



# Improve Management, Security, and Resilience of Hybrid Workloads Using Kubernetes

## U.S. Federal Government IT Modernization Use Cases

U.S. government and military IT teams manage a complex blend of old and new technologies while ensuring continuity of operations (COOP). Having a well-thought-out, up-to-date COOP or disaster recovery (DR) plan in place means uninterrupted mission-critical communications, systems, and applications during national emergencies, technological threats, and national security crises.

As CxOs navigate complex digital transformation initiatives to deliver better data security, resilience, and mobility to the tactical edge, a lift and shift approach to multi-cloud environments can be employed while keeping legacy systems and the services they provide stable amidst rising costs.

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## Common U.S. Government Use Cases

Organizations can quickly and efficiently improve security, reliability, and data management scaling for legacy and multi-cloud environments by leveraging a hyperconverged infrastructure platform (HCI) and tools like Kubernetes (K8s). Below are some common use cases the U.S. government is successfully addressing via Kubernetes-based solutions.

- 1. Unified Data Management:** Integrating the management of virtual machines (VMs) and containers within a K8 environment eliminates the need for separate tools or platforms to manage them. This enables a more streamlined and unified orchestration and operational experience. This single-pane-of-glass approach is an invaluable asset for Agile and DevSecOps-focused teams. Adding a COOP/DR component tailored for container environments ensures that your data and containerized and virtualized applications are always backed up, secure, and recoverable in the event of a disaster.
- 2. Orchestrate Legacy and Modern Workloads:** With the ability to treat VM workloads as containerized entities, legacy applications can be maintained within a modern orchestration framework. This promotes easier migration to the cloud and optimizes the lifecycle management of both traditional applications and newer, cloud-native services within the same HCI.
- 3. Gain Operational Efficiency:** By converging VMs and Kubernetes workloads, IT teams can reduce complexity, facilitate automation, and effectively manage deployment, data management, and backup/recovery tasks. IT administrators can reduce the number of manual tasks performed, thereby freeing up staff and allowing them to focus on more innovative pursuits.
- 4. Proactive Compliance and Security:** IT teams can proactively and automatically enforce consistent data protection, security policies, and compliance standards across their entire infrastructure. For example, Rancher Government's Harvester with Kasten K10 can be used to scan for non-compliance, and their automated backup and recovery solution can ensure no workload is left unprotected.



## Bridge Legacy and Modern IT Infrastructure

Using a single, easy-to-use solution like the one described above creates a seamless, efficient bridge between legacy and modern IT infrastructure. This K8s-based solution ensures robust availability of data, better application security, and instant backup and DR for mixed workloads through the tactical edge. Here's how these technologies offer distinct but complementary capabilities that can address a variety of government use cases:

- **Harvester:** Harvester is a modern, interoperable hyper-converged infrastructure solution that's designed to help operators simplify their stack. Built on a foundation of cloud-native solutions, virtual and container workloads can be easily managed side-by-side. This helps enterprises consolidate their infrastructure's complexity and scale with confidence by using newer cloud-native solutions. Harvester, like other RGS products, is open-source and has open-standard based K8s at its core to manage infrastructures. This makes it highly compatible with similar services and tools. For example, Harvester can leverage and enable partner technology stacks like Veeam to deliver specific capabilities to meet a customer's unique needs.
- **Kasten K10:** Kasten K10 ensures the safety and recoverability of legacy applications and multi-cloud data through the tactical edge. It also meets stringent enterprise grade security standards and can deliver aggressive application-specific backup and DR service level agreements (SLA's) in any cloud environment.

### About Veeam Software

Veeam, the #1 global market leader in data resilience, believes businesses should control all their data whenever and wherever they need it. Veeam provides data resilience through data backup, data recovery, data freedom, data security, and data intelligence. Based in Seattle, Veeam protects over 550,000 customers worldwide who trust Veeam to keep their businesses running. Learn more at [www.veeam.com](http://www.veeam.com) or follow Veeam on LinkedIn [@veeam-software](https://www.linkedin.com/company/veeam) and X [@veeam](https://twitter.com/veeam).

## A Simple, "Better Together" Solution

Bridge complex mission-critical legacy and modern IT environments with a Harvester — Kasten K10 solution!

- **Enterprise-grade** HCI platform with VM management via Harvester
- **Compliance-based Security** addresses U.S. government requirements
- **Integrates** storage, networking, and virtualization into one stack
- **Flexible** enough to use on bare metal, and in air-gapped and tactical edge environments

Together, Harvester and Kasten K10 form a single solution that can help modernize government IT infrastructure, ensure secure and compliant data operations, and provide robust data backup and DR to the tactical edge. If you are looking to solve infrastructure integration challenges, engage the Rancher and Veeam government teams to future-proof your modernization efforts.



Reach out for more details:

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