



Azul Zulu builds of OpenJDK

April 2021 Quarterly Update

Release Notes

Revision 1.0

Table of Contents

Revision History	1
Release Details	2
Supported Platforms	3
What's New	5
Notice of Upcoming Changes	6
Known Issues	6
IANA Time Zone Data Version	6
Fixed Issues	7
Fixed Common Vulnerabilities and Exposures	7
Non-CVE Security Fixes	9
OpenJDK Bug Fixes	9
OpenJFX Bug Fixes	42
Azul Zulu Bug Fixes	46
Legal Notice	51

Revision History

Revision	Date	Description
0.1	April 20, 2021	Initial version of the document.
1.0	April 20, 2021	Add information about the CVEs fixed in this release.

Release Details

Release date: April 20, 2021

This release is a quarterly update release for Azul Zulu Builds of OpenJDK version 16, 15, 13, 11, 8, 7, and 6. The following table lists detailed information on the Azul Zulu versions released with the current update.

Azul Zulu Version*	Update Type**	JDK Version	Based on		JavaFX Version
			Azul Zulu Version	JDK Version	
16.30 (CA)	PSU	16.0.1+9	N/A	N/A	N/A
15.31.14 (SA)	CPU	15.0.2.0.101+2	15.29.16	15.0.2+7	15.0.2.0.101+100
15.32.15 (CA) 15.32.16 (SA)	PSU	15.0.3+3	15.31.14	15.0.2.0.101+2	N/A
13.39.14 (SA)	CPU	13.0.6.0.101+2	13.37.22	13.0.6+5	15.0.2.0.101+100
13.40.15 (CA) 13.40.16 (SA)	PSU	13.0.7+5	13.39.14	13.0.6.0.101+2	N/A
11.47.18 (SA)	CPU	11.0.10.0.101+1	11.45.27	11.0.10+9	15.0.2.0.101+100
11.48.21 (CA) 11.48.22 (SA)	PSU	11.0.11+9	11.47.18	11.0.10.0.101+1	N/A
8.53.0.12 (SA)	CPU	8u291-b01	8.52.0.24	8u282-b08	8u291-b01
8.54.0.21 (CA) 8.54.0.22 (SA)	PSU	8u292-b10	8.53.0.12	8u291-b01	N/A
7.45.0.12 (SA)	CPU	7u301-b01	7.44.0.12	7u292-b07	N/A
7.46.0.11 (CA) 7.46.0.12 (SA)	PSU	7u302-b01	7.45.0.12	7u301-b01	N/A
6.39.0.14 (SA)	CPU	6b139	6.38.0.12	6b138	N/A

* Azul provides three types of distribution packages for each Java version:

- **SA** distributions are tested, certified, and commercially supported Azul Zulu builds of OpenJDK. Azul ensures that the software that uses the Accessible APIs of the product does not have to include specific licenses and that such use does not contaminate the code or intellectual property of such software with any license requirements.
- **NV** are tested, certified, and commercially supported Azul Zulu builds of OpenJDK.
- **CA** are Azul Zulu builds of OpenJDK that are free to download and use.

** Update type:

- **CPU** (Critical Patch Updates) contain fixes to security vulnerabilities and critical bug fixes. Azul Zulu CPU releases are generally based on prior-cycle PSU releases, with only security fixes applied. They provide a low-risk vehicle for the potentially urgent deployment of security fixes when issues of sufficient severity arise. CPU releases are available in SA and NV distributions.
- **PSU** (Patch Set Updates) incorporates all fixes in the corresponding CPU, as well as additional non-security bug fixes. Azul Zulu PSU releases incorporate both security fixes and other changes that align the release contents with the associated OpenJDK project quarterly release. PSU releases are available in SA, NV, and CA distributions.

Supported Platforms

This section provides information about the operating systems that are supported in this update release of Azul Zulu.

NOTE

Azul Zulu builds of OpenJDK support JavaFX on all platforms except for Oracle Solaris and Alpine Linux.

Platform	Azul Zulu Version						
	6	7	8	11	13	15	16
Windows							

Windows Server 2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Windows Server 2016	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Windows Server 2012 R2	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Windows Client 10	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Windows Client 8.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Linux							
RHEL 8.x	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RHEL 7.x	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RHEL 6.x	N/A	Yes	Yes	Yes	Yes	Yes	Yes
SLES 15	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SLES 12	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CentOS 8.x*	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ubuntu 20.04	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ubuntu 18.04	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Debian 10	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Debian 9	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Windriver 9.x	N/A	Yes	Yes	N/A	N/A	N/A	N/A
Windriver 8.x	N/A	Yes	Yes	N/A	N/A	N/A	N/A
CoreOS	N/A	Yes	Yes	Yes	Yes	Yes	Yes
Alpine Linux	N/A	N/A	Yes	Yes	Yes	Yes	Yes
MacOS							
macOS 11.0 (Apple Silicon)	N/A	N/A	Yes	Yes	Yes	Yes	Yes
macOS 11.0 (x86)	N/A	Yes	Yes	Yes	Yes	Yes	Yes
macOS 10.15	N/A	Yes	Yes	Yes	Yes	Yes	Yes
macOS 10.14	N/A	Yes	Yes	Yes	Yes	Yes	Yes
Solaris							

Solaris 11	Yes	Yes	Yes	Yes	N/A	N/A	N/A
Solaris 10	Yes	Yes	Yes	N/A	N/A	N/A	N/A

* The Azul Zulu builds for CentOS 8 will be discontinued on December 31, 2021 due to RedHat terminating CentOS development and shifting focus to CentOS Stream.

What's New

TLS 1.0 and 1.1 is turned off

TLS 1.0 and 1.1 is turned off in the PSU builds in this release. This change affects the following Azul Zulu versions:

- 16.30 (CA and SA)
- 15.32.15 (CA), 15.32.16 (SA)
- 13.40.15 (CA), 13.40.16 (SA)
- 11.48.21 (CA), 11.48.22 (SA)
- 8.54.0.21 (CA), 8.54.0.22 (SA)
- 7.46.0.11 (CA), 7.46.0.12 (SA)

This may cause incompatibility issues if your application uses TLS 1.0/1.1.

Toolchain for building Azul Zulu 16 for Windows upgraded to Visual Studio 2019

The toolchain for building Azul Zulu 16 on Windows has been upgraded from Visual Studio 2017 to Visual Studio 2019.

Xcode for building Azul Zulu 8 for macOS upgraded to v.9.1

The toolchain for building Azul Zulu 8 on macOS has been upgraded from Xcode 4.2 to Xcode 9.1.

List of capabilities provided by RPM packages changed to include 'java'

For Azul Zulu 11, 13, 15, and 16, the RPM packages now report the `java` package among the list of provided capabilities.

Notice of Upcoming Changes

In the next release (July 2021), Azul Zulu 8 builds for Windows will be compiled with Microsoft Visual Studio 2017. This means that the builds will no longer include the `mscvr100.dll` library provided by the Microsoft Visual C++ 2010 SP1 Redistributable Package (x86/x64), which was included by default in earlier builds. Applications that depend on the presence of `mscvr100.dll` in the JDK/JRE will fail to run with the new Azul Zulu 8 builds.

There are two possible workarounds for this problem:

- Install Microsoft Visual C++ 2010 SP1 Redistributable Package.
- Rebuild the application using a modern version of Visual Studio.

Known Issues

- The Foreign Linker API (Incubator) that appeared as part of [JEP-389](#) has a number of issues when used on Apple Silicon devices. The issues will be fixed in a future Azul Zulu 16 release.

IANA Time Zone Data Version

This release of Azul Zulu comes with IANA time zone data version 2021a. For more details, see <https://data.iana.org/time-zones/tzdb-2021a/NEWS>.

Fixed Issues

This section covers all issues that were fixed in this release.

Fixed Common Vulnerabilities and Exposures

This section summarizes Common Vulnerabilities and Exposures (CVE) fixed in this release.

CVE #	Component	Protocol	Remote Exploit w/o Auth.	Base Score	Attack Vector	Attack Complex	Privileges Req'd	User Interact	Scope	Confidentiality	Integrity	Availability	Azul Zulu Versions Affected	Notes
CVE-2021-2161	Libraries	Multiple	Yes	5.9	Network	High	None	None	Unchanged	None	High	None	6, 7, 8, 11, 13, 15, 16	Note 1
CVE-2021-2163	Libraries	Multiple	Yes	5.3	Network	High	None	Required	Unchanged	None	High	None	6, 7, 8, 11, 13, 15, 16	Note 2
CVE-2021-23841	Oracle GraalVM Enterprise Edition: Node (OpenSSL)	HTTPS	Yes	7.5	Network	Low	None	None	Unchanged	None	None	High	N/A	
CVE-2021-3450	Oracle GraalVM Enterprise Edition: Node (Node.js)	HTTPS	Yes	7.4	Network	High	None	None	Unchanged	High	High	None	N/A	

Notes:

ID	Notes
1	This vulnerability applies to Java deployments that load and run untrusted code (e.g., code that comes from the internet) and rely on the Java sandbox for security. It can also be exploited by supplying untrusted data to APIs in the specified Component.
2	This vulnerability applies to Java deployments that load and run untrusted code (e.g., code that comes from the internet) and rely on the Java sandbox for security.

Non-CVE Security Fixes

The following table summarizes non-CVE security fixes implemented in this release.

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8261183	16, 15, 13, 11, 8, 7, 6	Follow on to Make lists of normal filenames	CPU
JDK-8259633	16, 15, 13, 11	compiler/graalunit/CoreTest.java fails with NPE after JDK-8244543	CPU
JDK-8259428	16, 15, 13, 11, 8, 7, 6	AlgorithmId.getEncodedParams() should return copy	CPU
JDK-8258247	16, 15, 13, 11, 8, 7, 6	Couple of issues in fix for JDK-8249906	CPU
JDK-8257001	16, 15, 13, 11	Improve HTTP client support	CPU
JDK-8253799	16, 15, 13, 11, 8, 7, 6	Make lists of normal filenames	CPU
JDK-8244543	16, 15, 13, 11, 8, 7, 6	Enhanced handling of abstract classes	CPU
JDK-8244473	16, 15, 13, 11, 8, 7, 6	Contextualize registration for JNDI	CPU

OpenJDK Bug Fixes

The following table describes the OpenJDK changes implemented in this release.

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8260356	16, 15, 13, 11, 8, 7, 6	(tz) Upgrade time-zone data to tzdata2021a	CPU
JDK-8259048	16, 15, 13, 11, 8, 7, 6	(tz) Upgrade time-zone data to tzdata2020f	CPU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8233228	7, 6	Disable weak named curves by default in TLS, CertPath, and Signed JAR	CPU
JDK-8227467	8	Better class method invocations	CPU
JDK-8173622	6	Backport of 7180907 is incomplete	CPU
JDK-8035166	8, 7, 6	Remove dependency on EC classes from pkcs11 provider	CPU
JDK-7194075	6	Various classes of sunec.jar are duplicated in rt.jar	CPU
JDK-7023056	6	NPE from sun.security.util.ManifestEntryVerifier.verify during Maven build	CPU
JDK-7004035	6	signed jar with only META-INF/* inside is not verifiable	CPU
JDK-8264171	8	Missing aarch64 parts of JDK-8236179 (C1 register allocation failure with T_ADDRESS)	PSU
JDK-8263996	13	Fix build on 13u after JDK-8234779 backport	PSU
JDK-8263968	16	CDS: java/lang/ModuleLayer.EMPTY_LAYER should be singleton	PSU
JDK-8263425	13	AArch64: two potential bugs in C1 LIRGenerator::generate_address()	PSU
JDK-8263069	11	Exclude some failing tests from security/infra/java/security/cert/CertPathValidator	PSU
JDK-8263008	8	AArch64: Add debug info for libsaproc.so	PSU
JDK-8262726	13	AArch64: C1 StubAssembler::call_RT can corrupt stack	PSU
JDK-8262541	15	Bump update version for OpenJDK: jdk-15.0.3	PSU
JDK-8262073	8	assert(allocates2(pc)) failed: not in CodeBuffer memory	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8262018	16, 11	Wrong format in SAP copyright header of OsVersionTest	PSU
JDK-8261952	8	Avoid converting path to vcruntime140.dll to short-style path	PSU
JDK-8261920	11	[AIX] jshell command throws java.io.IOException on non English locales	PSU
JDK-8261912	16, 15, 11	Code IfNode::fold_compares_helper more defensively	PSU
JDK-8261860	16	Crash caused by lambda proxy class loaded in Shutdown hook	PSU
JDK-8261829	11	Exclude tools/jlink/JLinkReproducibleTest.java in 11u	PSU
JDK-8261790	8	(zipfs) Files.setPosixFilePermission does not work with CIFS share	PSU
JDK-8261766	8	[8u] hotspot needs to recognise cl.exe 19.16 to build with VS2017	PSU
JDK-8261758	16	[TESTBUG] gc/g1/TestGCLogMessages.java fails if ergonomics detect too small InitialHeapSize	PSU
JDK-8261753	16, 11	Test java/lang/System/OsVersionTest.java still failing on BigSur patch versions after JDK-8253702	PSU
JDK-8261752	16	Multiple GC test are missing memory requirements	PSU
JDK-8261585	16, 11	Restore HandleArea used in Deoptimization::uncommon_trap	PSU
JDK-8261534	11	Test sun/security/pkcs11/KeyAgreement/IllegalPackageAccess.java fails on platforms where no nsslib artifacts are defined	PSU
JDK-8261522	16, 11	[PPC64] AES intrinsics write beyond the destination array	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8261483	16, 13	jdk/dynalink/TypeConverterFactoryMemoryLeakTest.java failed with "AssertionError: Should have GC'd a method handle by now"	PSU
JDK-8261413	16, 11	Shenandoah: Disable class-unloading in I-U mode	PSU
JDK-8261397	16, 11	try catch Method failing to work when dividing an integer by 0	PSU
JDK-8261334	16, 11	NMT: tuning statistic shows incorrect hash distribution	PSU
JDK-8261310	16, 15, 11	PPC64 Zero build fails with 'VMError::controlled_crash(int)::FunctionDescriptor functionDescriptor' has incomplete type and cannot be defined	PSU
JDK-8261261	16	The version extra fields needs to be overridable in jib-profiles.js	PSU
JDK-8261251	16, 11	Shenandoah: Use object size for full GC humongous compaction	PSU
JDK-8261231	16, 11, 8	Windows IME was disabled after DnD operation	PSU
JDK-8261209	16, 11	isStandalone property: remove dependency on pretty-print	PSU
JDK-8261170	16	Upgrade to FreeType 2.10.4	PSU
JDK-8261089	11	[TESTBUG] native library of test TestCheckedReleaseCriticalArray.java fails to compile with gcc 4.x	PSU
JDK-8261022	16, 13, 11	Fix incorrect result of Math.abs() with char type	PSU
JDK-8260934	16	java/lang/StringBuilder/HugeCapacity.java fails without Compact Strings	PSU
JDK-8260933	16	runtime/cds/serviceability/ReplaceCriticalClassesForSubgraphs.java fails without CompactStrings	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8260864	16	ProblemList two security/krb5 tests on Linux	PSU
JDK-8260704	11	ParallelGC: oldgen expansion needs release-store for _end	PSU
JDK-8260632	11	Build failures after JDK-8253353	PSU
JDK-8260592	16	jpackage tests fail when Desktop is not supported	PSU
JDK-8260502	11	[s390] NativeMovRegMem::verify() fails because it's too strict	PSU
JDK-8260497	11	Shenandoah: Improve SATB flushing	PSU
JDK-8260380	16	Upgrade to LittleCMS 2.12	PSU
JDK-8260378	11	[TESTBUG] DcmdMBeanTestCheckJni.java reports false positive	PSU
JDK-8260349	16, 11, 8	Cannot programmatically retrieve Metaspace max set via JAVA_TOOL_OPTIONS	PSU
JDK-8260338	16, 11	Some fields in HaltNode is not cloned	PSU
JDK-8260308	13, 11	Update LogCompilation junit to 4.13.1	PSU
JDK-8260048	16	Shenandoah: ShenandoahMarkingContext asserts are unnecessary	PSU
JDK-8260029	16, 11	aarch64: fix typo in verify_oop_array	PSU
JDK-8260010	16	UTF8ZipCoder not thread-safe since JDK-8243469	PSU
JDK-8260009	16	InstanceKlass::has_as_permitted_subclass() fails if subclass was redefined	PSU
JDK-8259954	16, 11	gc/shenandoah/mxbeans tests fail with -Xcomp	PSU
JDK-8259949	16, 13, 11	x86 32-bit build fails when -fcf-protection is passed in the compiler flags	PSU
JDK-8259849	16, 11	Shenandoah: Rename store-val to IU-barrier	PSU
JDK-8259777	16	Incorrect predication condition generated by ADLC	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8259773	16, 11	Incorrect encoding of AVX-512 kmovq instruction	PSU
JDK-8259707	13, 11	LDAP channel binding does not work with StartTLS extension	PSU
JDK-8259706	16, 11	C2 compilation fails with assert(vtable_index == Method::invalid_vtable_index) failed: correct sentinel value	PSU
JDK-8259679	16	GitHub actions should use MSVC 14.28	PSU
JDK-8259628	16	jdk/net/ExtendedSocketOption/AsynchronousSocketChannelNAPITest.java fails intermittently	PSU
JDK-8259619	16, 13, 11	C1: 3-arg StubAssembler::call_RT stack-use condition is incorrect	PSU
JDK-8259580	16, 11	Shenandoah: uninitialized label in VerifyThreadGCState	PSU
JDK-8259576	16	Misplaced curly brace in Matcher::find_shared_post_visit	PSU
JDK-8259568	8	PPC64 builds broken after JDK-8221408 8u backport	PSU
JDK-8259451	16, 11	Zero: skip serviceability/sa tests, set vm.hasSA to false	PSU
JDK-8259446	16, 11	runtime/jni/checked/TestCheckedReleaseArrayElements.java fails with stderr not empty	PSU
JDK-8259392	16	Zero error reporting is broken after JDK-8255711	PSU
JDK-8259384	8	CUP version wrong in THIRD_PARTY_README after JDK-8233548	PSU
JDK-8259339	16, 11	AllocateUninitializedArray C2 intrinsic fails with void.class input	PSU
JDK-8259319	11	Illegal package access when SunPKCS11 requires SunJCE's classes	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8259312	11, 8	VerifyCACerts.java fails as soneraclass2ca cert will expire in 90 days	PSU
JDK-8259271	11	gc/parallel/TestDynShrinkHeap.java still fails "assert(covered_region.contains(new_memregion)) failed: new region is not in covered_region"	PSU
JDK-8259231	16, 11	Epsilon: improve performance under contention during virtual space expansion	PSU
JDK-8259221	13	Bump update version for OpenJDK: jdk-13.0.7	PSU
JDK-8259049	16, 11	Uninitialized variable after JDK-8257513	PSU
JDK-8259007	11	This test printed a blank page	PSU
JDK-8258946	16	Fix optimization-unstable code involving signed integer overflow	PSU
JDK-8258909	16	update jdk16u jcheck conf	PSU
JDK-8258884	11	[TEST_BUG] Convert applet-based test open/test/jdk/javax/swing/JMenuItem/8031573/bug8031573.java to a regular java test	PSU
JDK-8258836	11	JNI local refs exceed capacity getDiagnosticCommandInfo	PSU
JDK-8258833	11, 8	Cancel multi-part cipher operations in SunPKCS11 after failures	PSU
JDK-8258805	11	Japanese characters not entered by mouse click on Windows 10	PSU
JDK-8258534	16, 11	Epsilon: clean up unused includes	PSU
JDK-8258490	16	Shenandoah: Full GC does not need to remark threads and drain SATB buffers	PSU
JDK-8258471	16, 11	"search codecache" clhsdb command does not work	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8258430	8	8u backport of JDK-8063107 missing test/javafx/swing/JRadioButton/8041561/bug8041561.java changes	PSU
JDK-8258419	11	RSA cipher buffer cleanup	PSU
JDK-8258396	13, 11, 8	SIGILL in jdk.jfr.internal.PlatformRecorder.rotateDisk()	PSU
JDK-8258373	11	Update the text handling in the JPasswordField	PSU
JDK-8258243	16	C2: assert failed ("Bad derived pointer") with -XX:+VerifyRegisterAllocator	PSU
JDK-8258241	8	[8u] Missing doPrivileged() hunks from JDK-8226575	PSU
JDK-8258077	16, 11	Using -Xcheck:jni can lead to a double-free after JDK-8193234	PSU
JDK-8257999	11	Parallel GC crash in gc/parallel/TestDynShrinkHeap.java: new region is not in covered_region	PSU
JDK-8257997	11	sun/security/ssl/SSLSocketImpl/SSLSocketLeak.java again reports leaks after JDK-8257884	PSU
JDK-8257910	11	[JVMCI] Set exception_seen accordingly in the runtime.	PSU
JDK-8257884	11	Re-enable sun/security/ssl/SSLSocketImpl/SSLSocketLeak.java as automatic test	PSU
JDK-8257798	11	[PPC64] undefined reference to Klass::vtable_start_offset()	PSU
JDK-8257746	16, 13, 11, 8	Regression introduced with JDK-8250984 - memory might be null in some machines	PSU
JDK-8257707	11	Fix incorrect format string in Http1HeaderParser	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8257670	11	sun/security/ssl/SSLSocketImpl/SSLSocketLeak.java reports leaks	PSU
JDK-8257633	13, 11	Missing -mmacosx-version-min=X flag when linking libjvm	PSU
JDK-8257594	11	C2 compiled checkcast of non-null object triggers endless deoptimization/recompilation cycle	PSU
JDK-8257575	11	C2: "failed: onlyphis" assert failure in loop strip mining verification	PSU
JDK-8257565	11	epsilonBarrierSet.hpp should not include barrierSetAssembler	PSU
JDK-8257561	11	Some code is not vectorized after 8251925 and 8250607	PSU
JDK-8257547	11	Handle multiple prereqs on the same line in deps files	PSU
JDK-8257513	16, 11	C2: assertconstant_addr - _masm.code()&const()&start(== con.offset())	PSU
JDK-8257436	11	AArch64: Regressions in ArrayCopyUnalignedDst.testByte/testChar for 65-78 bytes when UseSIMDForMemoryOps is on	PSU
JDK-8257423	11	[PPC64] Support -XX:-UseInlineCaches	PSU
JDK-8257414	13, 11	Drag n Drop target area is wrong on high DPI systems	PSU
JDK-8257408	11	Bump update version for OpenJDK: jdk-11.0.11	PSU
JDK-8257242	8	[macOS] Java app crashes while switching input methods	PSU
JDK-8257192	8	Integrate AArch64 JIT port into 8u	PSU
JDK-8257083	11	Security infra test failures caused by JDK-8202343	PSU
JDK-8256888	11	Client manual test problem list update	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8256818	11	SSLSocket that is never bound or connected leaks socket resources	PSU
JDK-8256810	11	Incremental rebuild broken on MacOSx	PSU
JDK-8256809	13	Annotation processing causes NPE during flow analysis	PSU
JDK-8256807	11	C2: Not marking stores correctly as mismatched in string opts	PSU
JDK-8256806	11	Shenandoah: optimize shenandoah/jni/TestPinnedGarbage.java test	PSU
JDK-8256757	11	Incorrect MachCallRuntimeNode::ret_addr_offset() for CallLeafNoFP on x86_32	PSU
JDK-8256751	11	Incremental rebuild with precompiled header fails when touching a header file	PSU
JDK-8256682	15, 11, 8	JDK-8202343 is incomplete	PSU
JDK-8256642	8	[TEST_BUG] jdk/test/javax/sound/midi/MidiSystem/DefaultProperties.java failed	PSU
JDK-8256633	11	Fix product build on Windows+Arm64	PSU
JDK-8256501	11	libTestMainKeyWindow fails to build with Xcode 12.2	PSU
JDK-8256489	11	Make gtest for long path names on Windows more resilient in the presence of virus scanners	PSU
JDK-8256488	11	AArch64: Use ldpq/stpq instead of ld4/st4 for small copies in StubGenerator::copy_memory	PSU
JDK-8256421	16, 11, 8	Add 2 HARICA roots to cacerts truststore	PSU
JDK-8256387	11	Unexpected result if patching an entire instruction on AArch64	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8256359	11	AArch64: runtime/ReservedStack/ReservedStackTestCompiler.java fails	PSU
JDK-8256290	11	javac/lambda/T8031967.java fails with StackOverflowError on x86_32	PSU
JDK-8256264	11	Printed GlyphVector outline with low DPI has bad quality on Windows	PSU
JDK-8256258	11	some missing NULL checks or asserts after CodeCache::find_blob_unsafe	PSU
JDK-8256220	11	C1: x86_32 fails with -XX:UseSSE=1 after JDK- 8210764 due to mishandled lir_neg	PSU
JDK-8256215	16	Shenandoah: re-organize saving/restoring machine state in assembler code	PSU
JDK-8256187	11	[TEST_BUG] Automate bug4275046.java test	PSU
JDK-8256061	11	RegisterSaver::save_live_registers() omits upper halves of ZMM0-15 registers	PSU
JDK-8256056	11	Deoptimization stub doesn't save vector registers on x86	PSU
JDK-8256025	11	AArch64: MachCallRuntimeNode::ret_addr_offset() is incorrect for stub calls	PSU
JDK-8255937	8	Better cleanup for test/jdk/javax/imageio/stream/StreamFlush.java	PSU
JDK-8255908	13, 11, 8	ExceptionInInitializerError due to UncheckedIOException while initializing cgroupv1 subsystem	PSU
JDK-8255880	11, 8	UI of Swing components is not redrawn after their internal state changed	PSU
JDK-8255845	11	Memory leak in imageFile.cpp	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8255742	11	PrintInlining as compiler directive doesn't print virtual calls	PSU
JDK-8255734	11	VM should ignore SIGXFSZ on ppc64, s390 too	PSU
JDK-8255681	11	Print callstack in error case in runAWTLoopWithApp	PSU
JDK-8255625	13	AArch64: Implement Base64.encodeBlock accelerator/intrinsic	PSU
JDK-8255559	11	Leak File Descriptors Because of ResolverLocalFilesystem#engineResolveURI()	PSU
JDK-8255544	11	Create a checked cast	PSU
JDK-8255479	11	AArch64: assert(src%section_index_of(target) == CodeBuffer::SECT_NONE) failed: sanity	PSU
JDK-8255401	11	Shenandoah: Allow oldval and newval registers to overlap in cmpxchg_oop()	PSU
JDK-8255387	11	Japanese characters were printed upside down on AIX	PSU
JDK-8255368	11	Math.exp() gives wrong result for large values on x86 32-bit platforms	PSU
JDK-8255351	11	Add detection for Graviton 2 CPUs	PSU
JDK-8255058	11	C1: assert(is_virtual()) failed: type check	PSU
JDK-8254854	8	[cgroups v1] Metric limits not properly detected on some join controller combinations	PSU
JDK-8254799	11	runtime/ErrorHandling/TestHeapDumpOnOutOfMemoryError.java fails with release VMs	PSU
JDK-8254748	11	Bad Copyright header format after JDK-8212218	PSU
JDK-8254734	11	"dead loop detected" assert failure with patch from 8223051	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8254104	11	MethodCounters must exist before nmethod is installed	PSU
JDK-8253932	8	SSL debug log prints incorrect caller info	PSU
JDK-8253910	16	UseCompressedClassPointers depends on UseCompressedOops in vmError.cpp	PSU
JDK-8253756	11	C2 CompilerThread0 crash in Node::add_req(Node*)	PSU
JDK-8253702	16, 11	BigSur version number reported as 10.16, should be 11.nn	PSU
JDK-8253681	11	closed java/awt/dnd/MouseEventAfterStartDragTest/MouseEventAfterStartDragTest.html test failed	PSU
JDK-8253644	11	C2: assert(skeleton_predicate_has_opaque(iff)) failed: unexpected	PSU
JDK-8253524	11	C2: Refactor code that clones predicates during loop unswitching	PSU
JDK-8253476	13, 11, 8	TestUseContainerSupport.java fails on some Linux kernels w/o swap limit capabilities	PSU
JDK-8253409	16, 13, 11	Double-rounding possibility in float fma	PSU
JDK-8253404	11	C2: assert(C☐live_nodes() ☐ C☐max_node_limit()) failed: Live Node limit exceeded limit	PSU
JDK-8253368	16, 11, 8	TLS connection always receives close_notify exception	PSU
JDK-8253353	11	Crash in C2: guarantee(n != NULL) failed: No Node	PSU
JDK-8253274	11	The CycleDMIImagetest brokes the system	PSU
JDK-8253220	11	Epsilon: clean up unused code/declarations	PSU
JDK-8253015	8	Aarch64: Move linux code out from generic CPU feature detection	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8252971	16	WindowsFileAttributes does not know about Unix domain sockets	PSU
JDK-8252883	16	AccessDeniedException caused by delayed file deletion on Windows	PSU
JDK-8252497	15	Incorrect numeric currency code for ROL	PSU
JDK-8252470	8	java/awt/dnd/DisposeFrameOnDragCrash/DisposeFrameOnDragTest.java fails on Windows	PSU
JDK-8251992	11	VM crashed running TestComplexAddrExpr.java test with -XX:UseAVX=X	PSU
JDK-8251944	16, 11	Add Shenandoah test config to compiler/gcbarriers/UnsafeIntrinsicsTest.java	PSU
JDK-8251930	8	AArch64: Native types mismatch in hotspot	PSU
JDK-8251925	11	C2: RenaissanceStressTest fails with assert(!had_error): bad dominance	PSU
JDK-8251397	8	NPE on ClassValue.ClassValueMap.cacheArray	PSU
JDK-8251359	11	Shenandoah: filter null oops before calling enqueue/SATB barrier	PSU
JDK-8251257	13	NMT: jcmd VM.native_memory scale=1 crashes target VM	PSU
JDK-8251255	11	[linux] Add process-memory information to hs-err and VM.info	PSU
JDK-8250984	8	Memory Docker tests fail on some Linux kernels w/o cgroupv1 swap limit capabilities	PSU
JDK-8250911	13, 11	[windows] os::pd_map_memory error detection broken	PSU
JDK-8250824	8	AArch64: follow up for JDK-8248414	PSU
JDK-8249867	16, 11	XML declaration is not followed by a newline	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8249787	11	Make TestGCLocker more resilient with concurrent GCs	PSU
JDK-8249749	11	modify a primitive array through a stream and a for cycle causes jre crash	PSU
JDK-8249588	11, 8	libwindowsaccessbridge issues on 64bit Windows	PSU
JDK-8249543	11	(bf) Force DirectBufferAllocTest to run with -ExplicitGCInvokesConcurrent	PSU
JDK-8249251	13	[dark_mode ubuntu 20.04] The selected menu is not highlighted in GTKLookAndFeel	PSU
JDK-8249215	13	JFrame::setVisible crashed with -Dfile.encoding=UTF-8 on Japanese Windows.	PSU
JDK-8249183	8	JVM crash in "AwtFrame::WmSize" method	PSU
JDK-8249176	13	jdk jtreg test security/infra/java/security/cert/CertPathValidator /certification/GlobalSignR6CA.java fails	PSU
JDK-8248987	13	AOT's Linker.java seems to eagerly fail-fast on Windows.	PSU
JDK-8248901	11	Signed immediate support in ... /share/assembler.hpp is broken.	PSU
JDK-8248865	11	Document JNDI/LDAP timeout properties	PSU
JDK-8248532	8	Every time I change keyboard language at my MacBook, Java crashes	PSU
JDK-8248414	8	AArch64: Remove uses of long and unsigned long ints	PSU
JDK-8248336	11, 8	AArch64: C2: offset overflow in BoxLockNode::emit	PSU
JDK-8248219	8	aarch64: missing memory barrier in fast_storefield and fast_accessfield	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8247979	8	aarch64: missing side effect of killing flags for clearArray_reg_reg	PSU
JDK-8247867	15	Upgrade to freetype 2.10.2	PSU
JDK-8247766	11	AArch64: guarantee(val < (1U << nbits)) failed: Field too big for insn	PSU
JDK-8247676	15	vcruntime140_1.dll is not needed on 32-bit Windows	PSU
JDK-8247200	11	AArch64: assert((unsigned)fpargs < 32)	PSU
JDK-8246709	11	sun/security/tools/jarsigner/TsacertOptionTest.java compilation failed after JDK-8244683	PSU
JDK-8246707	13, 11	(sc) SocketChannel.read/write throws AsynchronousCloseException on closed channel	PSU
JDK-8246482	8	Build failures with +JFR -PCH	PSU
JDK-8246027	13	Minimal fastdebug build broken after JDK-8245801	PSU
JDK-8245801	13	StressRecompilation triggers assert "redundant OSR recompilation detected. memory leak in CodeCache!"	PSU
JDK-8245512	11	CRC32 optimization using AVX512 instructions	PSU
JDK-8245400	15	Upgrade to LittleCMS 2.11	PSU
JDK-8245283	13	JFR: Can't handle constant dynamic used by Jacoco agent	PSU
JDK-8245026	11	PsAdaptiveSizePolicy::_old_gen_policy_is_ready is unused	PSU
JDK-8245005	11	javax/net/ssl/compatibility/BasicConnectTest.java failed with No enum constant	PSU
JDK-8244819	13	hsdis does not compile with binutils 2.34+	PSU
JDK-8244683	11	A TSA server used by tests	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8244621	8	[macos10.15] Garbled FX printing plus CoreText warnings on Catalina when building with Xcode 11	PSU
JDK-8244573	13, 11	java.lang.ArrayIndexOutOfBoundsException thrown for malformed class file	PSU
JDK-8244340	11	Handshake processing thread lacks yielding	PSU
JDK-8244154	11	Update SunPKCS11 provider with PKCS11 v3.0 header files	PSU
JDK-8244088	11	[Regression] Switch of Gnome theme ends up in deadlocked UI	PSU
JDK-8243925	13	Toolkit#getScreenInsets() returns wrong value on HiDPI screens (Windows)	PSU
JDK-8243670	11	Unexpected test result caused by C2 MergeMemNode::Ideal	PSU
JDK-8243618	11	compiler/rtm/cli tests can be run w/o WhiteBox	PSU
JDK-8243559	15, 13	Remove root certificates with 1024-bit keys	PSU
JDK-8243389	13	enhance os::pd_print_cpu_info on linux	PSU
JDK-8243321	13	Add Entrust root CA - G4 to Oracle Root CA program	PSU
JDK-8243320	13	Add SSL root certificates to Oracle Root CA program	PSU
JDK-8243290	13	Improve diagnostic messages for class verification and redefinition failures	PSU
JDK-8242565	11	Policy initialization issues when the denyAfter constraint is enabled	PSU
JDK-8242283	13	Can't start JVM when java home path includes non-ASCII character	PSU
JDK-8242030	13, 11	Wrong package declarations in jline classes after JDK-8241598	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8241911	11	AArch64: Fix a potential issue about register allocation effect rule in reduce_add2l	PSU
JDK-8241770	11	Module xxxAnnotation() methods throw NCDFE if module-info.class found as resource in unnamed module	PSU
JDK-8241649	11	Optimize Character.toString	PSU
JDK-8241598	13, 11	Upgrade JLine to 3.14.0	PSU
JDK-8241478	13	vmTestbase/gc/gctests/Steal/steal001/steal001.java fails with OOME	PSU
JDK-8241458	13	[JVMCI] add mark value to expose CodeOffsets::Frame_Complete	PSU
JDK-8241372	16	Several test failures due to javax.net.ssl.SSLException: Connection reset	PSU
JDK-8241319	13	WB_GetCodeBlob doesn't have ResourceMark	PSU
JDK-8241086	13	Test runtime/NMT/HugeArenaTracking.java is failing on 32bit Windows	PSU
JDK-8240795	11	[REDO] 8238384 CTW: C2 compilation fails with "assert(store != load.find_exact_control(load.in(0))) failed: dependence cycle found"	PSU
JDK-8240751	11	Shenandoah: fold ShenandoahTracer definition	PSU
JDK-8240711	13	TestJstatdPort.java failed due to "ExportException: Port already in use:"	PSU
JDK-8240704	11	ProcessBuilder/checkHandles/CheckHandles.java failed "AssertionError: Handle use increased by more than 10 percent."	PSU
JDK-8240353	11, 8	AArch64: missing support for -XX:+ExtendedDTraceProbes in C1	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8240295	13	hs_err elapsed time in seconds is not accurate enough	PSU
JDK-8239497	13	SEGV in EdgeUtils::field_name_symbol(Edge const&)	PSU
JDK-8239355	11	(dc) Initial value of SO_SNDBUF should allow sending large datagrams (macOS)	PSU
JDK-8239091	8	Reversed arguments in call to strstr in freetype "debug" code.	PSU
JDK-8238710	13	LingeredApp doesn't log stdout/stderr if exits with non-zero code	PSU
JDK-8238579	8	URLConnection drops the timeout and hangs forever in read	PSU
JDK-8237977	13	Further update javax/net/ssl/compatibility/Compatibility.java	PSU
JDK-8237950	13	C2 compilation fails with "Live Node limit exceeded limit" during Conv12L::Ideal optimization	PSU
JDK-8237512	8	AArch64: aarch64TestHook leaks a BufferBlob	PSU
JDK-8237495	11	Java MIDI fails with a dereferenced memory error when asked to send a raw 0xF7	PSU
JDK-8237483	11	AArch64 C1 OopMap inserted twice fatal error	PSU
JDK-8237392	11	Shenandoah: Remove unreliable assertion	PSU
JDK-8237369	11	Shenandoah: failed vmTestbase/nsk/jvmti/AttachOnDemand/attach021/TestDescription.java test	PSU
JDK-8236772	13	Fix build for windows 32-bit after 8212160 and 8234331.	PSU
JDK-8236500	8	Windows ucrt.dll should be looked up in versioned WINSOCK subdirectory	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8236124	13	Minimal VM slowdebug build failed after JDK-8212160	PSU
JDK-8235846	13	Improve WindbgDebuggerLocal implementation	PSU
JDK-8235829	13	graal crashes with Zombie.java test	PSU
JDK-8235584	13	UseProfiledLoopPredicate fails with assert(!_phase & get_loop(c) == loop) failed: have to be in the same loop	PSU
JDK-8235456	13	Minimal VM is broken after JDK-8212160	PSU
JDK-8235351	11	Lookup::unreflect should bind with the original caller independent of Method's accessible flag	PSU
JDK-8235324	11	Dying objects are published from users of CollectedHeap::object_iterate	PSU
JDK-8235218	13	Minimal VM is broken after JDK-8173361	PSU
JDK-8234796	11	Refactor Handshake::execute to take a more complex type than ThreadClosure	PSU
JDK-8234779	13	Provide idiom for declaring classes noncopyable	PSU
JDK-8234742	11	Improve handshake logging	PSU
JDK-8234687	13	change javap reporting on unknown attributes	PSU
JDK-8234662	13	Sweeper should keep current nmethod alive before yielding for ICStub refills	PSU
JDK-8234541	13	C1 emits an empty message when it inlines successfully	PSU
JDK-8234508	11	VM_HeapWalkOperation::iterate_over_object reads non-strong fields with an on-strong load barrier	PSU
JDK-8234058	13	runtime/CompressedOops/CompressedClassPointers.java fails with 'Narrow klass base: 0x0000000000000000' missing from stdout/stderr	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8233912	11	aarch64: minor improvements of atomic operations	PSU
JDK-8233910	11	java/awt/ColorClass/AlphaColorTest.java is failing intermittently in nightly Linux-x64 system	PSU
JDK-8233880	13	Support compilers with multi-digit major version numbers	PSU
JDK-8233839	8	aarch64: missing memory barrier in NewObjectArrayStub and NewTypeArrayStub	PSU
JDK-8233164	11	C2 fails with assert(phase≠C≠get_alias_index(t) == phase≠C≠get_alias_index(t_adr)) failed: correct memory chain	PSU
JDK-8233027	13	OopMapSet::all_do does oms.next() twice during iteration	PSU
JDK-8232905	13, 11	JFR fails with assertion: assert(t≠unflushed_size() == 0) failed: invariant	PSU
JDK-8232225	11	Rework the fix for JDK-8071483	PSU
JDK-8232083	13	Minimal VM is broken after JDK-8231586	PSU
JDK-8231586	13	enlarge encoding space for OopMapValue offsets	PSU
JDK-8230388	8	Problemlist additional compiler/rtm tests	PSU
JDK-8229815	13	Upgrade Jline to 3.12.1	PSU
JDK-8229474	11	Shenandoah: Cleanup CM::update_roots()	PSU
JDK-8229396	11	jdeps ignores multi-release when generate-module-info used on command line	PSU
JDK-8229284	8	[TESTBUG] jdk/internal/platform/cgroup/TestCgroupMetrics.java fails for - memory:getMemoryUsage	PSU
JDK-8229145	8	Revert TemplateTable::bytecode() visibility change	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8229124	8	Revert disassembler.cpp changes	PSU
JDK-8229123	8	Revert build fixes for aarch64/zero	PSU
JDK-8228770	8	Revert development hsdisk changes	PSU
JDK-8228767	8	Revert ResourceMark additions	PSU
JDK-8228747	8	Revert "unused" attribute from test_arraycopy_func	PSU
JDK-8228725	8	AArch64: Purge method call format support	PSU
JDK-8228718	8	Revert incorrect backport of JDK-8129757 to 8-aarch64	PSU
JDK-8228716	8	Revert InstanceKlass::print_on debug additions	PSU
JDK-8228593	8	Revert explicit JDK 7 support additions	PSU
JDK-8228434	8	jdk/net/sockets/Test.java fails after JDK-8227642	PSU
JDK-8228406	8	Superfluous change in chaitin.hpp	PSU
JDK-8228400	8	Remove built-in AArch64 simulator	PSU
JDK-8227642	8	[TESTBUG] Make docker tests podman compatible	PSU
JDK-8227275	13	Within native OOM error handling, assertions may hang the process	PSU
JDK-8226899	8	Problemlist compiler/rtm tests	PSU
JDK-8226810	16, 13, 11	Failed to launch JVM because of NullPointerException occurred on System.props	PSU
JDK-8225805	11, 8	Java Access Bridge does not close the logger	PSU
JDK-8225773	11	jddeps --check produces NPE if there is any missing module dependence	PSU
JDK-8224880	8	AArch64: java/javac error with AllocatePrefetchDistance	PSU
JDK-8224851	8	AArch64: fix warnings and errors with Clang and GCC 8.3	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8224828	8	aarch64: rflags is not correct after safepoint poll	PSU
JDK-8224671	8	AArch64: mauve System.arraycopy test failure	PSU
JDK-8223186	11, 8	HotSpot compile warnings from GCC 9	PSU
JDK-8222785	11	aarch64: add necessary masking for immediate shift counts	PSU
JDK-8222518	11	Remove unnecessary caching of Parker object in java.lang.Thread	PSU
JDK-8222079	13	Don't use memset to initialize fields decode_env constructor in disassembler.cpp	PSU
JDK-8221995	11	AARCH64: problems with CAS instructions encoding	PSU
JDK-8221823	13	Requested JDialog width is ignored	PSU
JDK-8221658	8	aarch64: add necessary predicate for ubfx patterns	PSU
JDK-8221584	11	SIGSEGV in os::PlatformEvent::unpark() in JvmtiRawMonitor::raw_exit while posting method exit event	PSU
JDK-8221408	8	Windows 32bit build build errors/warnings in hotspot	PSU
JDK-8221220	8	AArch64: Add StoreStore membar explicitly for Volatile Writes in TemplateTable	PSU
JDK-8219635	8	aarch64: missing LoadStore barrier in TemplateTable::fast_storefield	PSU
JDK-8219011	8	Implement MacroAssembler::warn method on AArch64	PSU
JDK-8218550	11	Add test omitted from JDK-8212043	PSU
JDK-8218482	11	sun/security/krb5/auto/ReplayCachePrecise.java failed - no KrbException thrown	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8218185	8	aarch64: missing LoadStore barrier in TemplateTable::putfield_or_static	PSU
JDK-8217848	11	[Graal] vmTestbase/nsk/jvmti/ResourceExhausted/resexhausted003/TestDescription.java fails	PSU
JDK-8217368	8	AArch64: C2 recursive stack locking optimisation not triggered	PSU
JDK-8217338	8	[Containers] Improve systemd slice memory limit support	PSU
JDK-8216989	8	CardTableBarrierSetAssembler::gen_write_ref_array_post_barrier() does not check for zero length on AARCH64	PSU
JDK-8216987	8	ciMethodData::load_data() unpacks MDOs with non-atomic copy	PSU
JDK-8216350	8	AArch64: monitor unlock fast path not called	PSU
JDK-8216324	13	GetClassMethods is confused by the presence of default methods in super interfaces	PSU
JDK-8215961	8	jdk/jfr/event/os/TestCPUInformation.java fails on AArch64	PSU
JDK-8215951	8	AArch64: jtreg test vmTestbase/nsk/jvmti/PopFrame/popframe005 segfaults	PSU
JDK-8215687	11	[Graal] unit test CheckGraalIntrinsics failed after 8212043	PSU
JDK-8214857	8	"bad trailing membar" assert failure at memnode.cpp:3220	PSU
JDK-8214741	11	docs/index.html has no title or copyright	PSU
JDK-8214230	11	Classes generated by SystemModulesPlugin.java are not reproducible	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8214223	11	tools/jdeps/listdeps/ListModuleDeps.java failed due to missing Lib2 file	PSU
JDK-8214180	11	Need better granularity for sleeping	PSU
JDK-8213909	11	jdeps --print-module-deps should report missing dependences	PSU
JDK-8213134	8	AArch64: vector shift failed with MaxVectorSize=8	PSU
JDK-8213116	11	javax/swing/JComboBox/WindowsComboBoxSize/WindowsComboBoxSizeTest.java fails in Windows	PSU
JDK-8212218	11	[TESTBUG] runtime/ErrorHandling/TestHeapDumpOnOutOfMemoryErrorInMetaspace.java timed out	PSU
JDK-8212160	13	JVMTI agent crashes with "assert(_value != 0LL) failed: resolving NULL _value"	PSU
JDK-8212043	11	AArch64: Add floating-point Math.min/max intrinsics	PSU
JDK-8211825	11	ModuleLayer.defineModulesWithXXX does not setup delegation when module reads automatic module	PSU
JDK-8211233	8	MemBarNode::trailing_membar() and MemBarNode::leading_membar() need to handle dying subgraphs better	PSU
JDK-8211150	11	G1 Full GC not purging code root memory and hence causing memory leak	PSU
JDK-8211064	8	[AArch64] Interpreter and c1 don't correctly handle jboolean results in native calls	PSU
JDK-8211057	11	Gensrc step CompileProperties generates unstable CompilerProperties output	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8211051	11	jdeps usage of --dot-output doesn't provide valid output for modular jar	PSU
JDK-8210578	11	AArch64: Invalid encoding for fmlsvs instruction	PSU
JDK-8210413	11	AArch64: Optimize div/rem by constant in C1	PSU
JDK-8209835	8	Aarch64: elide barriers on all volatile operations	PSU
JDK-8209447	11	vmTestbase/vm/mlvm/indy/func/jvmti/mergeCP_none2indy_b/TestDescription.java timed out	PSU
JDK-8209420	8	Track membars for volatile accesses so they can be properly optimized	PSU
JDK-8209415	8	Fix JVMTI test failure HS202	PSU
JDK-8209414	8	AArch64: method handle invocation does not respect JVMTI interp_only mode	PSU
JDK-8209413	8	AArch64: NPE in clhsdb jstack command	PSU
JDK-8209193	11	Fix aarch64-linux compilation after -Wreorder changes	PSU
JDK-8207838	8	AArch64: Float registers incorrectly restored in JNI call	PSU
JDK-8207345	8	AArch64: Trampoline generation code reads from uninitialized memory	PSU
JDK-8206925	11	Support the certificate_authorities extension	PSU
JDK-8206179	8	com/sun/management/OperatingSystemMXBean/GetCommittedVirtualMemorySize.java fails with Committed virtual memory size illegal value	PSU
JDK-8206163	8	AArch64: incorrect code generation for StoreCM	PSU
JDK-8205992	11	jhsdb cannot attach to Java processes running in Docker containers	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8205421	8	AARCH64: StubCodeMark should be placed after alignment	PSU
JDK-8204994	13	SA might fail to attach to process with "Windbg Error: WaitForEvent failed"	PSU
JDK-8203699	8	java/lang/invoke/SpecialInterfaceCall fails with SIGILL on aarch64	PSU
JDK-8203481	8	Incorrect constraint for unextended_sp in frame:safe_for_sender	PSU
JDK-8202343	15, 11, 8, 7	Disable TLS 1.0 and 1.1	PSU
JDK-8198540	16, 13	Dynalink leaks memory when generating type converters	PSU
JDK-8198334	8	java/awt/FileDialog/8003399/bug8003399.java fails in headless mode	PSU
JDK-8196969	13	JTreg Failure: serviceability/sa/ClhsdbJstack.java causes NPE	PSU
JDK-8196221	8	AArch64: Mistake in committed patch for JDK-8195859	PSU
JDK-8196136	8	AArch64: Correct register use in patch for JDK-8195685	PSU
JDK-8195859	8	AArch64: vtableStubs gtest fails after 8174962	PSU
JDK-8195685	8	AArch64 cannot build with JDK-8174962	PSU
JDK-8193133	8	Assertion failure because 0xDEADDEAD can be in-heap	PSU
JDK-8191915	8	JCK tests produce incorrect results with C2	PSU
JDK-8191129	8	AARCH64: Invalid value passed to critical JNI function	PSU
JDK-8189170	8	Add option to disable stack overflow checking in primordial thread for use with JNI_CreateJavaJVM	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8187224	8	aarch64: some inconsistency between aarch64_ad.m4 and aarch64.ad	PSU
JDK-8186325	8	AArch64: jtreg test hotspot/test/gc/g1/TestJNIWeakG1/TestJNIWeakG1.java SEGV	PSU
JDK-8186090	8	java.nio.Bits.unaligned() doesn't handle aarch64	PSU
JDK-8185934	8	keytool and jarsigner shows "Signature algorithm: SHA1withECDSA, -1-bit key"	PSU
JDK-8182581	8	aarch64: fix for crash caused by earlyret of compiled method	PSU
JDK-8180837	11	SunPKCS11-NSS tests failing with CKR_ATTRIBUTE_READ_ONLY and CKR_MECHANISM_PARAM_INVALID	PSU
JDK-8179954	8	AArch64: C1 and C2 volatile accesses are not sequentially consistent	PSU
JDK-8177661	8	AArch64: Incorrect C2 patterns cause system register corruption	PSU
JDK-8173658	13	JvmtiExport::post_class_unload() is broken for non-JavaThread initiators	PSU
JDK-8173472	8	AArch64: C1 comparisons with null only use 32-bit instructions	PSU
JDK-8173361	13	various crashes in JvmtiExport::post_compiled_method_load	PSU
JDK-8172881	8	AArch64: assertion failure: the int pressure is incorrect	PSU
JDK-8172404	8	Tools should warn if weak algorithms are used before restricting them	PSU
JDK-8171537	8	aarch64: compiler/c1/Test6849574.java generates guarantee failure in C1	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8171410	8	aarch64: long multiplyExact shifts by 31 instead of 63	PSU
JDK-8170873	8	PPC64/aarch64: Poor StrictMath performance due to non-optimized compilation	PSU
JDK-8170188	8	aarch64: jtreg test compiler/types/TestMeetIncompatibleInterfaceArrays.java causes JVM crash	PSU
JDK-8170100	8	AArch64: Crash in C1-compiled code accessing References	PSU
JDK-8168996	8	C2 crash at postalloc.cpp:140 : assert(false) failed: unexpected yanked node	PSU
JDK-8168888	8	AArch64 port of JDK-8160591	PSU
JDK-8168869	11	jdeps: localized messages don't use proper line breaks	PSU
JDK-8168699	8	Validate special case invocations [AArch64 support]	PSU
JDK-8167595	8	AArch64: SEGV in stub code cipherBlockChaining_decryptAESCrypt	PSU
JDK-8167421	8	AArch64: in one core system, fatal error: Illegal threadstate encountered	PSU
JDK-8167281	8	IIOMetadataNode bugs in getElementByTagName and NodeList.item methods	PSU
JDK-8167200	8	AArch64: Broken stack pointer adjustment in interpreter	PSU
JDK-8166607	8	G1 needs klass_or_null_acquire	PSU
JDK-8165673	8	AArch64: Fix JNI floating point argument handling	PSU
JDK-8164113	8	AArch64: follow-up the fix for 8161598	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8163363	8	AArch64: Stack size in tools/launcher/Settings.java needs to be adjusted	PSU
JDK-8161190	8	AArch64: Fix overflow in immediate cmp instruction	PSU
JDK-8161072	8	AArch64: jtreg compiler/uncommontrap/TestDeoptOOM failure	PSU
JDK-8160748	8	Inconsistent types for ideal_reg	PSU
JDK-8159063	8	aarch64: optimise unaligned array copy long	PSU
JDK-8159052	8	AArch64: Optimise unaligned copies in pd_disjoint_words and pd_conjoint_words	PSU
JDK-8158913	8	aarch64: SEGV running Spark terasort	PSU
JDK-8158525	8	Update a few java/net tests to use the loopback address instead of the host address	PSU
JDK-8157906	8	aarch64: some more integer rotate instructions are never emitted	PSU
JDK-8157841	8	aarch64: prefetch ignores cache line size	PSU
JDK-8156731	8	aarch64: java/util/Arrays/Correct.java fails due to _generic_arraycopy stub routine	PSU
JDK-8155653	8	TestVectorUnalignedOffset.java not pushed with 8155612	PSU
JDK-8155627	8	Enable SA on AArch64	PSU
JDK-8155617	8	aarch64: ClearArray does not use DC ZVA	PSU
JDK-8155612	8	Aarch64: vector nodes need to support misaligned offset	PSU
JDK-8155100	8	AArch64: Relax alignment requirement for byte_map_base	PSU
JDK-8155015	8	Aarch64: bad assert in spill generation code	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8154739	8	AArch64: TemplateTable::fast_xaccess loads in wrong mode	PSU
JDK-8154537	8	AArch64: some integer rotate instructions are never emitted	PSU
JDK-8154413	8	AArch64: Better byte behaviour	PSU
JDK-8153797	8	aarch64: Add Arrays.fill stub code	PSU
JDK-8153713	8	aarch64: improve short array clearing using store pair	PSU
JDK-8153172	8	aarch64: hotspot crashes after the 8.1 LSE patch is merged	PSU
JDK-8152840	8	aarch64: improve _unsafe_arraycopy stub routine	PSU
JDK-8152537	8	aarch64: Make use of CBZ and CBNZ when comparing unsigned values with zero	PSU
JDK-8151775	8	aarch64: add support for 8.1 LSE atomic operations	PSU
JDK-8151502	8	aarch64: optimize pd_disjoint_words and pd_conjoint_words	PSU
JDK-8151340	8	aarch64: prefetch the destination word for write prior to ldxr/stxr loops	PSU
JDK-8150652	8	Remove unused code in AArch64 back end	PSU
JDK-8150394	8	aarch64: add support for 8.1 LSE CAS instructions	PSU
JDK-8150313	8	aarch64: optimise array copy using SIMD instructions	PSU
JDK-8150229	8	aarch64: pipeline class for several instructions is not set correctly	PSU
JDK-8150204	8	(fs) Enhance java/nio/file/Files/probeContentType/Basic.java debugging output	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8150082	8	aarch64: optimise small array copy	PSU
JDK-8150045	8	AArch64: arraycopy causes segfaults in SATB during garbage collection	PSU
JDK-8150038	8	aarch64: Make use of CBZ and CBNZ when comparing narrow pointer with zero	PSU
JDK-8149907	8	aarch64: use load/store pair instructions in call_stub	PSU
JDK-8149365	8	aarch64: memory copy does not prefetch on backwards copy	PSU
JDK-8149080	8	AArch64: Recognize disjoint array copy in stub code	PSU
JDK-8148948	8	aarch64: generate_copy_longs calls align() incorrectly	PSU
JDK-8148783	8	aarch64: SEGV running SpecJBB2013	PSU
JDK-8148328	8	aarch64: redundant lsr instructions in stub code	PSU
JDK-8145320	8	Create unsafe_arraycopy and generic_arraycopy for AArch64	PSU
JDK-8145051	8	Wrong parameter name in synthetic lambda method leads to verifier error	PSU
JDK-8141457	8	keytool default cert fingerprint algorithm should be SHA-256	PSU
JDK-8135018	8	AARCH64: Missing memory barriers for CMS collector	PSU
JDK-8132875	8	AArch64: Fix error introduced into AArch64 CodeCache by commit for 8130309	PSU
JDK-8131779	8	AARCH64: add Montgomery multiply intrinsic	PSU
JDK-8130309	8	Need to bailout cleanly if creation of stubs fails when codecache is out of space	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8129626	8	G1: set_in_progress() and clear_started() needs a barrier on non-TSO platforms	PSU
JDK-8086003	11	Test fails on OSX with java.lang.RuntimeException 'Narrow class base: 0x0000000000000000, Narrow class shift: 3' missing	PSU
JDK-8081547	8	Prepare client libs regression tests for running in a concurrent, headless jtreg environment	PSU
JDK-8080911	8	sun/security/krb5/auto/UseCacheAndStoreKey.java timed out intermittently	PSU
JDK-8078614	8	WindowsClassicLookAndFeel : MetalComboBoxUI.getbaseLine fails with IllegalArgumentException	PSU
JDK-8078450	8	Implement consistent process for quarantine of tests	PSU
JDK-8078024	8	javac, several incorporation steps are silently failing when an error should be reported	PSU
JDK-8061777	8	(zipfs) IllegalArgumentException in ZipCoder.toString when using Shift_JIS	PSU
JDK-8043264	8	hdsis library not picked up correctly on expected paths	PSU
JDK-8041561	8	Inconsistent opacity behaviour between JCheckBox and JRadioButton	PSU
JDK-8041464	8	[TEST_BUG] CustomClassLoaderTransferTest does not support OS X	PSU
JDK-8038723	8	Open up some PrinterJob tests	PSU
JDK-8035186	8	j2se_jdk/jdk/test/java/lang/invoke/lambda/LogGeneratedClassesTest.java - assertion error	PSU
JDK-8031126	8	java/lang/management/ThreadMXBean/ThreadUserTime.java fails intermittently	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-7185258	13	[macosx] Deadlock in SunToolkit.realSync()	PSU
JDK-7185221	8	[macosx] Regtest should not throw exception if a suitable display mode found	PSU
JDK-7146776	16, 13, 11	Deadlock between URLStreamHandler.getHostAddress and file.Handler.openConnection	PSU
JDK-7131835	8	[TEST_BUG] Test does not consider that the rounded edges of the window in Mac OS 10.7	PSU
JDK-7112454	8	TEST_BUG: java/awt/Choice/PopdownGeneratesMouseEvents/PopdownGeneratesMouseEvents.html failed	PSU
JDK-7107012	11, 8	sun.jvm.hostspot.code.CompressedReadStream readDouble() conversion to long mishandled	PSU
JDK-7009641	8	Don't use CodeCache for allocations if it is already full	PSU
JDK-6896810	8	TEST_BUG: java/lang/ref/SoftReference/Pin.java fails with OOME during System.out.println	PSU
JDK-6532025	13	GIF reader throws misleading exception with truncated images	PSU
JDK-6345095	8	regression test EmptyClipRenderingTest fails	PSU

OpenJFX Bug Fixes

The following table describes the OpenJFX changes implemented in this release.

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8264536	16	Building OpenJFX on Apple AARCH64 not possible	PSU
JDK-8264501	16	UIWebView for iOS is deprecated	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8264330	16	Scene MouseHandler is referencing removed nodes	PSU
JDK-8264162	16	PickResult.toString() is missing the closing square bracket	PSU
JDK-8264061	16	LocalDateTimeStringConverterTest fails in Canada	PSU
JDK-8263778	16	Fix monocle JNI signatures for instance methods	PSU
JDK-8263759	16	Update boot JDK to 15.0.2	PSU
JDK-8263204	16	Add Gradle Wrapper Validation Action	PSU
JDK-8262802	16	Wrong context origin coordinates when using EGL and HiDPI	PSU
JDK-8262236	16	Configure Gradle checksum verification	PSU
JDK-8261927	16, 8	WebKit build fails with Visual Studio 2017	PSU
JDK-8261460	16	Incorrect CSS applied to ContextMenu on DialogPane	PSU
JDK-8260475	16	Deprecate for removal protected access members in DateTimeStringConverter	PSU
JDK-8260468	16	Wrong behavior of LocalDateTimeStringConverter	PSU
JDK-8260257	16, 8	[Linux] WebView no longer reacts to some mouse events	PSU
JDK-8260246	16	Ensemble: Update version of Lucene to 7.7.3	PSU
JDK-8260165	16, 8	CSSFilterTest.testCSSFilterRendering system test fails	PSU
JDK-8260163	16, 8	IrresponsiveScriptTest.testInfiniteLoopInScript unit test fails on Windows	PSU
JDK-8259864	16	Cleanup unused Prism files	PSU
JDK-8259718	16	Remove the Marlin rasterizer (single-precision)	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8259680	16, 8	Need API to query states of CAPS LOCK and NUM LOCK keys	PSU
JDK-8259635	16, 8	Update to 610.2 version of WebKit	PSU
JDK-8259555	16	Webkit crashes on Apple Silicon	PSU
JDK-8259277	16	Change JavaFX release version to 17	PSU
JDK-8259046	16	ViewPainter.ROOT_PATHS holds reference to Scene causing memory leak	PSU
JDK-8258986	16	getColor throws IOOBE when PixelReader reads the same pixel twice	PSU
JDK-8258381	16	[macos] Exception when input emoji using Chinese input method	PSU
JDK-8257895	16	Allow building of JavaFX media libs for Apple Silicon	PSU
JDK-8257512	16	Remove use of deprecated primitive constructors in JavaFX	PSU
JDK-8256283	16	IndexOutOfBoundsException when sorting a TreeTableView	PSU
JDK-8255713	16	JavaFX build should discover Visual Studio compiler on system	PSU
JDK-8254836	16, 8	Cherry pick GTK WebKit 2.30.3 changes	PSU
JDK-8254049	8	Update WebView to public suffix list 2020-04-24	PSU
JDK-8253356	8	JavaFX Terminology Refresh	PSU
JDK-8252935	16	Add treeShowing listener only when needed	PSU
JDK-8252446	8	Screen.getScreens() is empty sometimes	PSU
JDK-8252192	8	Update to Visual Studio 2019 version 16.7.2	PSU
JDK-8252099	16	JavaFX does not render Myanmar script correctly	PSU

OpenJDK Patch ID	Azul Zulu Version	Synopsis	CPU/PSU
JDK-8249737	16, 8	java.lang.RuntimeException: Too many touch points reported	PSU
JDK-8248126	16	JavaFX ignores HiDPI scaling settings on some linux platforms	PSU
JDK-8242861	8	Update ImagePattern to apply SVG pattern transforms	PSU
JDK-8242361	8	JavaFX Web View crashes with Segmentation Fault, when HTML contains Data-URLs	PSU
JDK-8239589	16, 8	JavaFX UI will not repaint after reconnecting via Remote Desktop	PSU
JDK-8233678	8	[macos 10.15] System menu bar does not work initially on macOS Catalina	PSU
JDK-8228363	16	ContextMenu.show with side=TOP does not work the first time in the presence of CSS	PSU
JDK-8211362	16	Restrict export of libjpeg symbols from libjavafx_iio.so	PSU
JDK-8206253	16	No/Wrong scroll events from touch input in window mode	PSU
JDK-8204568	16, 8	Relative CSS-Attributes don't work all time	PSU
JDK-8202990	8	javafx webview css filter property with display scaling	PSU
JDK-8165749	16	java.lang.RuntimeException: dndGesture.dragboard is null in dragDrop	PSU
JDK-8160554	8	Wrong unit measure in CornerRadiiConverter	PSU
JDK-8092439	16	[Monocle] Refactor monocle SPI to allow support for multiple screens	PSU
JDK-8089913	16	CSS pseudo classes missing by default for some controls	PSU

Azul Zulu Bug Fixes

The following table describes the Azul Zulu bug fixes implemented in this release.

Issue ID	Azul Zulu Version	Synopsis	CPU/PSU
ZULU-22367	8	Swing classes are extremely slow when displaying Hebrew text	CPU
ZULU-20055	8	Failure in tools/pack200/TimeStamp.java - jre/bin/unpack200 should exist and be executable	CPU
ZULU-25214	8	Flag -XX:+UseBCFIPS does not work on windows	PSU
ZULU-24750	8	[gcc10] binary compiled by gcc10 crashed with SIGBUS (unaligned access in get_native_u8)	PSU
ZULU-24584	8	[Arm32 universal build] Numerous JFR tests fail with SIGBUS on v8-non-v7 host	PSU
ZULU-24576	8	Zulu Arm32 universal fails to run when build in thumb mode	PSU
ZULU-24427	8	[regression] compiler/criticalnatives/argumentcorruption/Test8167409.sh failed	PSU
ZULU-24421	16, 15, 13, 11, 8, 7, 6	compat registry keys should contain MicroVersion	PSU
ZULU-24418	8	Upgrade XCode for building Zulu 8 on MacOSX	PSU
ZULU-24412	16	Change to VS2019 for building Zulu16	PSU
ZULU-24411	8	Arm32 C1 v5 build fails after merging of arm32 unified build fix	PSU
ZULU-24406	16	win-aarch64 builds fails with current_thread_enable_wx_impl not found	PSU
ZULU-24288	8	Add PRODUCT_VERSION_DATE property	PSU
ZULU-24231	8	GCC intrinsic __cxa_guard_acquire need to be reimplemented safe way	PSU

Issue ID	Azul Zulu Version	Synopsis	CPU/PSU
ZULU-24195	16, 15, 13, 11, 8, 7, 6	rpm: adding java entry to provides section	PSU
ZULU-24106	16, 15, 13, 11, 8, 7, 6	update configuration of hgupdate for embedded repos	PSU
ZULU-24102	15, 13, 11	update branding attributes	PSU
ZULU-24100	8	inherit disabled SA for macos-aarch64	PSU
ZULU-23982	11	Module org.openjsse has not been granted logging permission	PSU
ZULU-23980	16, 15, 13, 11, 8, 7, 6	Msi installer reports incorrect file name in UAC dialog	PSU
ZULU-23830	8	tools/launcher/Settings.java fails against Zulu8.54 for ARMv8_32bit	PSU
ZULU-23827	8	compiler/8171410/MultiplyExactTest.java fails: Performance issue of Math.multiplyExact with intrinsics (Zulu8.54 for ARM64)	PSU
ZULU-22370	8	sun/security/util/HostnameMatcher/NullHostnameCheck.java compilation failed: "package jdk.test.lib.security does not exist"	PSU
ZULU-22363	8	Add -XX:+UseBCFIPS option to enable BCFIPS provider	PSU
ZULU-22227	8	[regression] jtreg fail to start on Debian 8 with 8.54 intermediate	PSU
ZULU-22178	8	SIGSEGV for a couple of SharedArchiveFile tests	PSU
ZULU-22172	8	Test compiler/criticalnatives/argumentcorruption/Test8167409.sh causes JVM crash	PSU
ZULU-22168	16, 15, 13, 11, 8, 7, 6	Use latest binutils for hsdisk building	PSU

Issue ID	Azul Zulu Version	Synopsis	CPU/PSU
ZULU-22067	8	Update OpenJSSE and Legacy8uJSSE version	PSU
ZULU-22064	8	[mips32] [c1] remove redundant icache invalidations	PSU
ZULU-22062	8	[aarch32] UseSIMDForMemoryOps has poor protection from incorrect user settings	PSU
ZULU-22057	8	[mips32] [c1] lir_mul optimized	PSU
ZULU-22050	8	[mips32] [c1] Random crash when running stress test	PSU
ZULU-22049	8	[TESTBUG] several tests fail after JDK-8202343	PSU
ZULU-22048	8	[mips32] hs_err file contains invalid register names	PSU
ZULU-22031	11	aarch32 c2 build failure afrer zulu-11.47+11 merge	PSU
ZULU-22030	8	Failure in sun/security/util/HostnameMatcher/NullHostnameCheck.java - SSLHandshakeException: No appropriate protocol (protocol is disabled or cipher suites are inappropriate)	PSU
ZULU-21755	8	AARCH32/PPC: Missing memory barriers for CMS	PSU
ZULU-21344	16, 15, 13, 11, 8, 7, 6	DMG installers title lacks part of the version	PSU
ZULU-20665	8	On MacOS DetachCurrentThread kills non-Java code in MAP_JIT areas	PSU
ZULU-20316	8	[MACARM] Attempt to merge macarm port to the master branch causes linux-arm64 build failure	PSU
ZULU-19929	11	New test com/sun/jndi/ldap/LdapCBPropertiesTest.java fails against Zulu 13	PSU
ZULU-19194	8	NOCDS build is broken on zulu8-aarch64	PSU
ZULU-19191	8	Few tests use too low xss value for aarch64	PSU

Issue ID	Azul Zulu Version	Synopsis	CPU/PSU
ZULU-19056	8	Zulu8 macarm is broken after ZULU-17241	PSU
ZULU-18973	8	Support macarm builds on apple silicon host	PSU
ZULU-18919	8	Failure in runtime/ReservedStack/ReservedStackTest.java - Disable test on macarm	PSU
ZULU-18917	8	Failure in gc/metaspaces/TestPerfCountersAndMemoryPools.java - Expected 3827296 to equal 3827328. test should be run with -Xint	PSU
ZULU-18914	8	Four tests fail in gc/arguments - 'Error' missing from stdout/stderr	PSU
ZULU-18865	8	Disable CDS on macarm	PSU
ZULU-18820	8	Unified aarch32 build	PSU
ZULU-18762	8	Failure in four hotspot compiler tests in vmTestbase group - The stack size specified is too small, Specify at least 384k	PSU
ZULU-18525	8	Failure in tools/launcher/Settings.java - Xss256k is too small for mac_aarch64	PSU
ZULU-18417	8	Implement JVMTI call declaration for mac_aarch64	PSU
ZULU-18388	8	Failure in test vmTestbase/vm/runtime/defmeth/scenarios/Stress_redefine/TestDescription.java - SIGBUS (0xa) at pc=0x00000001096f4048, pid=58599, tid=38403	PSU
ZULU-18387	8	zulu_macarm crashes in C1 when working with above 32-bit memory regions	PSU
ZULU-18382	8	Investigate CodeCache issues on macarm	PSU

Issue ID	Azul Zulu Version	Synopsis	CPU/PSU
ZULU-18362	8	Failure in runtime/NMT/CheckForProperDetailStackTrace.java - 'AllocateHeap' found in stdout	PSU
ZULU-18361	8	[TESTBUG] Failure in runtime/CompressedOops/CompressedClassPointers.java - 'Narrow klass base: 0x0000000000000000' missing from stdout/stderr	PSU
ZULU-18340	8	Failure in sun/security/krb5/runNameEquals.sh gssapi.h needs to be updated for aarch64	PSU
ZULU-18335	8	Disable SA properly on zulu8	PSU
ZULU-18315	8	Restore atomics in orderAccess_bsd_aarch64.inline.hpp	PSU
ZULU-18313	8	Some leftovers after ZULU-17139	PSU
ZULU-18305	8	make bsd_aarch64 find aarch64 source code	PSU
ZULU-18304	8	Support cross compiling for bsd in buildsystem of zulu8	PSU
ZULU-18297	8	Fix adlc linkage on bsd_zulu8 crossbuild	PSU
ZULU-18251	8	Update dt_shmem block list for many jdi tests	PSU
ZULU-18140	8	jck13 api/java_lang/ProcessBuilder/startPipeline/StartPipeline.html test failed on macArm	PSU
ZULU-18130	8	Refactor ZULU-17389 for inclusion into openjdk	PSU
ZULU-17910	8	Import JDK-8234930: Use MAP_JIT when allocating pages for code cache on macOS	PSU
ZULU-17389	8	Support macos aarch64 packed abi	PSU
ZULU-17387	8	Port X18 exclusion patch from win_aarch64 jep	PSU
ZULU-17255	8	Disable CPU features detection for a while	PSU

Issue ID	Azul Zulu Version	Synopsis	CPU/PSU
ZULU-17253	8	Disable SA for a while	PSU
ZULU-17243	8	Implement aarch64_get_thread_helper	PSU
ZULU-17241	8	CPU feature detection	PSU
ZULU-17145	8	Do not use objc_msgSend_stret	PSU
ZULU-17141	8	Support W^X	PSU
ZULU-17139	8	bsd_aarch64 code	PSU
ZULU-13734	8	"javax/swing/text/html/parser/Parser/8078268/bu g8078268.java" fails: Parsing takes too long	PSU

Legal Notice

© 2005–2021, Azul Systems, Incorporated, 375 Moffett Park Drive, Suite 115, Sunnyvale, CA 94089. All rights reserved.

Products and specifications discussed in this document may reflect future versions and are subject to change without notice. Azul Systems assumes no responsibility or liability for any errors or inaccuracies that may appear in the informational content contained in this guide.

No part of this document may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, recording, or otherwise, without the prior written permission of Azul Systems. Please note that the content in this document is protected under copyright law even if it is not distributed with software that includes an end user license agreement.

Azul Systems, Azul Zulu, and the Azul logo are trademarks or registered trademarks of Azul Systems, Inc. Linux is a registered trademark of Linus Torvalds. Java is a registered trademark of Oracle Corporation. Microsoft and Windows are registered trademarks of Microsoft Corporation. Other marks are the property of their respective owners and are used here only for identification purposes.