

# An open source approach to core banking transformation

Growing customer engagement from the core up

According to a Celent report, nearly 67% of technology spending is on maintenance, and up to half of that is dedicated to the core platform.<sup>1</sup>

## Introduction

Banking leaders recognize the need to modernize their core banking systems. Business demand for innovation to craft more effective and streamlined customer journeys, along with the overall need for greater efficiency, continues to make transformation more necessary. However, the challenge of transforming a bank goes beyond a single new application or data capability. To transform, banks must balance the need for change between a push for better agility and the reliable—yet inflexible—core banking system.

Institutions approach core banking modernization in different ways. Some institutions extend and integrate components themselves, some partner with core banking system vendors, others use technology providers like Red Hat, and many combine all three approaches. No matter the approach, banks expect the same key results to come from transforming heritage core systems, namely:

- Improved time to market.
- Automatic scaling.
- Improved resiliency.

By looking at the infrastructure that supports what is needed to deliver business results, you can find the right approach to your core modernization journey.

## The modern bank, built with modern technology

### Taking the mainframe to the cloud

Core banking modernization very seldom means replacing the entire existing system in one massive project. Instead, modernization often requires a strategic, incremental approach to progressively modernize the core in a way that minimizes risk. Using modern container technology, such as Red Hat® OpenShift® Container Platform, and applying it to the existing mainframe can make separating distribution channels functions from core transaction processing easier. By moving to containers and making functions cloud-native, banks gain flexibility, agility, and better control over operational costs, enabling them to build and deploy their own applications or partner with providers.

With built-in automation, scaling, and monitoring capabilities, banks can also streamline and optimize core banking-related activities to better respond to demand volatility while protecting the core processing engine.

### Scale automatically

Banks need to scale infrastructure to improve efficiency and streamline arduous processes that prevent greater personalization and insights. Container environments, such as Red Hat OpenShift, provide scalability and high availability for critical processing needed by core functions like lending,



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<sup>1</sup> Greer, Stephen. "The Business Model Core Platform: Where do banks go from here?" Celent, May 2020.

## About Red Hat

Red Hat is the world's leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers integrate new and existing IT applications, develop cloud-native applications, standardize on our industry-leading operating system, and automate, secure, and manage complex environments. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500. As a strategic partner to cloud providers, system integrators, application vendors, customers, and open source communities, Red Hat can help organizations prepare for the digital future.

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### North America

1888 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



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redhat.com  
#F25387\_1020

deposits, and basic client data. The bank can create, extend, and deploy containerized integration services across hybrid cloud environments so that the data needed by applications is available and readily usable on any platform, anytime.

Red Hat Integration includes alternatives to address a wide range of integration needs:

- Red Hat 3scale API Management—better exchange and management of information via application programming interfaces (APIs) needed to integrate new core banking solutions, products, and services.
- Red Hat AMQ—publish subscribe-based messaging broker (Java™ and Scala) for microservices and other application components that demand high throughput/low latency data exchanges.
- Red Hat Runtimes—in-memory caching and messaging for quick data access and transfer between applications.

## Improve resilience and adapt to changing hosting needs

For most banks, core banking modernization entails transitioning more functions out of traditional mainframe activity and running some of the capabilities in the cloud. As banks have become more trusting of the cloud, its use beyond experimental and bespoke projects to more critical business services has increased. However, the cloud is not without risk, and resiliency is paramount for all banks. Using containers and having a cloud-native architecture allows banks to have greater resilience during infrastructure failures.

Red Hat OpenShift provides flexibility to develop and deploy on any environment (on-prem, bare metal, virtualization, private or public cloud), allowing institutions to make choices that benefit their customers and their business—according to their own risk tolerance.

## Red Hat and core banking modernization

Red Hat provides cloud technology for banks to progressively modernize core banking systems. Red Hat OpenShift Container Platform and our [integration solutions](#) help simplify connectivity while improving resiliency. With Red Hat, core banking can re-emerge as the key engine for ongoing growth and innovation.