

Nationwide Building Society simplifies integration platform maintenance with Red Hat OpenShift 4



Industry

Financial services

Headquarters

Swindon, England,
United Kingdom

Size

17,680 employees

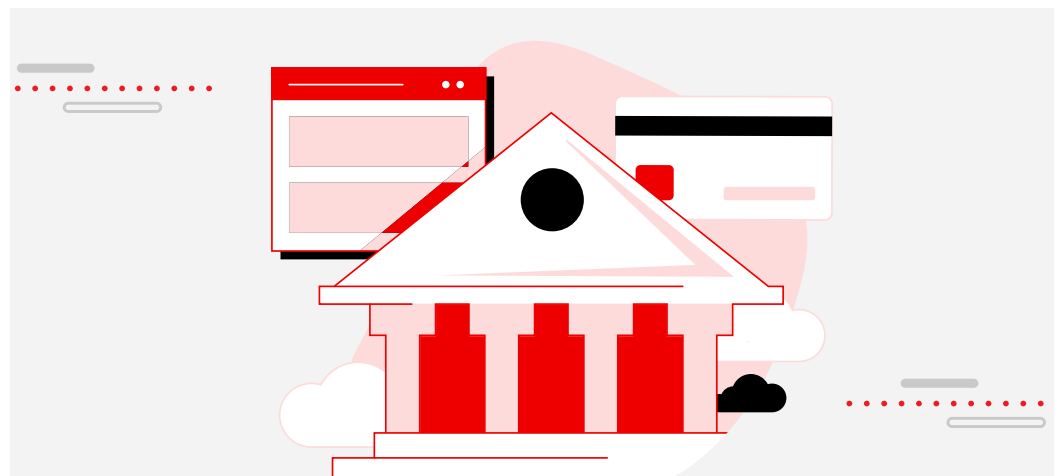
16+ million members

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Greg Wilson

Business Integration
Platform (BIP) Delivery Lead,
Nationwide Building Society

Nationwide, the world's largest building society, sought to enhance the capabilities of its Business Integration Platform (BIP) to support increasing customer digital demands. The organisation decided to upgrade its Red Hat technology foundation to Red Hat OpenShift 4, running in an Amazon Web Services (AWS) cloud and on premise Red Hat Enterprise Linux. With this scalable, security-focused foundation, the BIP team has automated routine server maintenance, simplified updates, and achieved 99.999% service availability for members. The organisation can now focus on continuing to enhance its services and prepare for future hybrid cloud adoption, guided by Red Hat's technology experts.



Software and services

Red Hat® OpenShift®
Red Hat Enterprise Linux®
Red Hat Consulting

Partner

Amazon Web Services (AWS)

Benefits

- ▶ Reduced server maintenance time and effort, completing upgrades to 140 servers in just 4 days
- ▶ Achieved 99.999% service availability for members
- ▶ Established foundation for future hybrid cloud adoption

About Red Hat Innovators in the Open

Innovation is the core of open source. Red Hat customers use open source technologies to change not only their own organizations, but also entire industries and markets. Red Hat Innovators in the Open proudly showcases how our customers use enterprise open source solutions to solve their toughest business challenges. Want to share your story? [Learn more.](#)

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Grant Valentine

Head of Business
Integration Platform (BIP),
Nationwide Building Society

Expanding enterprise integration to support new systems and customers

Serving more than 16 million customers, Nationwide is the world's largest building society. Its services range from current accounts, mortgages, and loans to credit cards, savings accounts, and more. With a mission to rethink technology to build a better society, the organisation invests in innovative ways to provide a faster, more convenient, and more secure member experience.

In 2018, Nationwide adopted a new technology strategy to support growing demand for digital services. This strategy included adopting, cloud-based automation and DevOps to improve processing efficiency, volume, and effort. The organisation's new event-driven integration platform, Speed Layer, gathers accurate real-time data from its systems. With this solution, Nationwide can respond to business events, such as payments, as they happen and proactively provide information on these events to its members—for example, a mobile notification of a recent purchase.

Running in a dedicated on premise environment, Speed Layer was built with Red Hat OpenShift, an enterprise application platform that supports innovative development at scale across hybrid environments, and Red Hat Enterprise Linux, a security- and stability-focused operating system.

Based on the success of Speed Layer in demonstrating resilience, scalability, and efficiency, Nationwide saw an opportunity to create a hybrid service platform with high security and performance.

"We decided to evolve Speed Layer into a widely adopted solution we call our Business Integration Platform, or BIP," said Grant Valentine, Head of Business Integration Platform (BIP) at Nationwide Building Society. "With help from Red Hat Consulting, Speed Layer is now just one of many supported back-end tools running on BIP that we use to deliver timely services and information to Nationwide members."

Processing 100 million calls, or queries a day—14 million of which are external to the platform—BIP now supports one-time password (OTP) authentication, SAP system operations, and other key capabilities. "BIP is at the heart of many of our strategic initiatives as one of our critical business platforms," said Valentine.

Gaining new security and automation capabilities with an updated hybrid application platform

To ensure constant availability, reliability, and security for BIP, Nationwide decided to evolve the platform's existing software foundation. The organisation migrated to [Red Hat OpenShift 4](#), a version that introduced new hybrid cloud and automation capabilities, such as simplified application deployment and life-cycle management with [Kubernetes Operators](#) that automate maintenance, scaling, and failover. This version also introduces self-service provisioning and deployment for developers of containerized applications, Kubernetes-based event-driven autoscaling (KEDA), and more.

Nationwide deployed its upgraded OpenShift-based development environment in an Amazon Web Services (AWS) cloud, taking advantage of the platform's support for hybrid deployments.

"Migrating to Red Hat OpenShift 4 is a way to help keep our platforms evergreen and resilient," said Greg Wilson, BIP Delivery Lead at Nationwide Building Society.

To complete migration without interrupting business operations, Nationwide participated in the Red Hat OpenShift Upgrade Program, a 12-week program funded by Red Hat to support customers through the significant architectural changes between Red Hat OpenShift 3 and 4 with guidance from a dedicated Red Hat team.

“Having skilled engineers from our organisation work together with Red Hat’s Linux and OpenShift experts, with common goals and understanding of both issues and opportunities, was critical to the success of our migration project,” said Valentine.

Maintaining reliable services for members by simplifying back-end management

Reduced server maintenance time and effort

Completing server updates had required the BIP team at Nationwide to manually deactivate the servers, complete the upgrade, and then bring them back online. Now, built-in automation capabilities included in Red Hat OpenShift 4 let the team apply a point upgrade to all 140 servers across all environments—whether development or production—in just 4 days without having to take servers offline.

“By automating time-consuming management steps, Red Hat OpenShift 4 has revolutionised the way we do upgrades,” said Wilson. “We can not only more quickly adopt the latest features but our 50-person team can now focus on using a DevOps approach to develop and scale new automations organisation-wide.”

Achieved 99.999% service availability for members

In addition to mitigating risk of human error or delays, Red Hat OpenShift 4 includes new fixes to Kubernetes defects, security, and performance issues. Enhanced logging, monitoring, and other capabilities—such as built-in enterprise container image registry—help balance rapid delivery of new services with protection of applications and systems across all aspects of their life cycles. Combining continuous compliance and security checks with enhanced scalability, the BIP team can maintain 99.999% service availability for both internal teams and members while meeting the growing demand for digital services.

“With built-in automation and security, we can deliver predictable performance and avoid outages. For members, our services are always there, whether they need to check on the status of a loan application, transfer funds to a savings account, or manage their credit card,” said Valentine.

Established foundation for future hybrid cloud adoption

By deploying its new BIP environment across an AWS cloud and on premise Red Hat Enterprise Linux, Nationwide can quickly adapt to changing business or regulatory needs. This open hybrid cloud foundation gives the organisation flexibility to run applications where needed for scalability, compliance, and performance — and prepares the BIP team for future migration of critical production workloads to the cloud.

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About Amazon Web Services

For over 15 years, [Amazon Web Services](#) has been the world's most comprehensive and broadly adopted cloud offering. AWS has been continually expanding its services to support virtually any cloud workload, and it now has more than 200 fully featured services for compute, storage, databases, networking, analytics, machine learning and artificial intelligence (AI), Internet of Things (IoT), mobile, security, hybrid, virtual and augmented reality (VR/AR), media, and application development, deployment, and management.

Sharing success across the wider organisation

Nationwide plans to migrate additional systems and functions, such as key middleware components, to BIP in the near future.

"Pretty much every function you can imagine a financial services organisation would do will go through BIP," said Valentine. "And new projects currently in the planning stage will use data from the platform. Eventually, we plan to have cloud BIP calling integrations on premise as well. Other parts of the organisation are now looking to our team for insight and guidance on best practices."

To support this growing demand, the BIP team is evaluating moving additional workloads to OpenShift and piloting an on premise OpenShift-as-a-Service to support other teams and departments on their modernisation journeys.

"During more than 5 years of working together with Red Hat, even before BIP was developed, we have always felt valued," said Wilson. "That's a great relationship to have as Red Hat helps our team grow our strategic significance. If we need anything, we know we can rely on Red Hat's teams and technology to keep our services, such as current accounts, running as best as they possibly can."

About Nationwide Building Society

[Nationwide](#) is the world's largest building society, with over 17 million customers, 16 million of whom have a current account, mortgage, or savings product, and are therefore members of the Society. Nationwide is owned by its members and focuses on providing banking products and services to its customers. Nationwide has over 18,000 employees, including those based in its headquarters in Swindon, and those working in its network of over 600 branches across the UK.

Nationwide is the UK's third largest mortgage provider and holds almost £1 in every £10 saved in the UK, as well as one in ten of the UK's current accounts. It also supports landlords and those who rely on the private rented sector for their long-term housing needs through its buy to let business, The Mortgage Works. In addition, Nationwide offers a comprehensive range of wider retail financial services and products, including credit cards, personal loans and insurance. These offerings diversify its income, and help it give value back to its customers, through better product pricing than the market average and better service than its peers.

Nationwide's purpose is "Banking - but fairer, more rewarding, and for the good of society". The Nationwide Board believes that its mutual ownership model enables it to balance its need to retain sufficient profit to remain financially strong, with its commitment to share its success with its customers and members.

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 develop cloud-native applications, integrate existing and new IT applications, and automate and manage complex environments. [A trusted adviser to the Fortune 500](#), Red Hat provides [award-winning](#) support, training, and consulting services that bring the benefits of open innovation to any industry. Red Hat is a connective hub in a global network of enterprises, partners, and communities, helping organizations grow, transform, and prepare for the digital future.

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