Cloud-native development for banking

Choosing your cloud-native path

Driven by heightened consumer demand for digital products and services, banks must be able to scale to meet demand for more services that meet the changing needs of consumers. Access to accounts and use of banking services anytime, anywhere is no longer a luxury—it is a requirement. IT organizations have experienced greater pressure than ever to deliver higher quality applications more often, enabling banks to stay relevant and scale digital business while adhering to security and compliance regulations.

Acknowledging the reality of increased business velocity and constant change, adaptation is necessary for success, and a faster, more agile, and scalable implementation approach is crucial to creating experiences that can be more easily deployed, updated, and maintained, helping achieve both business and customer priorities.

The cloud-native approach to building applications takes advantage of cloud computing models and DevOps principles to make the delivery of new features and services faster and more flexible. With a cloud-native strategy, banks become better equipped to meet customer demand, adapt to industry dynamics and world events, and be more resilient with scalable applications that deliver business innovation faster.

The following checklist will assess your needs and possible business impacts to help you choose a cloud-native platform that benefits the business, developers, and IT operations team.

1 Enable developer productivity

- Do you struggle to give developers the freedom to build to customer needs using their chosen toolset?
- Does your choice of vendor limit your developers' options?
- Do you need new technologies to attract new developer talent to your organization?
- Are application development choices complicating your infrastructure operations?
- Do you want to provide the agility of cloud computing to developers' local laptops?

If you answered "yes" to any of these questions, consider an open source cloud-native development platform. Maintaining desired tooling as part of your container strategy gives your developers the choices they need to succeed in delivering cloud-native applications faster, without impacting operational capacity.

2 Capitalize on existing investments

- Do you continue to invest in more infrastructure while you have underused capacity?
- Are long delivery times for feature updates negatively impacting your organization?
- Do you want to take advantage of the agility of the public cloud but are hampered by your existing legacy applications?
- Are existing applications excluded from your DevOps initiative?
- Are you slowed by the inability to easily port your existing applications to your infrastructure of choice?
- Are you considering an incremental approach to modernizing existing applications?
- Does your existing middleware support DevOps and microservices principles?

If you answered "yes" to any of these questions, you should evaluate full-stack vendors that have an open philosophy. These vendors allow you to use your existing knowledge base, offer developers choice, and provide confidence in the security of your container platform. A true Dev Ops implementation will support standardization, automation, and the consistency needed to streamline activity with transparency across teams.

3 Maximize future choice

- Are the majority of your applications on a single cloud environment (e.g., AWS, Google, Azure, IBM Cloud)?
- Do you want the ability to move an application from one cloud provider to another or bring them into your datacenter without interruption and heavy code changes?
- Do you want the ability to move applications across multiple cloud infrastructures?
- Do you want to take advantage of products and services from different cloud providers?

- Do you have more than one environment to support development, test, and production for multiple application development life-cycle stages?
- Do you want to adopt modern application architectures without changing your current infrastructure?
- Do you want the speed of microservices without the management complexity?
- Do you see serverless architecture as an alternative for future applications?

If you answered "yes" to any of these questions, it is important to confirm that your cloud-native platform is actually open (and not a mix of open and proprietary solutions) and based on widely adopted industry and security standards. True application portability will allow you to maintain control of your environment, free from the impositions associated with proprietary legacy platforms.

4 Make security a top priority

- Do you want your applications to be shared across your enterprise architecture?
- Do you want to give developers a choice of technology but are concerned about the security risks?
- Does security from malicious users or poorly written code cause concerns in your current environment?
- Do you need the security assurances of tested and proven enterprise technologies?
- Do you want proactive security tools that inform your teams about security vulnerabilities before the public does?
- Does your technology stack enable rapid security response to viral vulnerabilities?
- Do you want to adopt containers and Kubernetes but are concerned about security assurance and longevity?

If you answered "yes" to any of these questions, evaluate whether a cloud-native platform will keep your applications and IT infrastructure secure—and determine if that security will work throughout your stack, by design.

Red Hat

Red Hat® OpenShift® Container Platform and Red Hat Middleware create a foundation of open tools and technologies that empower developers to design, develop, deploy, and integrate cloud-native applications across any cloud infrastructure. Our container platform enables banks to continue their cloud journey, introducing a modern DevOps methodology, while providing the flexibility to build and run scalable applications regardless of the environment.

Red Hat OpenShift Container Platform:

- Provides the flexibility to adopt modern architectures like microservices.
- Uses the tools your developers need, including Spring Boot, WildFly Swarm, Eclipse Vert.x, Java™ EE 6/7, .NET Core, Rails, Django, Play, Sinatra, and Zend.
- Allows a choice of languages, including Java, Node.js, Ruby, PHP, Python, and Perl.
- Uses industry-leading Kubernetes to orchestrate and manage application containers at scale.
- Offers multitenancy and protects you from harmful code using established security with Security-Enhanced Linux® (SELinux) and control groups (cgroups).
- Uses your existing investments and provides portability to avoid vendor lock-in.

Learn more

Visit openshift.com to get more information, including access to the latest whitepapers, webinars, and reference architectures.

facebook.com/redhatinc
@RedHat
linkedin.com/company/red-hat

North America
1 888 REDHAT1
www.redhat.com

Europe, Middle East, and Africa
00800 7334 2835
europe@redhat.com

Asia Pacific
+65 6490 4200
apac@redhat.com

Latin America
+54 11 4329 7300
info-latam@redhat.com

redhat.com
#F23461_0520