splendiddata

From Oracle to PostgreSQL: Successfully migrating a billion-row database in six months

Client
Undisclosed international utility company

The client

An international utility company needed to migrate a complex database environment from Oracle to native PostgreSQL.

The database environment combined a substantial volume of business logic with very large data volumes. It contained approximately 40,000 lines of PL/SQL code, while some tables contained more than 18 billion rows.

The challenge

The migration presented significant technical challenges, driven primarily by the scale and complexity of the data rather than by the application code itself.

The existing Oracle environment made extensive use of table partitioning and sub-partitioning. Migrating this architecture to PostgreSQL while maintaining the required application performance and meeting the planned go-live date required careful planning and close collaboration with the customer.

Key limitations included:

- Tables containing up to more than 18 billion rows.
- Approximately 40,000 lines of PL/SQL code to migrate.
- Extensive use of Oracle table partitioning and sub-partitioning.
- Maintaining the required application performance after migration.
- Completing the migration within the planned timeline.
- To address these issues, they decided to migrate their Oracle database to open source PostgreSQL, but needed an experienced partner to ensure a smooth and risk-free transition.

The solution

Working closely with the customer, Splendid Data designed and implemented a migration approach tailored to the specific characteristics of the existing environment. Cortex was used throughout the migration to automate and accelerate the transition to PostgreSQL.

Rather than simply replicating the Oracle database structure in PostgreSQL, we identified where targeted partitioning could provide the greatest value, primarily from a performance perspective.

This approach made it possible to manage the very large data volumes while keeping the new PostgreSQL environment as simple and maintainable as possible.

Throughout the migration, the focus remained on performance, reliability, and delivering the project according to schedule.

The business results

The PostgreSQL database went live successfully and on schedule, approximately six months after the migration project started.

The customer successfully transitioned from Oracle to native PostgreSQL while maintaining the required application performance, including for tables containing more than 18 billion rows.

Key business outcomes included:

- Successful migration of a complex database environment from Oracle to native PostgreSQL.
- Successful handling of tables containing more than 18 billion rows.
- Migration of approximately 40,000 lines of PL/SQL code.
- Optimisation of the new environment through targeted partitioning.
- Achievement of the required application performance.
- Successful go-live approximately six months after the project started.

The new PostgreSQL environment enables the customer to operate without the previous Oracle database while supporting the scale and performance requirements of the application.

When can Splendid Data help?

Splendid Data is relevant when:

- Oracle licensing or support costs are under pressure
- Vendor lock-in is becoming a strategic risk
- Open source and digital autonomy are becoming more important
- A cloud migration or database modernization is on the agenda
- PostgreSQL is already in use, but professional support is needed
- An organization wants to assess which Oracle databases are suitable for migration
- An organization wants to accelerate and automate Oracle-to-PostgreSQL migrations using the proven Cortex solution
- An organization requires enterprise-supported PostgreSQL with PostgresPURE

Explore the possibilities of PostgreSQL for your organization

Let's discuss where PostgreSQL can add value within your organization, from Oracle migration with Cortex to supported PostgreSQL with PostgresPURE.

Get in touch
Michel Schöpgens
michel.schopgens@splendiddata.com
+31 6 54 34 30 89

About Splendid Data

Splendid Data was founded in 2013 and, as Oracle experts, we have focused entirely on PostgreSQL ever since, bringing its benefits to our customers and partners.

We're proud to help companies of every size, in every sector, find their way to digital freedom, flexibility and the power of PostgreSQL.

Contact

Splendid Data
Binnenhof 62a
1412 LC NAARDEN
The Netherlands

Online
www.splendiddata.com
www.linkedin.com/company/splendiddata

Michel Schöpgens
michel.schopgens@splendiddata.com
+31 85 773 19 99
+31 6 54 34 30 89

© 2026 Splendid Data

#02.2026EN

splendiddata