



Red Hat



Delivering business benefits to cloud service providers and their customers through the Red Hat Infrastructure Migration Solution

Switching to cloud-native platform benefits CSPs and their customers

Cloud service providers are harnessing the cost savings generated by migrating from a proprietary virtualisation infrastructure to an open source platform to develop innovative services for customers

Cloud service providers (CSPs) are increasingly finding that a proprietary virtualisation infrastructure limits innovation and restricts their ability to offer modern digital solutions to their customers.

However, CSPs that have turned to Red Hat's Infrastructure Migration Solution are already reaping the benefits of moving to an open environment that allows them to cut costs and focus on core emerging technologies such as hybrid cloud, containers and automation.

The solution is a mature set of tools and services and has been developed using intelligence gathered from the experience of previous migrations in a process that is fully supported by Red Hat.

CSPs benefit from Infrastructure Migration Solution

Many CSPs can testify to the business benefits of migration with the Infrastructure Migration Solution – eliminating costly and inflexible enterprise licence agreements (ELAs); identifying pilot workloads for migration; and moving to a new digital infrastructure at scale while embracing a flexible, forward-looking platform that facilitates a path to containers and an open hybrid cloud. Moreover, this can be achieved with a phased approach, if desired, by establishing a parallel environment to avoid any financial penalties associated with a “big bang” switchover.

One such CSP is CorpFlex, a managed IT services provider supporting some of Brazil's biggest businesses. By migrating to Red Hat Virtualization, and leveraging Red Hat CloudForms, an orchestration tool that provides the migration capability as well as wider hybrid cloud management and automation, CorpFlex reduced virtual machine (VM) costs by 87% from \$4,600 to \$600 each. It also created more integration points and more automation, resulting in standardised delivery with fewer errors.

“What you can see from the CorpFlex example is the huge benefits to the business arising from migration, releasing budget to fund innovative services for their customers,” says Karl Stevens, Infrastructure Migration Solution business development manager EMEA at Red Hat.

CorpFlex can now help its customers, which include banks, fast-food restaurant chains and media groups, to run workloads in the most appropriate environment to meet their time, cost and security requirements.

Money saved on operating costs is being channelled into innovation because CorpFlex now has the foundation for a cloud-native, container-based service.

“CSPs that have used the Red Hat Infrastructure Migration Solution find that cost savings upfront can be reinvested into the budget for what really matters,” explains Colin Fisher, director, EMEA cloud service provider sales, at Red Hat.

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The solution has enabled CorpFlex to invest in a major new offering, CorpFlex Kubernetes Service, which will offer dedicated Kubernetes clusters connected to public and private cloud. It is evaluating using Red Hat OpenShift Container Platform as the foundation of this new offering; and is also planning to use Red Hat Ansible Tower, together with Red Hat CloudForms, to integrate its services in a hybrid multicloud environment.

Kubernetes momentum

Gordon Tillmore, senior principal product marketing manager at Red Hat, says CorpFlex can take advantage of the momentum behind Kubernetes, which has been building over the past three years because, when combined with OpenShift, it allows users to jettison older virtualisation platforms.

“Kubernetes allows for orchestration for virtual machines within a container platform, so there is no longer the need for a virtualisation layer. It reduces complexity and allows for greater agility, taking away the need for an additional layer. Customers have a single platform for innovation and introducing cloud-native applications,” says Tillmore.

CorpFlex Kubernetes Service allows customers to have hybrid workloads running in their own datacentres, in the Red Hat datacentre, and in the public cloud.

CorpFlex offers connections into Amazon Web Services (AWS), Azure, IBM and Oracle Cloud, and is looking to manage all this through a service catalogue, using CloudForms and Ansible Tower.

By helping customers to run workloads in the most appropriate environment, the cloud provider is becoming more attractive to prospective customers and is set to gain more business. It could not risk any downtime for customers’ critical systems during migration and Red Hat ensured resilience during this process.

The goal for CSPs such as CorpFlex is to remove legacy virtualisation costs and gain greater agility and control by moving to a truly cloud-native open platform.

Tillmore emphasises the benefits of acquiring a single innovative platform that enables customers to expand without having multiple teams running multiple environments. “Ultimately, the aim is to write away technical debt and strike out excessive virtualisation costs as they move to a new innovation platform,” he says.

CSPs and their customers may have thousands of applications, which they can eventually move to a single platform. By having a single orchestration capability and eliminating multiple abstraction layers, Kubernetes and OpenShift can deliver huge efficiencies.

“Digital leaders want to cut costs and be as agile as possible to respond to shifting market dynamics and competitors at all levels,” says Tillmore.

CSP customers can benefit too

End-user companies also demonstrate how Red Hat’s Infrastructure Migration Solution has worked for them.

Intermountain Healthcare reduced IT deployment time from two or three weeks to four hours and VM provisioning from three days to 20 minutes. It improved cross-team DevOps collaboration with flexible IT environments and enhanced access control, and cut IT costs by migrating proprietary solutions to open source software and industry-standard hardware.

By helping customers to run workloads in the most appropriate environment, cloud provider CorpFlex is becoming more attractive to prospective customers

The British Army was able to improve its IT support for personnel around the world by speeding up service delivery with Red Hat's Ansible Tower for simplified, automated management to overcome issues with unplanned downtime and support.

Benefits included accelerated deployment of critical patches from three days to three hours, and reductions in delivery time by 75%.

Many CSPs are delivering similar customer benefits through embracing open standards and recognising how this shift signals a future trend. Stevens points to improvements in provisioning and operational efficiency by moving to Red Hat, and away from a proprietary virtualisation infrastructure.

"In the past, most software solutions were proprietary and produced in-house by developers. If something needed changing, there was a process to go through. Open source is the way forward because it allows new applications to iterate more quickly with more standardisation of interfaces," he says.

A modern, open source infrastructure

Thanks to the Infrastructure Migration Solution, CSPs and their customers can have a modern infrastructure based on Red Hat Virtualization, with CloudForms and Ansible, that is open, optimised and innovation-ready. Instead of being limited to what is compatible with a proprietary vendor's offerings or time-intensive workarounds, an open environment is agile and proactive.

"Within IT operations there is growing sentiment that open source technology and open standards are the future. Migrating infrastructure to a supported open source platform with Red Hat opens the way to this future. It also provides the opportunity for operations staff to gain knowledge of these cloud-native technologies and learn new transferable skills," says Stevens.

Developers are no longer forced to cobble together a system where every iteration is more complex than the last. Systems administrators don't have sleepless nights worrying about system failures and having to rewrite patches and updates. Instead, a CSP with open source virtualisation and cloud solutions has complete control over the infrastructure and everything that relies on it. There is no need for an ELA and the CSP can work with or without any vendor.

A CSP can run the most appropriate environment to suit its needs in a hybrid world. For example, AWS, Azure and IBM can all be used and managed through a service catalogue using CloudForms and Ansible Tower.

"Ansible allows for automation, so it is much easier for organisations because it allows rules to be put in place without the need for a human touch across applications and infrastructure. It is part of the digital strategy that allows organisations to become more simple and agile," says Tillmore.

CloudForms provides a "single pane of glass", allowing organisations to see Red Hat technologies and beyond to orchestration layers across different platforms, including proprietary virtualisation solutions, public and private cloud, and bare metal.

"The vast majority of organisations are doing hybrid cloud because otherwise they could be burned if all their eggs were in one basket. A multicloud approach limits risk and provides the advantages of flexibility and portability," says Tillmore.

By combining public and private cloud and bringing portability to apps, organisations have a choice of moving to whichever hybrid arrangement works best for their needs.

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Karl Stevens, Red Hat

“They can take a given workload and, for example, choose public cloud if there is a seasonal spike such as Black Friday or the tax season. By having the choice of multiple footprints and platforms for workloads, organisations have greater flexibility and reduce the risk of downtime,” says Tillmore.

Open source infrastructure and open standards future-proof business

By adopting open standards through Red Hat’s infrastructure, cloud service providers and their customers are not only enjoying huge benefits, but are also future-proofing their business.

“Open standards give you options and capabilities you don’t have with proprietary vendors because you’re tethered to their roadmap. Those suppliers force you along the journey to the cloud as they dictate it, and you are stuck with the technology and the partnerships they create,” says Tillmore.

More organisations are waking up to the limitations of proprietary virtualisation and moving away from vendor lock-in.

“If an organisation goes into a huge ELA, it may solve the business need they have today, but it prevents them from being open and flexible to where they need to be in 10 years, or perhaps even three years. Proprietary vendors want to dictate the path to hybrid cloud, whereas open APIs [application programming interfaces] allow you to play with a broader vendor ecosystem,” says Tillmore.

Red Hat works with a range of CSPs, which gives the company an understanding of the market and the challenges of achieving the right margins – and how, by decreasing IT operating costs, CSPs can deliver cost efficiencies while also investing in innovation.

“CSPs can expand service consumption work into other areas. Red Hat Infrastructure Migration Solution provides the ability to offer services at lower costs than competitors and for CSPs to expand their offerings, tailoring them to specific segments. They cannot easily do that if they are tied into expensive ELAs and proprietary virtualisation,” says Tillmore.

“By moving to Red Hat’s enterprise open source technologies, CSPs can gain more traction with customers and put themselves in a position to tackle what is coming next.” ■

