

Architecture for Seamless PostgreSQL Upgrades

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Upgrading from PostgreSQL 11 to 16 can be an easy process, such as a dump restore, but when instance numbers and sizes increase, this can push organizations to maintain older PostgreSQL versions longer than expected. Avoiding technological debt is crucial for maintaining a robust and scalable database architecture. This session will present a real-world scenario on how to design an architecture that allows for easy migration between PostgreSQL versions. By using load balancers like HAProxy for connection management, PgBouncer for connection pooling, and automated logical replication for testing and migration, we can achieve seamless upgrades and minimize downtime. Additionally, we will explore how the new `pg_create_subscriber` feature in PostgreSQL 17 will further simplify this process, making future migrations even more efficient. The ultimate goal is to upgrade to new releases as soon as possible and allow developers to run all the necessary tests easily, simplifying the rollback process.

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