

Leidos Launches Portable SecDevOps Stack on AWS GovCloud with Kasten by Veeam



Executive Summary

Deployment and ongoing maintenance of software development environments and CI/CD pipelines that rely on manual procedures are at risk of misconfiguration, inconsistency and security risks. [Leidos](#) made significant investments in their portable SecDevOps (pSDO), an automated, repeatable infrastructure as code approach to deploy and maintain their software development environments. This code provides a continuous integration and continuous deployment (CI/CD) approach that is deployed using containers in a Kubernetes environment on [AWS GovCloud](#). This approach enables speed to mission with repeatable, customizable solutions, on-demand scalability and AWS security to meet the security demands and regulatory compliance standards of our customers. This pSDO uses [Kasten K10 data management platform by Veeam](#) to apply data governance policies for application backup and data recovery processes. Running the pSDO with Kasten K10 on AWS, Leidos deploys a fully compliant, customized environment and onboards new projects in hours instead of days, providing dramatic productivity improvements.

Regulatory compliance with agile methods at mission speed

Leidos creates development environments that incorporate best practices and methodologies for building applications using the CI/CD approach. As a contractor supporting defense, intelligence, civil and healthcare customers, Leidos must ensure their environments comply with strict regulatory processes for governing Controlled Unclassified Information (CUI) and Personal Identifiable Information (PII), such as National Institute of Standards and Technology (NIST), and Federal Information Processing Standards (FIPS).

Leidos' pSDO creates repeatable, customizable CI/CD environments using containers in a Kubernetes environment on AWS GovCloud to manage cost, and ensure repeatable implementation of security controls. Given the highly regulated nature of client workloads, the company benefits from using a Kubernetes-native data management platform that automatically applies data governance policies to every layer of an application in the container including processes for data backup and data recovery.

Enabled automatic data management policies in portable SecDevOps (pSDO)

Leidos has demonstrated success with an enterprise, multi-tenant SecDevOps deployment that hosts more than 160 projects in their AWS GovCloud. Capitalizing on this success, Leidos engineers developed pSDO, a solution based on using Infrastructure as Code (IaC), to rapidly deploy highly flexible, dedicated single-tenant CI/CD deployments. This solution enables projects to customize the CI/CD development tools and provides the ability to integrate with external partners while maintaining regulatory compliance. Kasten K10 allows Leidos to apply the correct governance policies to all the microservices that make up their applications and ensure secure backup, restore and disaster recovery.

"Given the nature of the different kinds of tools we deploy, we knew we needed a data agnostic approach to backup and disaster recovery. The alternative, of creating a tailored backup solution for each individual tool was cost prohibitive," explained Craig King, SecDevOps Engineer for Leidos. "Rather than spending one to two weeks per application just to come up with the Kubernetes backup solution for each app, K10 manages all the complexity, and lets us concentrate on bringing solutions to our customers." Kasten's K10 data management platform greatly simplified the process of applying backup, restore and data recovery policies to the application stack—enabling a single engineer to launch an environment and have it fully compliant on the same day.

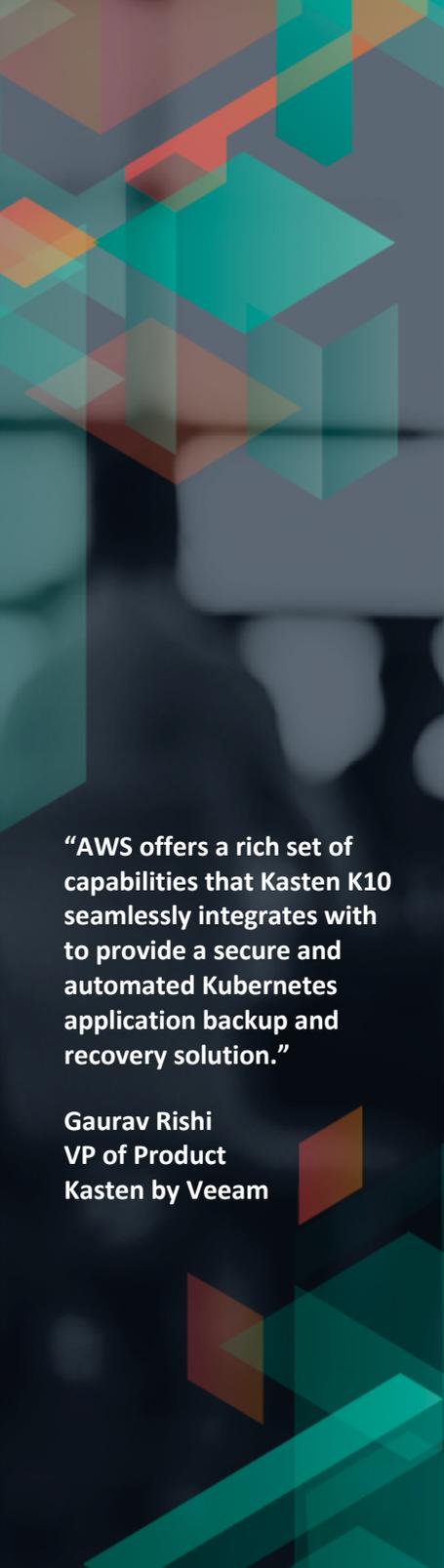


About Leidos

Leidos is a Fortune 500 information technology, engineering, and sciences solutions and services leader working to solve the world's toughest challenges in the defense, intelligence, civil, and health markets.

"When we used Kasten's K10 by Veeam to back up and restore an application the very first day, we knew we had found the right solution."

**Craig King
SecDevOps Engineer
Leidos**



“AWS offers a rich set of capabilities that Kasten K10 seamlessly integrates with to provide a secure and automated Kubernetes application backup and recovery solution.”

Gaurav Rishi
VP of Product
Kasten by Veeam

This gave rise to the pSDO, as a golden Kubernetes stack, which consists of containers in a Kubernetes environment on AWS GovCloud and Kasten K10. Project teams in various geographies spin up (and down) their own secure development and deployment clusters, and Kasten K10 applies forward-looking protection policies automatically to applications introduced in the cluster. “By adopting Kasten K10 data management platform, the time required to apply data policies for application backup, restore, and disaster recovery went to zero,” said King.

Decreased client’s time to market using containers with repeatable security controls

Developing the pSDO stack with containers in a Kubernetes environment on AWS GovCloud allowed Leidos to leverage benefits from both technologies. “Running containers and Kubernetes increases our teams’ efficiency because we did the work to meet regulatory requirements once,” said Craig King, Leidos’ SecDevOps Engineer, “and now our teams can reproduce it for future clients and projects at the speed of development.”

By choosing AWS, Leidos further minimized the development time needed to help their clients meet compliance regulations. “With AWS GovCloud, we inherited about 20 percent of our regulatory compliance controls,” estimated Craig King. “That saves us a lot of time and effort in auditing because we don’t need to re-implement them for each deployment, and it helps our clients get up and running much faster than before.”

Simplified governance for clients by leveraging AWS APIs for integration

With Kasten K10, Leidos clients have complete control over their data storage, backup, restore and disaster recovery. Kasten K10 eliminated the need to manage complexity by integrating with AWS APIs to work across all layers of the application. “Kasten K10 automatically discovers dependency trees and allows restoration of the entire application in the correct order,” explained Gaurav Rishi, VP of Product for Kasten K10. “Deep integrations with AWS through APIs allowed Kasten K10 to offer customers a rich backup and data consistency. Furthermore, the Kasten K10 automatically applies forward-looking policies whenever a new application is added to the cluster, ensuring it is protected without extra work from developers.”

By developing the pSDO environment within the AWS ecosystem, Leidos offers its clients unlimited opportunities for customization and expansion across the world, enabling them to achieve their missions and IT business goals more quickly and at scale. The inclusion of Kasten K10 provided key data management capabilities, including dynamic discovery of applications as soon as they are introduced in the cluster and automatically applying backup policies to them. This ensures regulatory compliance, and it also enables developers to independently recover application data and components if required due to misconfigurations, rebuilding clusters, cloning or other factors. Leidos’ golden stack with pSDO positions the company to rapidly comply with future security demands and continued opportunities to extend efficiencies into existing and new environments.

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About Kasten by Veeam

Kasten is an independent Kubernetes business unit within Veeam, and the award-winning leader in Kubernetes backup and disaster recovery. Kasten helps enterprises overcome Day 2 data management challenges to confidently run applications in 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 application mobility with unparalleled operational simplicity.

