Demodern's Multi-Cloud Use of Kasten K10 for Kubernetes Backup and Recovery

ENVIRONMENT
› AWS and DigitalOcean
› Terraform, kops
› GitLab, Craft CMS, Nginx, Node.js Express, PHP, Django
› AWS EBS and DigitalOcean Block Storage

CHALLENGES
› Fast-moving client projects
› Small operations team
› Lack of comprehensive backup solution, long recovery times
› Multi-cloud and multi-account deployments

SOLUTION
› Kubernetes-native multi-cloud backup platform
› Easy-to-use dashboard that hides Kubernetes complexity
› Ops focused, developer friendly system
› Policy-based automatic protection

RESULTS
› Ability to support fast-moving projects and developer teams
› Multi-cloud portability and mobility of applications
› Comprehensive and secure protection of the entire cloud-native application stack

ABOUT DEMODERN

Demodern, founded in 2008 and located in Germany, is a multi-award winning creative technology agency for online communication, design, and digital projects. As one of the leading specialists for high-end digital production and excellent user experience design, Demodern is focused on designing and developing interactive solutions for all industries - from augmented and virtual reality applications, (branded) games, store and (virtual) event installations, and mobile apps down to web experiences. Their goal is to create high-quality, digital communication that makes an impact for their global clients. Demodern's customers include household names such as Nike, Daimler, Mazda, Beiersdorf, Royal Caribbean, Nestlé, and more!

Moritz Kneilmann is Director Cloud Solutions at Demodern and, with a small team, supports a number of projects that run on Kubernetes. Their application stack today includes Craft CMS, Node.js Express, Nginix, Django, and more. Their Kubernetes clusters are spread across multiple clouds including AWS and DigitalOcean and Azure coming up in the future.

CHALLENGES

Demodern faced three major challenges as they rolled out Kubernetes within the organization. First, there was a small operations team that was supporting a large number of projects and developers across multiple clouds and accounts (including within customer accounts). The cloud these projects would be deployed on was often decided after development or potentially even after first production use.

Second, given fast-moving client requirements, projects will often adopt new technologies, go live after a couple of weeks of development, and might only exist for a few months after. Short-lived projects means that any involved planning process was not feasible and, in particular, all protection needed to be transparent and baked into the infrastructure.

Finally, previous backup solutions deployed by Demodern only extracted database contents. This approach was not sufficient given long recovery times, did not scale with their growth, and was not comprehensive enough in terms of protecting all their application components.

SOLUTION

With a focus on ease-of-use and a simple dashboard, "We selected Kasten K10 for its easy to use backups, simple UI interface, and cross-platform support for multiple clouds that could handle any type of workload," said Moritz Kneilmann, Director Cloud Solutions, Demodern. "With our portfolio of global customers, having separate backups ensures that in case of disaster recovery each client has their own isolated environment, and K10 makes that possible with its very simple setup. It's also useful for our developers to set up their own environments or have a ready to go production setup, which helps greatly to speed up the development cycle."

With a Kubernetes-native focus, K10 is the only cloud-native data management platform that could balance the needs of the developers (lights-out data protection, easy-to-extend policies) and operators (low operational overhead, compliance and cost monitoring, enabling developer agility) for Demodern.

K10 DATA MANAGEMENT PLATFORM

KEY BENEFITS

› **Agility**:
With K10, Demodern was able to support rapidly moving development teams without sacrificing data safety. Given that K10 is a part of a standard cluster setup and comes with default policies, all client applications were protected without needing any additional setup or configuration.

› **Simplicity:**
With a simple-to-operate dashboard that was self explanatory with a user-centric design, no training was required for operators or developers. Previously complex workflows around policy and retention definitions was easy with K10 and comprehensive documentation helped accelerate the design of complex workflows whenever needed.

› **Application Centricity:**
With a focus on backup and recovery of a complete Kubernetes application, Demodern was able to move away from just database-level backups with manual restores to a completely automated and fast recovery process.

› **Ops Visibility:**
With a dashboard that clearly showed application compliance and backup storage utilization, and additional Prometheus integration for all metrics,
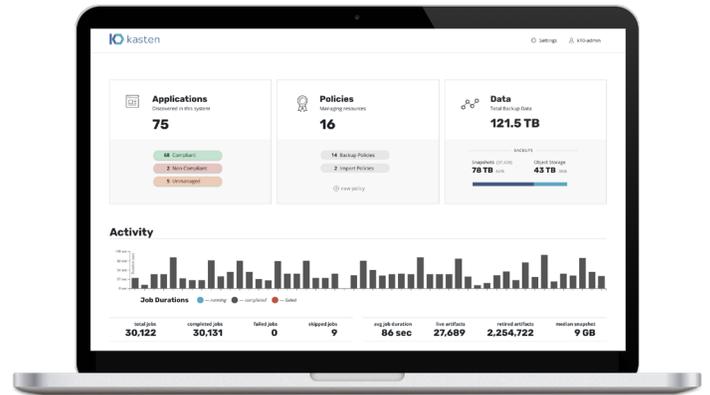
operators easily viewed and monitored adherence to SLAs across all the clusters that applications were deployed on.

› **Developer Focus:**
Developers were able to protect their applications seamlessly without requiring any code or deployment changes. When backup requirements change, policies could also be easily edited without requiring operator support.

› **Ease of Deployment:**
K10, via Helm, was easy to integrate into Terraform for new cluster rollouts. K10's ability to run within the application's Kubernetes cluster allowed for deployment within Demodern's customers cloud accounts without weakening their security posture.

› **Multi-Cloud and Cross-Cluster Mobility:**
With protection policies that are independent of the underlying infrastructure, K10 allowed applications to be easily developed and protected in one cloud while being deployed into production in another without needing any upfront or post-deployment changes. K10 also supports migrating existing applications to different clusters in case performance isolation becomes important.

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About Kasten
Kasten is tackling Day 2 data management challenges to help enterprises confidently run applications on Kubernetes. Kasten K10, a data management platform purpose-built for Kubernetes, provides enterprise operations teams an easy-to-use, scalable, and secure system for backup/restore, disaster recovery, and mobility with unparalleled operational simplicity.