The Payara Platform
2023 Survey Report

Which Payara Platform do
you use?

12%
Payara Micro
69%
Payara Server

Survey Objective
This survey was promoted in September 2023, sent via email to those who subscribe to our blog and Marketing channels. Our objective was to learn more about those of you that use Payara Platform and/or Java and Jakarta EE. We wanted to learn what software versions you prefer, the tools you build with and what your plans are for the future! Through this information, we can make our products better suited to meet your needs. Our Platform updates and our learning resources will be adjusted to align with your preferences and feedback. We are also enthusiastic about Jakarta EE and Java, and want to play our part in mapping the ecosystem. Find out how you code in comparison to the community - is your chosen stack the exception or the norm? Are people upgrading to new versions faster or slower than you? Get stuck in and we hope you find some food for thought!

The objective of this survey was to connect directly with our Payara Platform user community to:
• Find out what you consider the strengths and weaknesses of our Jakarta EE application server;
• Take your suggestions for areas to improve;
• Gather your feedback on our methods of communication.

Another key objective was finding out what technologies are most commonly used with Payara Platform, so we can work on our integrations and plug-ins.

This survey was promoted in October 2022 via social media, emails, blogs and our Payara Forum. We hope you find the results as interesting as we do!

Survey Highlights
Payara Platform recently hit 150,000 monthly users, a new global milestone. So, it is time to take stock of what tools and technologies you, the users, prefer, what versions you use and how we can boost your experience.

Jakarta EE 10 was the first Jakarta EE (previously Java EE) release under the jakarta namespace to introduce new features. Payara 6 Community and Enterprise followed shortly after, supporting Jakarta EE 10 and allowing Payara Platform users to start enjoying its major specification updates. Our annual survey showed that the Payara community is ready to embrace the future, with almost 50% of you making the leap to Payara 6 and Jakarta EE 10, and still more planning to migrate in the near future. We also found that the majority of our users are on recent LTS Java versions, 11 and 17. It will be interesting to see how the release of Java 21 changes this in our next survey.

We are also proud to note that many developers are starting their Jakarta EE journey with us. Although being a GlassFish user remains the most likely route to a Payara migration, this year we noted that more and more users are not migrating to Payara from an application server they already use. Instead, they are discovering Jakarta EE and Payara Platform together. For many of you, you realised you needed to unlock the benefits of a managed infrastructure and extend Java with specifications for Enterprise, with Jakarta EE - and Payara Server was your application server of choice with which to make the leap!

We also did our usual deep dive into the ecosystem surrounding Payara and which tools you are using. The percentage of respondents NOT using a public cloud platform has massively increased, from 9% to 33% of respondents. Unlike some other application server options, Payara Platform does not assume that you must be using a cloud infrastructure, instead offering aggressive compatibility with a range of stack preferences and tools. This is reflected also in the wide variety of technologies being used with Payara.

And finally, we’ll give ourselves a pat on the back. Many respondents asked us to keep up the good work and were happy that development was on the right track. We will keep attracting new users, allowing you to adopt the very latest versions and offering wide-ranging support as we move into 2024!
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From one of our survey respondents...

“Payara Server is a very stable and robust application server, most of our Jakarta EE apps are running on top of Payara Server. I like that Payara Server always has improvements which are very helpful for the developer. For example, Payara Micro, data grid, JCache, event bus, and the capability to integrate with monitoring tools. Payara’s blog was also very helpful in providing helpful information about new features and ways to optimize Payara Server.”
Community or Enterprise Edition?
- 86% Community
- 8% Both
- 6% Enterprise

Which version of Payara Platform do you use?
- 50% Payara 5
- 48% Payara 6
- 2% Payara 4

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Are you planning to upgrade to Payara 6 in the near future?

- 22% No
- 26% Yes - soon
- 52% Yes - in some time

Payara 6 Community was released in its first stable version in November 2022, with Payara 6 Enterprise following in March 2023. These allow you to use Jakarta EE 10 and MicroProfile 6 with Payara Platform, with Payara Enterprise offering a fully supported, production-ready version of Payara Platform. **We were excited to see that 48% of respondents were already using Payara 6.** Of those who hadn’t yet made the move, 78% planned to. We’re pleased to see that Payara Platform is helping you embrace the very latest enterprise Java specifications.

If you are still using Payara 5, remember it is no longer updated in Community version but you can get it fully supported and updated with Payara 5 Enterprise. [Find out more.](#)
What Application Servers did Payara Users Migrate from?

- **50%** Glassfish
- **27%** Didn’t Migrate
- **10%** Tomcat
- **8%** Weblogic
- **4%** WildFly
- **2%** TomEE
- **0%** OpenLiberty
- **0%** JBoss EAP
- **0%** WebSphere
- **0%** Other

GlassFish remains the most popular application server to migrate from, and many TomCat, TomEE, WebLogic and Wildfly users are also converting to Payara Platform.

However, this year, lots of developers are choosing us when moving to Jakarta EE for the first time, or for brand-new projects.

This year, **30%** of respondents didn’t migrate from an existing application server to Payara, doubling last year’s numbers for first time application server users. It’s great to know Payara Platform is what you choose when moving to a Jakarta EE application server.
When we surveyed our user base back in March 2023, Java 11 was leading the charge - now the majority of you are using Java 17! A huge 42% of you are using what was the very latest LTS release, showing that Payara Platform users are hungry to have the newest Java innovation at their disposal. However, the survey was conducted in the month that the next LTS release, Java 21, came out. If past trends are anything to go by, that means that in the next survey, many of you will have already moved on, to Java 21...
When do you plan to migrate to the Jakarta namespace?

- 32% Already migrated
- 27% As soon as possible
- 29% Not determined yet
- 10% Never
- 10% In the next few months

When open source software foundation the Eclipse Foundation took up stewardship of Java EE, they did not have rights to the `javax` namespace. The transition has now been made to the `jakarta` namespace and Java EE renamed Jakarta EE.
Which data storage system do you use with Payara Platform?

- **Postgres**: 58%
- **MySQL**: 33%
- **Other**: 25%
- **Oracle**: 23%
- **SQL Server**: 15%
- **Mongo DB**: 12%
- **DB2**: 8%
- **Redis**: 8%
- **Apache Cassandra**: 2%
- **Couchbase**: 0%
60% of respondents are planning to update to the newest version of our Payara Community stream, Payara 6 Community, which is certified against Jakarta EE 10. Those that don’t update must move to Payara 5 Enterprise to keep using Jakarta EE 8.

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Security Providers Used with Payara Platform:
- Testcontainers
- Jenkins
- Arquillian
- Junit
- Gradle
- Maven
- Apache Ivy

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Which Operating Systems do you use with Payara Platform?

- 48% Ubuntu
- 23% Other
- 17% MacOS
- 17% Windows Server
- 15% RedHat Enterprise Linux
- 15% CentOS
- 12% Other Linux
- 6% SUSE
- 0% AIX
Which of these tools do you use?

- **98%** Maven
- **50%** JUnit
- **37%** Jenkins
- **15%** Gradle
- **13%** GitHub Actions
- **10%** Arquillian
- **8%** Testcontainers
- **4%** Apache Ivy
- **2%** Bamboo
We have seen a huge increase in those migrating from JBoss EAP – from 4% in our 2021 survey to 21% today! One reason for this is our better, faster admin console, requiring no specialist knowledge.

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Which Application Server Did You Migrate From?

- JBoss EAP: 21%
- GlassFish: 26%
- WildFly: 17%
- Open Liberty: 15%
- WebLogic: 9%

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Which IDEs do you use with Payara Platform? (tick all that apply)

- 54% NetBeans
- 44% Eclipse Java IDE
- 37% VS Code
- 37% IntelliJ IDEA
- 0% Other
Which public cloud platforms do you use?

- **42%** None
- **35%** Amazon AWS
- **25%** Microsoft Azure
- **12%** Google Cloud Platform
- **12%** Other
- **0%** AliBaba

**33% of you do not use public cloud platforms at all.** Payara Platform prides itself on allowing you to ‘write once, run anywhere’. If public cloud, despite industry hype, is not for you, Payara Platform will continue to take care of your interests.

Whereas in 2022, Google Cloud Platform took the lead out of the public cloud providers, AWS and Azure now storm ahead.
What do you run Payara Platform on?

- **38%** Virtual Machines on Premise
- **37%** Virtual Machines on Cloud
- **37%** Bare Metal Servers
- **35%** Containers e.g. Docker
- **17%** Kubernetes
- **12%** Other
- **4%** Container Services (e.g. Fargate, Azure Container Services)
- **4%** Google Cloud Platform

Continuing on the theme of supporting you however you choose to structure your stack, it is a fairly even split between the top four hosting options for running Payara Platform. Bare metal servers, virtual machines on premise, virtual machines on cloud and containers e.g. Docker are all catered for by the features of Payara Platform.
Most wished for improvements in Payara Platform

- Better test integration
- Improve bus integration
- Modularisation
- Easily configure smart card authentication
- In-depth training
- Better support of tools
- Reduce deploy times
- Better integration to Docker
- Auto-upgrade on the Server
- Eclipse plug-in improvement
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We hope you have found our Payara Platform Survey - September 2023 interesting reading! We will be taking on board your feedback and using it to structure our next roadmap.

In the meantime, make sure you stay in touch:
- Subscribe to our blog
- Twitter/X
- LinkedIn
- Community Forum

While you may be familiar with Payara Platform, have you tried our new product, Payara Cloud?

Our fully managed cloud native application runtime offers a flexible and powerful way to run your Jakarta EE apps on the cloud. It deals with the infrastructure for you: simply select your WAR, click deploy, and watch your apps run on the cloud – automatically, like magic. See it for yourself with a free trial!

If you are using Payara Community and want to try our fully supported, production optimized version, Payara Enterprise, we also recommend a free trial. Get support directly from our expert Engineers and a 10 year software lifecycle. Continue to enjoy stable software, without having to rush to the latest Java and Jakarta EE versions.
Eclipse Java IDE emerged as the most popular IDE used (55% of respondents) with Payara Platform, followed by VS Code (34%) and NetBeans (32%).

65% of respondents are planning to move to the Jakarta EE namespace soon - Payara 6 Enterprise will have tooling to support migrating applications to the new namespace and will be released in 2023.