

They grow up so fast: donating your open source project to a foundation

The CloudNativePG story



Floor Drees, Gabriele Bartolini PGConf.EU 2025

Who are these people?



VP, Chief Architect, Kubernetes @ EDB
CloudNativePG maintainer
PostgreSQL Contributor
DoK Community Ambassador



Principal Program Manager @ EDB CloudNativePG component owner PostgreSQL Contributor pgkaraoke



Why transfer stewardship?

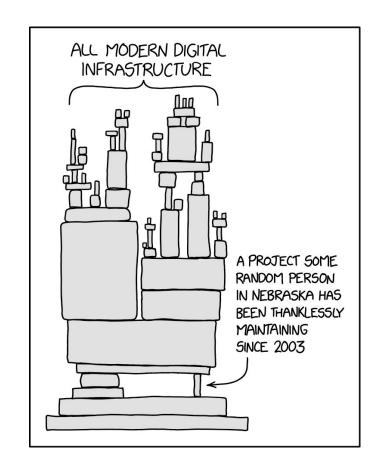
- Goal: CloudNativePG to thrive beyond
 EDB and be free forever
- Unlike other projects...
- Separation of governance from commercial activity protects community and technical direction





Open Source Maintenance

- Projects developed by a single vendor
- Single maintainer / not enough people to do the work
- SPI, ASF, FSF, LF, CNCF, ...





Why the CNCF / LF?

- Linux Foundation (since 2000)
 - Neutral, trusted hub for projects critical to modern computing
 - Governance, funding, infrastructure, legal support
 - LF Edge, OpenJS Foundation, ...
- Cloud Native Computing Foundation (2015)
 - Rise of cloud-native technologies required open governance & community-driven standards
 - Vendor-neutral home
 - O Kubernetes, Prometheus, Envoy, ...







Timeline / not-so ancient history

08/2019: Start project

09/2020: 2ndquadrant acquired by EDB

02/2020 Refactor new product:

Cloud Native Postgres

12/2020: first proposal to open source



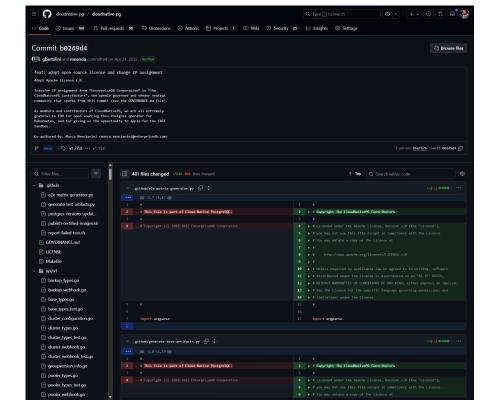


Timeline / not-so ancient history

01/2022: presentation to the board

- No PostgreSQL project in CNCF yet
- Increase adoption of PostgreSQL
- Create defacto standard for PostgreSQL management in Kubernetes community
- Visibility as leader
- o Open Source IP transferred to CNCF

04/2022: Open source under Apache license 2.0





"Today is the culmination of years of hard work at EDB, and the beginning of a new phase in the multi-decade evolution of Postgres and its community."





Timeline / not-so ancient history

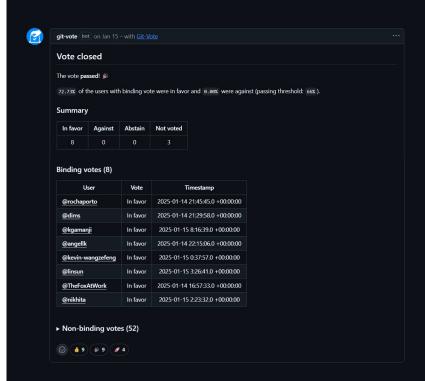
07/2022: first application CNCF

09/2024: second application CNCF

10/2024: 4500 m on GitHub

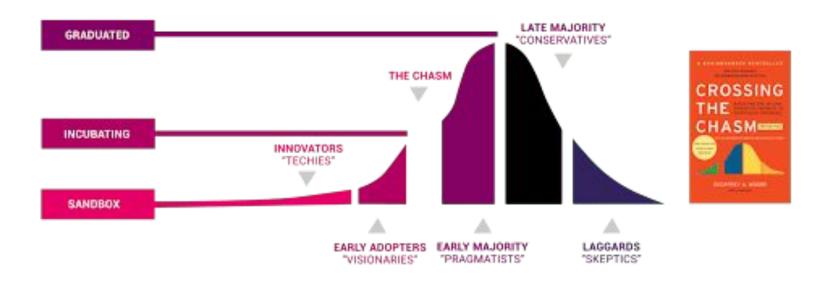
01/2025: join CNCF sandbox

07/2025: mentoring first cohort LFX



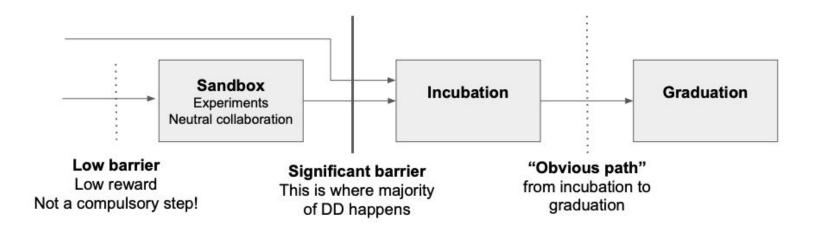


What does donating a project look like?





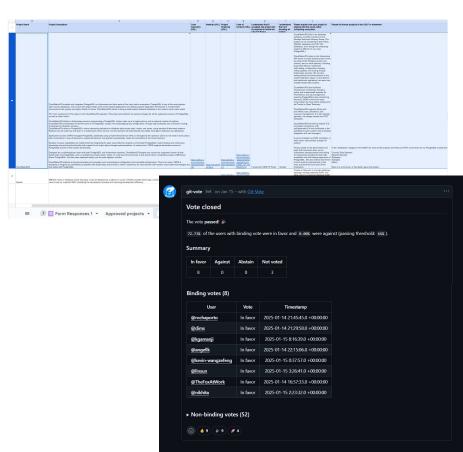
What does donating a project look like?





What does donating a project look like?

- <u>First application</u> failed
- Lots of (time) investment in between
- Second application
- Profit!! (not really)







ianstanton on Sep 27, 2024 - edited by ianstanton

Chiming in from https://tembo.io, We use CloudNativePG under the hood in our platform, and it's been excellent to work with, We're a small team, and we've been able to get a lot of value out of it. Working with @gbartolini and the team has been smooth, and they're always quick to respond to any questions we have.

We feel the admission of CNPG into the CNCF Sandbox will help fuel the growth of the project and the surrounding community. We're excited to see where it goes from here!





pgodowski on Sep 27, 2024

Chiming in from IBM. We use CloudNativePG as the embedded Postgres datastore for the wide portfolio of the IBM products running on Kubernetes/OpenShift platform across hybrid environments (customer-managed and running on Cloud). Working with the community, we appreciate CloudNativePG for its robustness and resiliency, delivering the value to the customers running Postgres database in thousands on Kubernetes clusters. The community is energetic, always helpful and always looking for the best way how to do things in the Kubernetes native way: @gbartolini @sxd @leonardoce and other fantastic community builders are great experts leading the efforts of making Postgres the first class citizen in the Kubernetes ecosystem.

Admission of CNPG into CNCF Sandbox would elevate this community to the next level. Happy to be part of this journey.





xing-yang on Sep 28, 2024

CloudNativePG team gave a presentation to TAG Storage on 9/25/2024. Here's the recording: https://www.youtube.com/watch? v=Nsu5Em8lq88. cc @chira001 @raffaelespazzoli



© **13**



zekiyeaydemir on Oct 3, 2024

Managing a Kubernetes cluster is difficult, but managing databases in Kubernetes can be even more challenging. CloudNativePG makes this easier with features like direct management of PVCs instead of StatefulSets, online resizing, and volume snapshot backup and recovery. It also supports PostgreSQL management across different regions. As a DBA, I am pleased to use CloudNativePG thanks to these features

As a PostgreSQL DBA and Kubestronaut, I have helped many customers manage PostgreSQL in Kubernetes clusters, and we use CloudNativePG with great satisfaction. The CloudNativePG community consists of energetic, supportive, and kind people. Thanks to their encouragement, I became a contributor, and this is my first open-source project.

I believe that CloudNativePG's acceptance into the CNCF Sandbox will help move the community forward. I am very happy to be part of this community and for their support in helping me contribute to open-source projects.







rdeaez on Oct 4, 2024 - edited by rdeaez

At Enix.io, we are absolutely in love with CloudnativePG!

It's a very practical and efficient way to run a large number of - sometimes very large - PostgreSQL database clusters in a Kubernetes

Its "day 2 operation" capabilities (backup management, updates, replicas scalability, point-in-time recovery, pgbouncer pooling, metrics...) make it a perfectly "production ready" solution.

The documentation is very comprehensive and of high quality, and the entire project team is very accessible and communicates well about the project's developments.

We can't imagine going back and firmly believe that the project is a perfect candidate for inclusion in the CNCF landscape.



© (****** 11



thomasboussekey on Nov 5, 2024

Thanks to cloudnative-pg, we have modernized our database hosting stack at Mirakl

Kubernetes has been used for 7+ years for stateless applications. The POD creation is automated with many tools like Helm & ArgoCD.

We were looking for a new hosting solution for PostgreSQL databases.

After comparing Kubernetes operators, laaS home-made, PostgreSQL managed instance implementation, we have quickly focused only on cloudnative-pg that complied to our pre-study expectations and proof-of-concept early tests:

- easy to deploy
- useful documentation
- 100% declarative, all the parameters are defined in the HELM manifest

The project went fast

- On November 2023, we have decided to continue our investigations on cloudnative-pg only, and we have started to define the manifest in order to implement the creation of our new instances.
- On February 2024, we have created the first production with cloudnative-pg.
- On June 2024, we have migrated the first existing database to cloudnative-pg, using the embedded declarative logical replication.
- We are now operating 250+ cloudnative-pg PostgreSQL clusters, containing 4+ TB of data.

On the last months, several releases of cloudnative-pg have been released and we have updated smoothlessly our manifest to stay up-to-date. We have also upgraded the kubernetes engine version. For each operation, a single instance switchover is observed.

The configuration of the cloudnative-pg is highly configurable:

- we are using a custom-made docker image based on postgis-container, adding extra required extensions for our needs.
- Backup is also configured thanks to the manifest, and DRP is also defined in our manifest.
- Thanks to cloudnative-pg, we have also easily implemented a connection pooler with YAML declarative statements.

This project has very interesting features and it could be nice to add this operator in the CNCF ecosystem.













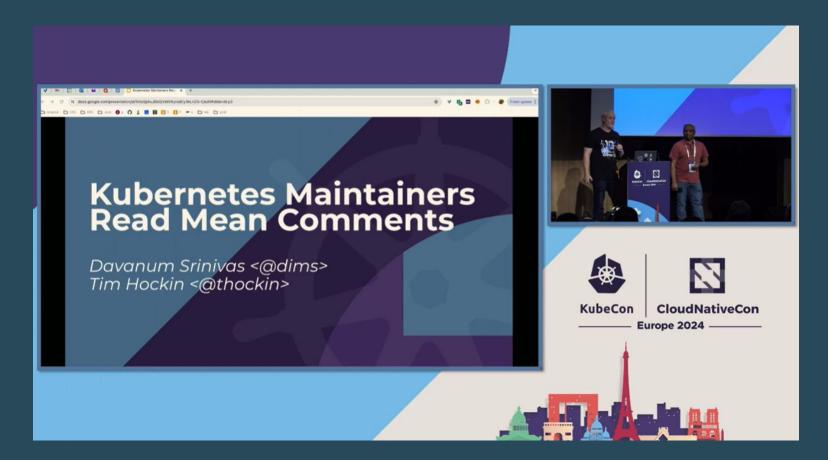
Chris Aniszczyk (@cra@macaw.social)

@cra

"Running a successful open source project is just Good Will Hunting in reverse, where you start out as a respected genius and end up being a janitor who gets into fights"

1:39 PM · Sep 17, 2020









Tim Hockin
@thockin

"We've got to say no to things today, so we can afford to do interesting things tomorrow."







- North America 2023 ----





Solomon Hykes / @shykes@hachyderm.io 🤣



@solomonstre

Rule #1 of open-source: no is temporary, yes is forever.

1:38 PM · Mar 30, 2016









CloudNativeCon

North America 2023 ——



What's next?

- Incubation application
- LFX mentorship program continuation
- Upstream PostgreSQL / Kubernetes improvements
- Work on v<u>1.28.0</u>
- KubeCon NA





Modern PostgreSQL Authorization With **Keycloak: Cloud Native Identity Meets** Database Security

Yoshiyuki Tabata (Hitachi, Ltd) & Gabriele Bartolini (EDB) November 11, 5:45pm EST





Quorum-Based Consistency for Cluster Changes With CloudNativePG Operator Jeremy Schneider (GEICO Tech) & Leonardo Cecchi (EDB) November 13, 3:15pm EST







We need you!



<u>github.com/cloudnative-pg/cloudnative-pg/blob/main/ADOPTERS.md</u>

Like: IBM, Google Cloud, Azure, Xata, ParadeDB, Wien IT, ...

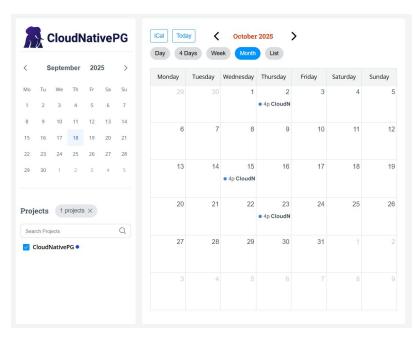
This list is sorted in chronological order, based on the submission date.			
Organization	Contact	Date	Description of Use
	@gbartolini	2023- 02-21	EDB's DataBase as a Service solution, <u>BigAnimal</u> , relies on CloudNativePG to run PostgreSQL and Postgres Distributed workloads. EDB's one of the primary contributors to the open source PostgreSQL project and the founder of CloudNativePG.
	@itay-grudev	2023- 02-25	Primary production database cluster. Clustermarket provides the easiest way to manage shared lab instrument scheduling and get all your team members' schedules aligned.
	@AntoineMicheaOpencell	2023- 02-27	Opencell is an open source agile monetization platform that uses CloudNativePG to run PostgreSQL clusters for its SaaS.
	@prometherion	2023- 03-14	Used as an available <u>Mutastere</u> <u>driver</u> for <u>Kamaij</u> TenentCentrolPlane resources, also known as Kubernetes Control Planes running as regular pods in a management cluster to offer Kubernetes as a Service as a Cloud hyper- scaler.
	@tembo-io	2023- 07-17	Tembo is the developer platform for PostgreSQL extensions. Build and share extensions with <u>Trunk</u> , and use any extension on Tembo Cloud.
	@johnstonmatt	2023- 08-21	Provides simple workflow to deploy self-hosted CloudNativePG clusters with GitOps and Infrastructure as Code.
PITS Global Data Recovery Services	@benjx1990	2023- 09-07	CloudNativePG is used to easily manage highly-loaded database clusters
	@edco-wallet	2023- 09-25	OptimaData as the Dutch database expert company has done serveral projects running CloudNativeNG for managing Postgres dusters. Read our how to run Postgres on Unibernetes biognost to learn more and how easy you can deploy with CloudNativeNG.
	@rdegez	2023- 10-06	Divi is a French Managed Services Provides specializing in the operation of Küberneter clusters across all types of infrastructure VMA and bare-metal on both public and private clouds). Our outstorner platforms often require PostgreSQL databases, and we are pleased to use CloudNativePG to install & manage them.
	@smiyc	2023- 10-11	Hello • We are WienIT, the central IT & business partner of Wiener Stadtwerke Group. As IT service provider we're using CloudNativePG to provide high available PostgreSQL clusters.
	Sutaladriz, Safiebig	2023- 11-16	Primary production high available PostgreSQL cluster, ISO27001 Backup and Recovery Compliance
	@kvaps	2024- 02-11	Ænix provides consulting services for cloud providers and uses CloudNativePG in free PaaS platform <u>Corystack</u> for running PostgreSQL-as-as-Service.
	@pgodowski	2024- 02-20	IBM uses CloudNativePG as the embedded SQL database within the family of IBM Cloud Pak products, running as customer-managed software on top of OpenShift Container Platform.
	@mastersingh24	2024-	Leverage the full potential of cutting-edge PostgreSQL and CloudNativePG on Google Kubernetes Engine (GKE) with EDB Community 360 PostgreSQL available in the Google Cloud Marketplace.





Thank you!

- Ø cloudnative-pg.io
- #CNCF Slack
- inkedin.com/company/cloudnative-pg
- mastodon.social/@CloudNativePG
- ₩ bsky.app/profile/cloudnativepg.bsky.social
- ≥ gabriele.bartolini@enterprisedb.com



https://zoom-lfx.platform.linuxfoundation.org/meetings/cloudnativepg



Thank you!

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- ≥ gabriele.bartolini@enterprisedb.com



postgresql.eu/events/pgconfeu2025/feedback/7021/



Did you know that?

- The project was briefly named open-cnp?
- This all wouldn't have happened if Gabriele had pursued his pro-soccer career?
- That the logo was designed by Scarlett Riggs?

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postgresql.eu/events/pgconfeu2025/feedback/7021/

