

UK Department for Work and Pensions delivers critical assistance to citizens faster with Red Hat



Software and services

Red Hat® Enterprise Linux®

Red Hat Ansible® Automation Platform

Red Hat OpenShift®

Red Hat Consulting

Red Hat Training

The United Kingdom (UK)'s Department for Work and Pensions (DWP) provides critical financial assistance and other services to around 22 million citizens. The COVID-19 pandemic created a sudden, massive increase in state benefits applications. To respond to this rapid growth, UK DWP's technology department, DWP Digital, sought to build, deliver, and scale its services and back-end systems faster. The department automated routine, manual processes for both staff and citizens with Red Hat Ansible Automation Platform. Now, DWP Digital can deploy new services in minutes, enhanced with holistic data insight. Citizens can access information on a variety of services through a single, digital experience to get the critical assistance they need.



"Red Hat's excellent support has helped our transformation succeed at the pace we needed. With their insight, we've changed how we work and been able to solve some of our skill gaps."

Nathan Turney

Senior Agile Delivery Manager, Integration Product Delivery, DWP Digital, UK Department for Work and Pensions

Government

Around **93,500** employees Around **22 million** citizens

Benefits

- Reduced deployment time for new services from 9-10 hours to just 15 minutes
- Simplified citizens' access to critical services, from state pensions to employment assistance
- Reduced IT infrastructure costs
- Gained open source skills and experience to find new ways to innovate

f facebook.com/redhatinc

● @RedHat

in linkedin.com/company/red-hat



Delivering critical financial and employment services to millions of citizens

The Department for Work and Pensions (DWP) is the U.K.'s largest government department. More than 93,500 employees provide services to more than 22 million citizens each year related to state pensions and a range of worker, disability, and illness benefits. Its technology department, DWP Digital, employs nearly 5,000 staff to deliver and support the underlying IT systems and technology for these services.

Historically, DWP Digital teams operated in isolation, with repetitive processes for customer experiences and internal workflows across its hybrid environment—including public clouds from Amazon Web Services (AWS), Google Cloud Platform (GCP), and Microsoft Azure. Citizens often provided some of the same personal information multiple times to apply for different benefits, such as employment assistance or Universal Credit, the main welfare benefit for working age citizens. Paper-based supporting processes, such as identity verification, required citizens to visit one of around 600 local offices in person or mail requested information.

The COVID-19 pandemic created a sudden, urgent need to shift these manual, paper-based pro-

The COVID-19 pandemic created a sudden, urgent need to shift these manual, paper-based processes and experiences to automated workflows supporting digital services.

"At the start of the pandemic lockdown, 3 million citizens lost their jobs. We needed to quickly provide benefits to unemployed and low-income citizens to ensure they were paid in time to cover basic necessities, such as housing and food costs," said Jacqui Leggetter, Head of Integration, DWP Digital, UK Department for Work and Pensions. "Without access to local offices or postal services, we could no longer gather the paperwork needed to process these claims or provide face-to-face services like job coaching."

To quickly deliver a unified digital service experience to citizens, DWP Digital sought to adopt a distributed IT infrastructure approach with broader access to data and application programming interfaces (APIs) across its technology and business teams.

"We had significant sprawl across our public cloud environment with little reuse, frequent duplication of effort, and high spend," said Dean Clark, Technical Lead, Integration Technologies, DWP Digital, UK Department for Work and Pensions. "We wanted to create a more holistic IT approach and standardized environment that would help us deliver critical services and funds to citizens faster and more effectively."

Building a scalable, automated foundation for central service operations with Red Hat

After researching potential solutions, DWP Digital chose Red Hat Ansible Automation Platform and Red Hat Enterprise Linux as the foundation of its event-driven digital services approach.

Red Hat Enterprise Linux provides a stable, security-focused operating system for modern development approaches and easier infrastructure management. Red Hat Ansible Automation Platform automates processes at scale, using human-readable, reusable playbooks, shared across teams and environments. In addition, the department uses Kong Gateway for API transaction processing and Apache Kafka for distributed event processing.

"Beyond cost advantages, open source technology lets our teams get started immediately, taking advantage of the best ideas and insight from both our staff and the wider community to innovate," said Leggetter. "We were aware of Red Hat's authentic open source culture, and we wanted to bring that into our organization to explore how we could think differently about our work."

"We are ultimately funded by taxpayers, so it is important that we build and deliver services with a costeffective approach. Using enterprise open source products from Red Hat is a key part of our investment strategy to get more value from our technology."

Nathan Turney

Senior Agile Delivery Manager, Integration Product Delivery, DWP Digital, UK Department for Work and Pensions



DWP Digital engaged Red Hat Consulting for ongoing guidance on best practices for optimizing its Red Hat deployment, with more than 50 projects now running in the environment. Its teams are also completing Red Hat Training to build their skills on Ansible, Red Hat OpenShift, and DevSecOps to support ongoing and new work. For example, the department used Red Hat OpenShift, an enterprise Kubernetes container platform, for a recent project to boost employee productivity during the COVID-19 pandemic.

"DWP and Red Hat are innovating together. We've created a co-located team to work closely in a single team. It goes beyond just a vendor and customer relationship. We're experimenting together to create the platform," said Leggetter.

In recognition of DWP Digital's success with enterprise open source technology, the UK Department for Work and Pensions was named a winner of the 2022 Red Hat Innovation Awards.

Centralizing services and systems to help citizens faster

Reduced development and deployment time with standardized, automated approach

DWP Digital's development teams can now use automated, self-service provisioning with Ansible Automation Platform to quickly access environments and resources for new projects. Deployment time for new services has been reduced from 9-10 hours to just 15 minutes. Additionally, the department's automated API platform now pushes more than 350 million calls per month.

This stable yet responsive foundation enhances the department's increased focus on collaborative, cross-team work to plan, create, and deliver timely services for citizens. For example, when short-term policy changes were made to Universal Credit to simplify the claims process and increase funding, DWP Digital built and launched an API for automated identity verification in 2-3 weeks, rather than 5-6 months.

"By standardizing our production code deployment process, and accessing APIs to automate existing workflows, we can use already known information to help citizens to get assistance quickly," said Clark.

Simplified service access for citizens

DWP Digital has used its new Red Hat infrastructure to provide broader—yet protected—access to citizen data across the department's back-end IT systems. Instead of completing multiple paper-based applications, citizens can often provide information once digitally to be shared across the relevant agencies and services.

"Replacing manual processes with an automated, API-based data approach helps us provide timely, relevant digital services. For example, our new identity API lets us process Universal Credit claims without initial face-to-face interviews at a local office," said Leggetter. "In fact, we have automated the application process all the way to their first payment being issued. We can focus more staff time on valuable activities, such as employment assistance and coaching."

Reduced IT infrastructure costs

Shifting from operating services directly on Amazon Elastic Compute Cloud (EC2) to running them in containers on Red Hat OpenShift has helped DWP Digital reduce hosting costs. Additionally, standardizing on common operating and support models had significantly reduced costs across DWP's departments.

"We are ultimately funded by taxpayers, so it is important that we build and deliver services with a cost-effective approach," said Turney. "Using enterprise open source products from Red Hat is a key part of our investment strategy to deliver the right services at the right price."

Gained insight into modern work approaches with expert guidance

Working closely with Red Hat's expert consultants, instructors, and support staff has helped DWP Digital's teams explore the possibilities of open source technology and modern work approaches, including agile, Team Topologies, and platform-as-product. DWP Digital has also enhanced its communities of practice (CoPs) and hackathons with a focus on open source innovation and experimentation.

"Red Hat's excellent support has helped our transformation succeed at the pace we needed. With their insight, we've changed how we work and been able to solve some of our skill gaps," said Turney.

Finding new opportunities to bring open source innovation to government services

DWP Digital's success with a central container platform, supported by easy-to-use automation technology, has inspired other teams to explore the possible benefits for their staff and the citizens they serve. The department also plans to continue collaborating with Red Hat to grow its development community—for example, by creating a CoP for container strategy.

"We're on this journey together, side by side. We are delivering new features and scaling our services faster than ever, even with the increased demand of the pandemic," said Leggetter. "The work we're doing with Red Hat is pushing the boundaries of what we can accomplish, for our teams and for our citizens."

About the UK Department for Work and Pensions

The Department for Work and Pensions (DWP) is responsible for welfare, pensions, and child maintenance policy. As the UK's biggest public service department it administers the State Pension and a range of working age, disability, and ill health benefits to around 22 million claimants.



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.



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.

f facebook.com/redhatinc **y** @RedHat

in linkedin.com/company/red-hat

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