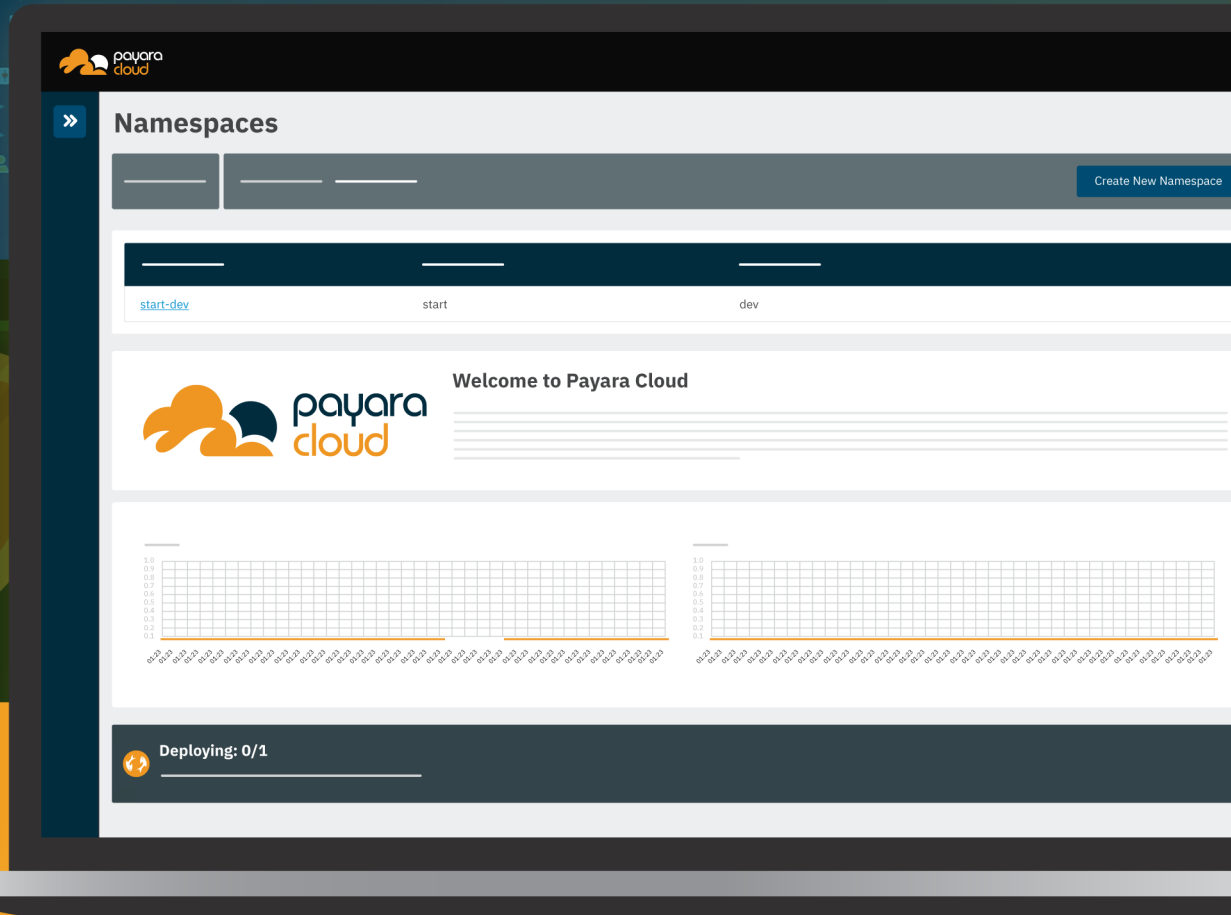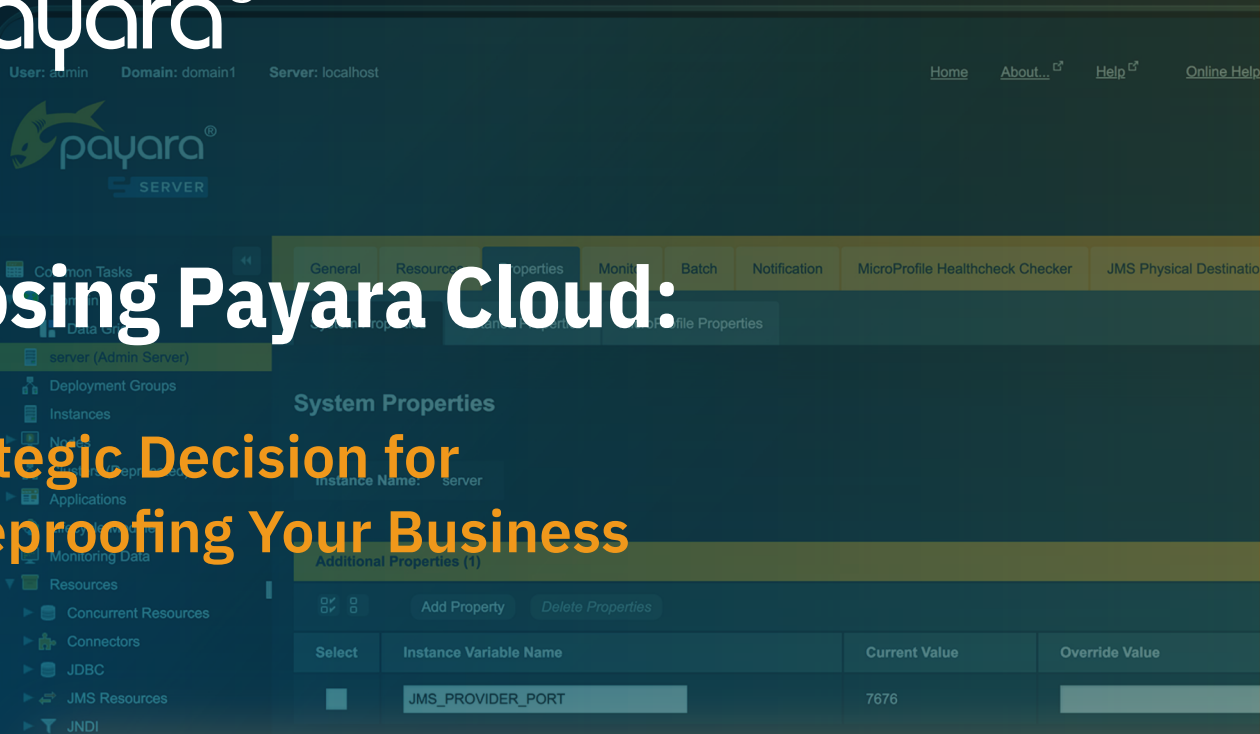# Choosing Payara Cloud:

A Strategic Decision for Futureproofing Your Business

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

User Guide

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In today's fast-moving business world, companies have to keep up with constant changes in technology, customer needs, and competition. Making smart choices about technology is no longer optional—it's essential for staying in business and growing. The real challenge is not just using technology but using it in a way that prepares you for the future, reduces risks, and gives you an advantage over competitors.

To succeed in a fast-paced business world with high expectations, keeping up with new technology, customer wants, and competition is crucial. Using technology is not just a choice—it's a must for staying in business and growing. The real goal is to use technology in a way that gets you ready for the future, lowers risks, and helps you beat the competition.
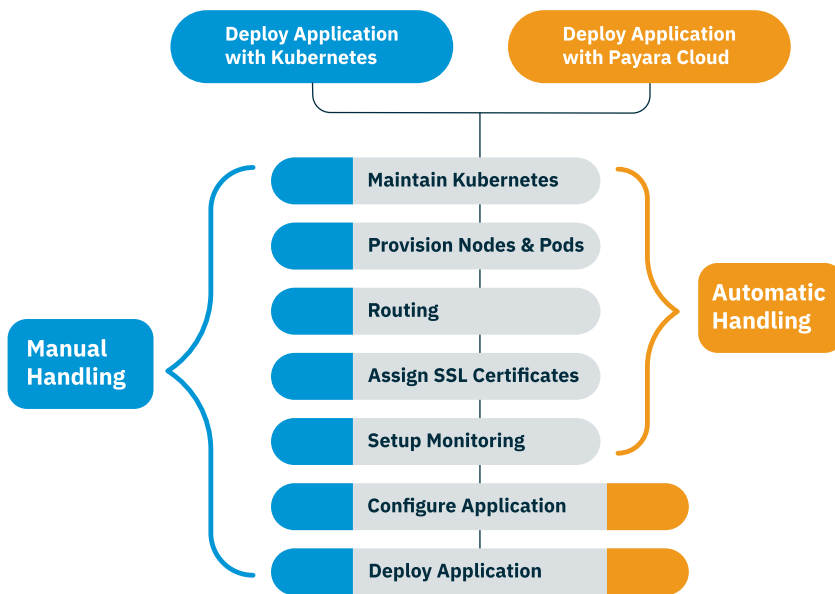
The idea of 'futureproofing' has become popular. This means picking technology that helps you now but also sets you up for success in the long run. Futureproofing protects your business in many ways, whether it's being able to change with the market, grow easily, or stay safe from security risks.

This is where Payara Cloud comes in. It is a purpose-built service made just for businesses using Jakarta EE. Unlike other cloud services, Payara Cloud is built to fully automate deploying Jakarta EE apps to the cloud. It makes moving your business to the cloud easy and efficient. But it's more than just a technical choice—it's a smart business decision that helps you build a strong, flexible, and future-ready business. Payara Cloud is engineered from the ground up to make transforming your use of Jakarta EE simpler, safer, and better, truly preparing you for a fast-changing future.

By the end of this paper, you'll gain insights into why moving to the cloud in general, and adopting Payara Cloud in particular for your Jakarta EE workload is both a smart technical and business decision that will help future-proof your business for a long time to come.

Payara Cloud

Payara Cloud is a groundbreaking cloud solution specifically engineered for Jakarta EE applications. What does that mean for you? It means you get a service that understands the unique needs of deploying Jakarta EE applications. Unlike generic cloud services that often require you to plumb together the various components like Docker and Kubernetes needed to deploy your application, Payara Cloud simplifies your life. It abstracts away all that plumbing, leaving you to fully focus on getting your application out there as fast as possible. Payara Cloud allows you to Bring Your Own Binary (BYOD) for deployment without needing to set up any underlying infrastructure.

Deploy Application with Kubernetes	Deploy Application with Payara Cloud

Manual Handling

- Maintain Kubernetes
- Provision Nodes & Pods
- Routing
- Assign SSL Certificates
- Setup Monitoring

Automatic Handling

- Configure Application
- Deploy Application

The diagram on the left shows you the difference in the number of steps for deploying an application with Kubernetes when you handle each step yourself compared to the automated process of deploying an application using Payara Cloud. With Payara Cloud, you only need to configure and deploy the Jakarta EE application. All the other steps including monitoring, assignign SSL Certificates, routing, provisioning nodes and pods and even maintaining Kubernetes are handled for you by the Payara Cloud environment.

Payara-Cloud-Datasheet.pdf

Features and Capabilities

Purpose-Built for Jakarta EE

Payara Cloud offers a native deployment environment for your Jakarta EE applications, ensuring optimised performance and functionality right out of the box. Simply bring your deployment binary (WAR file) and deploy.

One-Click Deployment

Gone are the days of intricate setup procedures and convoluted configuration files. Payara Cloud provides a one-click deployment feature, allowing you to launch your Jakarta EE applications effortlessly. It provides a unified configuration view for configuring uploaded applications through the MicroProfile Config API.

Intelligent Scaling

One of the standout offerings of Payara Cloud is its automatic scaling capabilities. It adjusts resources based on real-time application requirements, preventing both over-provisioning and under-provisioning and thus ensuring operational efficiency.

Multi-Tenancy Support

Payara Cloud comes with built-in multi-tenancy support, allowing different departments or clients to securely share the same namespace while deploying different applications, maximising resource utilisation.

End-to-End Security

Payara Cloud is built with security as a cornerstone. It incorporates comprehensive security measures such as end-to-end encryption, role-based access control, and automatic security updates. All deployed applications get a free SSL certificate.

Monitoring and Alerts

An extensive monitoring dashboard coupled with real-time alerts gives you the data you need to make informed decisions and tackle issues before they escalate.

Seamless Integration

Payara Cloud integrates smoothly with various databases, third-party services, and Jakarta EE features, making it a versatile and adaptable choice for enterprise applications.

Comparison with Other Cloud Solutions

Jakarta EE Focus

Most general cloud services are geared to serve a variety of programming languages and frameworks, which often leads to a jack-of-all-trades, master-of-none situation. Payara Cloud specialises exclusively in Jakarta EE app deployments, offering a level of optimization and support that generic cloud providers cannot match.

Ease of Use

While other cloud services might require extensive setup and configurations, especially for Jakarta EE applications, Payara Cloud streamlines the entire process. The one-click deployment and intelligent auto-scaling minimise operational complexity.

Cost Efficiency

The auto-scaling and multi-tenancy features in Payara Cloud result in more efficient resource utilisation, translating to cost savings. In contrast, generic cloud solutions often lead to wasted resources, driving up expenses.

Security

Payara Cloud is engineered from the ground-up with security in mind. Compared to generic cloud providers where you might need to manually configure security settings or even purchase additional security services, Payara Cloud comes with built-in, comprehensive security measures tailored for Jakarta EE applications.

Community and Support

Being a specialised service, Payara Cloud offers focused community and vendor support, providing not just solutions but also best practices for Jakarta EE application deployment and management.

Payara Cloud is more than just a cloud service; it's a platform specifically tailored for Jakarta EE applications. It offers you a unique blend of simplicity, efficiency, and robustness, making it not just a viable but a preferable solution for businesses looking to future-proof their Jakarta EE operations.

Why Cloud Computing is Essential

Using cloud computing is not just a "nice to have" option for businesses these days—it's essential. As technology changes how businesses deliver value to customers, the cloud has become the support system for many important tasks. Whether it's analysing data, talking to customers, working from anywhere, or growing your business across the globe, the cloud helps you do it all more easily.

Scalability

Old-style computer systems at your office can be a hassle. They can't easily grow or shrink based on your business needs. But with the cloud, you can quickly add or remove resources whenever you need to. This means you can handle busy times or slow times without spending a lot of money on computer equipment.

Cost-Efficiency

One of the best things about using the cloud is saving money. You only pay for what you actually use, so you don't have to spend a lot upfront on computer systems. This is great news for small businesses and startups that might not have a lot of money to spend at the beginning.

Business Continuity

Keeping your business data safe is crucial. Losing important information because of things like natural disasters, computer breakdowns, or cyber-attacks can be a big problem. The cloud offers strong ways to back up your data, so you can recover it if something bad happens.

Mobility and Collaboration

The cloud lets you and your teamwork from anywhere. All you need is an internet connection to get to your company's data and tools. This makes it easy for everyone to work together, no matter where they are. This is especially helpful now that more people are working from home or other places outside the office.

Speed to Market

In today's fast-moving business world, getting your product or service out there quickly can give you an edge over competitors. The cloud lets you develop and launch new things faster, making your business more agile and ready to meet customer needs right away.

Successful Cloud Adopters

Netflix: Scalability

Netflix's blog post "Completing the Netflix Cloud Migration" (Netflix, 2016) details the company's successful journey to the cloud, highlighting the benefits of scalability, performance, reliability, and rapid innovation. Netflix began its cloud migration in 2008, and the process was gradual, with the company migrating different parts of its infrastructure to the cloud over time.

The cloud has enabled Netflix to quickly deploy new features and services, and to respond quickly to changes in demand. For example, Netflix was able to quickly scale up its infrastructure to meet the increased demand for streaming services during the COVID-19 pandemic.

The cloud has also helped Netflix to improve its scalability, performance, and reliability. Netflix's streaming services are now more reliable and can handle spikes in traffic more effectively than ever before.

Netflix's blog post is a valuable case study for businesses considering moving to the cloud. It highlights the many benefits that the cloud can offer, and it provides insights into the challenges that businesses may face during their migration journey.

Capital One: Cost-Efficiency and Security

Capital One's blog post "Doing the Hard Things First: Lessons From Our Cloud Journey" (Capital One, 2022) discusses the company's successful journey to the cloud, highlighting the benefits of increased agility, resilience, and security.

Capital One began its cloud migration in 2020, and the process was gradual, with the company migrating different parts of its infrastructure to the cloud over time. One of the company's first steps was to migrate its non-critical applications to the cloud. This allowed Capital One to learn and iterate on its cloud migration process, and it also helped to reduce the risk of disruption to the company's critical business operations.

As Capital One gained more experience with the cloud, it began to migrate its more critical applications to the cloud. The company also began to develop new cloud-native applications. Today, Capital One is running all of its applications in the cloud.

The cloud has enabled Capital One to be more agile and responsive to changes in the market. The company can now quickly deploy new features and services to its customers. The cloud has also helped Capital One to improve its resilience and security. The company's cloud infrastructure is designed to be highly scalable and available, protected by a variety of security measures.

Overall, Capital One's blog post is a good case study worth studying when you start considering investing and moving your workload to the cloud. It highlights the many benefits that the cloud can offer, and it provides insights into the challenges that you may face during your migration journey.

Why Futureproofing is Crucial for Business Sustainability

In an era marked by accelerating technological advancements and rapid market shifts, the concept of futureproofing has emerged as a critical component of strategic planning. Futureproofing refers to the proactive preparation of systems, processes, and business models to remain relevant and competitive, not just today but also in the foreseeable and often unforeseeable future. It's about envisioning the changing landscapes of consumer behaviour, technology, and regulations and pre-emptively adapting your business to survive and thrive within them. Future proofing your business is crucial for the following reasons.

Evolving Customer Expectations

Consumer preferences are not static; they evolve. A business model or technology that is successful today might be obsolete tomorrow. Futureproofing helps you stay aligned with shifting customer needs.

Technological Obsolescence

Technology is a double-edged sword. It can either be a facilitator of growth or become a bottleneck that hampers efficiency. Futureproofing ensures that your tech stack and operations can evolve with advancements in technology.

Regulatory Changes

From data protection laws (for eg. GDPR) to environmental regulations, compliance landscapes are continually changing. Futureproofing enables you to adapt swiftly to new legal requirements, thereby avoiding penalties and reputational damage.

Competitive Edge

In a saturated market, the ability to quickly adapt to new conditions can be a significant differentiator. Companies that are future-proof can pivot more easily, capturing new opportunities and fending off challenges.

Risks and Costs Associated with Not Future-Proofing

Ignoring the need to future-proof your business can come with high risks and costs that can be detrimental in the long run. Without a forward-looking approach, you may find yourself stuck with outdated technology that can't adapt to new market demands. This not only slows down your operations but also makes you vulnerable to competitors who are more agile and equipped with modern solutions. Over time, the costs of maintaining old systems can skyrocket, draining valuable resources that could be invested in growth opportunities.

Additionally, lack of futureproofing can expose your business to security risks. Outdated systems often lack the necessary safeguards against cyber threats, putting your valuable data at risk. Any breach or data loss can result in financial losses and damage to your reputation, which can take years to rebuild. In a rapidly evolving business landscape, failing to be future proof can leave you trailing behind, struggling to catch up, and missing out on the advantages that come with being prepared for what's next.

Financial Risk

Failure to future-proof your business can result in hefty expenditures down the line. Updating obsolete systems or shifting to a new technology stack in a rush can be incredibly costly.

Market Relevance

Organisations that don't adapt are often left behind. Once a company loses its market relevance, regaining its position becomes a long, uphill battle, and in some cases, it might be irreversible.

Operational Inefficiencies

Outdated systems lead to operational inefficiencies, causing delays, reducing quality, and increasing the chance of errors, all of which can be detrimental to business growth and profitability.

Security Risks

Obsolete systems are often vulnerable to security threats. Cybersecurity is a growing concern, and failure to update and future-proof your systems could expose you to significant risks, including data breaches and legal consequences.

Jakarta EE and Futureproofing

Jakarta EE offers a robust framework that's ideal for future-proofing your business operations. One of its standout features is its flexibility, especially when it comes to cloud environments. This makes it easier for businesses to adapt to changing market conditions, scale operations, and integrate new technologies as they emerge. By choosing Jakarta EE for your application development, you're setting the stage for a more agile and responsive business that's better equipped to navigate future challenges.

Additionally, Jakarta EE has a strong community of developers and a rich ecosystem of tools, which means you can count on ongoing updates and improvements. This ensures that your technology stack remains current, reducing the risk of becoming obsolete. With Jakarta EE, you're not just adopting a technology; you're investing in a future-ready platform that can adapt and grow with your business needs. This makes Jakarta EE an excellent choice for companies looking to future-proof their operations.

Industry Adoption

Jakarta EE enjoys wide adoption across various industries, resulting in several advantages. A large and active community of developers means that you have a wealth of expertise to tap into, whether it's for troubleshooting, updates, or innovative solutions. Extensive documentation is available, making it easier to get up to speed or resolve issues. Additionally, the platform regularly receives updates, ensuring that it stays current and secure. This broad industry support makes Jakarta EE a stable and reliable choice that is likely to remain relevant and well-supported for years to come.

Flexibility and Scalability

Jakarta EE is built with both flexibility and scalability in mind. Its architecture allows for easy integration with other technologies and platforms, which is vital for staying agile in a fast-changing tech landscape. As your business grows or evolves, Jakarta EE can easily scale to meet new demands, ensuring that you're never held back by your technology choices.

Open Standards

One of the most compelling features of Jakarta EE is that it's an open standard. This means you aren't tied to a single vendor or solution, giving you the flexibility to change components or providers as your needs evolve. This freedom helps you avoid vendor lock-in and ensures that you can adapt your technology stack according to future business requirements.

Ecosystem Support

With platforms like Payara Cloud, which are specially designed for Jakarta EE applications, you get an added layer of futureproofing. Payara Cloud provides specialized services that make managing Jakarta EE applications even easier. Features like automatic scaling adjust resources as your needs change, ensuring optimal performance. Security features protect your data and operations, while one-click deployment capabilities streamline the process of getting your applications up and running. All these elements combine to make Jakarta EE even more robust and future ready.

Futureproofing is a necessity for any business aiming for long-term sustainability. Failure to do so is a gamble that exposes companies to financial, operational, and reputational risks. Adopting technologies and platforms like Jakarta EE and Payara Cloud, that are built with adaptability and longevity in mind, is a concrete step toward future proofing your enterprise.

Summary

Choosing Payara Cloud is not just another operational decision; it's a strategic move aimed at future-proofing your business. In a rapidly evolving digital landscape, the ability to adapt and scale is not merely an advantage—it's a necessity for survival. Payara Cloud offers this adaptability, built on the robust foundation of Jakarta EE, thus aligning seamlessly with enterprises that prioritise modern, scalable, and secure Jakarta EE applications.
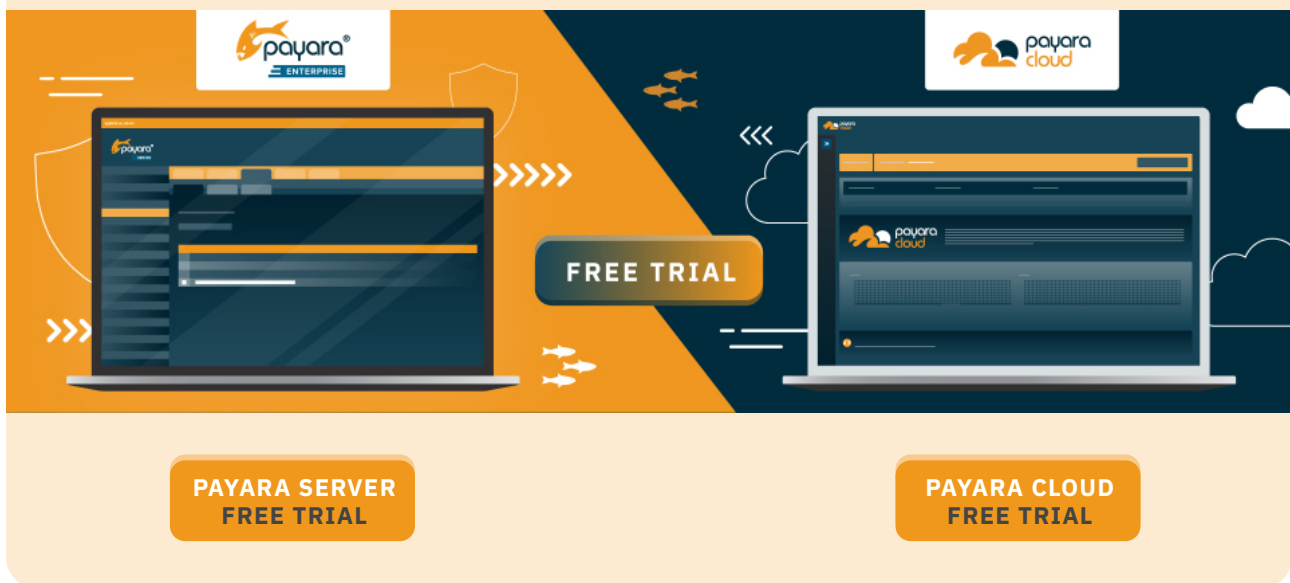
From its specialised environment tailored for Jakarta EE to its features like auto-scaling, robust security, and cost-efficiency, Payara Cloud addresses the most critical aspects businesses look for in a cloud solution. Its focus on simplifying operations allows your IT team to concentrate on driving innovation rather than getting bogged down by routine infrastructure management tasks. Importantly, its commitment to open standards means that you're investing in a platform that offers flexibility and avoids vendor lock-in, giving you the agility to adapt to future technological shifts.

In summary, the long-term success of any business is often deeply interconnected with the technological choices it makes. Opting for a cloud solution like Payara Cloud is to lay a solid foundation for future growth, agility, and resilience. In the complex puzzle of business sustainability, Payara Cloud serves as a key piece that fits perfectly, especially if your enterprise is centred around Jakarta EE. Therefore, making the strategic decision to transition to Payara Cloud is not just about meeting your immediate business needs; it's about preparing your enterprise for the challenges and opportunities that the future will inevitably bring.

If You Want to Know What Getting Started Will Be Like, Watch These Videos

Our recorded demo will take you through the log in to creating your namespace, adding an application, and deploying it. You can also watch our short bite sized getting started videos to learn about connecting to a database, defining a custom domain and search logs. And if you are considering getting a Free Trial of Payara Cloud – check out this interactive demo on how to sign up!

Interested in Payara? Try Before You Buy

FREE TRIAL

PAYARA SERVER FREE TRIAL

PAYARA CLOUD FREE TRIAL

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