



azul

2024

ORACLE JAVA USAGE, PRICING & MIGRATION

— SURVEY AND REPORT —

THE JAVA COMMUNITY'S RESPONSE TO ONGOING
PRICING CHANGES AND PREFERENCE FOR OPEN SOURCE



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INTRODUCTION

In January 2023, Oracle changed its Java pricing and/or licensing model for the fourth time in four years. Under the latest rules, businesses pay based on the number of employees - including part-time workers and contractors - rather than for the amount of Java they use, where they use it, or the number of named users in their organization. Questions about the impact of this decision exploded inside board meetings, financial planning discussions, IT/engineering stand-ups, analyst calls, and news reports.

In the [Azul State of Java Survey and Report 2023](#), more than 80% of businesses were concerned about the new Oracle Java SE pricing and licensing changes. This first annual Oracle Java Usage, Pricing & Migration Survey and Report provides insights into how organizations have reacted to Oracle Java pricing and ongoing pricing changes, and their plans to migrate to alternatives based on OpenJDK.

A global survey, the Oracle Java Usage, Pricing & Migration Survey and Report includes responses from 663 qualified participants from companies of all sizes, across six continents. All participants are versed in Java, with 75% saying a substantial part of their jobs involve Java, 10% saying it's a minor part of their job, and another 16% managing teams that have responsibility for Java application development or operations. Participants also ranged in seniority from individual contributors (16%) to director and above (45%). Any participant who did not meet the criteria for company size or use of Java was disqualified from completing the survey.

KEY FINDINGS

38%

ARE MIGRATING DUE TO UNCERTAINTY CREATED BY ONGOING PRICE AND POLICY CHANGES

53%

ORACLE JAVA USERS ARE MIGRATING BECAUSE OF ORACLE LICENSE COST

66%

ORACLE JAVA USERS PLAN TO BEGIN MIGRATING WITHIN 2 YEARS

MIGRATION TO ORACLE JAVA ALTERNATIVES

86%

RESPONDENTS ARE MIGRATING OFF ORACLE JAVA

14%

ORACLE JAVA USERS PLAN TO STAY WITH ORACLE JAVA

MIGRATION PROCESS

75%

COMPLETED MIGRATIONS OFF ORACLE JAVA WITHIN 1 YEAR

23%

COMPLETED THEIR MIGRATIONS IN LESS THAN 3 MONTHS

83%

REQUIRE COMMERCIALY SUPPORTED JAVA

PRICING & SUPPORT

84%

COMPANIES THAT HAVE MIGRATED SAID THEIR MIGRATIONS WENT AS EXPECTED OR WERE EASIER THAN EXPECTED

66%

SAY ORACLE JAVA LICENSING AND SUPPORT ARE MORE EXPENSIVE THAN ALTERNATIVES

36%

ORACLE JAVA CUSTOMERS HAVE MOVED TO EMPLOYEE-BASED PRICING

KEY AREAS OF FOCUS

⇒ ORACLE JAVA CUSTOMERS ARE MOVING BECAUSE OF COST AND UNCERTAINTY:

60% of survey participants have moved completely off Oracle Java or plan to, and only 14% intend to stay on Oracle Java. When asked why they decided to migrate off Oracle Java, participants' top three answers were cost, preference for open source, and uncertainty over Oracle's ongoing pricing changes.

⇒ MIGRATION TO OPENJDK IS EASIER THAN EXPECTED:

Participants who are choosing to stay with Oracle Java said migrating is too risky, they lack the resources to migrate successfully, or they are concerned they won't be able to migrate completely off Oracle Java and will still have to pay Oracle. Despite this trepidation, 84% of participants said their migration went as expected or easier, and 75% of companies who have already migrated off Oracle Java completed their migrations within one year, including 23% which finished in three months or less.

⇒ JAVA USERS VALUE SUPPORT & EXPERTISE:

61% of survey participants value technical expertise in an OpenJDK distribution, followed by timely releases and fixes (54%), customer support (42%), stabilized security-only updates (40%), and migration expertise (39%).



ORACLE JAVA MIGRATION TO OPENJDK

Oracle’s share of Java users has been declining for years. Oracle held about 75% of the market for Java Development Kit (JDK) distributions in 2020 ([New Relic 2020](#)), but only 42% in the Azul State of Java Survey and Report 2023. This survey shows that trend continues, as 86% of respondents who are using Oracle Java SE are currently moving or plan to move all or some of their Java applications off Oracle. Only 14% of Oracle Java subscribers plan to stay on Oracle.

In addition, 60% of Oracle Java subscribers have already moved completely off Oracle (25%), are currently doing so (20%), or plan to (15%) [Figure 1].

WHICH STATEMENT BEST DESCRIBES YOUR COMPANY'S USE OF ORACLE JAVA TO RUN JAVA APPLICATIONS IN PRODUCTION?

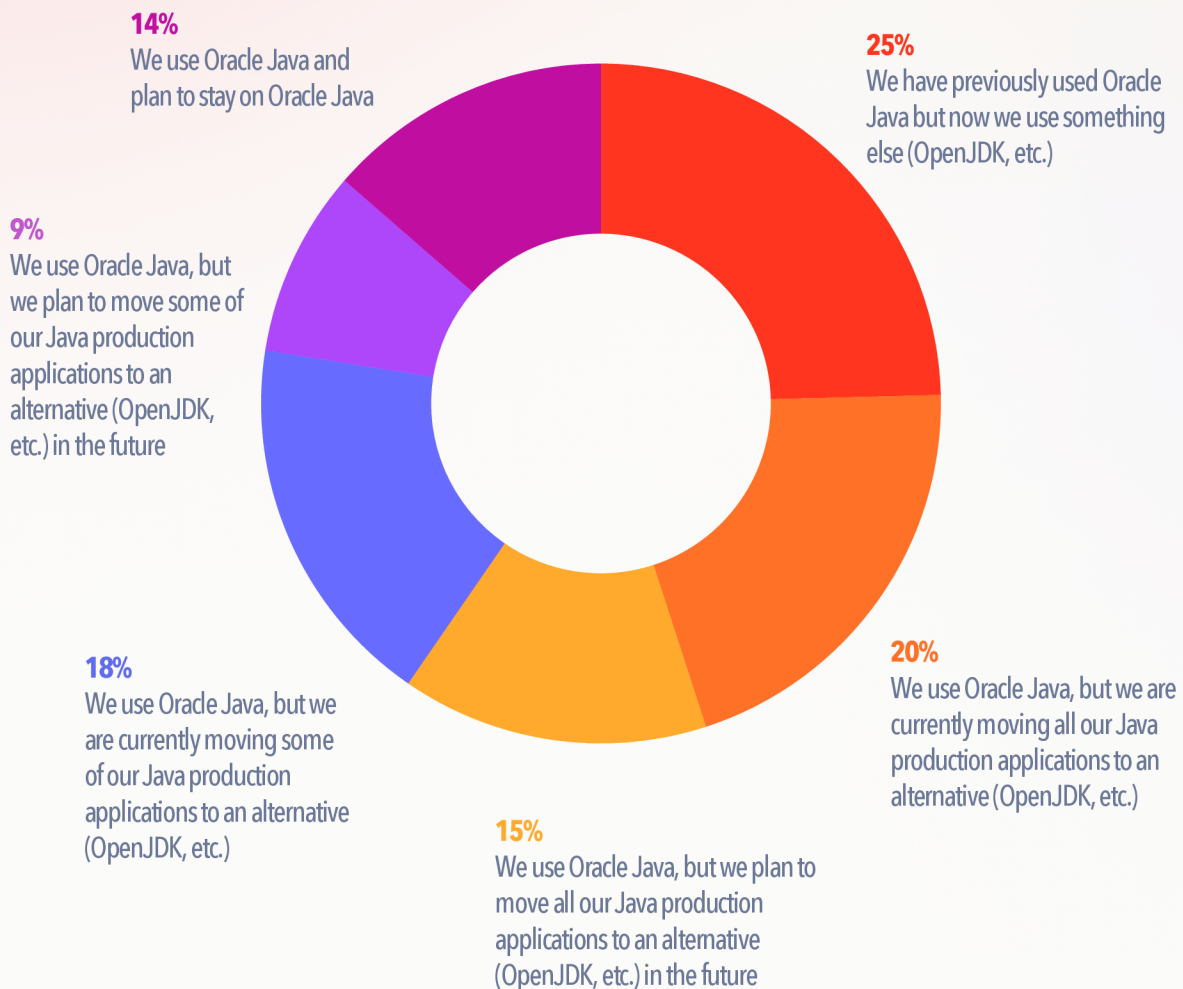


Figure 1.

PRICE PRODUCES FRUSTRATION FOR ORACLE JAVA USERS

Survey participants cited the number one reason they are leaving Oracle is cost (53%). Other top reasons that companies decided to migrate their Java off Oracle are a preference for open source (47%) and uncertainty over Oracle’s ongoing pricing changes (38%). The threat of a Java audit also scored high among respondents (25%) [Figure 2].

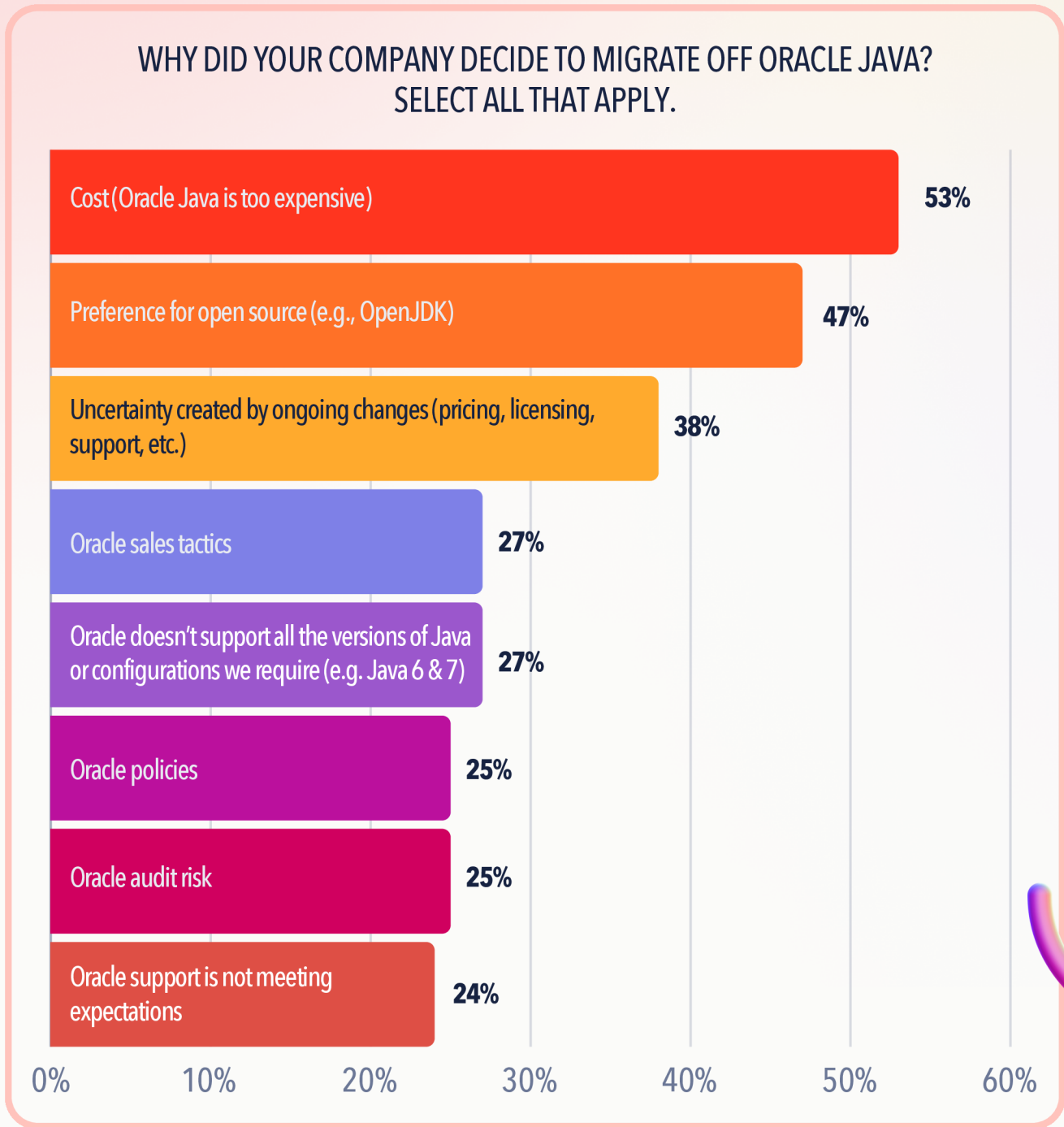


Figure 2. *Data is from research conducted by Dimensional Research

ORACLE JAVA MIGRATION IS HAPPENING NOW

Roughly two-thirds of survey participants who plan to migrate off Oracle Java (but haven't started yet) plan to start their migration within two years [Figure 3].

HOW SOON IS YOUR COMPANY PLANNING TO BEGIN ITS MIGRATION FROM ORACLE JAVA TO AN OPENJDK DISTRIBUTION TO RUN JAVA APPLICATIONS IN PRODUCTION?

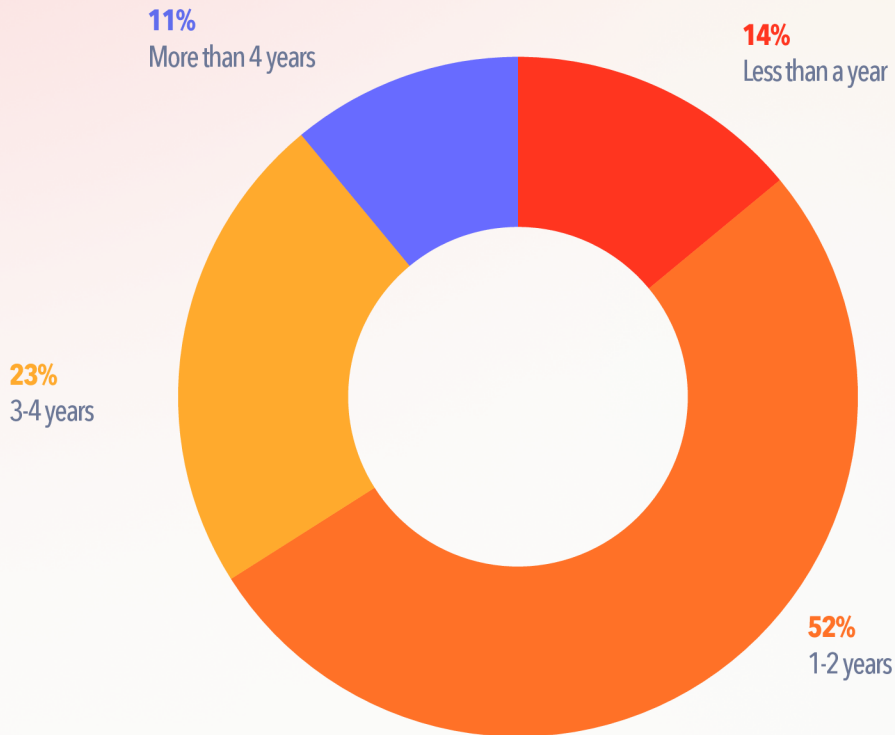


Figure 3.

JAVA USERS ARE LOOKING FOR SOMETHING BETTER

Oracle Java SE customers are weighing business priorities before selecting an alternative. When asked what features and qualities they are looking for in an OpenJDK distribution, the top five selections included reducing licensing costs, technical expertise, customer support, timely releases and fixes, and stabilized security-only updates.

The 14% of participants who plan to stay with Oracle indicated several reasons for their decision, with about a third saying they are satisfied with Oracle’s pricing and policies.

12% of participants cited they tried to migrate but were unsuccessful. The survey did not ask for specifics about why their migration failed [Figure 4].



Figure 4.

MIGRATION PROCESS, TIMING, AND LIFE AFTER ORACLE JAVA



57% of participants expect to complete their migrations from Oracle Java to an OpenJDK distribution within two years [Figure 5]. Of those, 62% have already started their migrations, while the other 38% are planning future migrations.

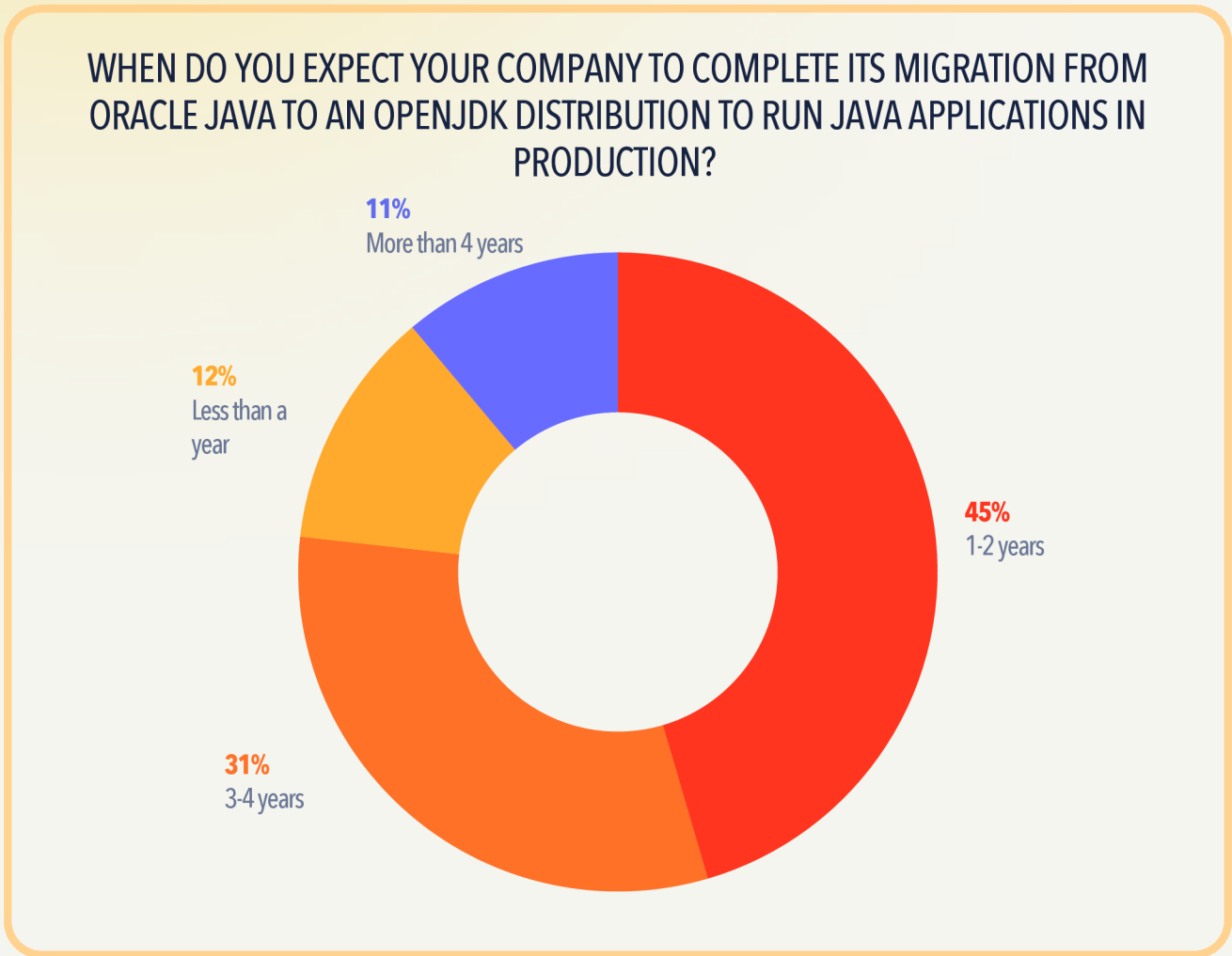


Figure 5.

MIGRATION TO OPENJDK IS EASIER THAN EXPECTED

Despite trepidation among Oracle Java users to move to an OpenJDK distribution, most organizations that have undertaken a migration have been pleased with the process and result. 90% of respondents who completed their migrations to OpenJDK did so within two years, 75% within 12 months, and 23% in less than three months [Figure 6].

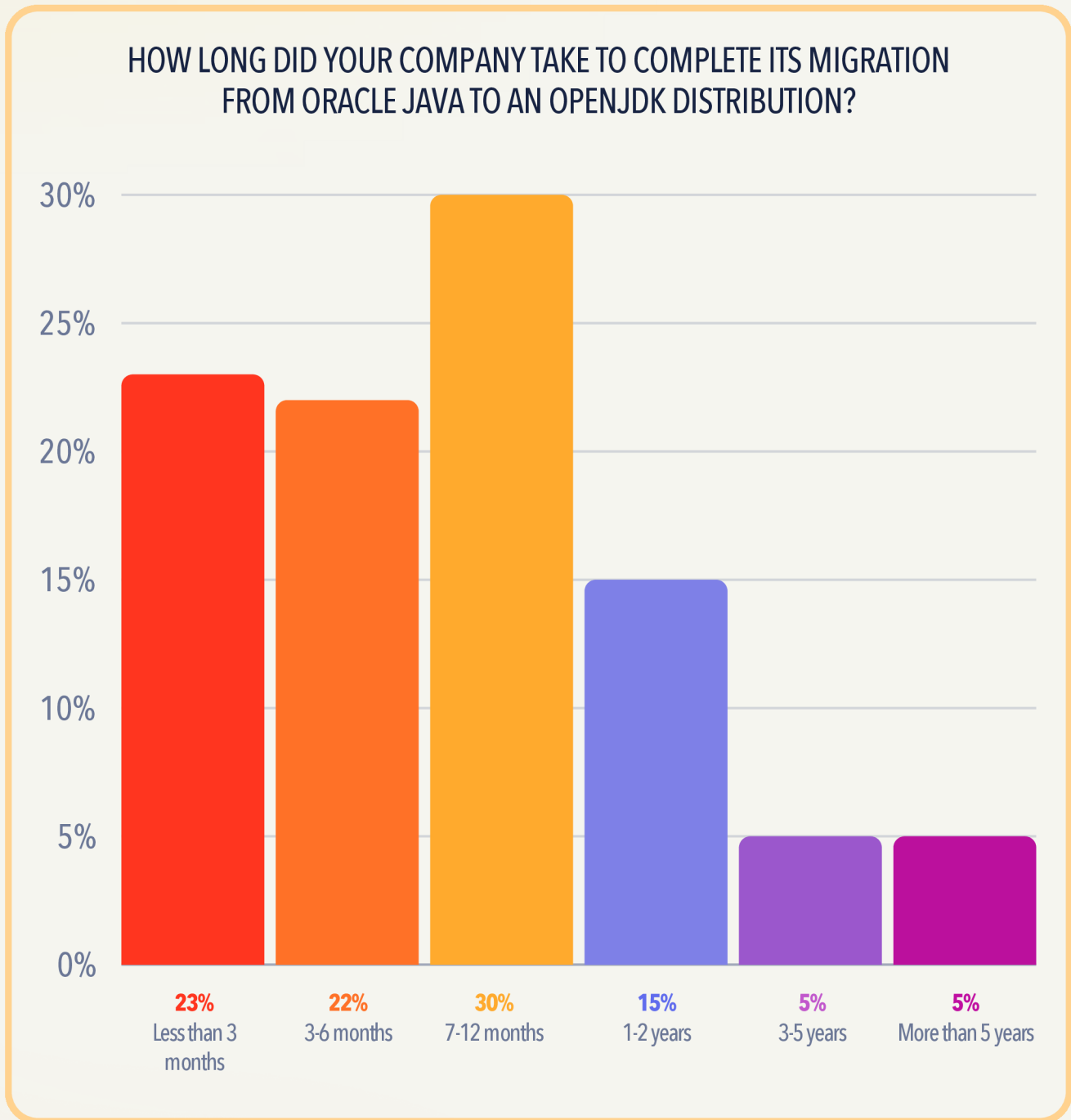


Figure 6.

Migrations to an OpenJDK distribution also fell within expectations for 84% of respondents. 41% indicated that the migration was easier than they expected, and the remaining 43% said it went as planned [Figure 7].

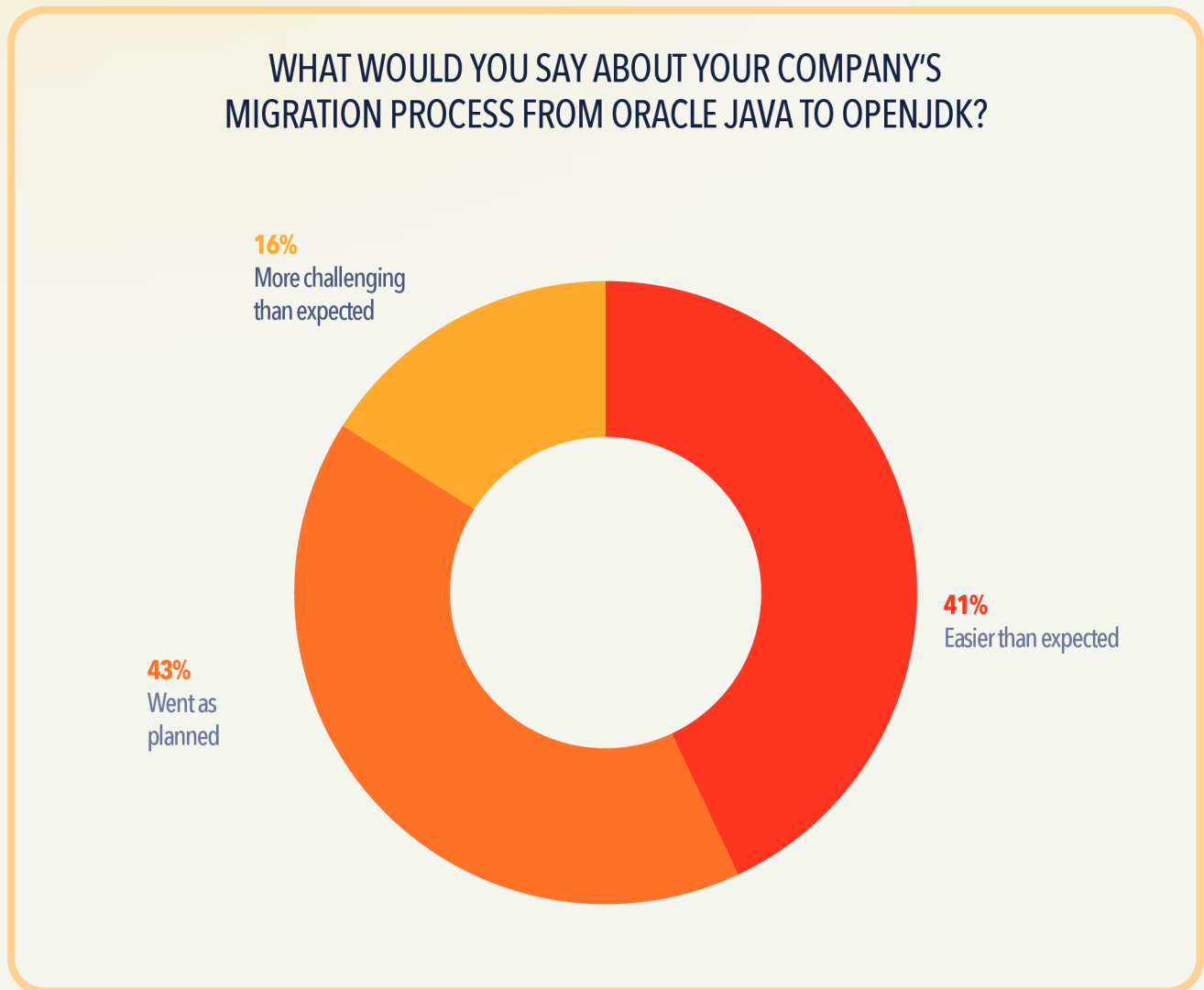


Figure 7.

ORACLE JAVA PRICING AND JAVA SUPPORT



Over half of the survey respondents cited price as a factor in seeking an alternative to Oracle Java (Chapter 1, Figure 2). Two-thirds of organizations that made the switch from Oracle Java to an OpenJDK distribution were able to save costs [Figure 8].

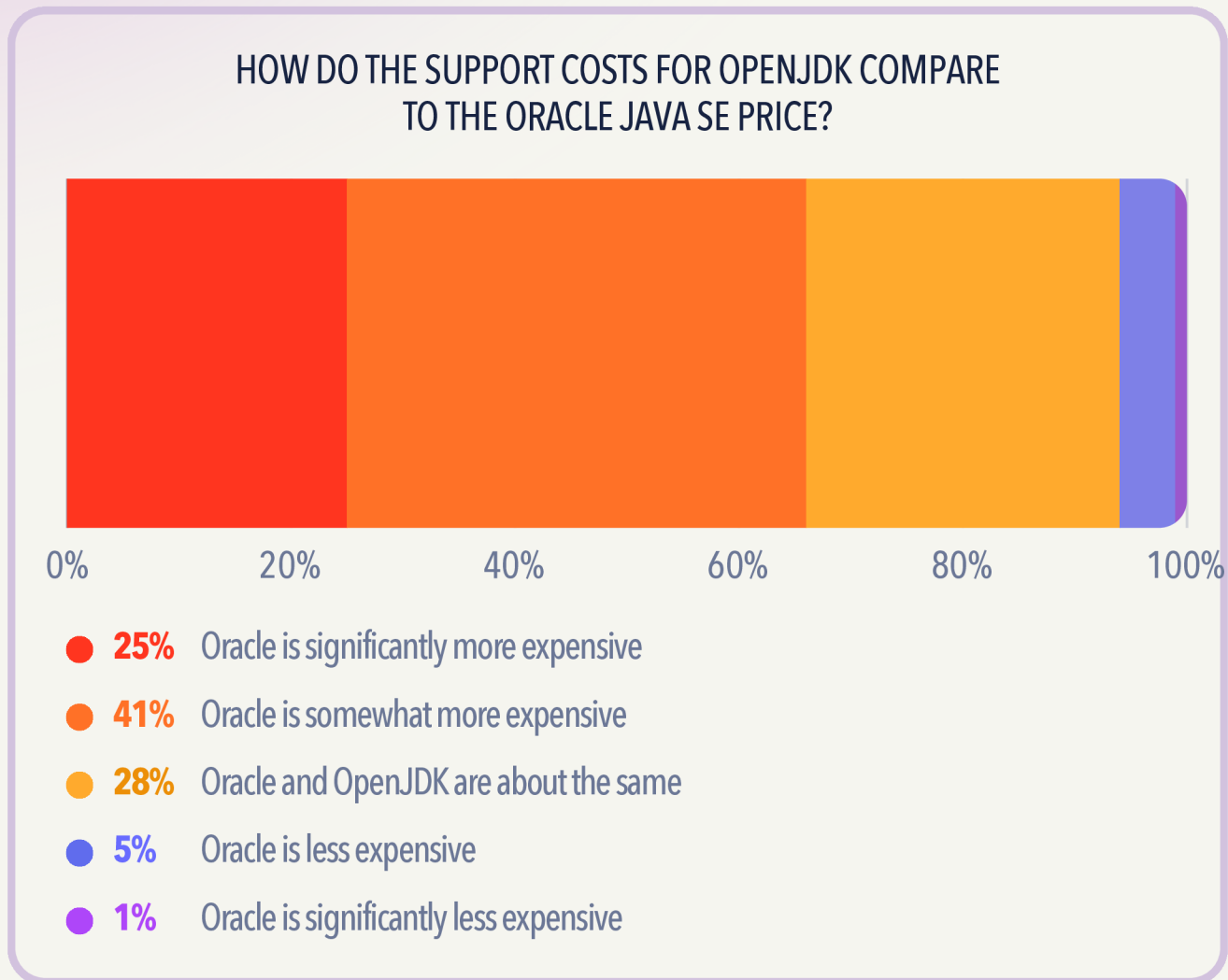


Figure 8.

ONLY A MINORITY OF ORACLE CUSTOMERS HAVE MOVED TO EMPLOYEE-BASED PRICING

So far, only 36% of Oracle Java customer respondents have moved to the new employee-based pricing model introduced in January 2023 [Figure 9].

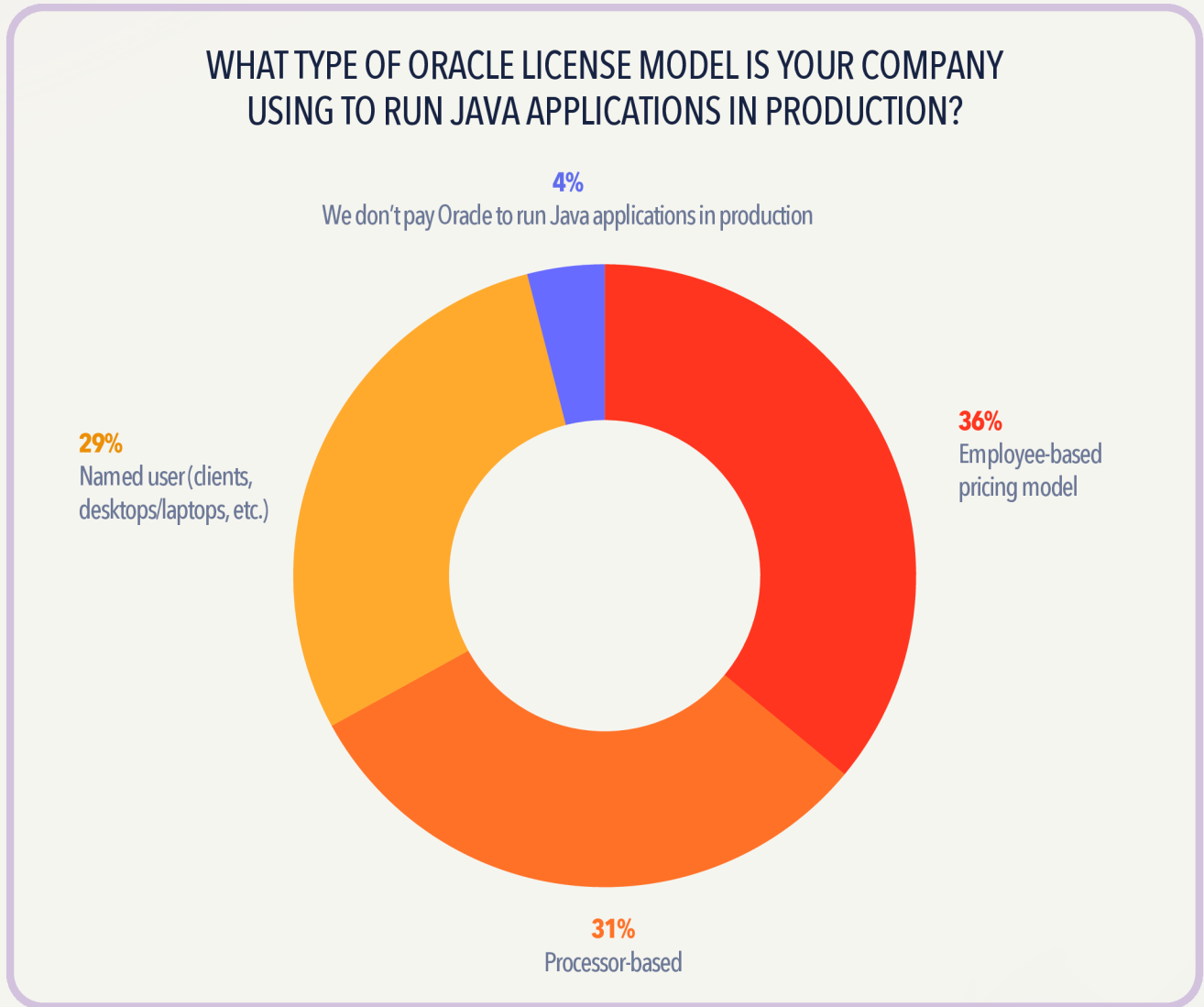


Figure 9.

COMPANIES NEED SUPPORTED JAVA IN PRODUCTION

Do companies even need Java support for production applications? Responses to this survey question clearly indicate yes [Figure 10]. Participants could select more than one answer, and 83% selected either paid supported, free supported (support bundled with their existing cloud and infrastructure platform), or both.

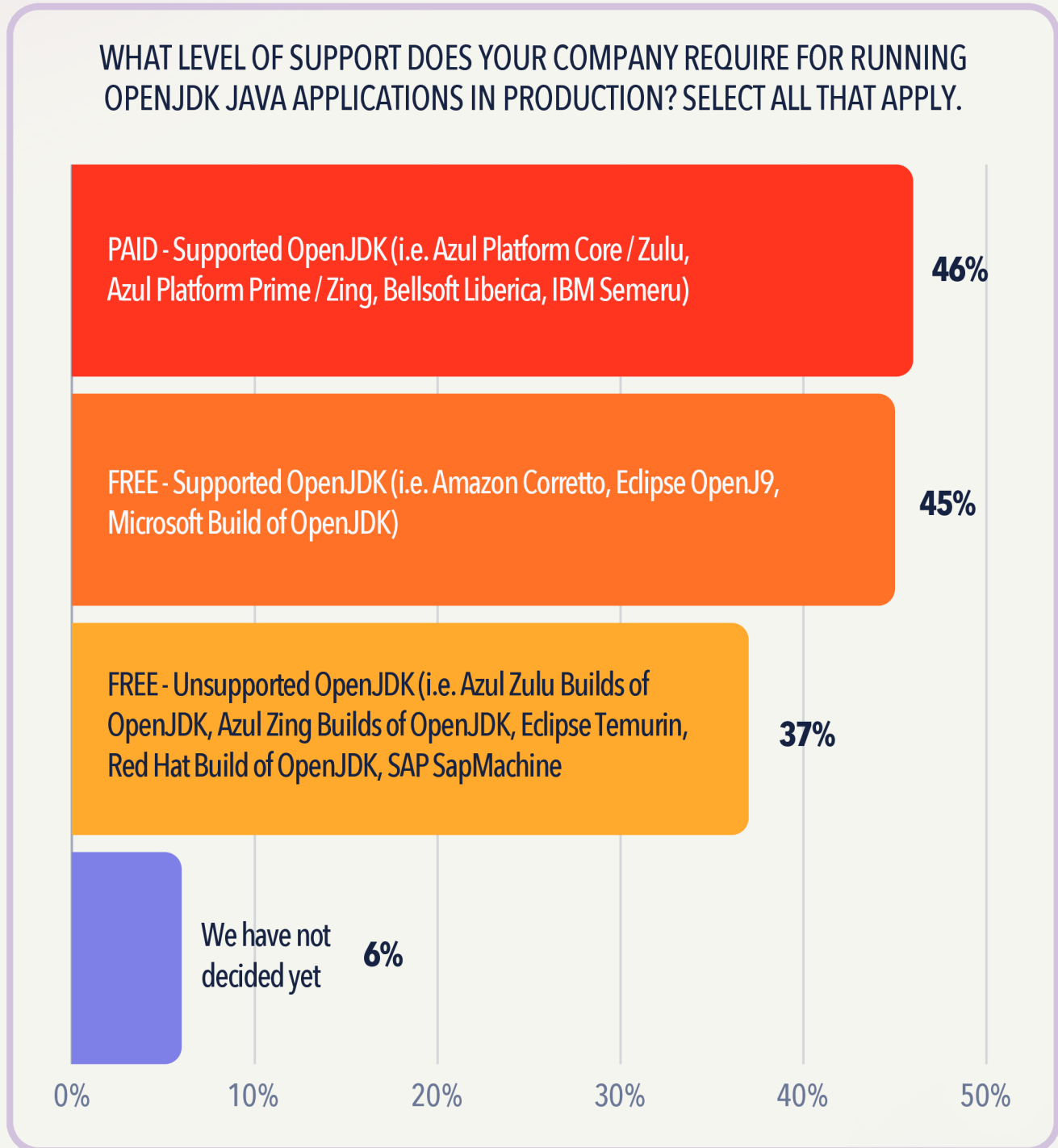


Figure 10.

When asked what participants value most in paid support for an OpenJDK distribution, participants said the top five reasons are [Figure 11]:

- Technical expertise (61%)
- Timely releases and fixes (54%)
- Customer support (42%)
- Stabilized security-only update (40%)
- Migration expertise (39%)

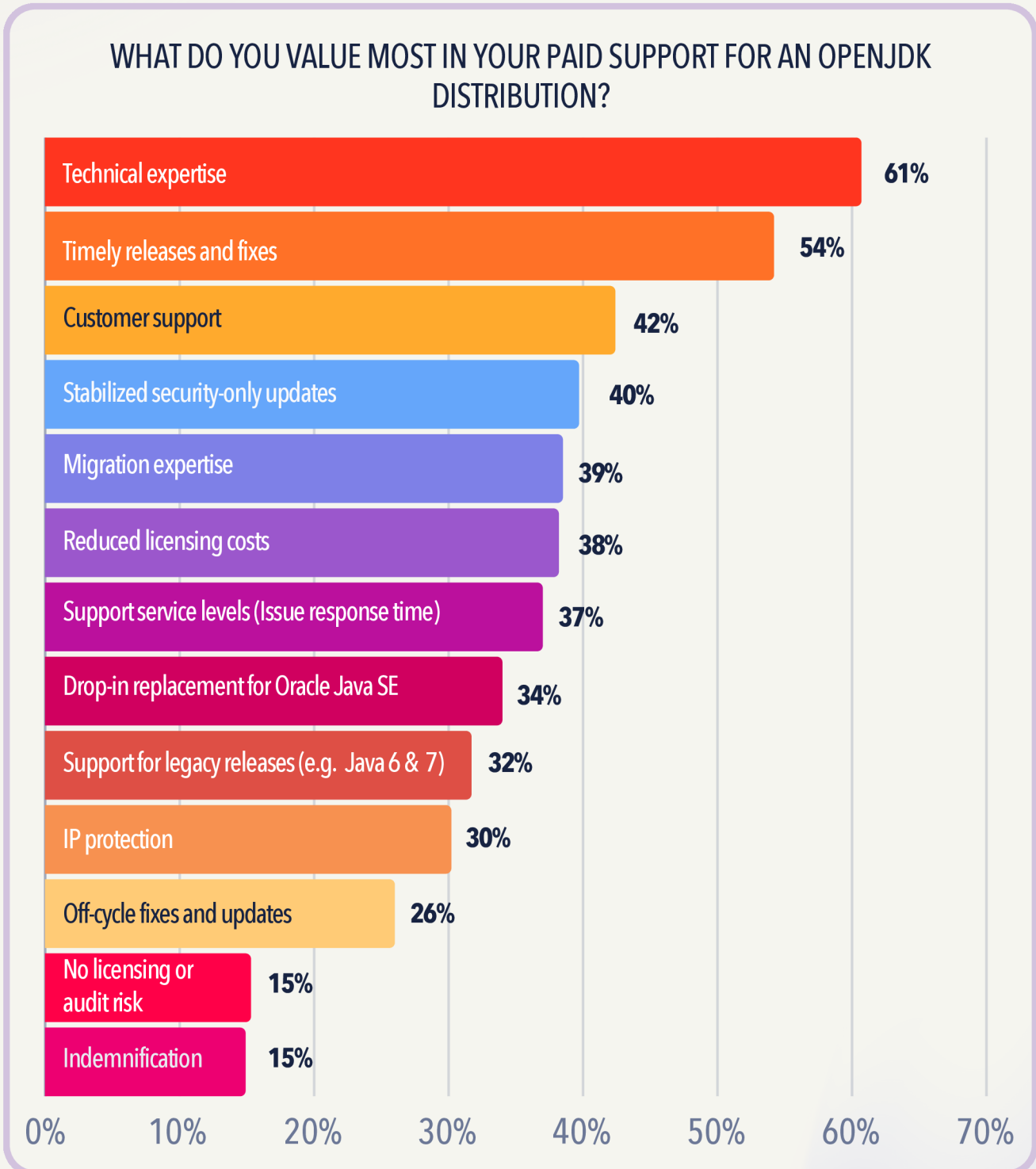
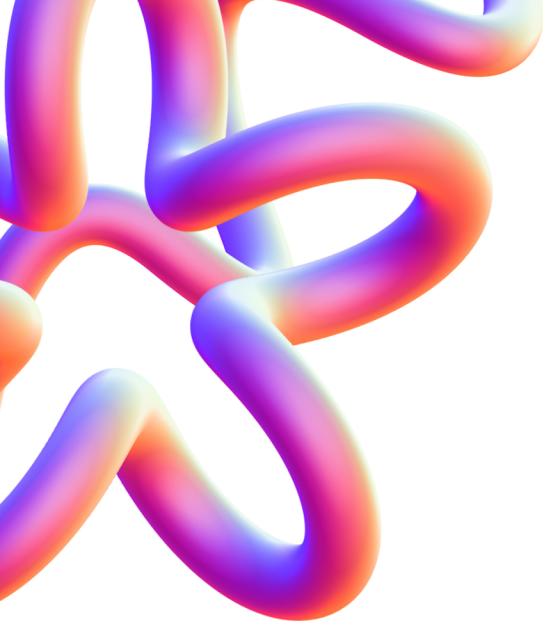


Figure 11.



CONCLUSION

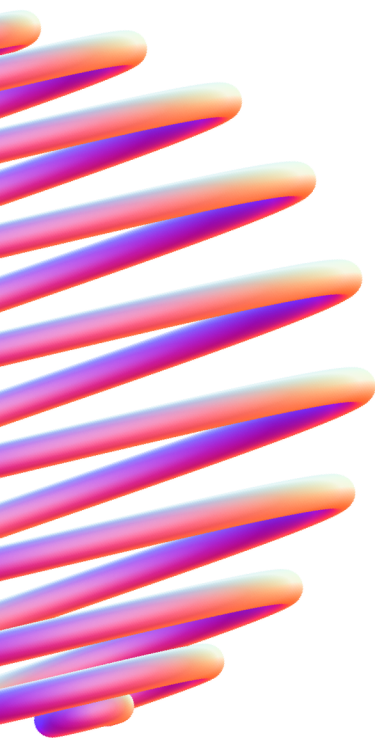
A STRONG TREND TOWARD USE OF OPENJDK DISTRIBUTIONS

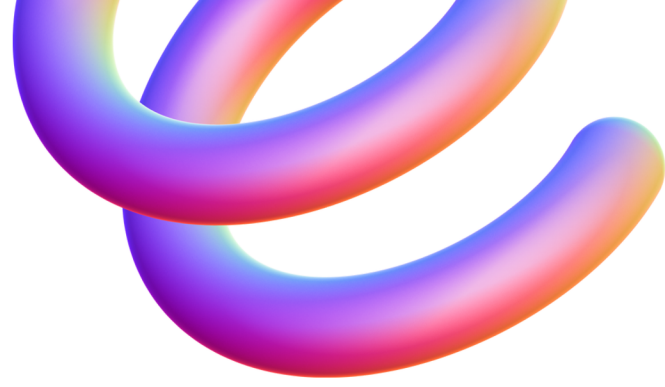
The Oracle Java Usage, Pricing & Migration Survey and Report was launched to assess the trends and reasons behind Oracle Java users migrating to OpenJDK distributions. As recently as 2020, Oracle held about 75% of the market for Java Development Kit (JDK) distributions ([New Relic 2020](#)); but in the Azul State of Java Survey and Report 2023, only 42% of respondents used one or more instances of Oracle Java ([Azul, 2023](#)).

Also, in the State of Java 2023, a staggering 82% of businesses expressed concerns with Oracle's pricing change announced in January 2023, and 72% were actively exploring alternatives to Oracle Java.

In this new survey, only a small minority of Oracle customers (14%) indicate their willingness to stick with Oracle Java given the importance of cost by over half of the survey respondents. Some Oracle customers indicated trepidation to migrate, but the survey found most of those that have already made the switch to an OpenJDK distribution did so in less than a year and found that it was easier than expected or within their expectations.

Stay tuned for more Java adoption and usage trends in the second annual Azul State of Java Survey and Report.





ABOUT THIS SURVEY

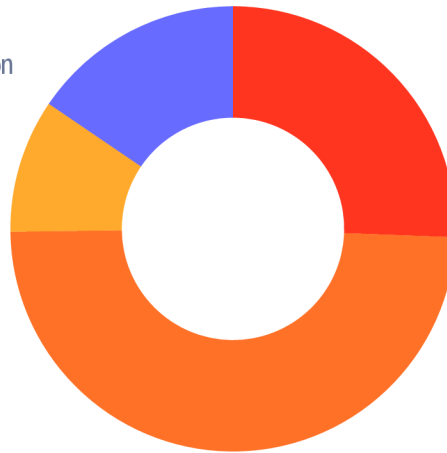
ABOUT THIS SURVEY

The report data was compiled from Java professionals and those who use or deploy Java-based applications and infrastructure at all seniority levels. Participants from companies of all sizes were invited to participate in a survey on their company’s decisions around using Oracle Java and OpenJDK distributions. A total of 663 qualified participants from six continents completed the survey. Participants that did not meet the minimum size of 100 employees or did not use Java as part of their job were disqualified. [Dimensional Research](#), a leading market research firm, administered the electronic survey. Some participants were offered token compensation for their participation.

JAVA RESPONSIBILITIES

16%
I manage a team that has responsibilities for Java application development or operations

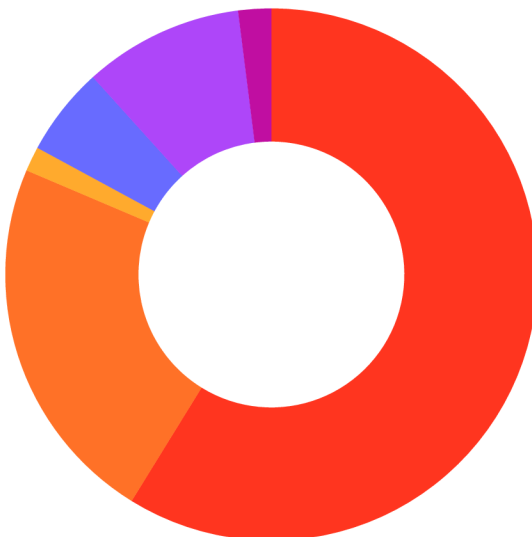
10%
Working with Java is a minor part of my job



26%
Working with Java is my entire job

49%
Working with Java is a substantial part of my job

LOCATION



59%
United States or Canada

23%
Europe

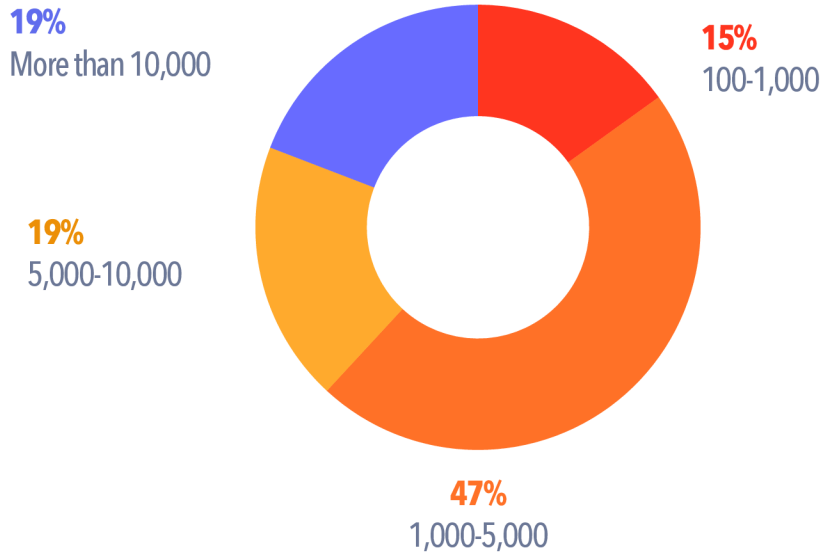
2%
Middle East or Africa

5%
Australia or New Zealand

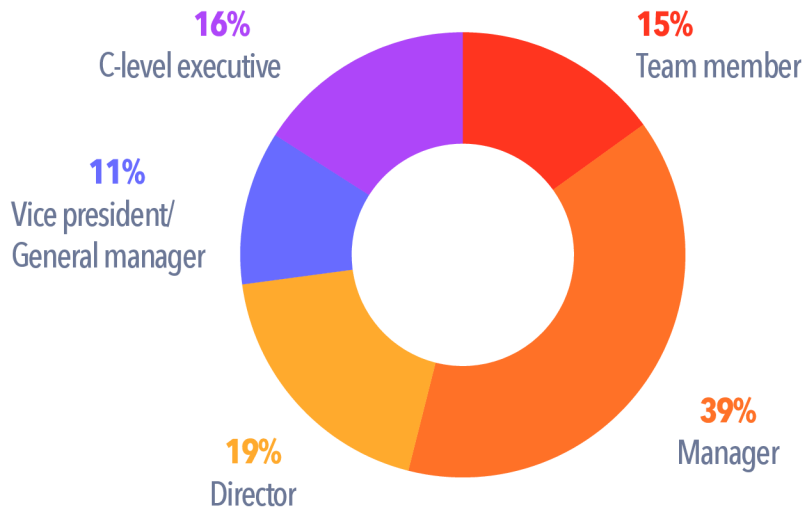
10%
Asia

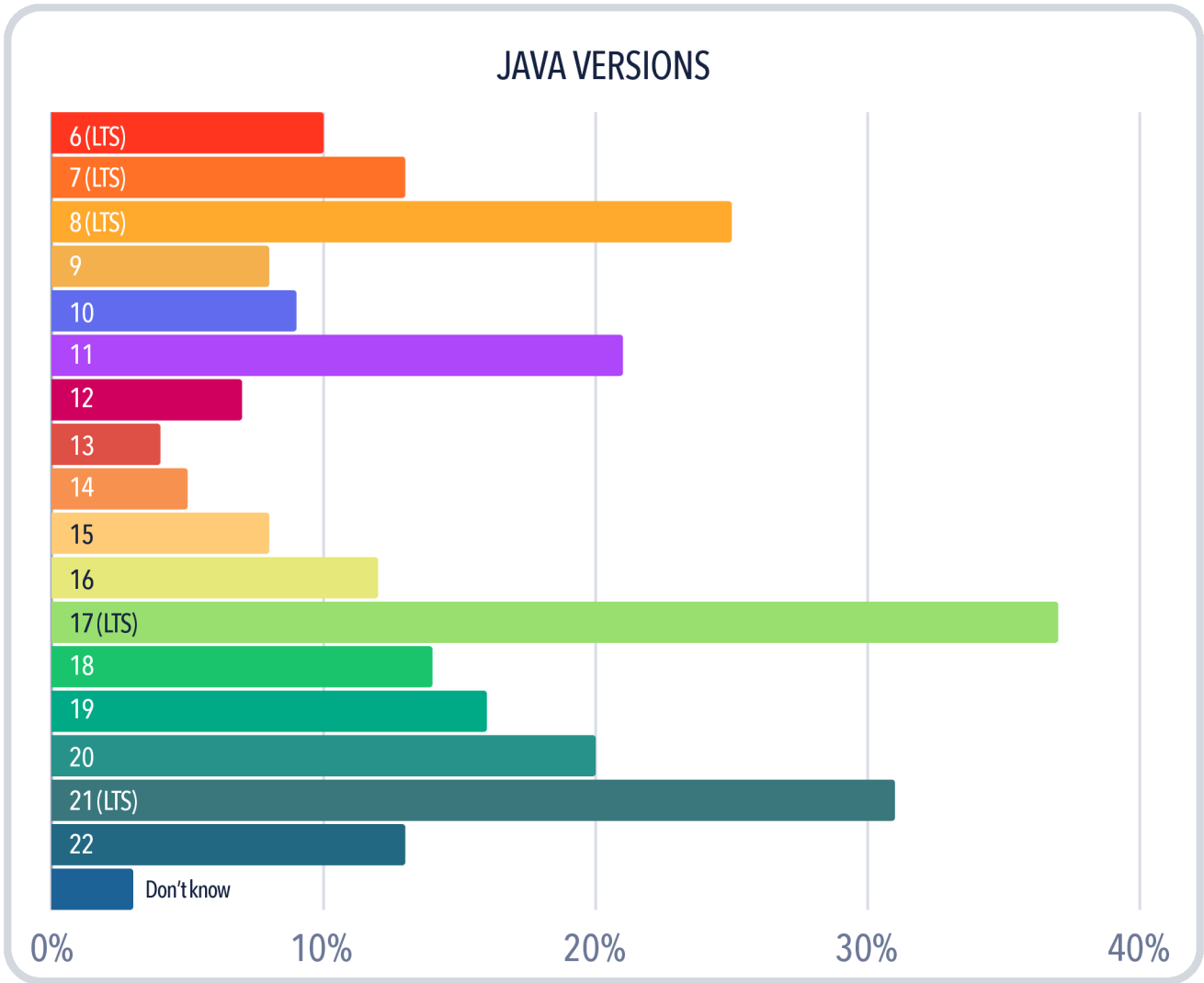
2%
Mexico, Central America, or South America

COMPANY SIZE



SENIORITY





ABOUT AZUL

Headquartered in Sunnyvale, California, [Azul](#) provides the Java platform for the modern cloud enterprise. Azul is the only company 100% focused on Java. Millions of Java developers, hundreds of millions of devices, and the world's most highly regarded businesses trust Azul to power their applications with exceptional capabilities, performance, security, value, and success. Azul customers include 36% of the Fortune 100, 50% of the Forbes Top 10 World's Most Valuable Brands, all 10 of the world's top 10 financial trading companies, and leading brands like Avaya, Bazaarvoice, BMW, Credit Suisse, Deutsche Telekom, LG, Mastercard, Mizuho, Priceline, Salesforce, Software AG, and Workday. Learn more at azul.com and follow us [@azulsystems](#).

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