sell copies of the Font Software, and to permit persons to whom the Font Software is furnished to do so, subject to the following conditions:

The above copyright and trademark notices and this permission notice shall be included in all copies of one or more of the Font Software typefaces.

The Font Software may be modified, altered, or added to, and in particular the designs of glyphs or characters in the Fonts may be modified and additional glyphs or characters may be added to the Fonts, only if the fonts are renamed to names not containing either the words "Bitstream" or the word "Vera".

This License becomes null and void to the extent applicable to Fonts or Font Software that has been modified and is distributed under the "Bitstream Vera" names.

The Font Software may be sold as part of a larger software package but no copy of one or more of the Font Software typefaces may be sold by itself.

THE FONT SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF COPYRIGHT, PATENT, TRADEMARK, OR OTHER RIGHT. IN NO EVENT SHALL BITSTREAM OR THE GNOME FOUNDATION BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, INCLUDING ANY GENERAL, SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF THE USE OR INABILITY TO USE THE FONT SOFTWARE OR FROM OTHER DEALINGS IN THE FONT SOFTWARE.

Except as contained in this notice, the names of Gnome, the Gnome Foundation, and Bitstream Inc., shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Font Software without prior written authorization from the Gnome Foundation or Bitstream Inc., respectively. For further information, contact: [fonts at gnome dot org](mailto:fonts at gnome dot org).

Arev Fonts Copyright

Copyright (c) 2006 by Tavmjong Bah. All Rights Reserved.

Permission is hereby granted, free of charge, to any person obtaining a copy of the fonts accompanying this license ("Fonts") and associated documentation files (the "Font Software"), to reproduce and distribute the modifications to the Bitstream Vera Font Software, including without limitation the rights to use, copy, merge, publish, distribute, and/or sell copies of the Font Software, and to permit persons to whom the Font Software is furnished to do so, subject to the following conditions:

The above copyright and trademark notices and this permission notice shall be included in all copies of one or more of the Font Software typefaces.

The Font Software may be modified, altered, or added to, and in particular the designs of glyphs or characters in the Fonts may be modified and additional glyphs or characters may be added to the Fonts, only if the fonts are renamed to names not containing either the words "Tavmjong Bah" or the word "Arev".

This License becomes null and void to the extent applicable to Fonts or Font Software that has been modified and is distributed under the "Tavmjong Bah Arev" names.

The Font Software may be sold as part of a larger software package but no copy of one or more of the Font Software typefaces may be sold by itself.

THE FONT SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF COPYRIGHT, PATENT, TRADEMARK, OR OTHER RIGHT. IN NO EVENT SHALL TAVMJONG BAH BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, INCLUDING ANY GENERAL, SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF THE USE OR INABILITY TO USE THE FONT SOFTWARE OR FROM OTHER DEALINGS IN THE FONT SOFTWARE.

Except as contained in this notice, the name of Tavmjong Bah shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Font Software without prior written authorization from Tavmjong Bah. For further information, contact: [tavmjong @ free . fr](mailto:tavmjong @ free . fr).

FontAwesome Copyright

Copyright (c) 2017 by Dave Gandy, <http://fontawesome.io>.

This Font Software is licensed under the SIL Open Font License, Version 1.1. This license is available with a FAQ at: <http://scripts.sil.org/OFL>.

---

# Table of Contents

Preface .....	iv
1. What's New in Java Agents .....	1
1.1. New Minor Release .....	1
1.2. New Features in 5.5 .....	1
2. Before You Install .....	3
2.1. Platform Requirements .....	3
2.2. Access Management Requirements .....	4
2.3. Java Requirements .....	4
2.4. Supported Clients .....	4
2.5. Special Requests .....	5
3. Changes and Deprecated Functionality .....	6
3.1. Important Changes to Existing Functionality .....	6
3.2. Deprecated Functionality .....	6
3.3. Removed Functionality .....	7
4. Fixes, Limitations, and Known Issues .....	8
4.1. Key Fixes .....	8
4.2. Limitations .....	9
4.3. Known Issues .....	9
5. Documentation Updates .....	11
A. Getting Support .....	12
A.1. Accessing Documentation Online .....	12
A.2. Using the ForgeRock.org Site .....	12
A.3. Getting Support and Contacting ForgeRock .....	13

# Preface

Read these release notes before installing Java Agents 5.5.

The information contained in these release notes cover prerequisites for installation, known issues and improvements to the software, changes and deprecated functionality, and other important information.

## About ForgeRock Identity Platform™ Software

ForgeRock Identity Platform™ is the only offering for access management, identity management, user-managed access, directory services, and an identity gateway, designed and built as a single, unified platform.

The platform includes the following components that extend what is available in open source projects to provide fully featured, enterprise-ready software:

- ForgeRock Access Management (AM)
- ForgeRock Identity Management (IDM)
- ForgeRock Directory Services (DS)
- ForgeRock Identity Gateway (IG)
- ForgeRock Identity Message Broker (IMB)

## Chapter 1

# What's New in Java Agents

Before you install or update Java agents, read these release notes.

## 1.1. New Minor Release

### *Java Agents 5.5.1.0*

- ForgeRock periodically issues patch and minor releases with important fixes to improve the functionality, performance, and security of your java agent deployments. Java Agents 5.5.1.0 is the latest minor release and can be downloaded from the *ForgeRock BackStage* website. To view the list of fixes in this release, see Java Agents 5.5.1.0.

#### **Important**

Before upgrading to Java Agents 5.5.1.0, consider the following points:

- Java Agents 5.5.x only support AM 5.5 and later.
- Java Agents 5.5.x use the WebSocket protocol to receive notifications from AM. Both the container and the network infrastructure must support the WebSocket protocol to receive notifications from AM.

## 1.2. New Features in 5.5

### *Java Agents 5.5*

Java Agents 5.5 is a major release that introduces new features, functional enhancements and fixes.

#### • **Query Parameter Handling**

Java Agents 5.5 introduces a number of properties to retain or remove nominated query parameters from incoming URL requests. Removing or retaining parameters affects the way the agent saves URLs in the policy decision cache, which may help your environment to achieve more cache hits, improving performance.

For more information, see "Query Parameter Handling" in the *User Guide*.

- **New Monitoring Interfaces**

Java Agents 5.5 introduces new monitoring interfaces to expose performance metrics about the agent instance.

Additionally, if further analysis and visualization are required, tools such as Grafana can be used to create customized charts and graphs based on the information collected by monitoring.

The following monitoring interfaces have been added:

- Prometheus
- CREST
- CSV

For more information about monitoring services, see "Configuring Performance Monitoring" in the *User Guide*.

## Chapter 2

# Before You Install

This section covers software and hardware prerequisites for installing and running Java Agents.

*ForgeRock supports customers using the versions specified here. Other versions and alternative environments might work as well. When opening a support ticket for an issue, however, make sure you can also reproduce the problem on a combination covered here.*

## 2.1. Platform Requirements

The following table summarizes platform support:

*Supported Operating Systems & Web Application Containers*

Operating Systems (OS)	OS Versions	Web Application Containers & Versions
CentOS Red Hat Enterprise Linux Oracle Linux Amazon Linux 2	6, 7	Apache Tomcat 7 <sup>a</sup> , 8, 8.5, 9.0 Red Hat JBoss Enterprise Application Platform 6 <sup>b</sup> , 7.1 WildFly 9, 10.1, 11, 12 IBM WebSphere Application Server 8.5 <sup>c</sup> , 9.0 Eclipse Jetty 9 Oracle WebLogic Server 12c <sup>d</sup>
Microsoft Windows Server	2008 R2, 2012, 2012 R2, 2016	Apache Tomcat 7 <sup>a</sup> , 8, 8.5, 9.0
Oracle Solaris x64 Oracle Solaris SPARC	10, 11	Apache Tomcat 7 <sup>a</sup> , 8, 8.5, 9.0 Oracle WebLogic Server 12c <sup>d</sup>
Ubuntu Linux	14.04 LTS, 16.04 LTS, 18.04 LTS	Apache Tomcat 7 <sup>a</sup> , 8, 8.5, 9.0 Red Hat JBoss Enterprise Application Platform 6 <sup>b</sup> , 7.1 WildFly 9, 10.1, 11, 12 IBM WebSphere Application Server 8.5 <sup>c</sup> , 9.0 Eclipse Jetty 9 Oracle WebLogic Server 12c <sup>d</sup>
IBM AIX	6, 7	IBM WebSphere Application Server 8.5 <sup>c</sup> , 9.0

<sup>a</sup>Version 7.0.79 or later is required.

<sup>b</sup>Version 6.3.3 or later is required.

<sup>c</sup>Version 8.5.5.9 or later is required.

<sup>d</sup>Version 12.1.3 or later is required.

### Important

Java Agents use the WebSocket protocol to receive notifications from AM. Both the Java container and the network infrastructure must support the WebSocket protocol to receive notifications from AM.

## 2.2. Access Management Requirements

Java Agents 5.5 *do not* interoperate with:

- OpenAM
- AM versions earlier than 5.5.

## 2.3. Java Requirements

Java agents run in a Java container, and require a Java Development Kit.

ForgeRock supports customers using the following Java versions. ForgeRock recommends the most recent Java update, with the latest security fixes.

### *Supported Java Development Kit Versions*

Vendor	Version
Oracle Java	8
IBM Java (WebSphere only)	8
OpenJDK	8

## 2.4. Supported Clients

The following table summarizes supported clients and their minimum required versions:

### *Supported Clients*

Client Platform	Native Apps <sup>a</sup>	Chrome 33+	Internet Explorer 9+ <sup>b</sup>	Edge 0.1+	Firefox 28+	Safari 6.2+	Mobile Safari
Windows 7 or later	✓	✓	✓	✓	✓		
Mac OS X 10.8 or later	✓	✓			✓	✓	



Client Platform	Native Apps <sup>a</sup>	Chrome 33+	Internet Explorer 9+ <sup>b</sup>	Edge 0.1+	Firefox 28+	Safari 6.2+	Mobile Safari
Ubuntu 12.04 LTS or later	✓	✓			✓		
iOS 7 or later	✓	✓					✓
Android 4.3 or later	✓	✓					

<sup>a</sup> *Native Apps* is a placeholder to indicate AM is not just a browser-based technology product. An example of a native app would be something written to use AM's REST APIs, such as the sample OAuth 2.0 Token Demo app.

<sup>b</sup> Internet Explorer 9 is the minimum required for end users. For the administration console, Internet Explorer 11 is required.

## 2.5. Special Requests

If you have a special request regarding support for a combination not listed here, contact ForgeRock at [info@forgerock.com](mailto:info@forgerock.com).

## Chapter 3

# Changes and Deprecated Functionality

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

## 3.1. Important Changes to Existing Functionality

### *Java Agents 5.5.1.0*

- **Ability to Specify Name-Value Pairs of Incoming HTTP Request Headers for Conditional Login, Conditional Custom Login, and Custom Logout**

Java Agents 5.5.1.0 now supports the ability to specify redirection URLs for conditional login, conditional custom login, and custom logout based on incoming request headers and not only on FQDN parameters. For more information, see [Login URL Properties](#) in the *User Guide*.

- **Location of Agent Configuration Repository Property Defaults to CENTRALIZED**

The [Location of Agent Configuration Repository](#) property now defaults to the value of **CENTRALIZED**. For more information, see [Profile Properties](#) in the *User Guide*.

### *Java Agents 5.5*

- There are no important changes in this release.

## 3.2. Deprecated Functionality

### *Java Agents 5.5.1.0*

- There is no deprecated functionality in this release.

### *Java Agents 5.5*

- There is no deprecated functionality in this release.

## 3.3. Removed Functionality

### *Java Agents 5.5.1.0*

- No components were removed in this release.

### *Java Agents 5.5*

- **Sample Applications Removed**

Java Agents 5.5 do not include the sample applications that demonstrated how to configure container security, which is not applicable since Java Agents 5.

- **Removed Properties**

Java Agents 5.5 remove support for the following configuration properties:

- Service Resolver Class (`com.sun.identity.agents.config.service.resolver`)

## Chapter 4

# Fixes, Limitations, and Known Issues

## 4.1. Key Fixes

### *Java Agents 5.5.1.0*

The following important issues were fixed in this release:

- AMAGENTS-96: RFE: Base conditional login url on a specific request header instead of on the FQDN of the request.
- AMAGENTS-988: Java Agent 5 should not have a value for `com.sun.identity.client.notification.url` property in `OpenSSOAgentConfiguration.properties`
- AMAGENTS-1964: JASPA: Fix README.md file which is distributed with the Grafana dashboard
- AMAGENTS-1966: JASPA: SSO\_ONLY mode isn't honoured by the agent.
- AMAGENTS-1971: JASPA: Remove (or at least lessen) the "Interface just defines constants" antipattern
- AMAGENTS-2044: JASPA: Tidy the code that loads properties on startup.
- AMAGENTS-2083: Agent 5.x does not install when the AM server is running on wildfly
- AMAGENTS-2099: Cannot run IG and JPA together, SLF4J initialisation failure

### *Java Agents 5.5*

The following important issues were fixed in this release:

- AMAGENTS-1851: Errors Authentication when using Authn Tree and Java Agents
- AMAGENTS-1799: J2EEAgent bundles ESAPI and causes Users Webapp with ESAPI issues
- AMAGENTS-1571: Alternative Agent Port Number not working in a LB env when sso cookie is present
- AMAGENTS-1537: Agent 5 does not have standard solution for custom login pages.
- AMAGENTS-1516: JASPA: password encryption via the admin tool throws an exception
- AMAGENTS-1368: Java Agent: Implement angular.js solution

## 4.2. Limitations

### *Limitations in 5.5.1.0*

- There are no known limitations and workarounds that apply to Java Agent 5.5.1.0.

### *Java Agents 5.5.0*

The following limitations and workarounds apply to Java Agent 5.5:

- **CDSSO Domain List Restrictions for WildFly and JBoss**

Cookie support in WildFly and JBoss has been implemented so that only one cookie can be set with a certain name. This prevents setting the same cookie for multiple domains.

Configuring the CDSSO Doimain List policy agent property with more than one cookie domain may result in redirection loops.

To work around this issue, perform the following steps:

1. Navigate to Realms > *Realm Name* > Applications > Agents > Java > *Agent Name* > SSO.
2. Remove all cookie domains from the CDSSO Domain List (`com.sun.identity.agents.config.cdssodomain`) property.
3. Navigate to Realms > *Realm Name* > Applications > Agents > Java > *Agent Name* > Global.
4. Configure any required entries in the Agent Root URL for CDSSO (`sunIdentityServerDeviceKeyValue`) property.

The Java agent will set the cookie domain based on the requested resource.

## 4.3. Known Issues

### *Java Agents 5.5.1.0*

The following important known issues remained opened at the time 5.5.1.0 became available:

- AMAGENTS-1965: Java Agent Dashboard Sample Instructions are for AM rather than for Agent
- AMAGENTS-2059: JASPA: Change properties handling code.

### *Java Agents 5.5*

The following important known issues remained opened at the time 5.5.0 became available:

- AMAGENTS-1966: The global SSO\_ONLY mode is not honoured by the agent
- AMAGENTS-1578: Java Agent makes error messages when NEU property is empty
- AMAGENTS-1036: `com.sun.identity.agents.config.cdssso.enable` is ignored for JASPA 5 and should be deleted from `OpenSSOAgentConfiguration.properties` file
- AMAGENTS-1035: JASPA initialises data members corresponding to properties it no longer uses.
- AMAGENTS-990: `OpenSSOAgentConfiguration` and `OpenSSOAgentBootstrap` properties files contains container versions
- AMAGENTS-988: Java Agent 5 should not have a value for `com.sun.identity.client.notification.url` property in `OpenSSOAgentConfiguration.properties`
- AMAGENTS-896: When using local configuration for Agent and setting log level to be message we do not get any output in `debug.out`

## Chapter 5

# Documentation Updates

The following table tracks changes to the documentation set following the release of Java Agents 5.5:

*Documentation Change Log*

Date	Description
2018-12-05	<p data-bbox="415 583 751 609">Release of Java Agents 5.5.1.0.</p> <ul data-bbox="415 631 1315 960" style="list-style-type: none"><li data-bbox="415 631 1315 734">• Updated the section to secure communications between AM and the agents to include information about AM 6.5 and later. For more information, see "Configuring Access Management Servers to Communicate With Java Agents" in the <i>User Guide</i>.</li><li data-bbox="415 756 1315 887">• Updated entries in the Reference for AM Conditional Login URL, AM Custom Conditional Login URL, and AM Conditional Logout URL properties. These entries now accept incoming request headers in addition to <b>Domain/path</b> to redirect the user to the specific URL. For more information, see "Configuring AM Services Properties" in the <i>User Guide</i>.</li><li data-bbox="415 909 1315 960">• Updated text for the <b>Location of the Agent Configuration Repository</b> property. For more information, see Profile Properties in the <i>User Guide</i>.</li></ul>
2018-09-19	First release of Java Agents 5.5

# Appendix A. Getting Support

For more information or resources about AM and ForgeRock Support, see the following sections:

## A.1. Accessing Documentation Online

ForgeRock publishes comprehensive documentation online:

- The [ForgeRock Knowledge Base](#) offers a large and increasing number of up-to-date, practical articles that help you deploy and manage ForgeRock software.

While many articles are visible to community members, ForgeRock customers have access to much more, including advanced information for customers using ForgeRock software in a mission-critical capacity.

- ForgeRock product documentation, such as this document, aims to be technically accurate and complete with respect to the software documented. It is visible to everyone and covers all product features and examples of how to use them.

## A.2. Using the ForgeRock.org Site

The [ForgeRock.org](#) site has links to source code for ForgeRock open source software, as well as links to the ForgeRock forums and technical blogs.

If you are a *ForgeRock customer*, raise a support ticket instead of using the forums. ForgeRock support professionals will get in touch to help you.



## A.3. Getting Support and Contacting ForgeRock

ForgeRock provides support services, professional services, training through ForgeRock University, and partner services to assist you in setting up and maintaining your deployments. For a general overview of these services, see <https://www.forgerock.com>.

ForgeRock has staff members around the globe who support our international customers and partners. For details, visit <https://www.forgerock.com>, or send an email to ForgeRock at [info@forgerock.com](mailto:info@forgerock.com).