pgEdge®

Distributed Postgres

VM EDITION

High performance applications increasingly need data to be located close to the user, at or near the network edge. Database architectures that centralize databases to a single location such as a single cloud provider region create significant data latency and unacceptably high page load times for users. Even more importantly, centralized single-region architectures cannot avoid downtime when that single region is down.

pgEdge Distributed Postgres - VM Edition addresses these challenges with a fully distributed version of PostgreSQL available as self-hosted, downloadable software. Utilizing a multi-master (active-active) logical replication architecture with conflict resolution, pgEdge makes it possible to deploy multiple read/write database nodes across public or private global networks. Applications running on VM Edition achieve extremely high levels of availability and reliability, since downtime at one or more nodes does not bring down the whole system.

pgEdge Distributed PostgreSQL supports placement of multi-master PostgreSQL databases for both reads and writes in any configuration across on-premises data centers and/or the major cloud providers, including AWS, Azure, Google Cloud and Equinix Metal. This affords unmatched resiliency, availability and performance, including the ability to seamlessly failover between data centers and clouds.

Unlike other distributed database systems, pgEdge is fully distributed (not just read replication) and fully based on standard PostgreSQL. And for customers that need to deploy across both cloud and on-premises pgEdge can uniquely support the same distributed Postgres distribution across both sets of environments. The pgEdge Distributed PostgreSQL distribution includes the broadest collection of enterprise-class community PostgreSQL extensions to be made available in a commercially supported package.

The pgEdge team have decades of PostgreSQL experience at companies like EDB, AWS and OpenSCG, and helped run the largest managed Postgres cloud services in the world. For more information, including pricing, email info@pgEdge.com.

Place databases close to users to dramatically reduce data latency

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Support ultra-high availability with rapid failover and zero downtime for maintenance

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Meet regulatory requirements for data residency by keeping local data local

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Enable faster vector similarity searches in AI powered distributed applications

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FEATURES

- pgEdge Distributed PostgreSQL distribution based on standard PostgreSQL v15 and above

- Multi-master, multi-region read/write logical database replication

- Unified cluster and node management

- Conflict resolution and conflict avoidance

- Automatic replication of DDL commands

- Optional geographic separation of data with filtering down to the column or row level

- Replication exception handling and logging

- Distributed embedding support with vector indexing and similarity search (for AI / RAG workflows)

- Integrates with edge platforms such as Cloudflare, Fastly, Akamai, Netlify and Vercel

- Deploy in one or more of AWS, Azure, Google Cloud, Equinix Metal or on-premises in data centers

- 24/7 enterprise level support available (with production usage license)

pgEdge Distributed PostgreSQL Components

PostgreSQL v15, v16, v17	
Spock extension for multi-master (active-active) logical replication	
ACE monitoring tool for drift detection within a pgEdge cluster	
LOLOR: Extension for large object logical replication	
Snowflake Sequences: extension to support sequences in a distributed pgEdge cluster	
PostGIS: Spatial Extensions	HypoPG: Hypothetical Indexes
pgBouncer: Connection Pooler	pgHintPlan: Execution Plan Hints
pgCat2: Pooler and Proxy	pgVector: similarity search
pgAudit/set_user: Privilege escalation logging	PL/Profiler: Stored Procedure Profiler
OraFCE: Ora Built-in Packages	pgAudit: Audit Logging
pgBulkload: High Speed Data Loading	PL/Debugger: Stored Procedure Debugger
pgRepack: Removes Table and Index Bloat	PL/V8: Javascript Stored Procedures
pgPartman: Partition Management	pgCron: Background Job Scheduler

For more information on the features and components supported, visit https://docs.pgedge.com/platform.

Get started today, download at www.pgedge.com/download