Modern Architectures for Modern Enterprises

27 September 2023

EDB

Speakers for today…

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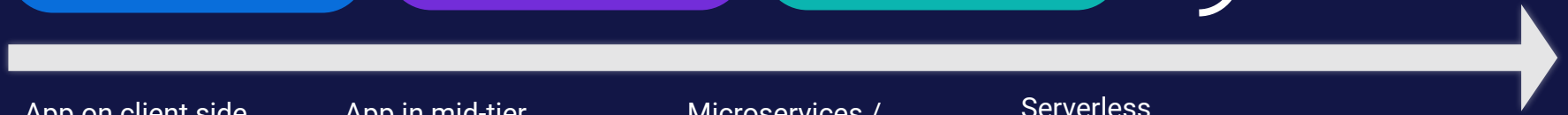
Traditional IT Architecture

Physical Kit
- All in one
- Server room
- SAN/NAS
- DC / DR

Virtualization
- Hypervisors (Type 1/Type2)
- VMs

Cloud
- Public / Private / Hybrid XaaS
- VMs / Containers
- Sites / Avail. Zones

Infrastructure / Resources



App on client side
- Central DB

App and DB in server
- Central App and DB

App in mid-tier
- Dedicated DB host

Microservices / Event Driven

Serverless
- BAAS
- FAAS

Tier1.....Tier2.....Tier3.....N-tier

Services based.....to.....Serverless

Evolution of RDBMS

Standalone DB

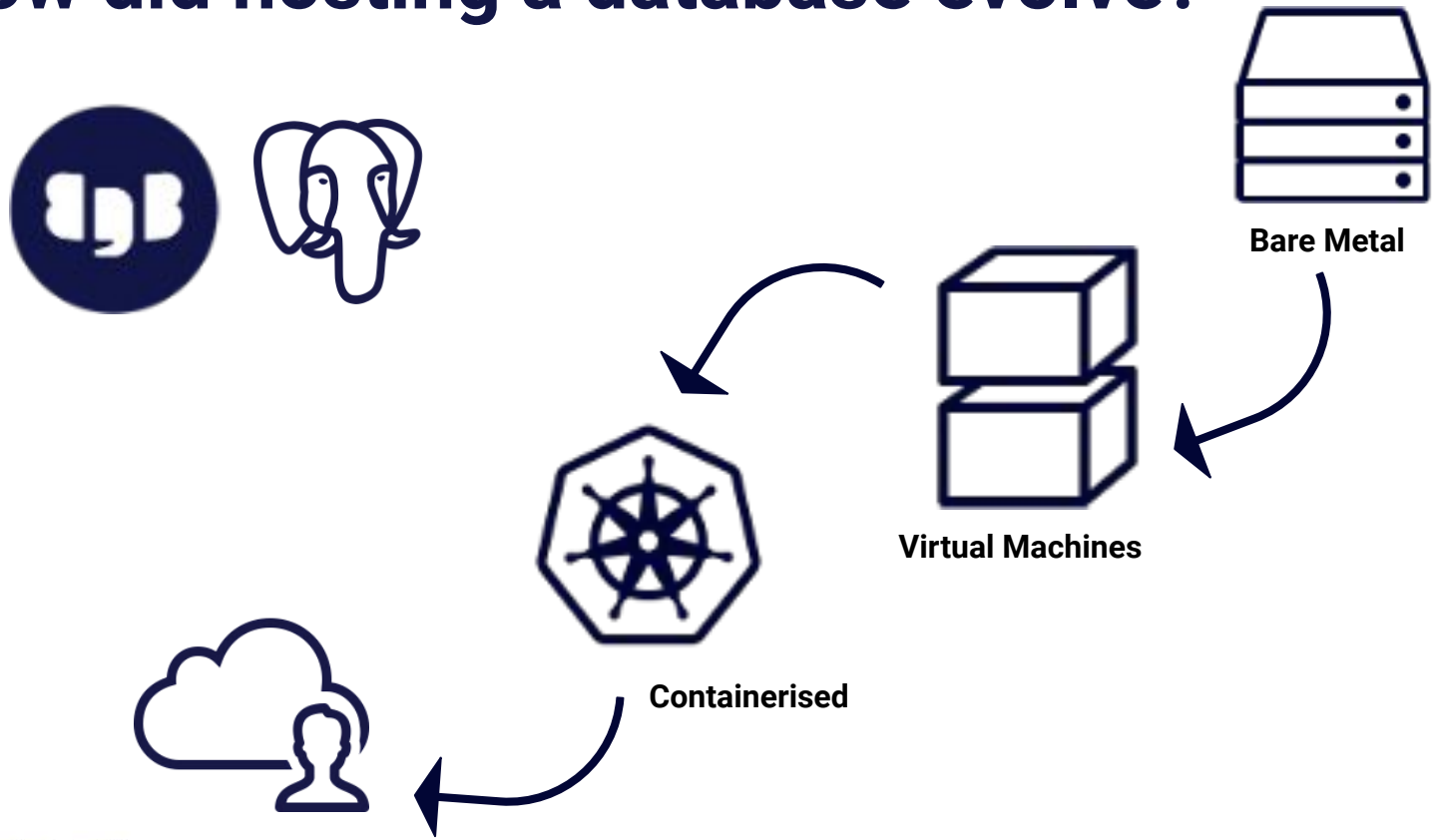
Standby DB
- Cold
- Warm
- Hot

Replication
- Nightly copies
- File level
- Block level

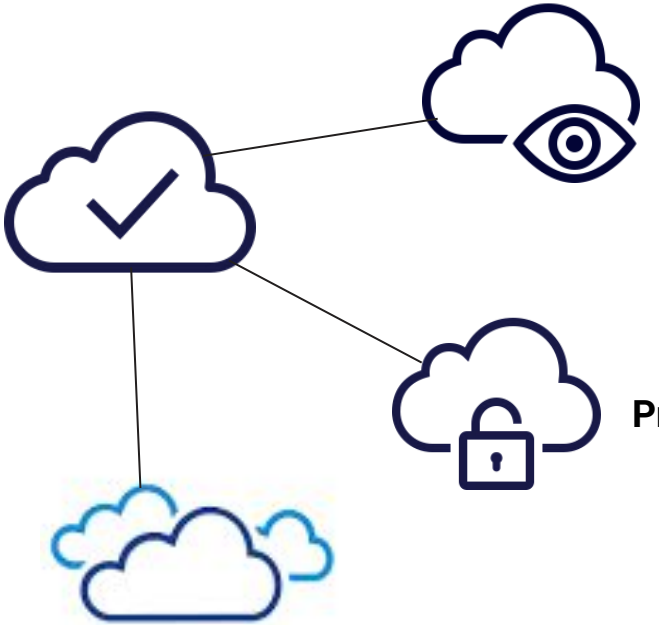
Replication
- Real Time (ASYNC/SYNC)

Physical……..…..to.……..……Logical……..……..to……..……..CDC

How did hosting a database evolve?



Cloud offerings



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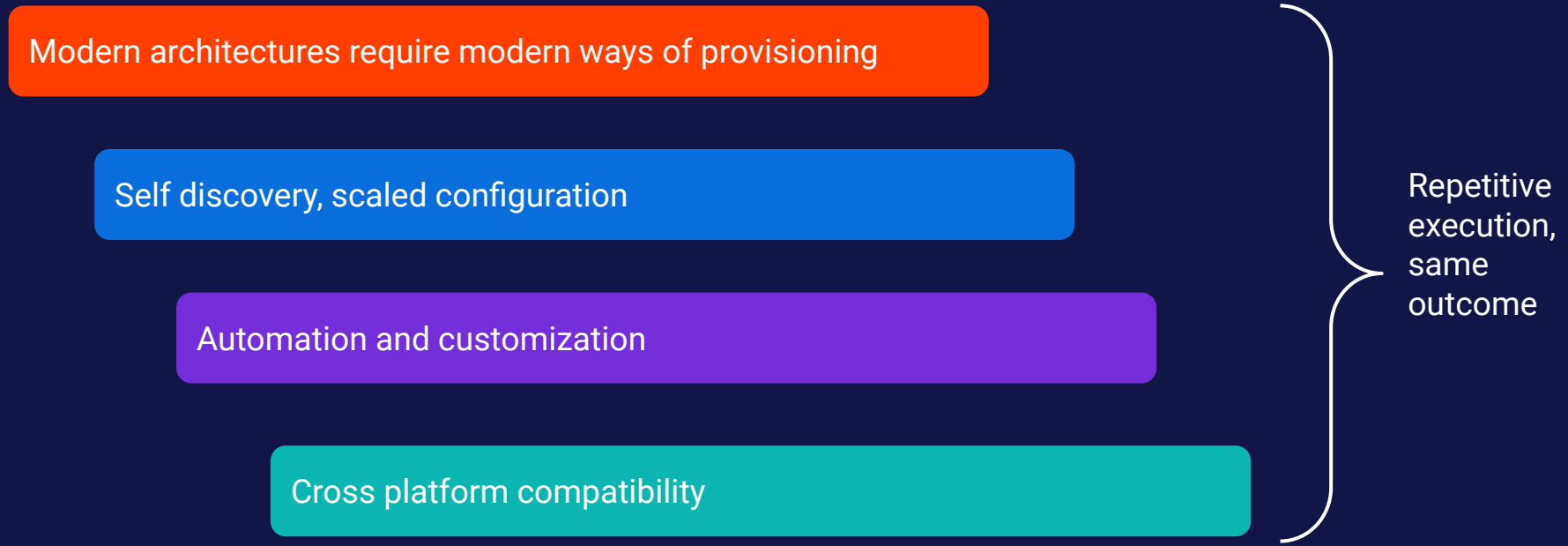
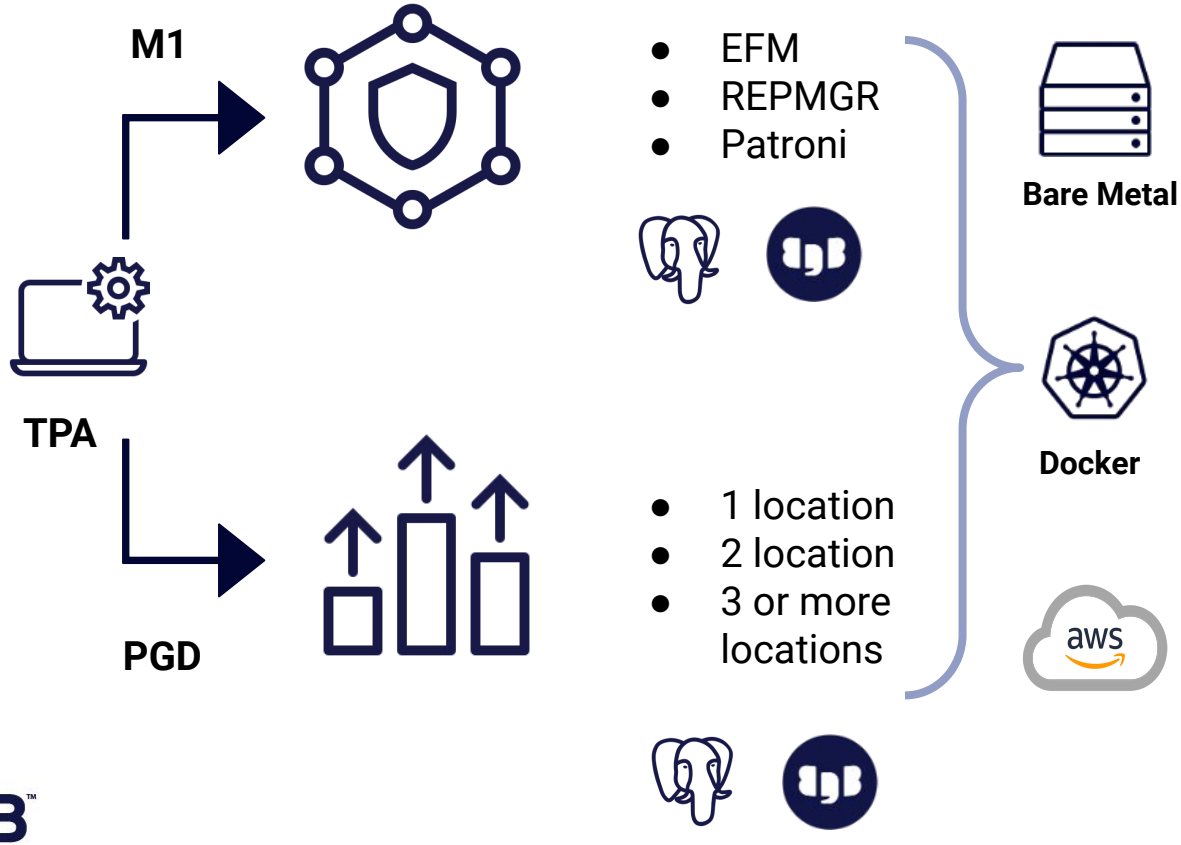
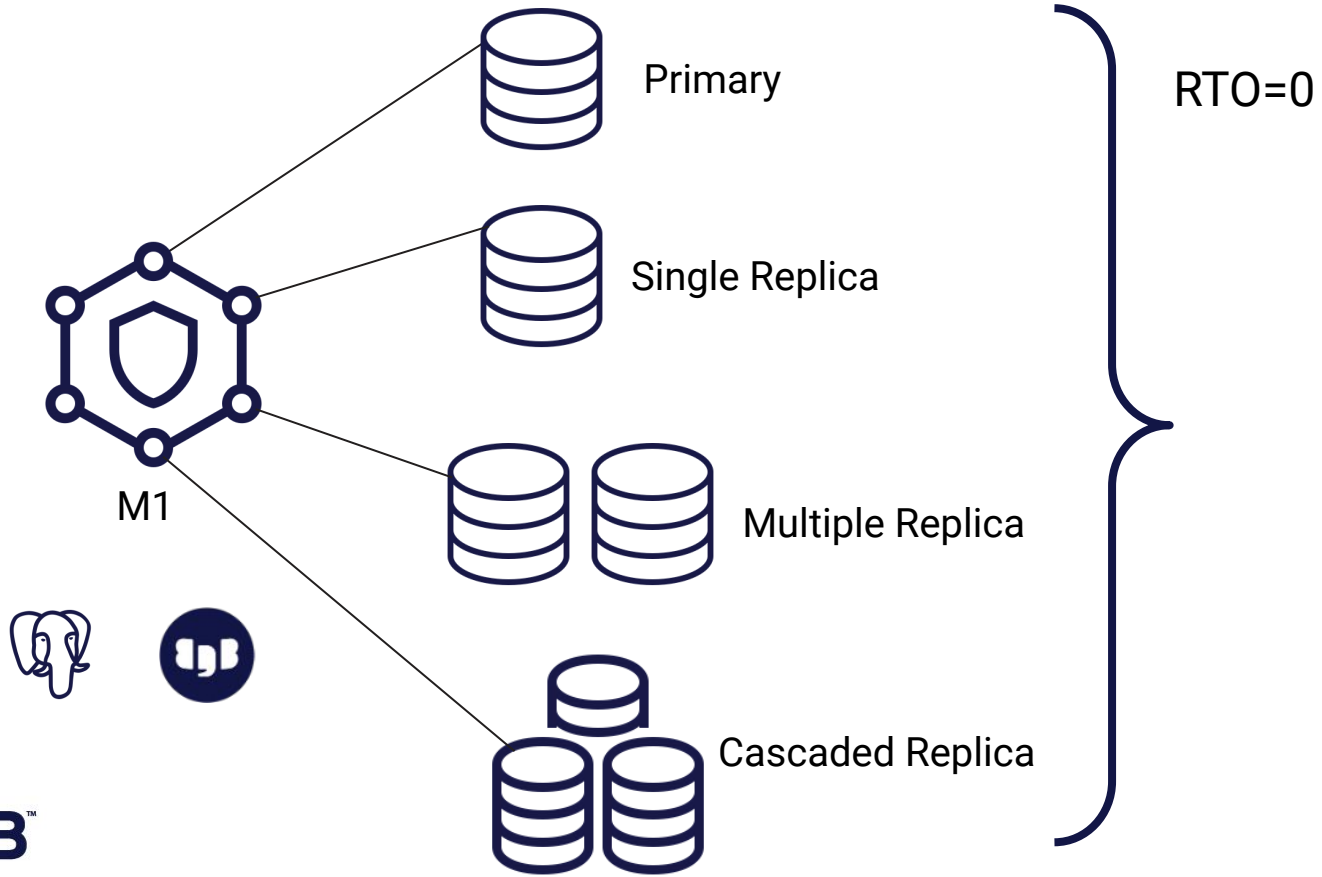
Trusted Postgres Architect (TPA)



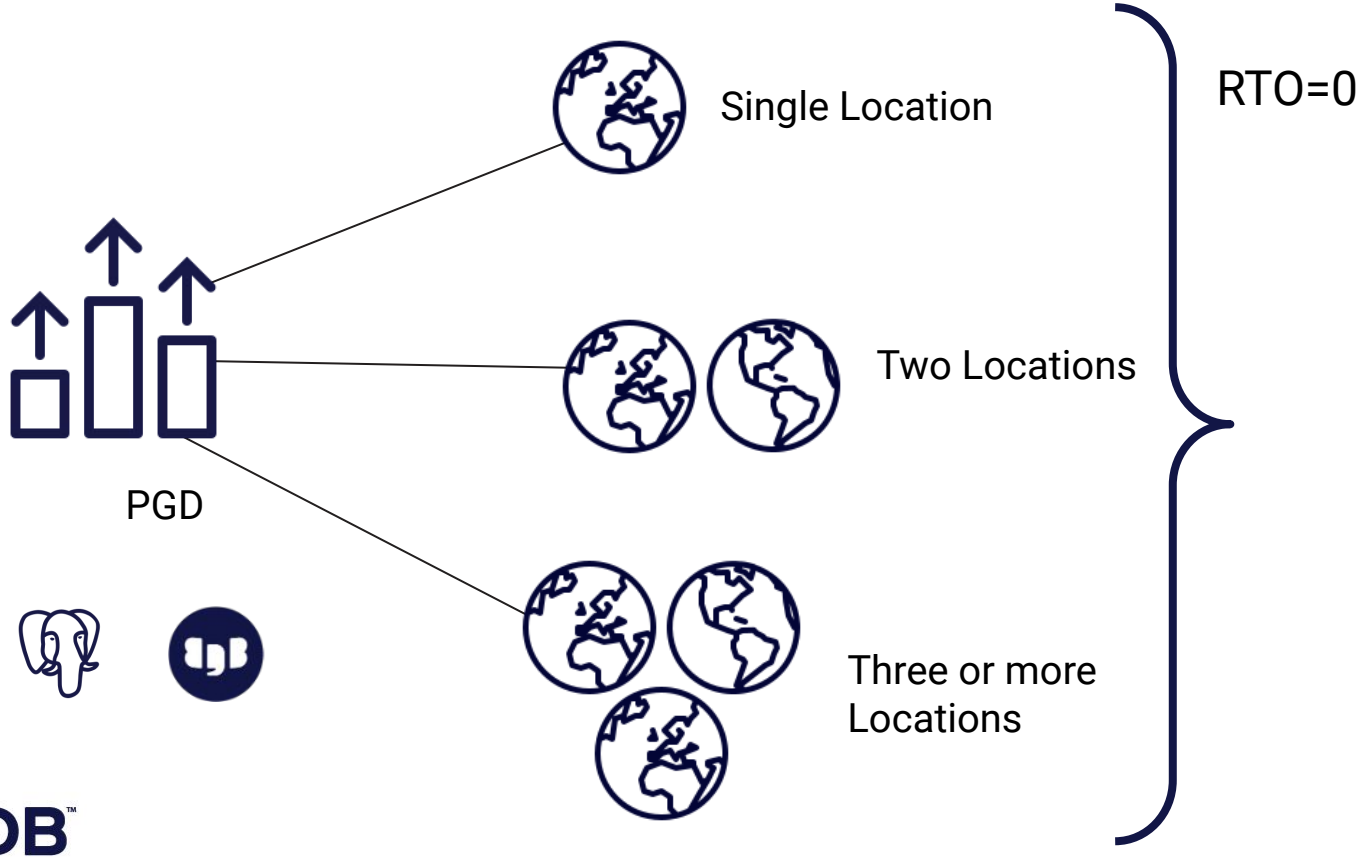
Trusted Postgres Architect (TPA) contd.



Trusted Postgres Architect (TPA) - M1

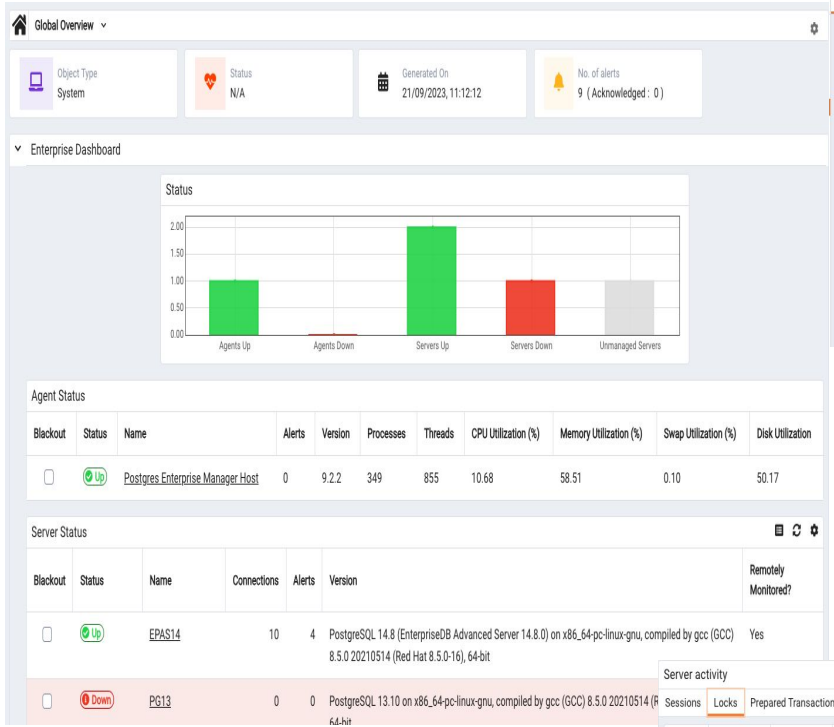


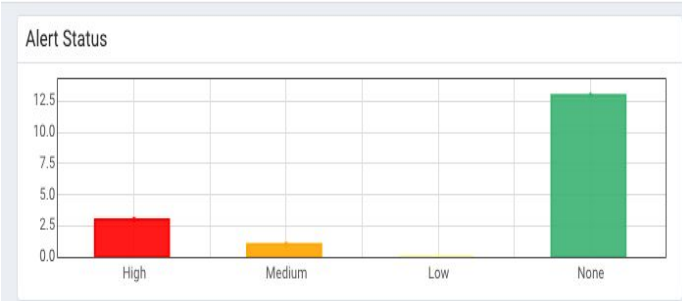
Trusted Postgres Architect (TPA) - PGD

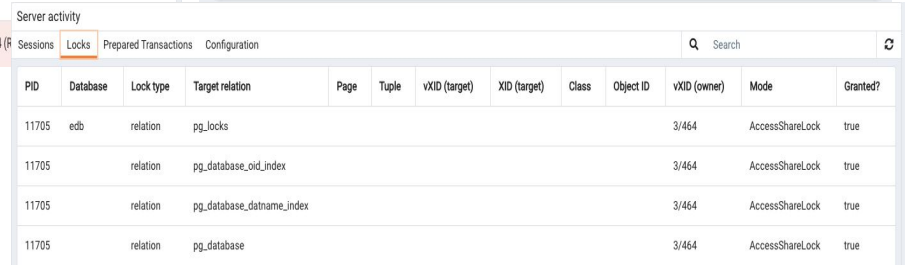


Futuristic Monitoring - PEM

Postgres Enterprise Manager







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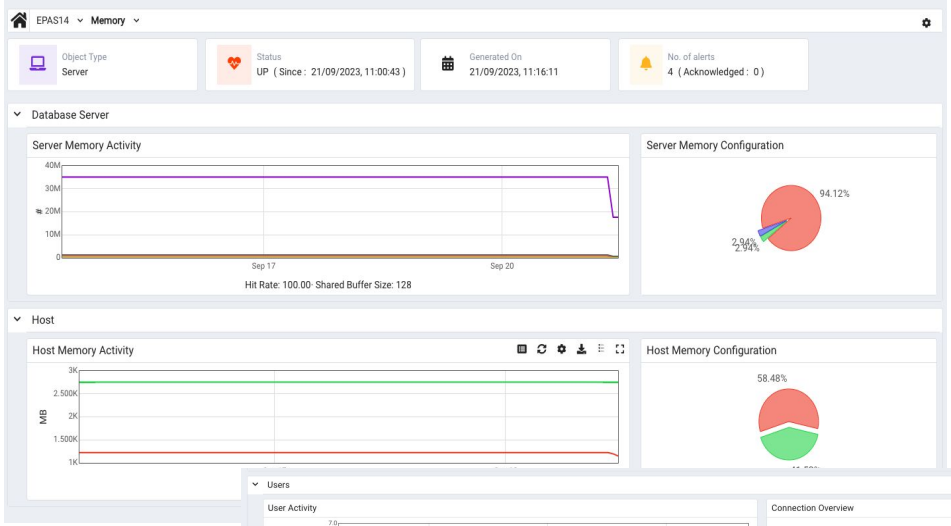
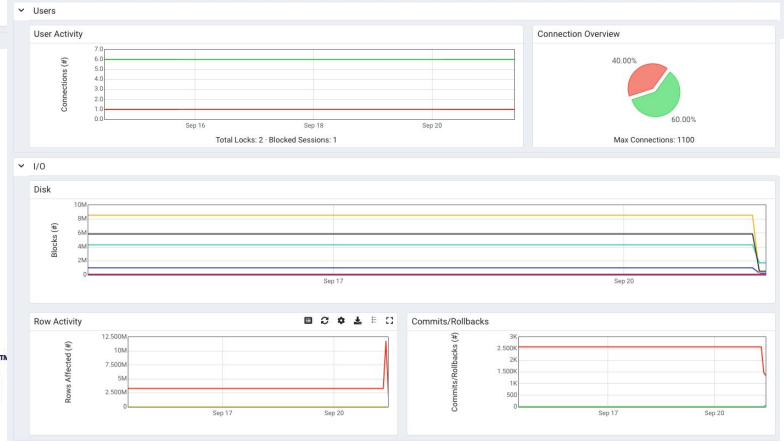
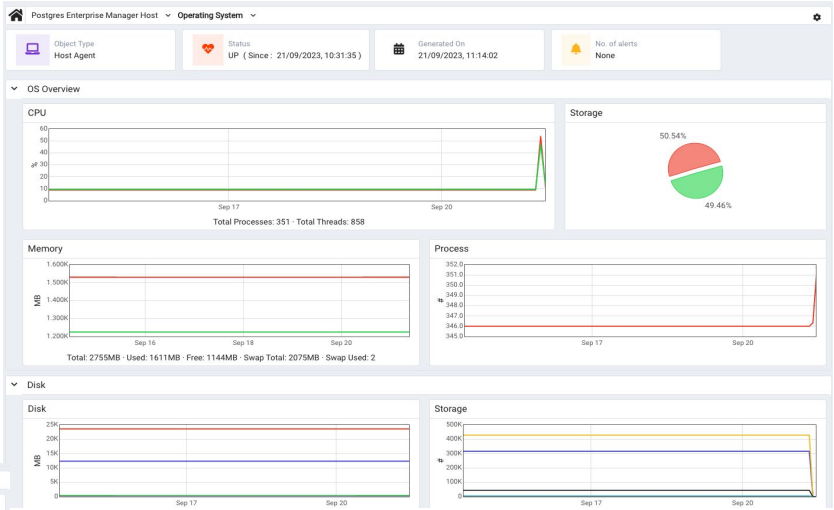
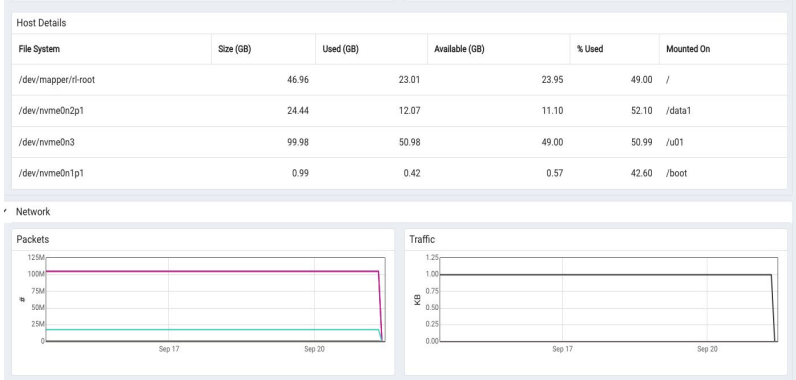
Futuristic Monitoring - PEM









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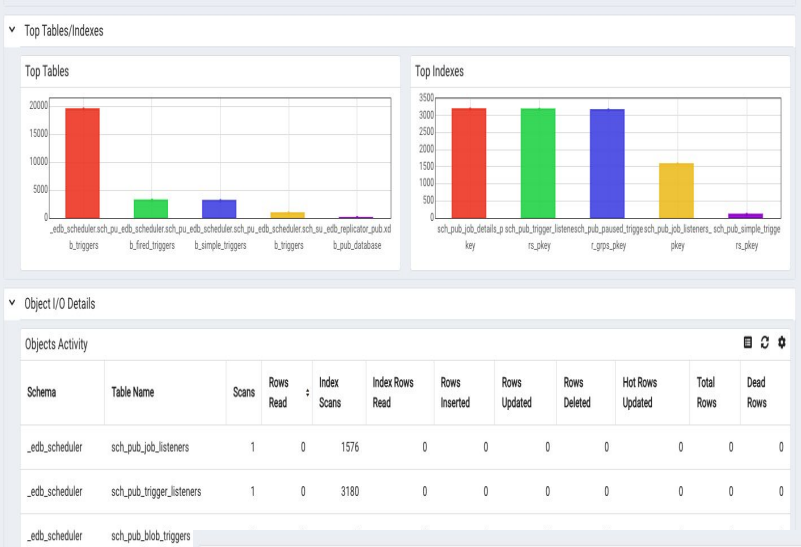

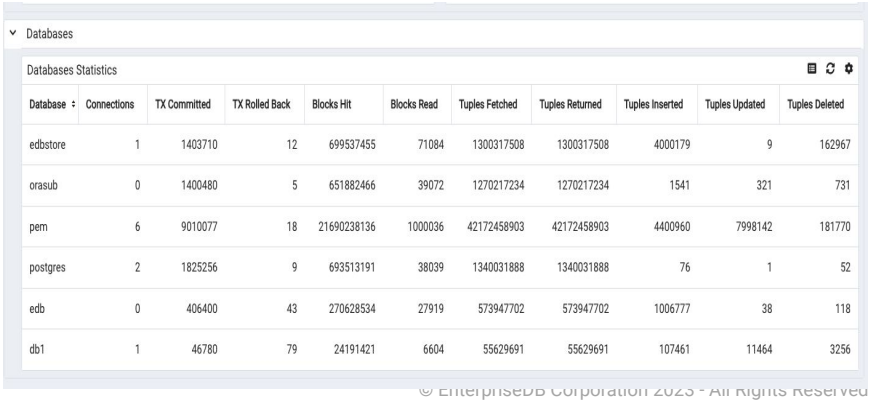

Backups And Recovery Manager (Barman)

Barman

- Open Source
- Remote Backup & Recovery
- Zero Data Loss, RPO=0
- Parallelism
- PITR
- Incremental
- Retention Policy
- Multiple Servers
- WAL Compression
- Backup Catalog
- Cloud Ready
- Single Tool of Operation
- Geographic Redundancy
- SSH / Streaming / rsync
- Pre & Post Hook Scripts
- Configuration File Driven

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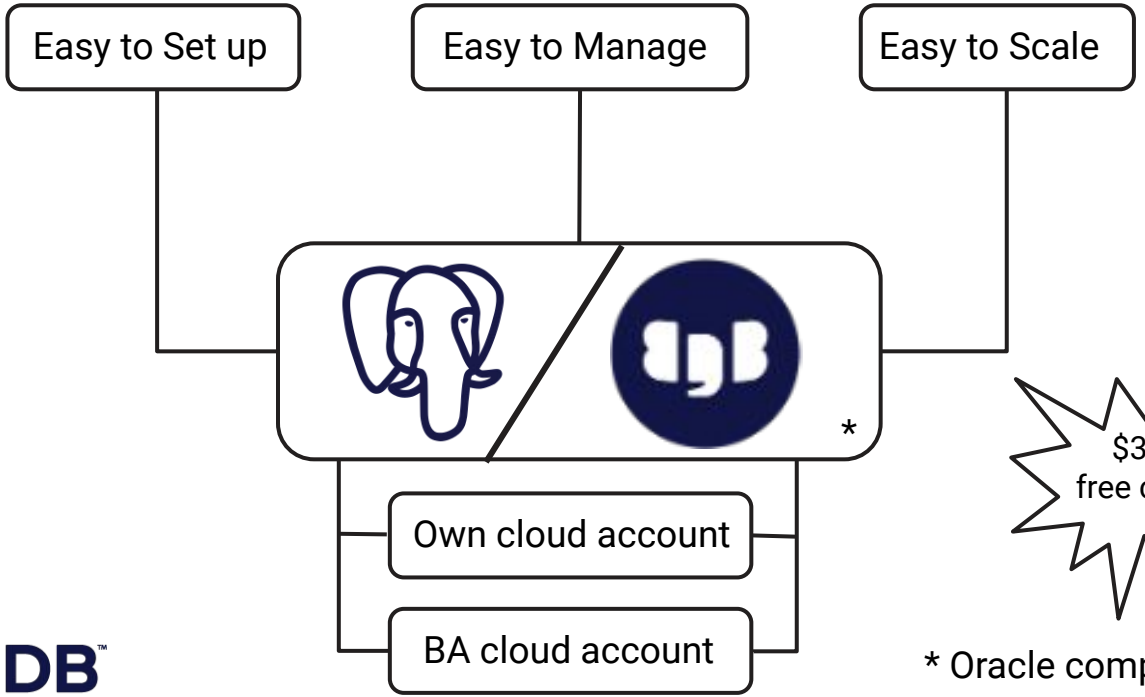
BIG ANIMAL

Fully Managed DBaaS



$300 free credit

* Oracle compatibility

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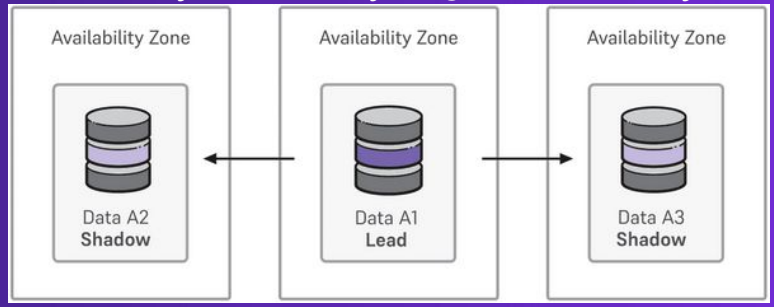
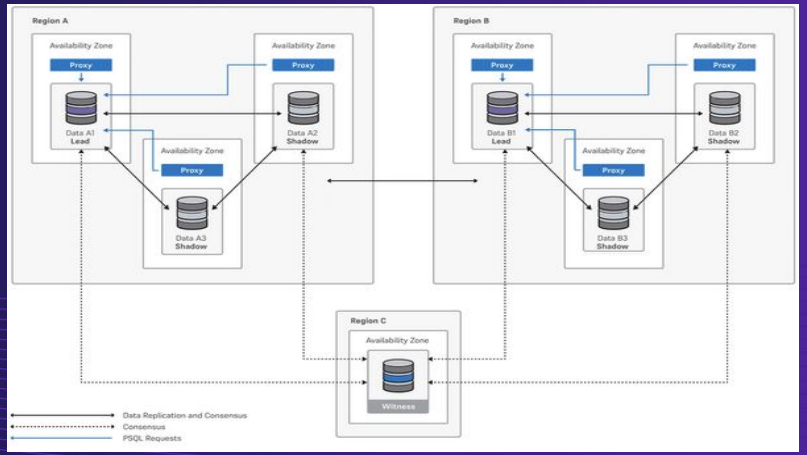
Cluster Types

Single Node

Primary / Standby High Availability

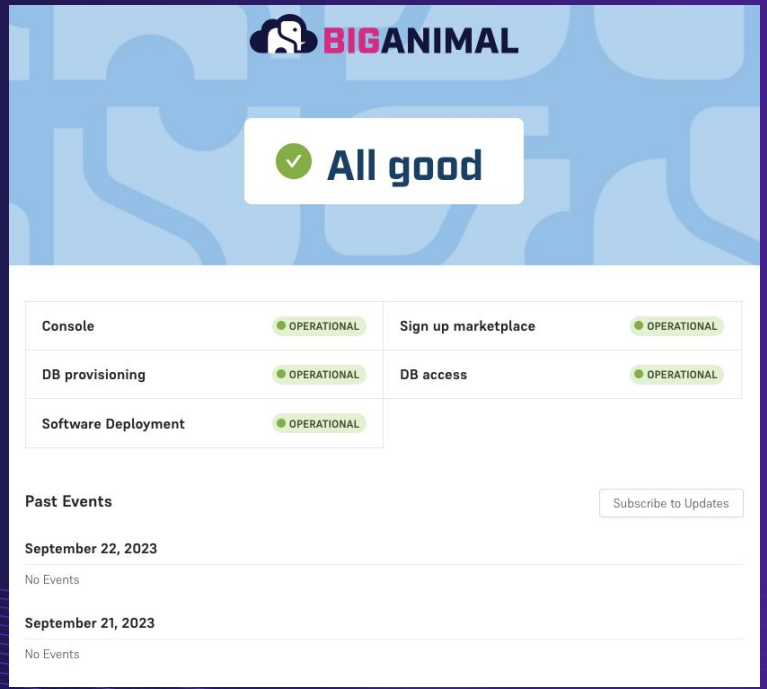


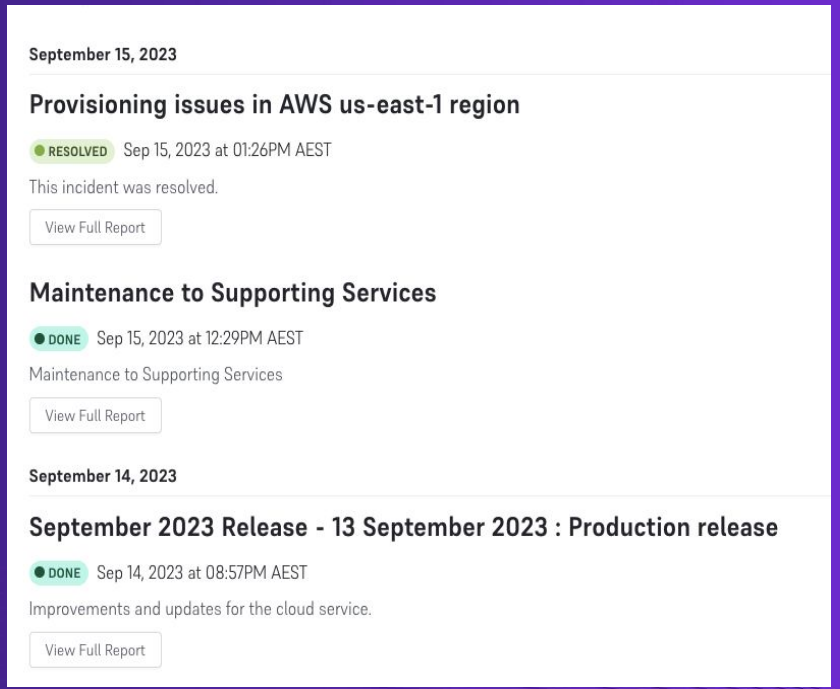
PGD / Multimaster architecture



Cluster Types

https://status.biganimal.com





EDB Postgres for Kubernetes

CloudNativePG	EDB Postgres of Kubernetes
Kubernetes API integration for high availability, uses the postgresql.cnpg.io/v1 API version	Kubernetes API integration for high availability, uses the postgresql.k8s.enterprisedb.io/v1 API version
Capacity management with scale up/down capabilities	EDB Postgres for Kubernetes works with both PostgreSQL and EDB Postgres Advanced server and supports all the features of CloudNativePG
Continuous backup and point-in-time recovery	EDB Postgres for Kubernetes Plugin
Planned switchovers for scheduled maintenance	Generic adapter for third-party Kubernetes backup tools
Read-only and read-write Kubernetes services definitions	Long Term Support
Rolling updates for Postgres minor versions and operator upgrades	Oracle compatibility through EDB Postgres Advanced Server
Self-healing through failover and automated recreation of replicas	Red Hat certified operator for OpenShift
Connection Pooling with PgBouncer	Support on IBM Power and z/Linux through partnership with IBM
Integrated metrics exporter out of the box	Transparent Data Encryption (TDE) through EDB Postgres Advanced Server
PostgreSQL replication across multiple Kubernetes clusters	Velero/OADP cold backup support
Separate volume for WAL files	You can evaluate EDB Postgres for Kubernetes for free
	EDB Postgres for Kubernetes works with both PostgreSQL and EDB Postgres Advanced server
	The EDB Postgres for Kubernetes Operator container images support the multi-arch format for the following platforms: linux/amd64, linux/arm64, linux/ppc64le, linux/s390x.

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Customers Using EDB Distributed Postgres

SaaS Company ClickUp Uses EDB Postgres Distributed to Achieve Consistent Performance Globally

Financial Services Company ACI Worldwide Increases Flexibility and Lowers Costs with Postgres

Telegra Implements EDB Postgres Distributed to Provide High Availability for its Mission Critical Postgres Databases

Linxup Eliminates Downtime, Increases Write Scalability and Charts a Course to the Cloud Backed By EDB Postgres Distributed

Question & Answer

THANK YOU