



PERCONA
Kubernetes Operators



**Percona is
Cloud-Native**

Percona Operator for PostgreSQL features:

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

Percona Operator for PostgreSQL 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 Operator for PostgreSQL

Percona Operator for PostgreSQL automates and simplifies deploying and managing open source PostgreSQL clusters on Kubernetes. Whether you need to get a simple PostgreSQL cluster up and running, need to deploy a high availability, fault tolerant cluster in production, or are running your own database-as-a-service, the Operator provides the essential features you need to keep your clusters healthy.

Consistent Deployments

Percona Operator for PostgreSQL can be customized for use in most any environment, resulting in scalable and consistent PostgreSQL clusters.

How is it so consistent? When you want to add a member to an existing PostgreSQL cluster or start a brand new one, all members are built out the same as each other member created from the same Operator.

Percona Operator for PostgreSQL not only makes it easy to get PostgreSQL up and running on Kubernetes-enabled platforms, but also allows you to further customize your deployments, including:

- Selecting different storage tier for your primary, replica, and backup storage
- Select your own container resources class for each PostgreSQL cluster deployment; differentiate between resources applied for primary and replica clusters
- Use your own container image repository, including imagePullSecrets and private repositories support
- Bring your own trusted certificate authority (CA) for use with the Operator API server
- Override your PostgreSQL configuration for each cluster
- Use your own custom images, re-define the image for each container separately



PERCONA OPERATOR FOR **POSTGRES**SQL

Supported Features

- **Deploy easily** - Create, Scale, & Delete PostgreSQL clusters with no single point of failure while fully customizing your configuration.
- **Scale Your Percona Distribution for PostgreSQL Cluster** – change the size parameter to add or remove members of the cluster
- **Automated Backups** – Configure backups to run on a scheduled basis and support simple restores to a specific time, transaction ID, or recovery point
- **Support private data registries** - access information from a private registry to enhance security
- **High Availability**
Safe, automated failover backed by a distributed consensus based high-availability solution. Failed primaries automatically heal, allowing for faster recovery time. Support for standby PostgreSQL clusters that work both within and across multiple Kubernetes clusters.
- **Disaster Recovery**
Backups and restores leverage the open source pgBackRest utility and includes support for full, incremental, and differential backups as well as efficient delta restores. Set how long you want your backups retained for.
- **Security**
Secure communication between your applications and data servers by enabling TLS for your PostgreSQL servers, including the ability to enforce all of your connections to use TLS.
- **Monitoring**
Track the health and improve the performance of your PostgreSQL clusters with Percona Monitoring and Management (PMM).
- **Advanced Replication Support**
Choose between asynchronous replication and synchronous replication for workloads that are sensitive to losing transactions.



Access Percona Operator for PostgreSQL Documentation

Documentation and sample application 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 Operator for PostgreSQL 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.