

Portworx and IBM Cloud Satellite: Better Data Management for Hybrid Cloud



Portworx by Pure Storage is a Kubernetes data-services platform built from the ground up for the modern era of containerized workloads and microservices. Recognized as the market leader in GigaOm's 2020 Radar Report, Portworx provides a data services platform for cloud-native applications running across hybrid-cloud satellite locations.

[IBM Cloud Satellite](#), now generally available, enables clients to run IBM Cloud services in any environment—in any public cloud, on-premises, or at the edge—all delivered as a service. This flexibility will help bring cloud capabilities to where client data resides, in the environment of their choice, while focusing on consistency, user experience, and security.

With its open architecture, IBM Cloud Satellite builds on IBM's deep industry expertise and can help enterprises across a variety of industries, including telecommunications, healthcare, banking, insurance, travel, and transportation, transform into digital-first organizations. The need to modernize mission-critical workloads is intensifying. According to [a recent IBM Institute for Business Value report](#), 74% of CEOs interviewed during the COVID-19 pandemic believe cloud computing will most help their organization

deliver these results over the next two to three years. We see a cornerstone of this transformation is in [edge computing](#). The continued proliferation of edge devices is expected to shift the amount of data that resides at the edge compared to within central data centers. As this transition takes place, IBM Cloud Satellite is designed to bring cloud services to where clients' data already resides—including at the edge—and help them bridge to where they want to go.

[Portworx by Pure Storage](#) is part of IBM's ecosystem of partners fueling hybrid-cloud environments by helping clients manage and modernize workloads from bare-metal to multicloud and everything in between with Red Hat OpenShift, the industry's leading enterprise Kubernetes platform. IBM Cloud Satellite is engineered to give clients the flexibility to bring their applications to environments where their data resides while leveraging the security of IBM Cloud.[1]

IBM Cloud Satellite is designed to help clients address security, privacy, and data sovereignty requirements based on their data governance requirements and address the client's local regulations and compliance obligations by enabling them to deploy and manage applications with consistency for specific markets. IBM Cloud Satellite offers clients control over how they manage critical data delivered via IBM Cloud—the industry's most secure and open public cloud for business. Those cloud services can therefore be co-located with their apps and data, helping to reduce latency and taking regulatory considerations into account.

The [Portworx Enterprise Data Services Platform for Kubernetes](#) is designed to help clients run data-rich stateful applications on Kubernetes running across hybrid IBM Cloud Satellite locations. The platform offers solutions designed to address scalable container storage, backup and disaster recovery, multi-cloud operations, data security, capacity management, and help clients address their internal policy compliance and governance. With security granularity configurable down to the pod level, including access controls and data encryption, client satellite locations can be equipped to modernize their application stack with their internal compliance and controls that can be integrated end-to-end.

By providing replication between Kubernetes clusters, Portworx can help users with high availability and disaster recovery functions. Further, Portworx can help to enable data mobility between IBM Cloud and satellite locations. This mobility is designed to help enterprises with disaster recovery and help protect applications running at the satellite locations with replication to target the lowest RPO/RTO objectives.

PX-Backup, named a leader in Kubernetes Backup by GigaOm Research, is Portworx's Data Protection solution that provides backup and recovery for containerized workloads across satellite locations. PX-Backup protects workloads running in Kubernetes, no matter if the storage in a satellite location is backed by Portworx Enterprise PX-Store, cloud block storage, or a CSI-compliant enterprise array such as Pure Storage FlashArray™. Clients can back up their Kubernetes applications—including data and application configuration—to object storage in a satellite location, whether on a cloud or on-premises. Clients can restore applications from a backup to Portworx-enabled Kubernetes clusters in IBM Cloud Satellite. PX-Backup was designed to capture an entire application, including data and Kubernetes configuration such as network definitions, services, namespaces, replica-sets, persistent storage, and more. We created PX-Backup to be an "Easy Button" for Kubernetes application recovery designed to help enterprise admins restore applications with a few clicks, without many of the challenges associated with disaster recovery.

[1] Based on IBM Hyper Protect Crypto Service, the only public-cloud enabled FIPS 140-2 Level 4-certified Hardware Security Module (HSM). FIPS 140-2 Security Level 4 provides the highest level of security defined

in this standard. At this security level, the physical security mechanisms provide a comprehensive envelope of protection around the cryptographic module with the intent of detecting and responding to all unauthorized attempts at physical access.