Payara® Micro Enterprise

The Payara® Platform - Production-Ready, Cloud Native and Aggressively Compatible.

Data Sheet
Developers are faced with the challenge of keeping up with the latest advancements in technology and for finding innovative ways in which software is designed and delivered that take advantage of the changes to the IT landscape. Microservices architecture allows developers to apply best practices learned over time with containerized Jakarta EE (Java EE) application deployments in any environment: on premise, in the cloud, or hybrid. With Payara Micro, you can modernize your infrastructure and build microservices applications on cloud using your development team’s existing Jakarta EE programming skills.

**Payara® Micro: Small. Simple. Serious.**

Build and deploy a fully working app within minutes. Payara Micro is the open source platform of choice for containerized Jakarta EE application deployments. Less than 90MB in size, Payara Micro is a lightweight middleware platform that requires no installation, no configuration, and no need for code rewrites or re-architecting – so you can begin deploying applications immediately.

- No installation required
- Simple to deploy applications
- Small footprint
- Jakarta EE Web Profile and MicroProfile support
- Instant Domain Data Grid
- Native Kubernetes support
- Optimised Payara Enterprise Docker images
- Elastic architecture
- Cloud-native design for public cloud providers (Amazon AWS, Microsoft Azure, Google Cloud Platform, and more)
- Built-in monitoring, health checks, and request tracing

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**Server Requirements**

- JDK 11.0.5 or above

**Support for Any Operating System Running One of the Following Java Virtual Machines**

- Oracle JDK 11 (11.0.5+)
- Azul Zulu JDK 11 (11.0.5+)
- OpenJDK JDK 11 (11.0.5+)
- Oracle JDK 17 (17.0.3+)
- Azul Zulu JDK 17 (17.0.3+)
- OpenJDK JDK 17 (17.0.3+)

**Related Products & Services**

- Payara Server

**Included with a Payara Micro Enterprise Subscription**

Choice of support:

- Migration & Project Support
- 24x7 – for mission critical environments
- 10x5 – business hours support
Features and Benefits

Payara Micro is the microservices-ready version of Payara Server, compatible with MicroProfile. With its automatic and elastic clustering, Payara Micro is cloud-native and designed for running Jakarta EE applications in a modern virtualized infrastructure. With Payara Micro, you can run war files from the command line without any application server installation.

Payara Micro also comes with a Java API so it can be embedded and launched from your own Java applications.

- **Domain Data Grid**
  - All Payara Micro instances can automatically form a data grid for data sharing and clustering
  - Data shared across all instances transparent to the developer
  - Data stored in grid is duplicated across one or more instances for high availability
  - Scale to large data sets by adding more Payara Micro instances without loss of performance on updates or retrievals
  - Deliver computation distributed across the grid

- **Trace Application Requests**
  - OpenTracing-style format with integration to tracing platforms like Jaeger
  - Sampling capabilities threshold, flat probability and an adaptive solution
  - Two separate stores: the "working / rolling" store, or a historical one

- **Support for Jakarta EE 10 Applications**
  - Full support for Jakarta EE 10 applications
  - Jakarta EE Web Profile and MicroProfile support
  - Supports concurrency and integration with messaging providers
  - Grid-based EJB timers powered by Hazelcast
  - Clustered Singletons – ability to create both CDI and EJB singletons across a cluster and guarantees a single instance across the cluster

- **Embedded H2 Database with Support for Datasources to External Database Systems**
Data Grid Encryption offers end-to-end encryption to store and exchange sensitive information between instances securely. Information exchanged with Data Grid Encryption can only be read by the Payara instance.

The Domain Data Grid makes it easy to create a cluster of Payara instances running your application and works right out-of-the-box in a variety of network topologies with little to no configuration needed for Amazon AWS, Google Cloud, Microsoft Azure, Kubernetes, and LAN environments.

High Availability for the Domain Data Grid ensures there is always a backup of application and system information, such as web session information, stored in the event an instance goes down. The data is redistributed when a new instance joins the Domain Data Grid.

Payara Health Check automatically monitors the health of the system and alerts you in the event of abnormal conditions. When used with the Notification Service, you can detect undesired behavior, predict possible failures, and trigger alerts to an external system with little to no impact on your application’s performance.

The Payara Platform Monitoring Service identifies possible issues for troubleshooting, checks performance against specified rules, and sends alerts of potential problem areas.

Request Tracing in the Payara Platform helps you understand the cause of slow application performance. It’s compatible with the MicroProfile OpenTracing specification so you can use any data generated in any OpenTracing tool (such as Zipkin and Jaeger).
Payara Micro Resources

**Try Payara Micro.** Experience the benefits of developing containerized Jakarta EE applications with this lightweight, middleware platform.

Download: [https://www.payara.fish/downloads](https://www.payara.fish/downloads)

**Just getting started with Payara?** Watch a video tutorial, read technical overviews and resources to get the most out of Payara Micro.

Learn more: [https://www.payara.fish/get-started](https://www.payara.fish/get-started)

**Get involved.** Join the Payara Community and help feed the fish! Payara Micro is, and always will be, open source and we want your ideas, feedback and collaboration for ensuring Payara Micro is the platform of choice for containerized Jakarta EE microservices deployments.

Learn more: [https://www.payara.fish/community](https://www.payara.fish/community)

**Generate a MicroProfile Maven Project with Examples.** Use the MicroProfile Starter and choose the Payara Micro Runtime.

MicroProfile Starter: [https://start.microprofile.io/](https://start.microprofile.io/)

**Spread the Word.** Already using Payara Platform? Want to help us spread the word about our open source software? Join the Reef Community Program so we can support your efforts.

Learn more: [https://www.payara.fish/reef](https://www.payara.fish/reef)
About Payara Services Limited

Payara Services is a proud recipient of the most esteemed business award in the UK, the prestigious Queen’s Award for Enterprise: International Trade 2021, personally approved by Her Majesty The Queen. Receiving the award is the equivalent of achieving 'Knighthood' for our business and demonstrates Payara’s team effort for delivering value through trusted, supported enterprise software for Jakarta EE and MicroProfile applications.

Payara Services is a global open source company and a recognized leader in the creation of innovative infrastructure software for today and tomorrow. We are proud to nurture and grow an open and collaborative community that builds on the needs of all to advance our software and services while providing support, stability, and security.

Our engaged, global team operates with the freedom and support to develop industry-leading products and services that enable our users to create world-class solutions across a diverse range of industries.

We help shape the future of the industry through our direct contributions to Jakarta EE and Eclipse MicroProfile® as Eclipse Foundation Members, and Strategic Members of the Jakarta EE Working Group.

We love to share the Payara Platform with the world, and when our commitment to continuous development and support of the Open Source software is combined with contributions from our community, we can ensure the highest quality solution. Let’s continue to learn, create, and shape the future of the industry together.

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