



## OpenJDK 11

### Release notes for OpenJDK 11.0.13





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## Abstract

This document provides an overview of new features in OpenJDK 11, as well as a list of potential known issues and possible workarounds.

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## PREFACE

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

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 OPENJDK

Red Hat will support select major versions of OpenJDK in its products. For consistency, these versions will be the same ones that Oracle designates 'LTS' for the Oracle JDK.

A major version of OpenJDK will be supported for a minimum of six years from the time it is first introduced.

OpenJDK 11 is supported on Microsoft Windows and Red Hat Enterprise Linux until October 2024.



### NOTE

RHEL 6 has reached the end of life in November 2020. Due to this, OpenJDK is not supporting RHEL 6 as a supporting configuration.

For more information, see the [OpenJDK Life Cycle and Support Policy](#) .

## CHAPTER 2. DIFFERENCES FROM UPSTREAM OPENJDK 11

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

The most notable changes are the following:

- On Red Hat Enterprise Linux, we dynamically link against native libraries such as **zlib** for archive format support and **libjpeg-turbo**, **libpng**, and **giflib** for image support. Likewise, we dynamically link against **Harfbuzz** and **FreeType** for font rendering and management.
- On Red Hat Enterprise Linux, system-wide timezone data files are used as a source for timezone information.  
On Microsoft Windows, the latest available timezone data from Red Hat Enterprise Linux is included.
- On Red Hat Enterprise Linux, system-wide CA certificates are used.  
On Microsoft Windows, the latest available CA certificate from Red Hat Enterprise Linux is used.
- The **src.zip** file includes the source for all of the JAR libraries shipped with OpenJDK.

## CHAPTER 3. OPENJDK FEATURES

### 3.1. NEW FEATURES AND ENHANCEMENTS

This section describes the new features introduced in this release. It also contains information about changes in the existing features.



#### NOTE

For all the other changes and security fixes, see [OpenJDK 11.0.13 Released](#).

#### 3.1.1. Removed IdenTrust root certificate

The following root certificate from *IdenTrust* has been removed from the **cacerts** keystore:

- Alias Name: identrustdstx3 [jdk]
- Distinguished Name: CN=DST Root CA X3, O=Digital Signature Trust Co.

For more information, see [JDK-8271434](#).

#### 3.1.2. Updated keytool to create AKID from SKID for issuing certificate as specified by RFC 5280

The **gencert** command of the **keytool** utility has been updated to create AKID from the SKID for issuing certificate as specified by RFC 5280.

For more information, see [JDK-8261922](#).

#### 3.1.3. Added ChaCha20 and Poly1305 TLS cipher suites

The new TLS cipher suites using the **ChaCha20-Poly1305** algorithm are added to JSSE. These cipher suites are enabled by default. The **TLS\_CHACHA20\_POLY1305\_SHA256** cipher suite is available for TLS 1.3.

The following cipher suites are available for TLS 1.2:

- **TLS\_ECDHE\_ECDSA\_WITH\_CHACHA20\_POLY1305\_SHA256**
- **TLS\_ECDHE\_RSA\_WITH\_CHACHA20\_POLY1305\_SHA256**
- **TLS\_DHE\_RSA\_WITH\_CHACHA20\_POLY1305\_SHA256**

For more information, see [JDK-8210799](#).

#### 3.1.4. Updated the default enabled cipher suites preference

The preference of the default enabled cipher suites are changed. The compatibility impact should be minimal. If needed, applications can customize the enabled cipher suites and its preference.

For more information, see [JDK-8219551](#).

## CHAPTER 4. PORTABLE BUILD CHANGES

### 4.1. PORTABLE LINUX BUILDS OF OPENJDK

The portable Linux builds of OpenJDK are available with the FIPS mode. FIPS mode is also available on the RHEL OpenJDK builds. You must install NSS on the portable Linux builds if your system is running in FIPS mode.

### 4.2. PORTABLE WINDOWS BUILDS OF OPENJDK

The portable Windows builds of OpenJDK are available with the FIPS mode. You do not need to install NSS on the portable Windows builds if your system is running in FIPS mode.

## CHAPTER 5. ADVISORIES RELATED TO THIS RELEASE

The following advisories have been issued to bugfixes and CVE fixes included in this release.

- [RHEA-2021:3699-02](#).
- [RHEA-2021:3023-01](#).
- [RHEA-2021:3863-03](#).

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