



PERCONA
Kubernetes Operators



**Percona is
Cloud-Native**

Percona Distribution for MySQL Operator features:

- Consistent deployment configuration
- Build once, use multiple times
- Reliably deploy across environments with confidence and ease

Percona Distribution for MySQL Operator offers the same configuration regardless of hosting environment

This enables:

- Efficient scaling
- Simpler benchmarking
- Stable testing environments



What is a Kubernetes Operator?

Kubernetes Operators provide a way to package, deploy, and manage a Kubernetes application. A Kubernetes application is deployed on Kubernetes and managed using the Kubernetes APIs and tooling. Operators help in building cloud-native applications by delivering automation advantages like deploying, scaling, and backup and restore while being able to run anywhere Kubernetes is deployed.

Kubernetes Operators are not just a tool for managing containers. They enable you to easily balance resources against demand and provide an avenue for consistent and reliable deployment of new services. With Kubernetes Operators, you are assured that your new environments are consistent across cloud providers and on-premises environments.

Percona Distribution for MySQL Operator

When scaling a Percona XtraDB Cluster (PXC) environment, you need to ensure consistency across all members and even across multiple environments. With Percona Distribution for MySQL Operator, you have that capability.

The Percona Distribution for MySQL Operator is based on the Kubernetes API and enables highly available environments. Regardless of where it is used, the Operator creates a member that is identical to other members created with the same Operator. This provides an assured level of stability to easily build test environments or deploy a repeatable, consistent database environment that meets Percona expert recommended best practices.

Scalable and Repeatable Deployments

One of the major benefits of the Percona Distribution for MySQL Operator is that it is based on our best practices for configuration of a Percona XtraDB Cluster environment. Because of this, the Operator is consistently easier and faster to deploy.

Percona Distribution for MySQL Operator can be customized for use in most any environment. Once configured, the Operator can be used to instantiate new Percona XtraDB Cluster members quickly.

It's really simple. When you want to add a member to an existing Percona XtraDB cluster or start a brand new Percona XtraDB cluster, all members are built out the same as each other member created from the same Operator.

With Percona Distribution for MySQL Operator, you have the scalability and reliability needed to build out identical cluster members, no matter if they are on premises, hybrid, or multi-cloud environments.



PERCONA DISTRIBUTION FOR **MYSQL OPERATOR**

Supported Features

- **Deploy easily** - create a Percona XtraDB Cluster environment with no single point of failure and the ability to span multiple activity or availability zones.
- **Scale Your Percona XtraDB Cluster** – change the size parameter to add or remove members of the Percona XtraDB Cluster. Three is the minimum recommended size for a functioning Percona XtraDB Cluster.
- **Automate Your Backups** – configure Percona XtraDB cluster backups to run on a scheduled basis. Backups are stored on a persistent volume and support simple restores.
- **Integrate with Percona Monitoring and Management (PMM)** - use Percona's monitoring tool to view and manage your Percona XtraDB Cluster environment.
- **Rely on ProxySQL to Remove Single Point of Failure** - rely on ProxySQL's native clustering with Kubernetes anti-affinity rules to deploy an environment that removes any single point of failure.
- **Provide Point-in-Time Recovery** – enables users to roll back the cluster to a specific transaction, time, or even skip a specific transaction
- **Automate node recovery** - use the self healing capability to automatically recover from failure of a single Percona XtraDB Cluster node.
- **Smart Update** – intelligently restart your environment during a restart or upgrade to minimize the number of failover events
- **Automated Password Rotation** – Use the standard Kubernetes API to enforce password rotation policies for system user
- **Provide data encryption** - rely on support for data encryption in transit
- **Supports private container registries** - access information from a private registry to enhance security

Common Configurations Options

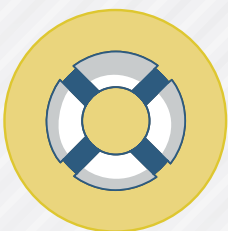
- **Set Resource Limits** – set limitation on requests to CPU and memory resources
- **Customize Storage** – set the desired Storage Class and Access Mode for your Percona XtraDB cluster data
- **Control Scheduling** – define how your Percona Pods are scheduled onto the Percona XtraDB cluster with tolerations, member selector and affinity settings



Access Percona Distribution for MySQL Operator Documentation

Documentation and sample Operator files are available [here](#).

All Percona software is fully open source and available to download at no charge.



Contact Us

For organizations interested in using Percona Distribution for MySQL Operator for your deployment needs, Percona offers Support and Consulting services. To learn about how Percona can help you and for pricing information, please contact us at 1-888-316-9775 or 0-800-051-8984 in Europe or sales@percona.com.