Sopra Steria Uses Kasten K10 for Backup and Disaster Recovery for Red Hat OpenShift Environments

ENVIRONMENT

- Amazon Web Services (AWS)
- Red Hat OpenShift
- MySQL, AWS RDS, PostgreSQL, Elasticsearch, MongoDB
- Amazon Elastic Block Service (EBS)
- Amazon Simple Storage Service (S3)

CHALLENGES

- Easy-to-manage backup infrastructure
- Cross-site application backups
- Cost-effective data sovereignty compliance
- Secure, self-service requirements

SOLUTION

- Application-centric platform
- Granular data protection and recovery capability
- Easy to deploy
- Advanced management interface
- Policy-based automation

RESULTS

- Application protection with minimal operational overhead
- Ability to satisfy sovereignty mandates
- Ability to easily support multitenancy and extend to new workloads as needed

ABOUT THE CUSTOMER

One of the top 5 European IT services firms, Sopra Steria helps its clients with their digital transformation initiatives to deliver significant business benefits. Their services include consulting, systems integration, and infrastructure management across a wide range of industries.

They help customers adopt cloud and PaaS solutions with services such as implementation of Kubernetes clusters on public clouds, redesigning of legacy systems to microservices architectures, and supporting development teams adopting Red Hat OpenShift while ensuring high availability and security.

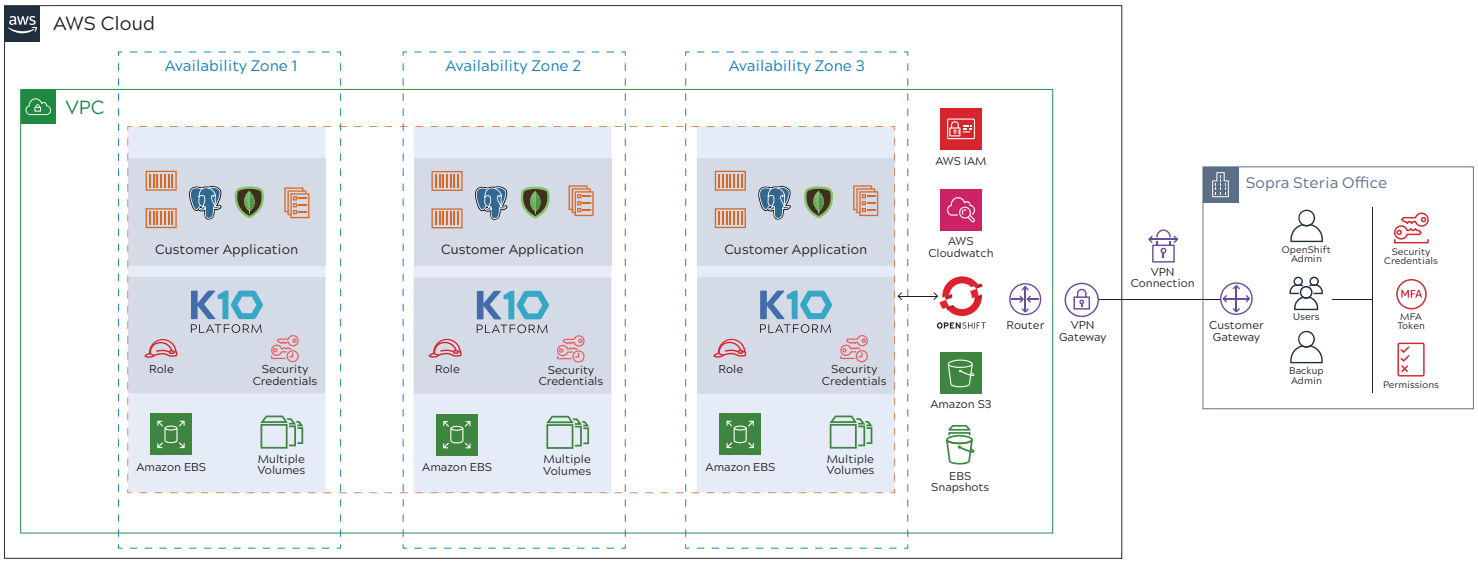
CRITICAL NEED TO PROVIDE DATA MANAGEMENT FOR OPENSHIFT ENVIRONMENTS

The operations team was looking to realize the agility and cost-efficiency benefits of Kubernetes while effectively serving a large number of internal projects. Supporting different groups requires multi-tenancy support for isolation. The team recognized the need to capture business data as well as cluster information. The security needs extended beyond tenant isolation to include RBAC, audit support, and end-to-end encryption. Further, data sovereignty rules dictated the need for being able to quickly migrate workloads and data to specific jurisdictions if needed.

Further, the architecture needed to support groups using a wide range of modern databases including MySQL, Amazon RDS, PostgreSQL, and Elasticsearch. From a data protection perspective, the use cases included backup and restore, and disaster recovery. The customer had tried various approaches based on the use of VM-level backups, EBS snapshots with AWS Lambda functions, using port forwarding with a cron server, and Kubernetes cron jobs. However, they experienced significant operational and reliability limitations with all these solutions.

CLOUD NATIVE DATA MANAGEMENT WITH KASTEN K10

In Kasten's K10 platform, the team found a solution that is not only easy to deploy, use, and extend to additional workloads, but also has the necessary security capabilities. Its deep OpenShift integration and application-centric approach coupled with granular data protection made it the ideal solution for the customer.



SOPRA STERIA ARCHITECTURE - KASTEN K10 AND RED HAT OPENSHIFT IN AWS

KEY BENEFITS

- **Seamless Integration with Red Hat OpenShift Environments:** K10's deep support for OpenShift features, including DeploymentConfigs and security contexts allows for seamless integration into the customer's OpenShift clusters.
- **Ability to Work with Dynamic Applications without Developer Overhead:** Without requiring any developer changes, K10 auto-discovers applications, adapts to changes, and dynamically maps policies to the current state of the application.
- **Easy-to-Deploy Software-Only Platform:** The software-only K10 data management platform deploys within minutes. It requires no training and or professional services.
- **Policy-Based Backup Workflows:** K10 manages backups at scale through automation and dynamic policies. This avoids the need for custom scripting and allows operations teams to easily create both broad and custom policies for data management compliance.
- **Improved Time to Market:** K10's powerful workflows, low management overhead, advanced web-based user interface, and centralized monitoring support significantly reduces time spent on data management tasks and managing storage infrastructure.
- **Secured Data:** K10 enables the customer to meet data sovereignty requirements. It also provides support for various enterprise security needs including scoped IAM roles, RBAC, air-gapped environments, and end-to-end encryption.
- **Full Application Capture:** The ability of K10 to capture the entire application stack by taking a consistent application-to-infrastructure view is critical for compliance and restore testing.
- **Solution Flexibility:** Developers gain the benefit of policy-based backups by simply applying labels to their applications - K10 then applies the appropriate policies to protect the applications. The solution is also extensible and permits customization of the workflows, for example, to modify DNS settings during restores.

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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.