The Department for Work and Pensions, the UK's largest central government organisation, standardizes on Nutanix for their hybrid cloud environment

About Department for Work and Pensions

Industry: Public service

Applications

- Citrix Virtual Applications and Desktops
- Cloudera/Hadoop data lake

Products:

- AHV Virtualization
- Files Storage
- Prism

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Department For Work & Pensions Deploys Nutanix Cloud Platform To Take Back IT Reins, Eliminate Silos And Meet Needs Of Rapidly Evolving Modern Workplace

Over 20 years of outsourcing had left the DWP with a fragmented IT infrastructure. This created implications in terms of value for money, resilience and the DWP's ability to embrace new ways of working. The Nutanix Cloud Platform has enabled the DWP to address all those issues and more by hosting core workloads on its own private cloud while, at the same time, laying the foundations for a yet more agile hybrid multicloud future.

> **"Nutanix has put us firmly back in the driving seat, meeting all the scalability, resilience and easy management requirements of what was a major change of direction for the DWP. Beyond that, Nutanix has impressed us with the completeness of its solution, high levels of service and support and its vision for an agile multicloud future towards which we're already moving."**

Jamie Faram,
Head of Hybrid Cloud Services Operations, Department for Work and Pensions

Benefits

- Achieved aim of bringing outsourced applications back under direct DWP management and control
- Cloud-like on-demand scalability and enhanced agility from a secure on-premise solution
- Enhanced resilience with no downtime since implementation
- Noticeable improvement in application performance and availability across the board
- Low operational overheads with no silos through single management interface requiring no specialist skills
- Ability to meet application needs with an appropriate private or public cloud host

Challenges

For over 20 years the UK Department For Work & Pensions (DWP) outsourced much of its IT, but that arrangement was no longer seen as delivering the best value for money in terms of performance or availability. More than that, outsourcing had led to the creation of isolated IT silos which, together with arms-length management and support, was limiting the DWP's ability to scale and adapt its apps to meet the needs of a rapidly evolving modern workplace. Jamie Faram, Head of Hybrid Cloud Services Operations at the DWP, explains:
"Once seen as the future of IT, outsourcing had become something of a millstone around our necks," he commented. "It left us with a mix of outdated technologies, siloed data stores and complex delegated management chains. All of which was impacting not just the resilience and security of our core applications, but our ability to move forward and take advantage of new technologies and ways of working. We needed to take back control and find better ways of doing IT for ourselves."
The DWP sought an approach that would enable it to migrate workloads to the public cloud where and when needed, but continue to host those not suited to that environment on a private cloud run by the DWP itself. The big challenge was finding the right tools to make that all happen.

Solution

As a public body, the DWP has to follow strict competitive tendering guidelines for what, in this instance, would be a major multi-million pound project. A number of tenders were received, all of which were evaluated in detail before the DWP made its decision. The decision went in favour of the Nutanix Cloud Platform which the DWP saw as the best way of building its new on-premise private cloud ready to bring all of its previously outsourced applications back in-house.
Nutanix ticked all the basic boxes, matching the performance, on-demand scalability and resilience of public cloud platforms while giving the DWP back control without the need for teams of specialist technicians. "Beyond that, the DWP was impressed by the completeness of the Nutanix solution; its reputation for high level service and support; and its vision for a hybrid multicloud future. This vision would enable it to, ultimately, move application workloads seamlessly between private and public clouds as required.
For maximum resiliency the DWP private cloud would be spread across two datacentres and configured initially to host two key workloads. The first of these would be an existing Citrix Virtual Desktop Infrastructure (VDI) which, at the time of installation, was supporting around 100,000 remote desktops across its network of UK job centres and other DWP locations. This would be moved to the private cloud and switched from VMware to the Nutanix AHV hypervisor included as part of the Nutanix software stack.
The second workload comprised an extensive collection of data and analytics systems including both a large-scale Cloudera/Hadoop data lake plus a number of more traditional database and data warehousing applications. The latter would also make use of Nutanix Files, a software-defined, scale-out file storage solution included as a fully integrated part of the Nutanix software stack and managed along with the rest of the physical and virtual infrastructure from the unified Nutanix Prism management console.
A few applications would continue to use VMware – not an issue for the hypervisor-agnostic Nutanix platform – with built-in Nutanix replication tools also specified to ensure maximum availability and rapid disaster recovery with Rubrik backup tools for additional protection.

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Customer Outcomes

Faster, fitter, better

Switching from outsourced to on-premise IT is a big ask for any organisation. Thanks, however, to the easy-to-use Nutanix Prism management interface, it wasn't long before the newly assembled workforce were back in charge of IT at the DWP with no disruption during the process and rock solid availability ever since.

As well as on-demand scalability to match that of a hyperscale public cloud platform, performance has also improved across the board..

"The support team used to spend whole mornings just getting everyone logged onto their desktops," recalled Faram. "Now it just works, freeing up staff previously dedicated to hand-holding to do more productive work."

Similarly in the data and analytics team, lengthy routine workloads needing a whole weekend of processing now complete in just a few hours, and can be accommodated anywhere across the schedule. Moreover, experience gained during the migration has empowered staff to develop new Infrastructure as Code (IaC) scripts to automate an ever growing number of routine tasks, thereby saving time and reducing the risk of costly errors.

Fit for the future

A couple of years on from the original deployment, additional nodes have been installed, bringing the infrastructure up to 450 nodes across the two datacentres. The workload balance has also shifted following a move away from fixed desktops to handheld user devices and remote working, all of which has been handled with ease by the DWP private cloud.

"With Nutanix we've learnt that we can do a lot more with less, scale down as well as up and reallocate resources to meet demand just like a public cloud," enthuses Faram. "Talking of which, we're also starting to move workloads to the hyperscalers and back again as part of a truly hybrid multicloud infrastructure.

Next Steps

The long term aim at the DWP is to continue that journey to a hybrid multicloud future using Nutanix technologies and tools, where appropriate. To this end, Faram and his team are laying plans to empower staff to manage their own IT through AI-assisted self-service portals and the use of Database as a Service technologies hosted by the Nutanix infrastructure. Likewise they are planning to help developers by providing access to containers and other cloud-native technologies as well as allowing ever more flexible balancing of workloads across multiple clouds going forward.

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