



Microsoft
Gold partner

Modernizing Java Applications with 3Cloud and Azure

End the Java heavyweight and embrace
the power of the cloud on your own terms



Microsoft is Committed to Java

Digital transformation is top-of-mind, and we continue to see companies shift their engagement with users, shoppers, patients, and voters from physical to digital channels.

At Microsoft, we understand that Java is a critical part of your IT ecosystem, and we are committed to supporting you in your Java application modernization journey.

We acknowledge that this has not always been the case. But, under the leadership of our CEO Satya Nadella, we have been on a transition ourselves – from a *know it all company* to a *learn it all company*, which considers developer success as the north star for its own success.

Today, Java is a language of choice on Azure, trusted by enterprises for improved security, developer productivity, cost optimization, and scalability. We are ourselves using Java heavily internally, having more than 2,000,000 JVMs in production. It helps power some of our most critical and strategic products such as LinkedIn, Minecraft, and Yammer.

Also, did you know Microsoft is an official contributor to OpenJDK? In recent months, we've made numerous contributions – implementing ports from Windows and macOS on Arm, and helping to accelerate the development of the Shenandoah garbage collector.

We are truly committed to the Java community. We continue to bring our own expertise in running enterprise Java workloads and co-develop solutions with our partners such as VMware, IBM, and Red Hat to ensure developers have a great experience on Azure.

This e-book shares how Azure is the destination of choice for your Java applications. It also shares how you can get started on your modernization journey with our partner, 3Cloud.

We encourage you to review how Azure enables you to bring Java to the cloud on your own terms and take the next steps in your journey.

Why enterprises trust Azure for running their Java applications?



"We have Linux, Windows, and Java that we needed to migrate. We didn't have to re-architect those applications in order to move them to the cloud."

Jay Davidson: Vice President, Technology, J.B. Hunt

[Read the story >](#)



"Azure Spring Apps allows our teams to build new business services rapidly, as the platform and underlying infrastructure is fully managed. The platform is integrated with the Azure ecosystem, which enables us to achieve the desired level of automation and means to operate the services securely."

Nicholas Andres: Head IT Group Finance Program, Swiss Re

[Read the story >](#)

DAIMLER

"We've brought Java, Tomcat, Docker containers, Red Hat Enterprise Linux, SUSE Linux, and many other open-source tools into DevTest Labs, and they all work great."

Peter Rothlaender: Manager of Cloud Solutions, Daimler AG

[Read the story >](#)



"Using Kubernetes on Azure satisfies our objectives for efficient software development. It aligns well with our digital plans and our choice of open-source solutions."

Rasmus Hald: Head of Cloud Architecture, Maersk

[Read the story >](#)



"Because we wrote Experience Manager in Java and not .NET, we were initially worried about deploying in Azure. However, the product works well in Azure."

Brandon Pulsipher: Vice President of Technical Operations and Managed Services, Adobe



"Azure frees the team from the day-to-day heavy operational work to focus on creating core business value."

Nedved Yang: Head of Digital Technology, AIA Singapore

[Read the story >](#)

Bring your Java apps to the cloud using the tools and frameworks you love

Java’s ecosystem is very broad, with different technologies including Java SE, Java EE/ Jakarta EE, Spring, numerous application servers, and other frameworks. Further, companies are following different patterns for running their Java applications in the cloud, from lift and shift to fully managed, depending on how much control or productivity they need.

Wherever you are in Java and whatever your objectives, Azure supports your workload and processes with an abundance of choice – from IaaS to fully managed services. You can run any application architecture, from monoliths, to containerized monoliths, all the way to completely microservices based apps.

[Download the architecture](#)



For **lift and shift**, Azure provides a variety of Java focused VM images and solutions templates in the Azure Marketplace.

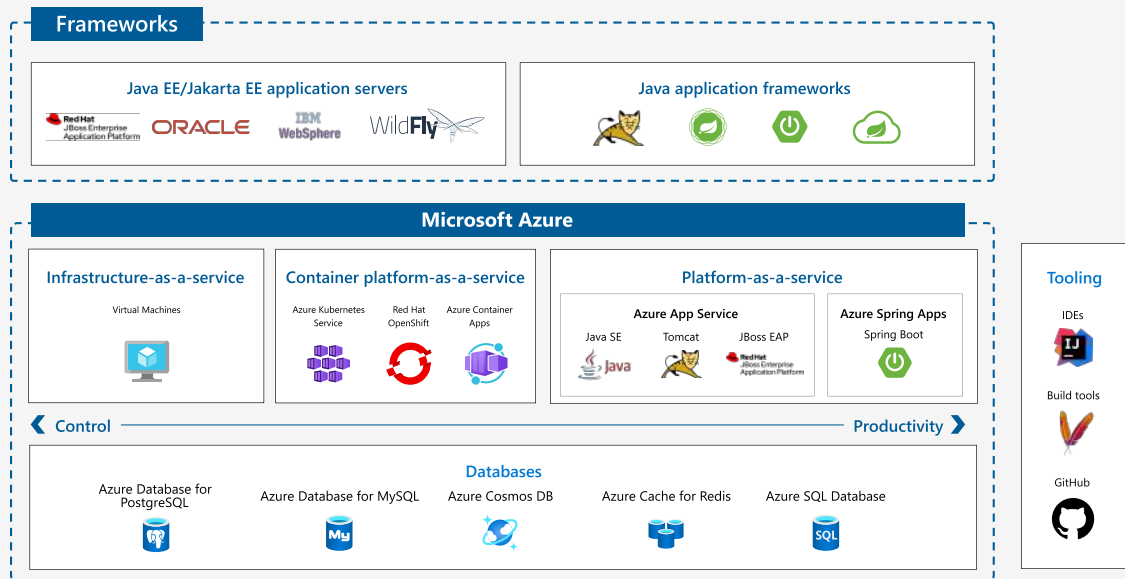


For **modernization using containers**, Azure provides best of breed support for Docker and Kubernetes, especially through the Azure Kubernetes Service (AKS), Azure Red Hat OpenShift (ARO) and Azure Container Apps.



Finally, Azure has the most **managed hosting options** for Java apps of any cloud platform with fully managed PaaS for Spring, Tomcat, and JBoss EAP.

All of this is supported by fully managed SQL and NoSQL databases and DevOps tooling, with plugins for IntelliJ and Eclipse, and integrations with a variety of DevOps tools such as Maven, Gradle, Jenkins, and GitHub.



[Download the architecture](#)

Leverage Microsoft's extensive partner ecosystem

Since companies have already made substantial investments in mission-critical Java applications on on-premises, many are also looking for fully supported environments to run these applications in the cloud.

Microsoft has a strong partner ecosystem, enabling you to easily bring your existing Java workloads to Azure. From unique first party services with joint development and support to Azure Marketplace images for popular Linux distros, you can leverage a growing portfolio of Java focused solutions.



Fully managed platform for Spring Boot applications. For existing Spring apps, you only have to change coordinates for interacting with data, cache, messaging and directory services in cloud – no code changes required.



Fully-managed in-memory caches with Azure Cache for Redis. You can take advantage of active geo-replication to create globally distributed caches with up to 99.999% availability.



Jointly supported JBoss EAP on App Service and VMs, as well as Azure Red Hat OpenShift to simplify cluster operations, apply security best practices, and manage VM operations.



Solution templates for WebSphere on Azure VMs, Azure Red Hat OpenShift, and Azure Kubernetes Service for automating boilerplate Azure and Java resource provisioning and configuration tasks.



Solution templates for WebLogic on Azure IaaS and support for WebLogic on Azure Kubernetes Service.



ELK based monitoring and troubleshooting integrated with Azure to get the speed, scale and relevance you need.



Fully managed Apache Kafka on Azure to build real-time, event driven applications with managed connectors to Azure Blob Storage, Azure Data Lake Gen 2, Microsoft SQL Server & more.



Take advantage of the extensive open-source ecosystem

Microsoft is a totally different company from where it was a decade ago. Today open source is at the core of Microsoft. By creating open solutions, Microsoft meets your developers where they are.

As an example, developers can write Java applications with Visual Studio Code, test them with Playwright, build and run with the Microsoft Build of OpenJDK, and deploy to Linux containers on Azure.

Best-in-class Linux infrastructure



60% Linux-based images in Azure Marketplace images

>50% of VM cores runs Linux on Azure

Native Linux on Azure experience with support for all major distributions such as Red Hat, SUSE, Ubuntu, Oracle Linux, Debian, CentOS, CoreOS, and OpenSUSE.

Choice of open-source databases



>47K customers use Azure open-source databases

Fully managed databases services for MySQL, PostgreSQL & MariaDB with high availability, enterprise scale, and intelligence for performance and security built-in. Also get Linux infrastructure for SQL and open-source databases.

Choice of development tools and third-party integrations

First-class integration with DevOps tools popular with Java shops across IDEs, build, automation, CI/CD, and source code management (SCM)



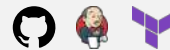
Azure Toolkits for IntelliJ and Eclipse



Plugins for Maven and Gradle



Software workflows automations with GitHub Actions



Integration of GitHub with Jenkins and Terraform

Community engagement



Toolkit and plug-ins to improve development experience with Eclipse



Direct contributions to both OpenJDK and AdoptOpenJDK



Java extensions for Maven, Run/Debug, Unit Testing, and more



3.6M+ Java repositories hosted, free support and resources on GitHub



Support projects from organizations like OpenJDK, Quarkus, Spring, and Apache

Modernize on Azure: The most secure and future-ready cloud

4

Finally, Azure provides you an enterprise-grade cloud with more than 200 products and cloud services to help you bring new solutions to life, while offering increased scalability, reliability, and security.

61 Azure regions across the globe - more than AWS and Google combined

160 edge sites targeting sub **30 millisecond** latency across the planet



Global

90+ compliance offerings

The largest compliance coverage of any cloud provider, covering global, industry-specific, and regional requirements



Compliant

\$1 billion in annual cybersecurity investment by Microsoft to offer state-of-the-art security controls across identity, data, networking, and applications. It also offers multi-layered security across code, delivery pipelines, app runtimes, and databases.



Secure

Azure offers unique hybrid and multicloud capabilities that give you the flexibility to innovate anywhere in their environment: on-premises, at the edge, on Azure, or on any other cloud.



Flexible

“We are building Azure as an open platform. Windows and Linux are first class, .NET and Java are first class, SQL and Postgres are first class. We have Kubernetes workloads, we have Red Hat OpenShift workloads, we have workloads from VMware. We really want to make sure that every layer of the stack, again, meets the needs of developers.”

- *Satya Nadella: CEO, Microsoft*

Take the next step to accelerate your Java application modernization journey



Get started with 3Cloud's Java EE Application Migration Factory Jumpstart

Lean on our experts to gain an in-depth understanding of your current application infrastructure and understand how you can leverage Azure for your Java EE applications to achieve greater productivity, scale, and flexibility.



Learn more about the 4-5 week jumpstart engagement

Check our other offers to get started:

[Azure Application Innovation: 2-Week Assessment](#)

Get design recommendations and options for migrating a mix of legacy and modern-web applications to Microsoft Azure.

[Azure Application Inception: 2-Week Assessment](#)

Discover and prioritize the business requirements for your new or modified application in Azure.

Our Jumpstart Process



Assess

Analyze each application to be moved and determine the ideal modernization approach.



Plan

Create a total migration plan and schedule. Also, develop a wave and/or sprint plan for which apps would be moved when.



Design

Create the reference technical architecture for the modernized environment.



Deploy

Deploy a modern cloud hosted platform such as AKS or Azure Spring Cloud to host the Java EE app.

3Cloud is a 100% Azure-focused Partner

3Cloud is focused on one thing, i.e., delivering the ultimate Azure experience. This means when you partner with 3Cloud, you get the best and brightest Azure consulting partners who can help you experience the full benefit of Azure and provide you the technical know-how to build innovative solutions and solve the most complex business and technology challenges.

Get in touch with us:

Sheridan Conway

Alliance Manager, 3Cloud
sconway@3cloudsolutions.com

@2022 All rights reserved. Not for further distribution without the permission of 3Cloud.

600+

Full-time, U.S.-based Azure experts across six practice areas

15+

Average years of technology experience



Microsoft Partner

Cloud Platform
Data Center
Application Development
Data Platform
Data Analytics
DevOps

Microsoft 2022 Partner of the Year Awards

Worldwide Winner Migration to Azure
Worldwide Winner Solution Assessments
US Winner Solution Assessments
US Winner Modernizing Applications
Worldwide Finalist Analytics
Worldwide Finalist Healthcare & Life Science



Microsoft
Gold partner