



Red Hat build of OpenJDK 17

Release notes for Red Hat build of OpenJDK 17.0.10

Red Hat build of OpenJDK 17 Release notes for Red Hat build of OpenJDK 17.0.10

Legal Notice

Copyright © 2024 Red Hat, Inc.

The text of and illustrations in this document are licensed by Red Hat under a Creative Commons Attribution–Share Alike 3.0 Unported license ("CC-BY-SA"). An explanation of CC-BY-SA is available at

<http://creativecommons.org/licenses/by-sa/3.0/>

. In accordance with CC-BY-SA, if you distribute this document or an adaptation of it, you must provide the URL for the original version.

Red Hat, as the licensor of this document, waives the right to enforce, and agrees not to assert, Section 4d of CC-BY-SA to the fullest extent permitted by applicable law.

Red Hat, Red Hat Enterprise Linux, the Shadowman logo, the Red Hat logo, JBoss, OpenShift, Fedora, the Infinity logo, and RHCE are trademarks of Red Hat, Inc., registered in the United States and other countries.

Linux[®] is the registered trademark of Linus Torvalds in the United States and other countries.

Java[®] is a registered trademark of Oracle and/or its affiliates.

XFS[®] is a trademark of Silicon Graphics International Corp. or its subsidiaries in the United States and/or other countries.

MySQL[®] is a registered trademark of MySQL AB in the United States, the European Union and other countries.

Node.js[®] is an official trademark of Joyent. Red Hat is not formally related to or endorsed by the official Joyent Node.js open source or commercial project.

The OpenStack[®] Word Mark and OpenStack logo are either registered trademarks/service marks or trademarks/service marks of the OpenStack Foundation, in the United States and other countries and are used with the OpenStack Foundation's permission. We are not affiliated with, endorsed or sponsored by the OpenStack Foundation, or the OpenStack community.

All other trademarks are the property of their respective owners.

Abstract

The Release notes for Red Hat build of OpenJDK 17.0.10 document provides an overview of new features in Red Hat build of OpenJDK 17 and a list of potential known issues and possible workarounds.

Table of Contents

| | |
|---|-----------|
| PREFACE | 3 |
| MAKING OPEN SOURCE MORE INCLUSIVE | 4 |
| CHAPTER 1. SUPPORT POLICY FOR RED HAT BUILD OF OPENJDK | 5 |
| CHAPTER 2. DIFFERENCES FROM UPSTREAM OPENJDK 17 | 6 |
| CHAPTER 3. RED HAT BUILD OF OPENJDK FEATURES | 7 |
| Red Hat build of OpenJDK enhancements | 7 |
| KEEPALIVE extended socket options support added on Windows | 7 |
| X509KeyManager.chooseClientAlias method called once for all key types | 7 |
| Peak values for committed memory included in NMT reports | 7 |
| JVM warnings about unsupported THPs on Red Hat Enterprise Linux | 7 |
| Increased default value of jdk.jar.maxSignatureFileSize system property | 8 |
| Let's Encrypt ISRG Root X2 CA certificate added | 8 |
| Digicert, Inc. root certificates added | 8 |
| eMudhra Technologies Limited root certificates added | 9 |
| Telia Root CA v2 certificate added | 9 |
| CHAPTER 4. ADVISORIES RELATED TO THIS RELEASE | 10 |

PREFACE

Open Java Development Kit (OpenJDK) is a free and open source implementation of the Java Platform, Standard Edition (Java SE). The Red Hat build of OpenJDK is available in four versions: 8u, 11u, 17u, and 21u.

Packages for the Red Hat build of OpenJDK are made available on Red Hat Enterprise Linux and Microsoft Windows and shipped as a JDK and JRE in the Red Hat Ecosystem Catalog.

MAKING OPEN SOURCE MORE INCLUSIVE

Red Hat is committed to replacing problematic language in our code, documentation, and web properties. We are beginning with these four terms: master, slave, blacklist, and whitelist. Because of the enormity of this endeavor, these changes will be implemented gradually over several upcoming releases. For more details, see [our CTO Chris Wright's message](#).

CHAPTER 1. SUPPORT POLICY FOR RED HAT BUILD OF OPENJDK

Red Hat will support select major versions of Red Hat build of OpenJDK in its products. For consistency, these versions remain similar to Oracle JDK versions that are designated as long-term support (LTS).

A major version of Red Hat build of OpenJDK will be supported for a minimum of six years from the time that version is first introduced. For more information, see the [OpenJDK Life Cycle and Support Policy](#).



NOTE

RHEL 6 reached the end of life in November 2020. Because of this, Red Hat build of OpenJDK is not supporting RHEL 6 as a supported configuration..

CHAPTER 2. DIFFERENCES FROM UPSTREAM OPENJDK 17

Red Hat build of OpenJDK in Red Hat Enterprise Linux contains a number of structural changes from the upstream distribution of OpenJDK. The Microsoft Windows version of Red Hat build of OpenJDK attempts to follow Red Hat Enterprise Linux updates as closely as possible.

The following list details the most notable Red Hat build of OpenJDK 17 changes:

- FIPS support. Red Hat build of OpenJDK 17 automatically detects whether RHEL is in FIPS mode and automatically configures Red Hat build of OpenJDK 17 to operate in that mode. This change does not apply to Red Hat build of OpenJDK builds for Microsoft Windows.
- Cryptographic policy support. Red Hat build of OpenJDK 17 obtains the list of enabled cryptographic algorithms and key size constraints from the RHEL system configuration. These configuration components are used by the Transport Layer Security (TLS) encryption protocol, the certificate path validation, and any signed JARs. You can set different security profiles to balance safety and compatibility. This change does not apply to Red Hat build of OpenJDK builds for Microsoft Windows.
- Red Hat build of OpenJDK on RHEL dynamically links against native libraries such as **zlib** for archive format support and **libjpeg-turbo**, **libpng**, and **giflib** for image support. RHEL also dynamically links against **Harfbuzz** and **Freetype** for font rendering and management. This change does not apply to Red Hat build of OpenJDK builds for Microsoft Windows.
- The **src.zip** file includes the source for all of the JAR libraries shipped with Red Hat build of OpenJDK.
- Red Hat build of OpenJDK on RHEL uses system-wide timezone data files as a source for timezone information.
- Red Hat build of OpenJDK on RHEL uses system-wide CA certificates.
- Red Hat build of OpenJDK on Microsoft Windows includes the latest available timezone data from RHEL.
- Red Hat build of OpenJDK on Microsoft Windows uses the latest available CA certificate from RHEL.

Additional resources

- See, [Improve system FIPS detection \(RHEL Planning Jira\)](#)
- See, [Using system-wide cryptographic policies \(RHEL documentation\)](#)

CHAPTER 3. RED HAT BUILD OF OPENJDK FEATURES

The latest Red Hat build of OpenJDK 17 release might include new features. Additionally, the latest release might enhance, deprecate, or remove features that originated from previous Red Hat build of OpenJDK 17 releases.



NOTE

For all the other changes and security fixes, see [Red Hat build of OpenJDK 17.0.10 Released](#).

Red Hat build of OpenJDK enhancements

Red Hat build of OpenJDK 17 provides enhancements to features originally created in previous releases of Red Hat build of OpenJDK.

KEEPALIVE extended socket options support added on Windows

On Windows 10 version 1709 or later platforms, the `java.net.ExtendedSocketOptions` class now supports the `TCP_KEEPIDLE` and `TCP_KEEPINTERVAL` options.

Similarly, on Windows 10 version 1703 or later platforms, the `java.net.ExtendedSocketOptions` class now supports the `TCP_KEEPCOUNT` option.

See [JDK-8308593 \(JDK Bug System\)](#).

X509KeyManager.chooseClientAlias method called once for all key types

In Red Hat build of OpenJDK 17.0.10, TLS or Datagram TLS (DTLS) now makes only one call to the `X509KeyManager.chooseClientAlias` method during handshakes for client authentication, regardless of how many algorithms are requested.

See [JDK-8262186 \(JDK Bug System\)](#).

Peak values for committed memory included in NMT reports

In Red Hat build of OpenJDK 17.0.10, Native Memory Tracking (NMT) reports now show the peak value for all categories. The peak value is the highest value for committed memory in a given NMT category over the lifetime of the JVM process.

If the committed memory for a category is currently at its highest value, the NMT report shows an **at peak** value; otherwise, the NMT report shows the historic peak value.

For example, the following report output shows that compiler arena memory peaked above 6 MB but is now approximately 200KB:

```
Compiler (arena=196KB #4) (peak=6126KB #16)
```

See [JDK-8317772 \(JDK Bug System\)](#).

JVM warnings about unsupported THPs on Red Hat Enterprise Linux

On Red Hat Enterprise Linux platforms, if Transparent Huge Pages (THPs) are requested but not supported, the JVM now prints the following message to standard output:

```
UseTransparentHugePages disabled; transparent huge pages are not supported by the operating system.
```

See [JDK-8313782 \(JDK Bug System\)](#).

Increased default value of `jdk.jar.maxSignatureFileSize` system property

Red Hat build of OpenJDK 17.0.8 introduced a `jdk.jar.maxSignatureFileSize` system property for configuring the maximum number of bytes that are allowed for the signature-related files in a Java archive (JAR) file ([JDK-8300596](#)). By default, the `jdk.jar.maxSignatureFileSize` property was set to 8000000 bytes (8 MB), which was too small for some JAR files, such as the Mend (formerly WhiteSource) Unified Agent JAR file.

Red Hat build of OpenJDK 17.0.10 increases the default value of the `jdk.jar.maxSignatureFileSize` property to 16000000 bytes (16 MB).

See [JDK-8312489 \(JDK Bug System\)](#)

Let's Encrypt ISRG Root X2 CA certificate added

In Red Hat build of OpenJDK 17.0.10, the `cacerts` truststore includes the Internet Security Research Group (ISRG) Root X2 certificate authority (CA) certificate from Let's Encrypt:

- Name: Let's Encrypt
- Alias name: letsencryptisrgx2
- Distinguished name: CN=ISRG Root X2, O=Internet Security Research Group, C=US

See [JDK-8317374 \(JDK Bug System\)](#).

Digicert, Inc. root certificates added

In Red Hat build of OpenJDK 17.0.10, the `cacerts` truststore includes four Digicert, Inc. root certificates:

Certificate 1

- Name: DigiCert, Inc.
- Alias name: digicertcseccrootg5
- Distinguished name: CN=DigiCert CS ECC P384 Root G5, O="DigiCert, Inc.", C=US

Certificate 2

- Name: DigiCert, Inc.
- Alias name: digicertcsrsarootg5
- Distinguished name: CN=DigiCert CS RSA4096 Root G5, O="DigiCert, Inc.", C=US

Certificate 3

- Name: DigiCert, Inc.
- Alias name: digicerttlseccrootg5
- Distinguished name: CN=DigiCert TLS ECC P384 Root G5, O="DigiCert, Inc.", C=US

Certificate 4

- Name: DigiCert, Inc.
- Alias name: digicerttlrsarootg5

- Distinguished name: CN=DigiCert TLS RSA4096 Root G5, O="DigiCert, Inc.", C=US

See [JDK-8318759 \(JDK Bug System\)](#).

eMudhra Technologies Limited root certificates added

In Red Hat build of OpenJDK 17.0.10, the **cacerts** truststore includes three eMudhra Technologies Limited root certificates:

Certificate 1

- Name: eMudhra Technologies Limited
- Alias name: emsignrootcag1
- Distinguished name: CN=emSign Root CA - G1, O=eMudhra Technologies Limited, OU=emSign PKI, C=IN

Certificate 2

- Name: eMudhra Technologies Limited
- Alias name: emsigneccrootcag3
- Distinguished name: CN=emSign ECC Root CA - G3, O=eMudhra Technologies Limited, OU=emSign PKI, C=IN

Certificate 3

- Name: eMudhra Technologies Limited
- Alias name: emsignrootcag2
- Distinguished name: CN=emSign Root CA - G2, O=eMudhra Technologies Limited, OU=emSign PKI, C=IN

See [JDK-8319187 \(JDK Bug System\)](#).

Telia Root CA v2 certificate added

In Red Hat build of OpenJDK 17.0.10, the **cacerts** truststore includes the Telia Root CA v2 certificate:

- Name: Telia Root CA v2
- Alias name: teliarootcav2
- Distinguished name: CN=Telia Root CA v2, O=Telia Finland Oyj, C=FI

See [JDK-8317373 \(JDK Bug System\)](#).

CHAPTER 4. ADVISORIES RELATED TO THIS RELEASE

The following advisories are issued to document bug fixes and CVE fixes included in this release:

- [RHSA-2024:0240](#)
- [RHSA-2024:0241](#)
- [RHSA-2024:0242](#)
- [RHSA-2024:0244](#)
- [RHSA-2024:0246](#)
- [RHSA-2024:0267](#)

Revised on 2024-04-05 11:49:46 UTC