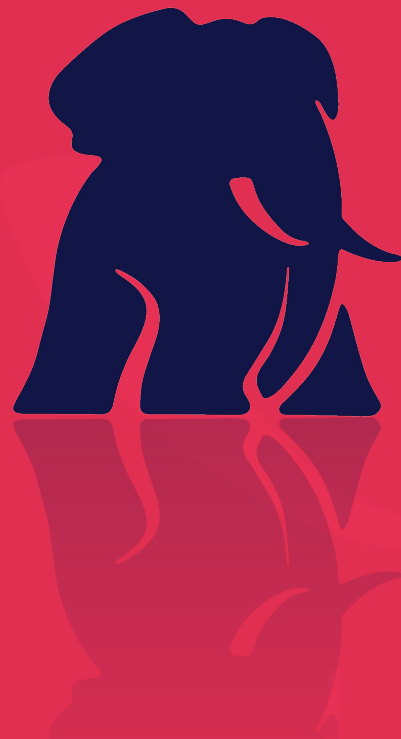


# CloudNativePG

Open source operator for PostgreSQL

Gabriele Bartolini, VP/CTO Cloud Native at EDB

April 27, 2022



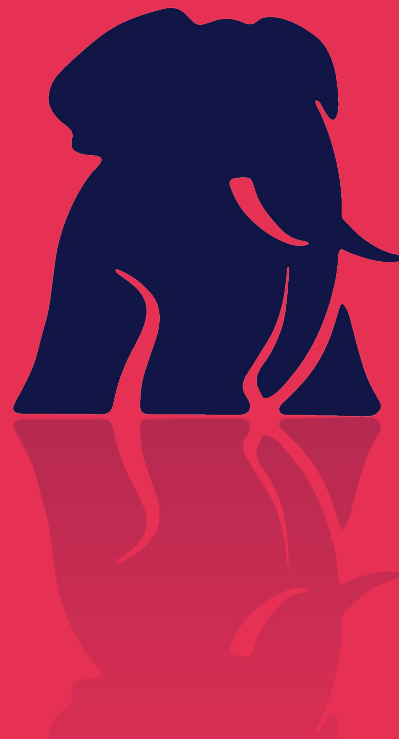
## About myself

- PostgreSQL user (since ~2000)
  - Community member since 2006
  - Co-founder of PostgreSQL Europe
- 2ndQuadrant (2008 to 2020)
  - Co-founder
  - Head of Global Support
  - Cloud Native Initiative Lead
- VP of Cloud Native at EDB (2020 to date)
- Co-founder of Barman
- Member of DoK
- DevOps evangelist



# Outline

- History
- About
- Three



# History of CloudNativePG

- **Aug 2019:** the Cloud Native journey at 2ndQuadrant starts
- **Dec 2019:** 2ndQuadrant becomes KCSP
- No existing open source operator was designed for Kubernetes
  - Primarily imperative (we wanted declarative)
  - Required an external failover management tool (we wanted the Kubernetes API server)
  - We started writing our own operator (closed source)
- **Sep 2020:** EDB acquires 2ndQuadrant
- **Feb 2021:** EDB launches Cloud Native PostgreSQL
- **Feb 2022:** EDB decides to open source Cloud Native PostgreSQL
- **Apr 2022:** CloudNativePG is open sourced and submitted for CNCF Sandbox

# About CloudNativePG

- Open source operator for the full lifecycle of a PostgreSQL database cluster
  - Continuous backup and Point-In-Time Recovery
  - Integration with monitoring and logging systems
- Support the primary/standby architecture using native streaming replication
  - Both asynchronous and synchronous
  - Optional number of read-only replicas, supporting scale up/down
- Directly integrates with the k8s API server to update the state of the cluster
  - Automated management of Kubernetes services pointing to the primary
  - Automated failover - No external failover management tool is required
- Entirely declarative, convention over configuration
- Designed for Kubernetes administrators
  - By Postgres experts with a DevOps mindset

# Example

```
apiVersion: postgresql.cnpg.io/v1
kind: Cluster
metadata:
  name: myapp-db
spec:
  instances: 3
  imageName: ghcr.io/cloudnative-pg/postgresql:14.2-5

  storage:
    size: 10Gi
```



# Section



# Section

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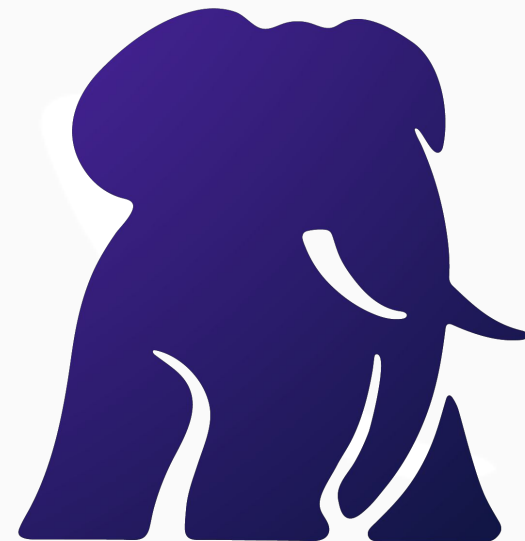
# Join our community!



[github.com/cloudnative-pg](https://github.com/cloudnative-pg)



[@CloudNativePg](https://twitter.com/CloudNativePg)



## CloudNativePG