



Optimized PostgreSQL-as-a-service

“Build your own private cloud for PostgreSQL”

Scalefield is a product of **CYBERTEC WORLDWIDE**

AUSTRIA | SWITZERLAND | ESTONIA | POLAND | URUGUAY | SOUTH AFRICA | MAURITIUS



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Redefining PostgreSQL in your private cloud

“Ready to use, ready to scale”

Businesses are often under pressure to cut costs, drive innovation, and to deliver services to internal as well as external customers faster than ever before. The natural solution for many: moving to public clouds.

But what if you cannot make use of a public cloud service? What if your data is not allowed to leave your organisation? If your organization is facing challenges like these, Scalefield is the ideal solution for you.

Your advantages with Scalefield:

- Keep your data in house
- maintain your security standard
- ensure privacy
- encrypt your databases

Scalefield makes managing and storing your data the simplest and most uncomplicated task in the world - whilst maintaining highest security.

As a “turnkey solution”, Scalefield allows you to implement your own private cloud in no time. Our software relies on innovative technology such as Kubernetes and OpenShift. It comes with a graphical user interface and offers an easy- to-use frontend.



The screenshot shows the Scalefield dashboard for a 'CYPEX database'. The left sidebar contains navigation links for 'PRIVATE PROJECTS', 'ORGANIZATIONS', 'Admin', 'Help', and 'Support'. The main content area displays the database status as 'Running' with specifications: 1 Replica, 2 Cores, 4 GB, Medium HDD: 20 GB, and 3% storage used. It lists two PostgreSQL endpoints: 'postgres://cybertec@10.0.20.13:5432' (MASTER) and 'postgres://cybertec@10.0.20.22:5432' (LOAD BALANCER FOR REPLICAS). Below this are tabs for 'Summary', 'Plan', 'Parameters', 'ACL', 'Replicas', 'Backups', and 'Datasets'. A table shows the 'Europe/Luxemburg' time zone with a 'Successful' import status. A '+ Import Dataset' button is visible at the bottom.

Scalefield can be extended without any effort. You can run databases more easily than ever before and simply rely on our built-in database encryption (PostgreSQL TDE). Moreover, every component of Scalefield supports High-Availability by default.

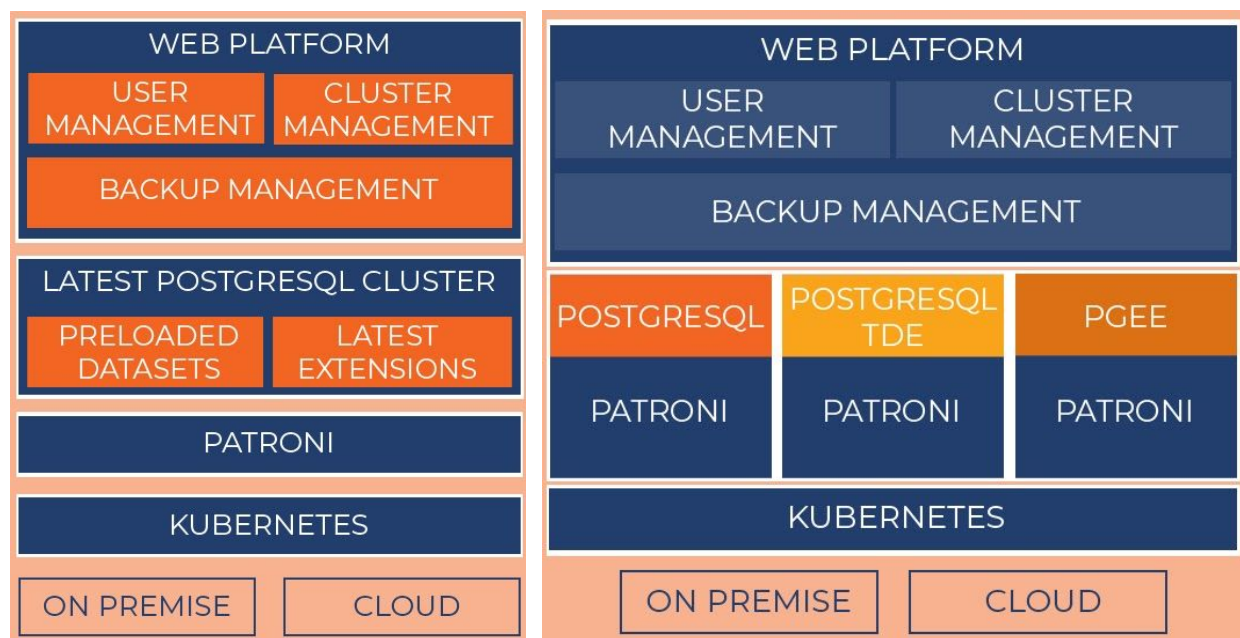
This screenshot shows the 'Summary' tab for the 'CYPEX database'. It includes a 'DESCRIPTION' section with 'CYPEX sample applications'. The 'CONNECTION DETAILS' section lists the Host as '10.0.20.13', Port as '5432', Username as 'cybertec', and a masked Password with a 'Generate new' button. The 'STORAGE USAGE' section features a donut chart showing '3% (405 MB) Used' and '97% (19 GB) Available'.



Architecture and Components

“A modern Kubernetes / OpenShift enabled environment”

Scalefield is capable of using “bare metal” as well as virtual machines to operate. Whatever is available in your infrastructure can be used to run Scalefield automation, which makes it very easy to get started.



Kubernetes as well as OpenShift are supported, offering full automation including a state-of-the-art user experience.

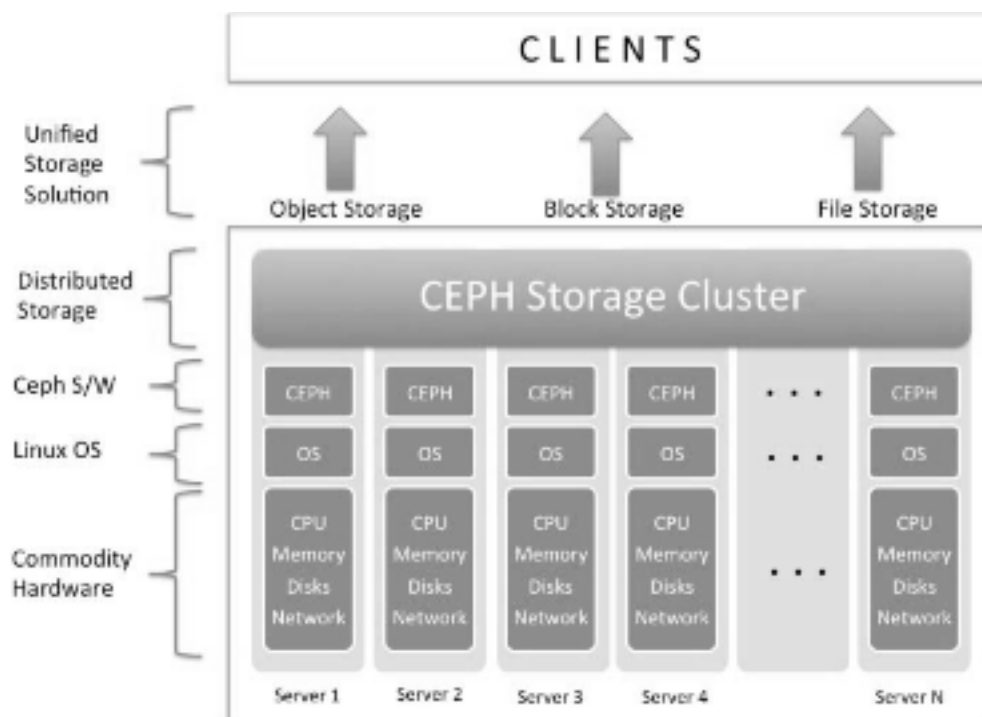


Ceph: Automating network storage

Ceph is an Open Source software storage platform which can expose storage in three ways:

- network file system
- block device
- object store

If you want to store data in the most efficient and scalable way possible, Ceph is actually the standard. Add servers on the fly, resize partitions, and add fault tolerance to your PostgreSQL infrastructure!



Source: https://miro.medium.com/max/2430/1*9q3aVfK8fvqAWa-iZK3jtg.png

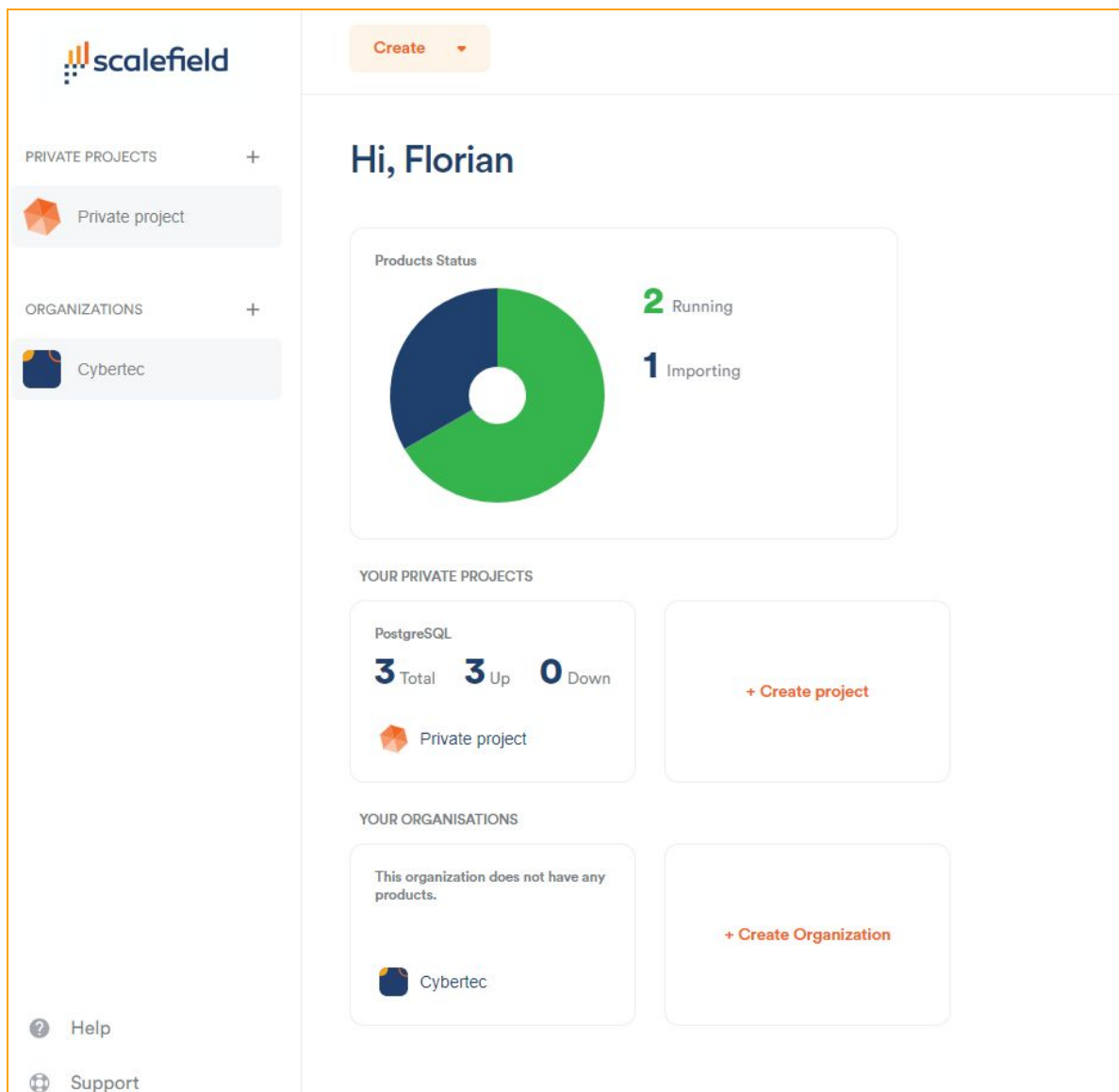
Scalefield integrates Ceph and therefore relies on rock solid storage for your data as well as for your backups.

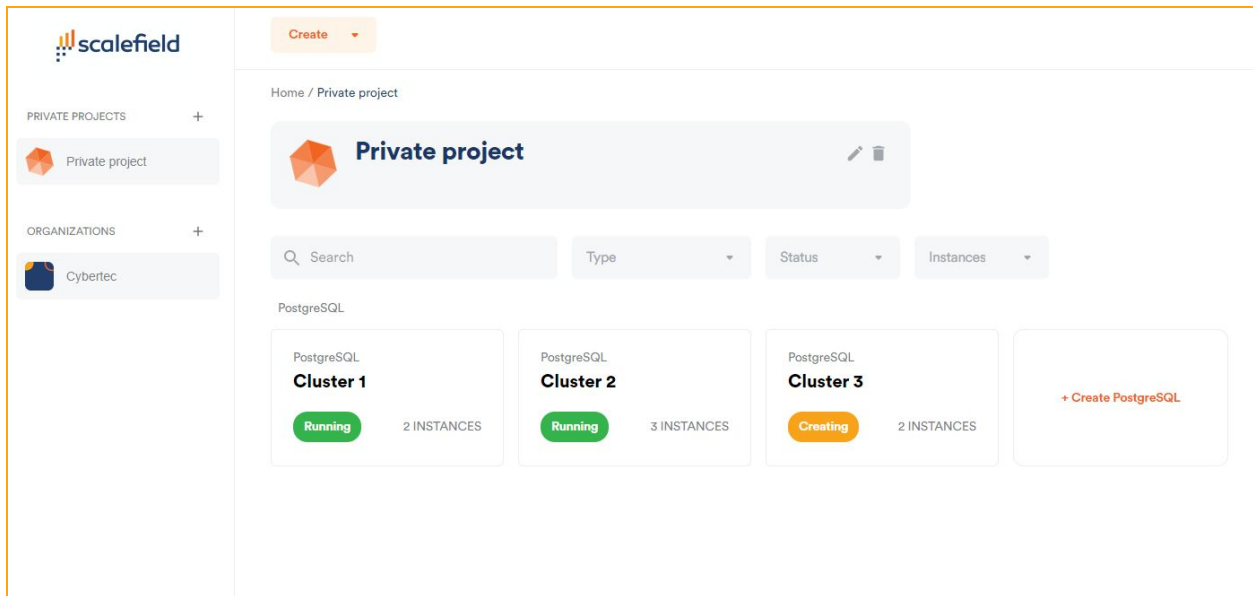
NOTE: Other storage options are available on request



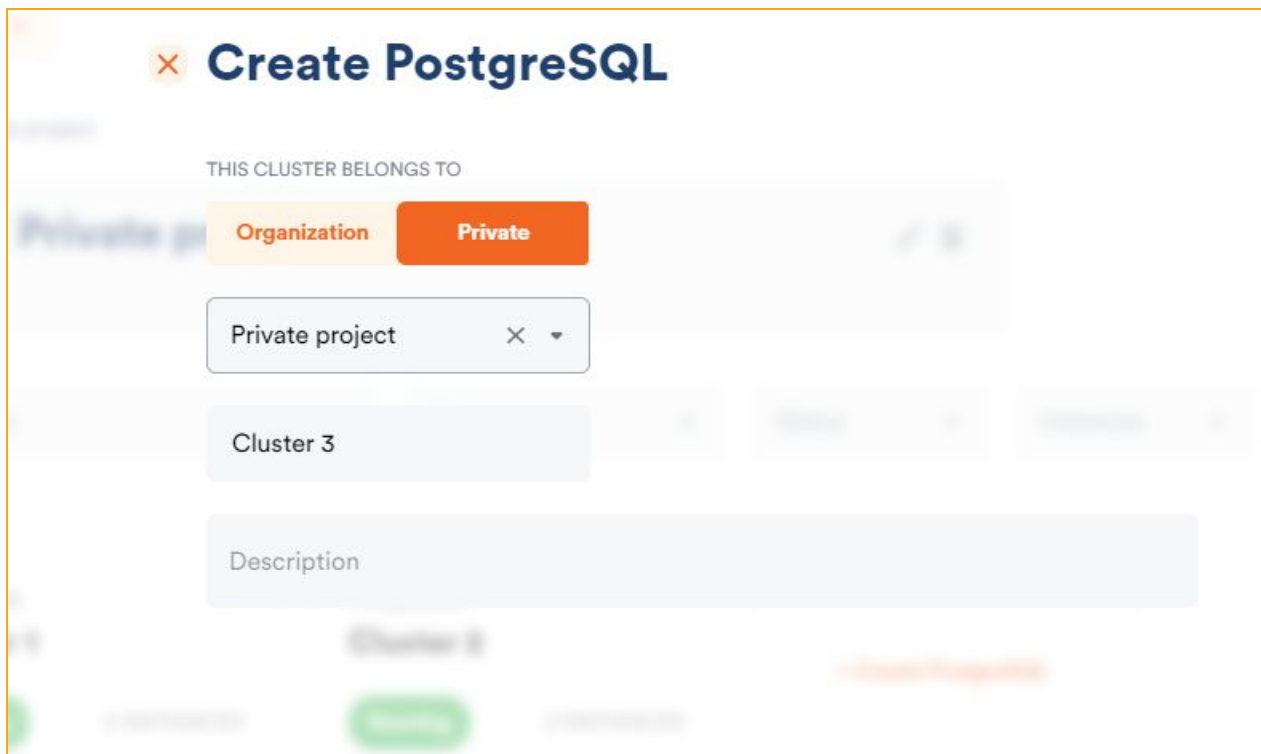
Easy-to-use graphical user interfaces

Even as short as two decades ago, command line tools were the most cutting-edge type of interface available to database engineers. Today, things have shifted dramatically and you'll find self-service portals everywhere. Scalefield comes with a built-in and easy-to-use GUI to manage your PostgreSQL infrastructure the most optimal way.





Order your ready-to-use PostgreSQL database online and start working with PostgreSQL within minutes.





✕ Create PostgreSQL

BACKUP CONFIGURATION

Logical backup configuration

BACKUPS TIME

00:00



RETENTION PERIOD

2

days

Next logical backup scheduled:

Server Time:
08 September, 2020 at 00:00
(UTC+00)

Your Local Time:
08 September, 2020 at 02:00 (UTC+02)

Continuous backup configuration

BACKUPS TIME

00:00



RETENTION PERIOD

5

days

Next continuous backup scheduled:

Server Time:
08 September, 2020 at 00:00
(UTC+00)

Your Local Time:
08 September, 2020 at 02:00 (UTC+02)

⚠ Continuous backup settings cannot be changed during cluster life time!

✕ Create PostgreSQL

DATASET CATEGORIES



Spatial

2/4

CHOOSE DATASET TO IMPORT

Europe/Andora tiling

Description ⓘ

07.09.2020
46.00 MB

Europe/Luxemburg tiling

Description ⓘ

07.09.2020
655.00 MB

Europe/Iceland tiling

Description ⓘ

07.09.2020
1.23 GB

Europe/Andora nominatim

Description ⓘ

07.09.2020
135.00 MB

2 datasets are selected • total: 701.00 MB

Import can take a lot of time depending on dataset properties



Manage your backups with ease and change PostgreSQL database parameters online using your favorite web browser. Scalefield makes it possible!

The screenshot shows the 'Backup schedule' configuration page. On the left, there are two buttons: 'Logical' (selected, with a red circular arrow icon) and 'Continuous' (with a clock icon). The main section is titled 'Backup schedule' and has a toggle switch that is currently turned on. Below the title, there are two input fields: 'BACKUPS TIME' set to '00:00' with a clock icon, and 'RETENTION PERIOD' set to '5 days'. An orange 'Apply' button is located below these fields. To the right, the 'Next backup scheduled:' section displays the 'Server Time: 08 September, 2020 at 00:00 (UTC+00)' and the 'Your Local Time: 08 September, 2020 at 02:00 (UTC+02)'. At the bottom, it shows 'Total backup size: 0 bytes'.

Advanced monitoring and management by default

Our platform comes with a ready-to-use internal admin interface to control your deployment. This allows you to easily block users, track hardware usage and make full use of advanced pgwatch and Prometheus monitoring.



Running your own platform has never been easier and more automated.
Scalefield ensures that you can run your automation infrastructure.

Full automation offers many advantages:

- lower labor costs
- fewer mistakes
- faster operations
- higher security

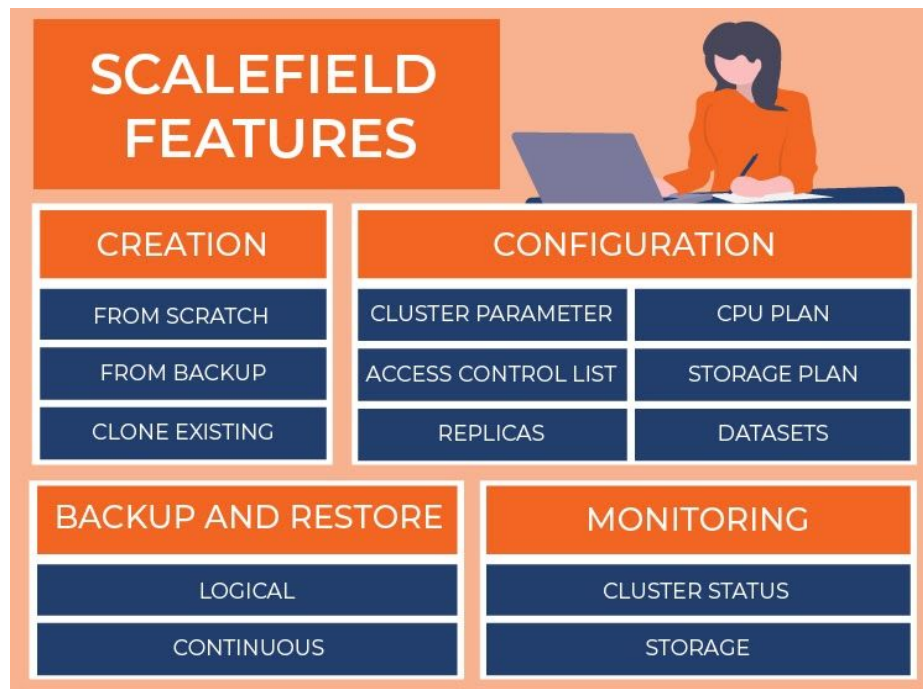
Check out our infrastructure and see for yourself!



Features and assets

“Powerful and easy to use”

Scalefield comes with a rich set of features which enable your enterprise to thrive. Our solution is easy- to-use, cost effective and highly efficient.



Storage and PostgreSQL automation

- built-in automatic deployment
- automatic network management
- full backup automation
- support for all recent PostgreSQL versions (> 12.x)

Managing database servers

- organize users in groups
- assign costs to sub-organisations
- define security groups
- manage advanced notifications



Profile

Organizations

Profile

Security

Notifications

Delete account

CHOOSE HOW YOU RECEIVE NOTIFICATIONS

1st party clusters

Receive notifications

Cluster created

Cluster updated

Cluster deleted

Cluster unavailable

WEB & MOBILE

EMAIL

2nd party clusters

Receive notifications

Cluster created

Cluster updated

Cluster deleted

Cluster unavailable

WEB & MOBILE

EMAIL

Status: Running

Cluster 3

a minute

Status: Running

Cluster 2

30 minutes

Status: Running

Cluster 1

35 minutes

Mark all as read



Performance and scalability

- optimized PostgreSQL configuration
- support for read scalability
- various performance modules

The screenshot shows the 'Parameters' tab selected in a navigation bar. Below the navigation bar, there are several expandable sections: 'General', 'Optimizer settings', 'Logfiles', 'Statistics collection', 'Autovacuum', and 'Miscellaneous'. Each section has a downward arrow on its right side. At the bottom left of the main content area is a 'Submit' button.

Security and encryption

- full PostgreSQL TDE (Transparent Data Encryption) support
- support for SSL (client server encryption)
- **Optional:** support for pgaudit

Monitoring and tracking

- automatic support for pgwatch2
- integrated Prometheus monitoring
- built-in metrics and supervision

Geographic data

- out of the box OpenStreetMap (OSM) data, available for all countries
- Integrated tile caches
- ready-to-use GIS data at your fingertips



Ready-made data sets

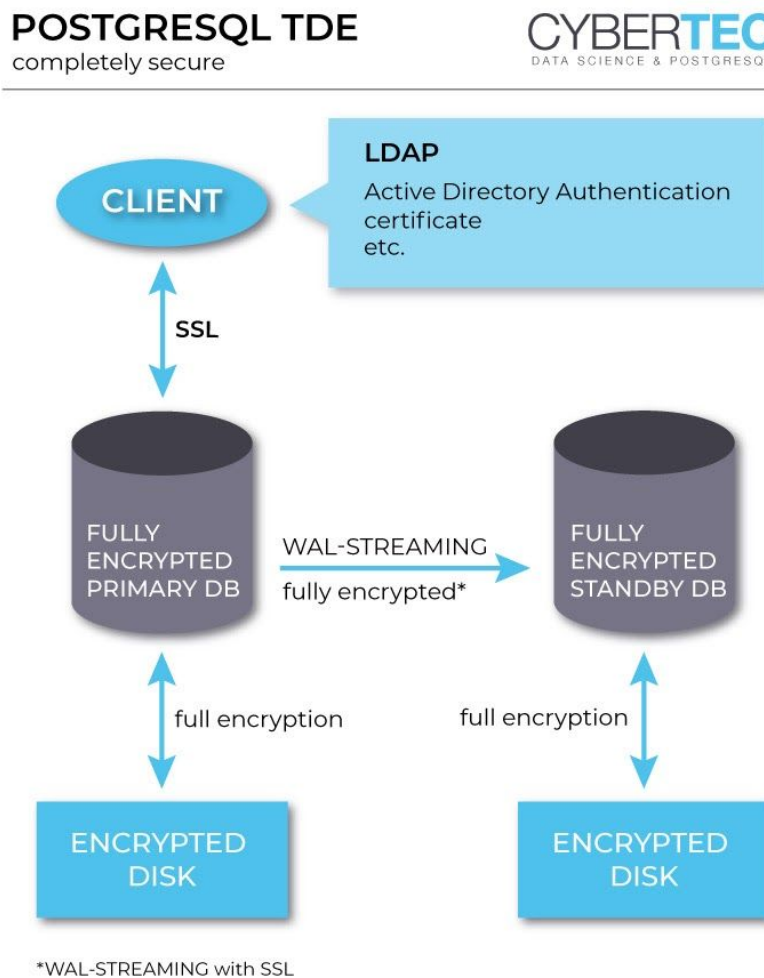
- Ready-made data sets can be integrated easily
- load data during database provisioning



High security by default

“Fully encrypted, fully transparent, full performance”

Security is one of the most important topics. We at CYBERTEC have fully understood the importance of security and therefore, offer full support for PostgreSQL TDE. TDE stands for Transparent Data Encryption and is the encrypted and hence, more secure version of PostgreSQL developed by us.

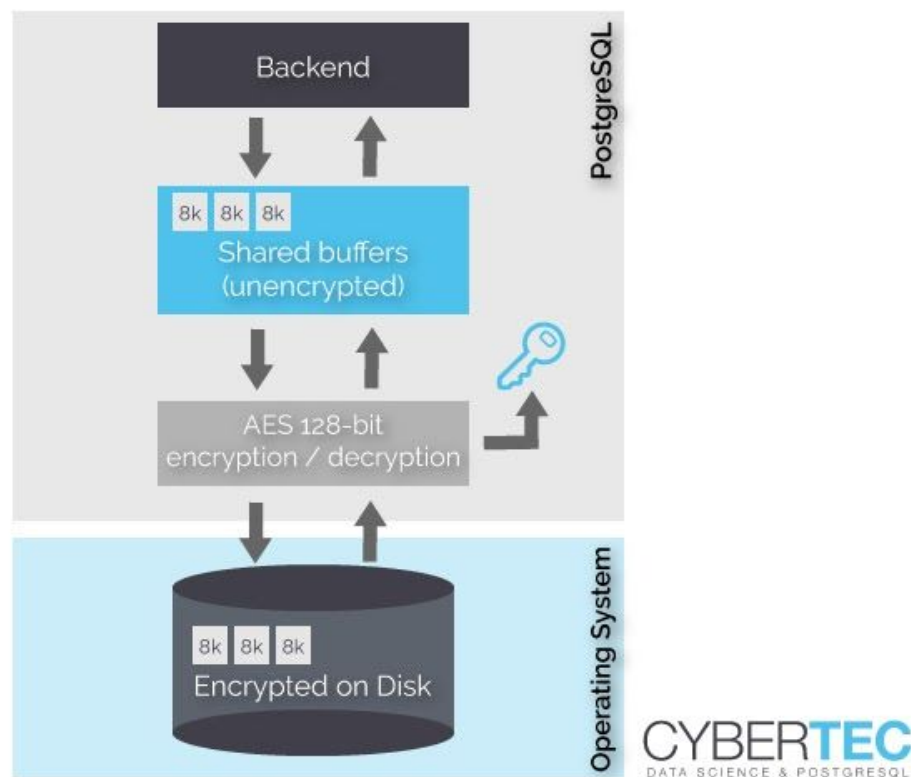




PostgreSQL TDE encrypts I/O as it happens. Each block written to the storage system is encrypted and each block read from the operating system is automatically decrypted.

“We use Intel hardware acceleration”

Thanks to Intel hardware acceleration, we are able to offer encryption at virtually no overhead. PostgreSQL TDE is fast and efficient.



We offer customized key management. Get in touch with sales@cybertec.at to learn more.



Our services

“Turn our services into your success”

Designing efficient infrastructure

- customize your environment for maximum efficiency
- run your own private clouds

Deploying Scalefield

- deploy Scalefield easily using modern container technology
- Kubernetes / OpenShift support

Professional customer support services

- integrated help - knowledge base
- technical 24/7 support for Scalefield
- discounted support for PostgreSQL¹
- direct support for end-customers

Migrating to Scalefield

- turn data into predefined data sets
- migrate directly from Oracle and MS SQL into Scalefield
- move to a private cloud with ease

CYBERTEC offers 24/7 services for Scalefield.

All necessary services around the product are available worldwide. Contact us!

¹ All our support packages: <https://www.cybertec-postgresql.com/en/services/postgresql-support/>



**CYBERTEC PostgreSQL
International (HQ)**

Gröhrmühlgasse 26
2700 Wiener Neustadt
Austria
Phone: +43 (0)2622 93022-0
sales@cybertec.at

**CYBERTEC PostgreSQL
Switzerland**

Bahnhofstraße 10
8001 Zürich
Switzerland
Phone: +41 43 456 2684

CYBERTEC PostgreSQL Nordic

Fahle Office
Tartu mnt 84a-M302
10112 Tallinn
Estonia
Phone: +372 53070910

CYBERTEC PostgreSQL Poland

Aleje Jerozolimskie 93
HubHub Nowogrodzka Square,
2nd floor
02-001 Warsaw
Poland

**CYBERTEC PostgreSQL
South America**

Misiones 1486
oficina 301
11000 Montevideo
Uruguay

CYBERTEC PostgreSQL Mauritius

1st Floor, Cezama House
51A Mere Barthelemy Street
11201 Port Louis
Mauritius
Phone: +230 2085000
africa@cybertec.at

**CYBERTEC PostgreSQL
South Africa**

No. 26, Cambridge Office Park
5 Bauhinia Street, Highveld
Techno Park
0046 Centurion
South Africa
Phone: +27(0)012 881 1911
africa@cybertec.at