Charmed PostgreSQL

Secure and automate the deployment, maintenance, and upgrades of your PostgreSQL databases across private and public clouds.

What is Charmed PostgreSQL?

An enterprise solution to secure and simplify the usage of PostgreSQL databases. PostgreSQL is the most acclaimed database among enterprises and professional developers.

Key Benefits

Secure deployments

Thanks to 10 years of security maintenance for all the components of our PostgreSQL offering.

Reliable operations

Thanks to the built-in high availability, disaster recovery and self-healing capabilities of our PostgreSQL operator.

Dependable support

SLA-backed support with screen sharing.

Transparent cost and savings

Thanks to our simple per-node pricing.

Key features

Advanced automation

From deployments to upgrades and monitoring, all your database operations will be automated.

Holistic observability

Monitor your database fleets using our observability stack based on Prometheus, Grafana and Loki.
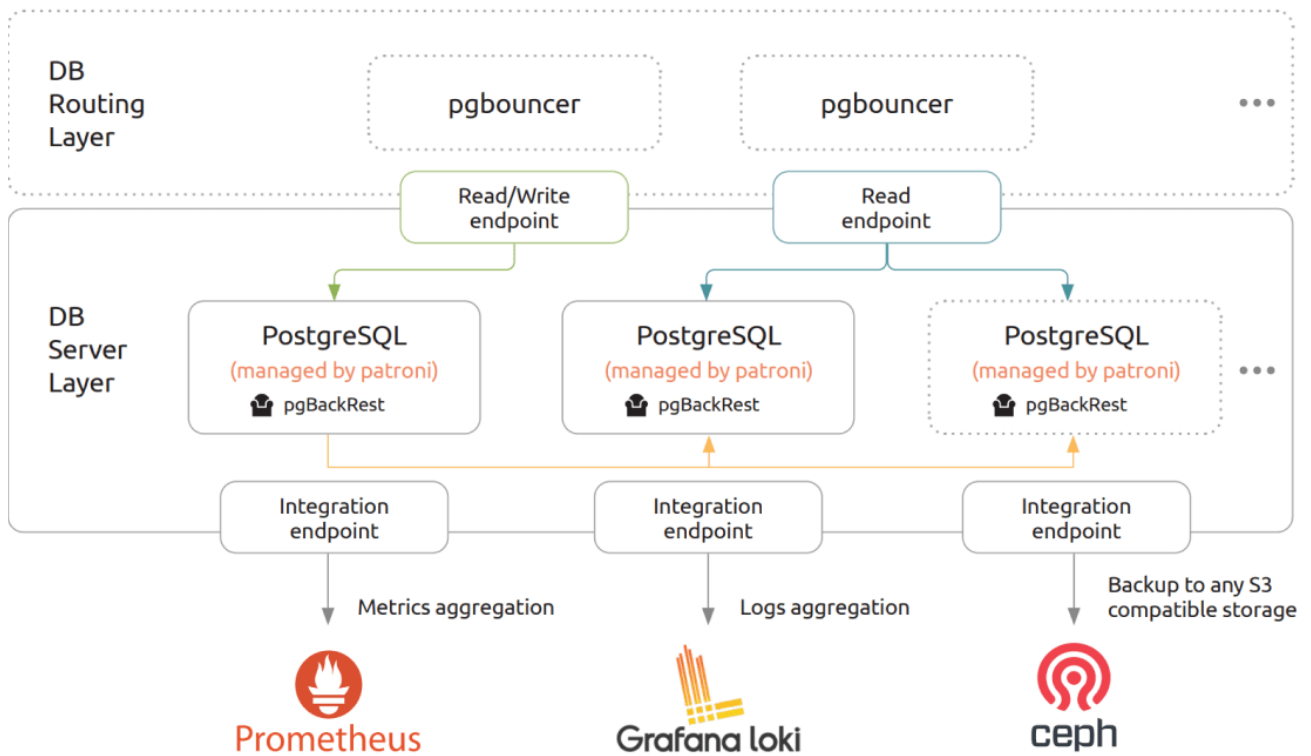
Multi-cloud

Run your workloads across private and public clouds and ensure the business continuity of your operations using our disaster recovery proven architecture.

Open Source

No vendor lock-in. Try before you buy. You can even inspect and contribute to our code.

How does it work?

The diagram below depicts a high level overview on the components we use:


Key architecture insights:

- We use Patroni to manage the high availability of PostgreSQL.
- We use PgBouncer to provide connection pooling and transparent failovers for the connected applications.
- We expose two endpoints. One for read and write operations on the primary, and another one to scale reads on the replicas.
- We can backup our deployments to any S3 compatible storage solution.
- We provide a full monitoring and alerting solution based on Prometheus, Loki and Grafana.

Common use cases
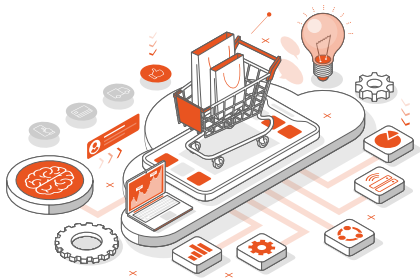
Web and mobile applications

PostgreSQL can ingest data quickly while still allowing concurrent queries, making it a solid choice for e-commerce and content sharing platforms.
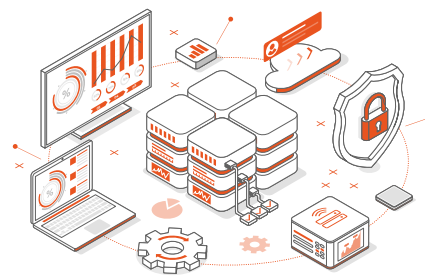
Analytical workloads

PostgreSQL is famous for its excellent support of the SQL standard. It also nicely integrates with other data stores making it an excellent choice for running analytical queries without duplicating your data.
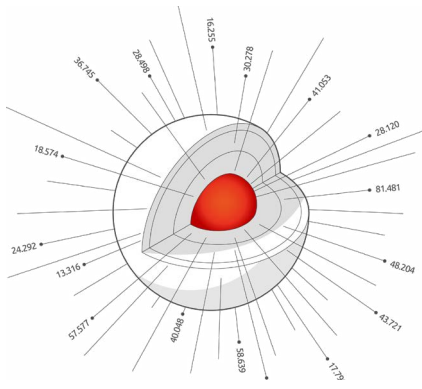
Managing geo-spatial data

The PostGIS and pgRouting extensions can supercharge PostgreSQL to support your applications managing spatial data.

FinOps and Banking

PostgreSQL provides the transactional ACID guarantees and the mature replication. capabilities that finance systems need.

Text search use cases

PostgreSQL offers a variety of index structures (such as GIN and GIST) to perform advanced full text search operations on your data without the need for duplicating it or compromising on its consistency.
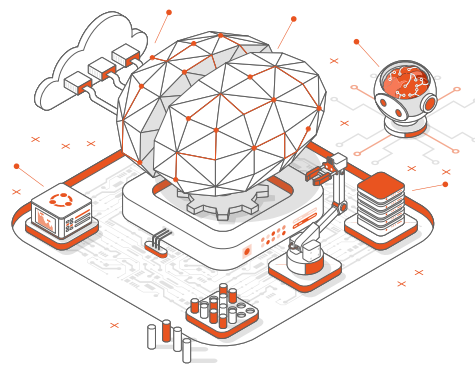
AI use cases

PostgreSQL is a strong choice for AI applications that involve storing large amounts of data or require vector search capabilities (using pg_similarity and pgvector).

With our consulting services, Canonical helps you:

- ✓ Design and architect tailored solutions for your specific use cases.
- ✓ Deliver Proof of Concepts (PoC) to implement your ideas and de-risk your projects.
- ✓ Train your staff on Canonical's solutions for PostgreSQL.

Get started now with our enterprise-grade PostgreSQL offerings.

Try it on your machine following this guide.

Canonical