Managed Kubernetes Platforms Can Accelerate Digital Transformation

The 451 Take

How we work, where we work and how customers are served have all changed. The future of work will require scalable approaches to balancing digital and physical footprints with IT infrastructure that can flex to meet any given model – remote working, virtual teams and hybrid office environments. At the same time, self-isolating consumers spend more time and money online. Cloud services are enabling this, benefitting hyperscale vendors. These trends may last for decades.
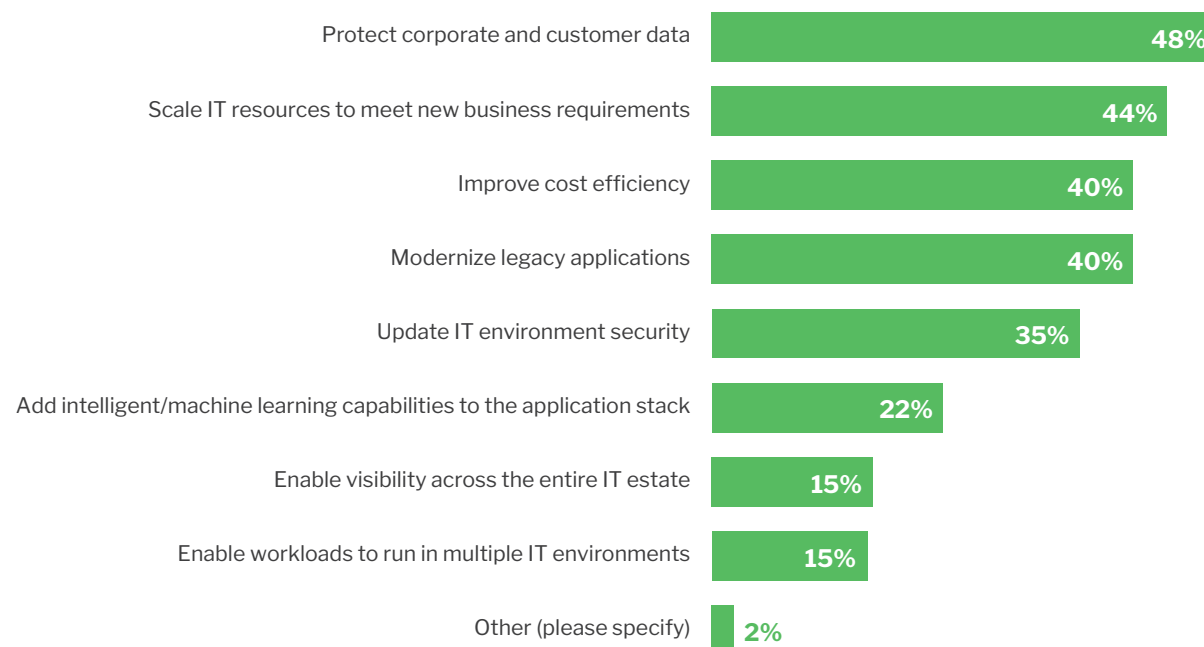
Cloud-native technologies and modern agile development approaches are being used as weapons to fight uncertainty and counter rapidly changing market conditions, delivering future-proofed infrastructure to support ongoing digital transformation efforts.

As the de facto standard for container orchestration, the essential promise and power of Kubernetes is being realized by customers deploying multicloud environments to support the new working and consumer models. A managed service provides relief from operational complexity and lock-in, enabling customers to focus on application development and delivery.

IT Workload Management Goals Over the Next Two Years

Source: 451 Research's Voice of the Enterprise: Digital Pulse, Workloads and Key Projects 2020

Q: Which of the following will be important goals for your organization's IT workload management over the next two years? Please select up to three. (n = 512)

Goal	Percentage
Protect corporate and customer data	48%
Scale IT resources to meet new business requirements	44%
Improve cost efficiency	40%
Modernize legacy applications	40%
Update IT environment security	35%
Add intelligent/machine learning capabilities to the application stack	22%
Enable visibility across the entire IT estate	15%
Enable workloads to run in multiple IT environments	15%
Other (please specify)	2%

Business Impact

NEW APPROACHES TO SERVICE DESIGN USING CONTAINERS AND KUBERNETES – securing services and making them available over highly distributed networks – will be required to scale 'work from home' into a production environment. As the future of work is reimagined, the effectiveness and productivity of remote employees, who now make up so much of the workforce, will be key to recovery from an economic downtown. Enterprises are learning from the proof-of-concept for working from home that they can make it work, and be productive.

USING KUBERNETES AS A CONNECTED CONTAINER PLATFORM ENABLES ENTERPRISES TO SECURE, SCALE AND OPTIMIZE WORKLOADS. And these are the key enterprise IT management priorities for the next two years, according to our Voice of the Enterprise Digital Pulse, Workloads and Key Projects 2020 survey.

THE CONTAINER IS BECOMING THE FUNDAMENTAL ABSTRACTION – the atomic unit for enterprise IT delivery across hybrid and multicloud environments. Kubernetes is its 'dial tone' standard for orchestration and has successfully shifted the IT conversation away from virtualized hardware and up the stack into application-driven infrastructure. The combination of containers, Kubernetes and microservices promises to dramatically increase the velocity of service creation and delivery. Enterprises can go faster and be more efficient as a result.

KUBERNETES ALLOWS CUSTOMERS TO DO CI/CD ON ANY PHYSICAL LAYER THEY CHOOSE. It also enables them to decide which applications run where for compliance, sovereignty or other policy requirements, or which go to public cloud and which don't. Target selection and connectivity in CI/CD are increasingly being driven by developer demand, rather than by IT operations.

Looking Ahead

Flexibility is key to the future of work. As customers reimagine their ways of working, suppliers will need to build and package offerings around the changing requirements of the business. It's not just a matter of addressing short-term remote work and distancing demands, but also anticipating more permanent models. Permanent remote working will accelerate the use of edge computing to physically arrange hybrid IT infrastructure closer to users and devices – delivering services and workspace experiences via the spectrum of abstractions provided by cloud-native technologies and design principles.

Kubernetes remains a very complex platform. For customers without sophisticated IT organizations and dedicated engineering teams, managed Kubernetes services can help mitigate the operational complexities, especially around updates, monitoring and security. Large enterprises with complex IT estates and data-driven businesses should seek managed Kubernetes suppliers that accommodate a range of existing infrastructure and software investments while also enabling workloads to be shifted into public cloud, giving them choice and flexibility.

In a market that is crowded with open source projects and commercial tools – where there is lots of confusion – a managed Kubernetes provider can take the sting out of tracking key proximal services such as service mesh and observability. The shift to a digital customer experience continues to be a much bigger undertaking than remote working is. Cloud and cloud native sit strategically at the top of the list of technologies viewed as most transformative to support this shift, but are also where skills are in shortest supply. Access to talent continues to be more of a constraint than access to capital, which is a major reason that enterprises should seek suppliers that can help upskill enterprise IT teams with container and Kubernetes expertise.

Red Hat OpenShift Service on AWS is a fully managed Red Hat OpenShift service running natively on Amazon Web Services (AWS) that allows customers to quickly and easily build, deploy, and manage Kubernetes applications on the industry's most comprehensive Kubernetes platform in the AWS public cloud.

To learn about Red Hat OpenShift Service on AWS, visit https://www.openshift.com/products/amazon-openshift/