

Get cloud anywhere with IBM Cloud and Portworx storage

IBM Cloud® and Portworx® deliver an open, hybrid cloud architecture designed to accelerate deployment of data-rich applications in production

Highlights

IBM Cloud / IBM Cloud Satellite

- Build and run anywhere
- Industry expertise
- Security and compliance
- Automate and modernize
- Leverage innovations

Portworx Enterprise with Disaster Recovery (DR)

- Reliable and efficient cloud-native storage
- High availability, data protection, and security for containerized apps
- Application-consistent backups
- Multi-cluster and multi-user user interface

Portworx PX-Backup

- Resource-granular backup and restore
- Kubernetes-native backups
- Point-and-click recovery for any stateless or stateful Kubernetes app
- Pod and Namespace granularity for app-centric protection
- App-aware protection for complex distributed applications

As enterprises seek to harness the vast amount of data in this new, digital world, they are embracing cloud as the foundation for their digital transformation. By leveraging containers and Kubernetes, enterprises are building a new cloud native stack that enables them to get the same cloud experience everywhere—from on-prem to the edge. As legacy applications are increasingly modernized to this new cloud-native stack, either by re-architecting or re-factoring, there is a pressing need for a storage and data management solution that address key business requirements around persistent storage, high availability, disaster recovery, backup and restore, and more.

IBM Cloud provides the foundation to accelerate your digital transformation by providing the infrastructure/services to run your workloads in the cloud. IBM Cloud provides proven security, compliance and governance to build and run your workloads anywhere with consistency. This allows enterprises to automate, predict and modernize their workflows by leveraging the latest innovations on IBM Cloud using the services available in its catalog. One such service is Portworx PX-Enterprise, the leading Kubernetes Data Services platform. The Portworx Enterprise platform provides solutions for scalable, performant container storage, backup and disaster recovery, multi-cloud operations, data security, capacity management, and compliance and governance and is optimized and tested for IBM Cloud and IBM Cloud Satellite.

Combining the power of IBM Cloud and Portworx, you get a pure, modern, multi-cloud data environment to automate your infrastructure and enable you to access IBM Cloud anywhere. For greater efficiency, these container-native storage and data management solutions can be provisioned in IBM Kubernetes or Red Hat® OpenShift® clusters, available through the IBM Cloud Catalog.

IBM Cloud and Portworx delivers

Hybrid Cloud

Hybrid cloud is one of the most common architectural patterns out there which is used by a growing number of enterprises. However, it's often a result of companies that are unable to abandon their existing technology stack in favor of the public cloud. What this really means is that the complexity in managing app with a mix a traditional legacy apps, partially modernized—apps and fully re-architected apps to run on the cloud. To manage this complexity, IBM Cloud, build on a foundation of Red Hat OpenShift, provides a common platform across all your cloud, on-premises and edge environments. That means you can skill once, build once and manage from a single pane of glass. This is achieved via a set of services which allows you to run your applications and manage your infrastructure smoothly.

Combining Portworx Enterprise with IBM Cloud makes embracing hybrid cloud a simple, straightforward experience. Portworx enables real applications including Databases, Streaming, AI/ML, CI/CD, Content, IoT, and Enterprise applications to run on Kubernetes including those being refactored, as-is lift and shift, and as-is with an interim cloud native wrapper.

Portworx runs on top of any storage hardware or cloud infrastructure to provide a truly container-native, high scale and automated data layer for your modern applications. Portworx is a 100% software solution, making it easy to deploy and manage any modern data service—such as NoSQL databases, edge and IoT applications, machine learning and AI, search and streaming—on any Kubernetes platform, including IBM Kubernetes Service and Red Hat OpenShift, on any cloud or storage infrastructure, at every stage of the appliance lifecycle.

For even more flexibility, Portworx can run with [IBM Cloud Satellite](#), which enables you to deploy and run apps consistently across on-premises, edge computing and public cloud environments from any cloud vendor. This means you can use a common set of cloud services including toolchains, databases, and AI in any location. This managed, distributed cloud solution delivers cloud services, APIs, access policies, security controls, and compliance

Data availability

IBM Cloud is built to meet your needs for local access, low latency and certified security, IBM Cloud offers the widest range of choices about where and how your data and workloads should run with 60 data centers and now into six regions and 18 availability zones globally.

Portworx Enterprise with Disaster Recovery delivers instantaneous replication—both synchronous and asynchronous—between Kubernetes clusters, in addition to providing built-in High Availability for all stateful applications. This helps you avoid data failures, |whether hardware or software, and enables data mobility with its synchronization and replication capabilities. This enables Portworx to deliver Zero RPO Disaster Recovery for data centers in a metropolitan area as well as continuous backups across the WAN for an even greater level of protection.

Automation

IBM Cloud offers a single platform to orchestrate, monitor, and manage hybrid and multi-cloud workloads. With IBM Cloud, deploy and configure infrastructure and applications across any cloud environment with workflow orchestration. At the same time, maintain control through effective, enforceable governance and intelligent insights for a security-rich and compliant IT environment.

Portworx automates much of the storage and data management process, helping modern apps get into production faster. Your administrators can leverage this consistent management framework, to manage the entire lifecycle of an application or database, from delivering self-service database to developers to automating day-2 operations like migration and scaling. Portworx even supports auto-scaling to ensure that you don't overpay for your cloud infrastructure.

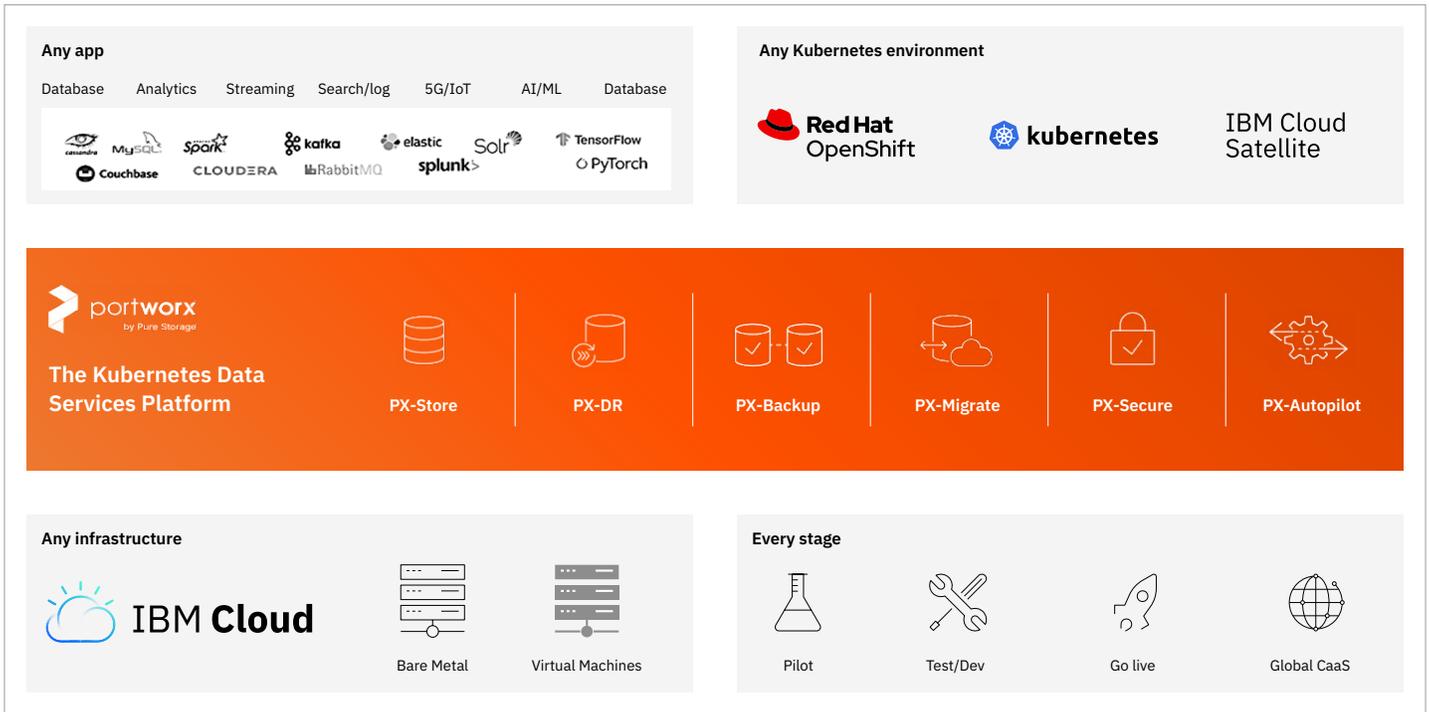


Figure 1: Self-service data services to ensure your apps on IBM Cloud and IBM Satellite are performant, available, and secure

Data protection

IBM Cloud is designed to protect your data throughout its lifecycle. With IBM Cloud data protection, retain full control of your organization’s sensitive data that is accessed, stored and transmitted by other parties with a combination of technologies and expertise from IBM and our Business Partners.

As customers are adding more stateful workloads and moving those into production, improved data protection and recovery become crucial. For data protection and backup, Portworx offers PX-Backup, which is integrated into the IBM Cloud catalog as an option to either use in conjunction with Portworx Enterprise or as a standalone backup tool. PX-Backup delivers enterprise-grade point-and-click backup and recovery protection for all applications running on Kubernetes, even if they are stateless. Built exclusively for containerized applications, Portworx PX-Backup protects the entire application—data, application configuration, and Kubernetes objects—with a single click at the Kubernetes Pod, Namespace, or Cluster level. For additional security, volume encryption is available with [IBM Key Protect](#).

Edge Computing

IBM’s open, secure, hybrid approach gives clients the flexibility to deploy cognitive applications and services at scale, with thousands of new use cases across telecom, manufacturing, retail, and other global industries. The portability of the solution is key across private, public, and edge cloud. This portability is possible by using open technologies like Docker and Kubernetes. As a result, clients can access data and get insights in near-real time and automate the running of their operations, at the most optimized location centered around IBM Cloud, featuring Red Hat OpenShift and Portworx.

Portworx is especially valuable at the edge because this is where data is increasingly collected via IoT devices, initially analyzed, and subsequently sent to the core data center for additional processing. At its heart, these edge-driven processes require storage performance, data protection, capacity management and data security, without an extensive resource footprint, the core value proposition of Portworx’s lightweight yet robust software-defined platform. Portworx also accelerates edge-to-edge and edge-to-core data access delivering high performance data portability with minimal infrastructure.

Why IBM?

Portworx solutions on IBM Cloud

By choosing the IBM Cloud, you benefit from our industry expertise in mission-critical processes, and proven security, compliance, and governance capabilities. The IBM Cloud is built to run anywhere with consistency, and enable you to automate, predict, and modernize workflows.

With the addition of Portworx Enterprise with Disaster Recovery (DR), you benefit from a reliable, cloud-native storage with high-availability, data protection, and security for containerized apps. This enables the easier automation of application-consistent backups, with a unified interface. Resource-granular backup and restore, and Kubernetes-native backups help ensure smoother operations.

And with the addition of Portworx PX-Backup, you gain the advantage of point-and-click recovery for any stateless or stateful Kubernetes app, the precise granularity for app-centric protection, and app-aware protection for your complex distributed applications.

For more information

To learn more, please contact your IBM representative or IBM Business Partner, or visit the following:

Portworx Enterprise—with or without disaster recovery
cloud.ibm.com/catalog/services/portworx-enterprise

PX-backup for Kubernetes
cloud.ibm.com/catalog/services/px-backup-for-kubernetes

Read the Portworx announcement and see deployment tips
ibm.com/cloud/blog/announcements/introducing-the-portworx-software-defined-storage-solution

See the complete IBM Cloud catalog of services
cloud.ibm.com/catalog#services

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