



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.



scalefield

Create

Home / High performance cluster / CYPEX database

CYPEX database Running

1 Replica | 2 Cores | 4 GB | Medium HDD: 20 GB | 3% storage used

postgres://cybertec@10.0.20.13:5432 MASTER

postgres://cybertec@10.0.20.22:5432 LOAD BALANCER FOR REPLICAS

Summary Plan Parameters ACL Replicas Backups **Datasets**

NAME	IMPORT DATE	STATUS
Europe/Luxemburg tiling	September 7th 2020, 11:26 am	Successful

+ Import Dataset

Admin Help Support

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About Imprint

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.

scalefield

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Summary Plan Parameters ACL Replicas Backups Datasets

DESCRIPTION

CYPEX sample applications

CONNECTION DETAILS

Host: 10.0.20.13

Port: 5432

Username: cybertec

Password: •••••••••• Generate new

STORAGE USAGE

3% (405 MB) Used

97% (19 GB) Available

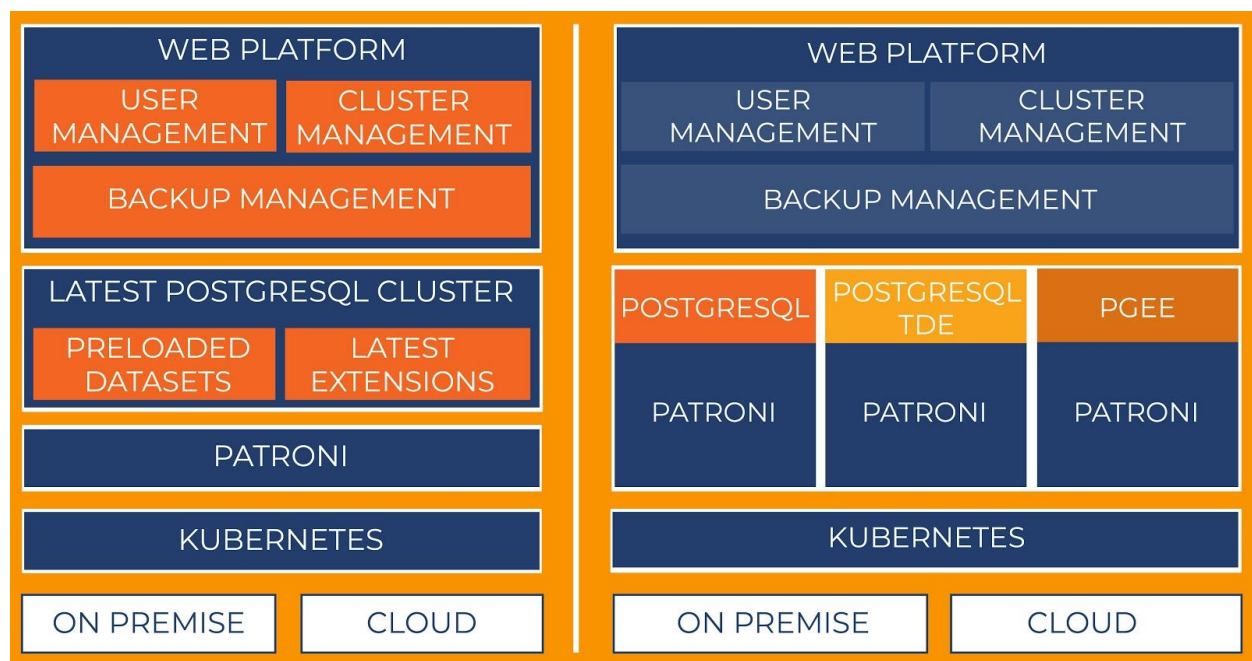
Admin Help Support



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.

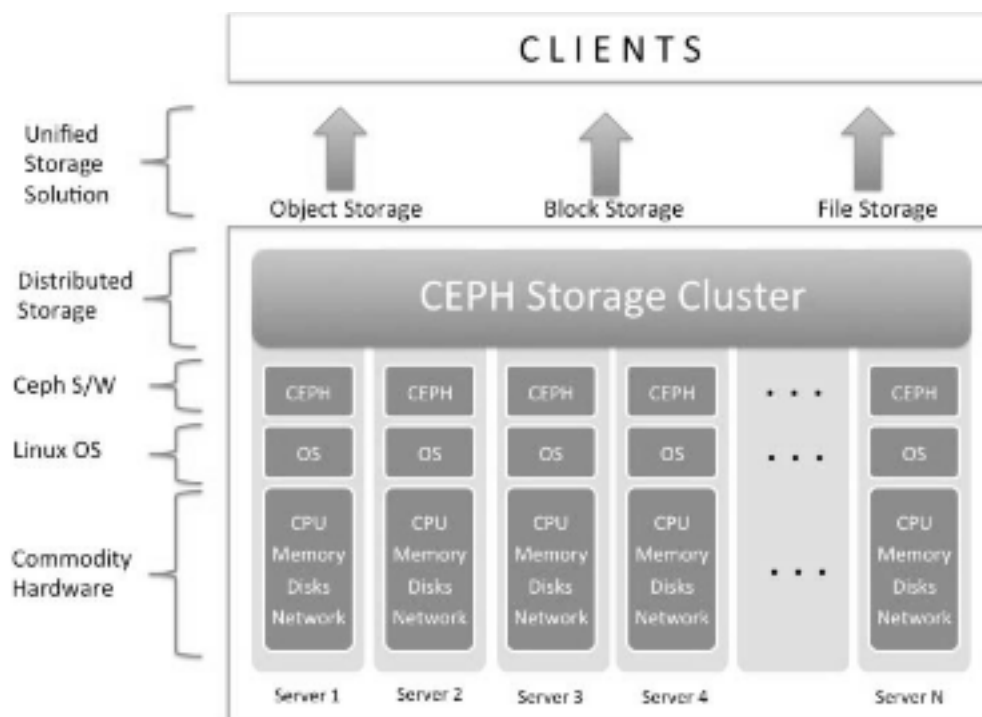


Ceph: Automating network storage

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-iZK3jtq.png

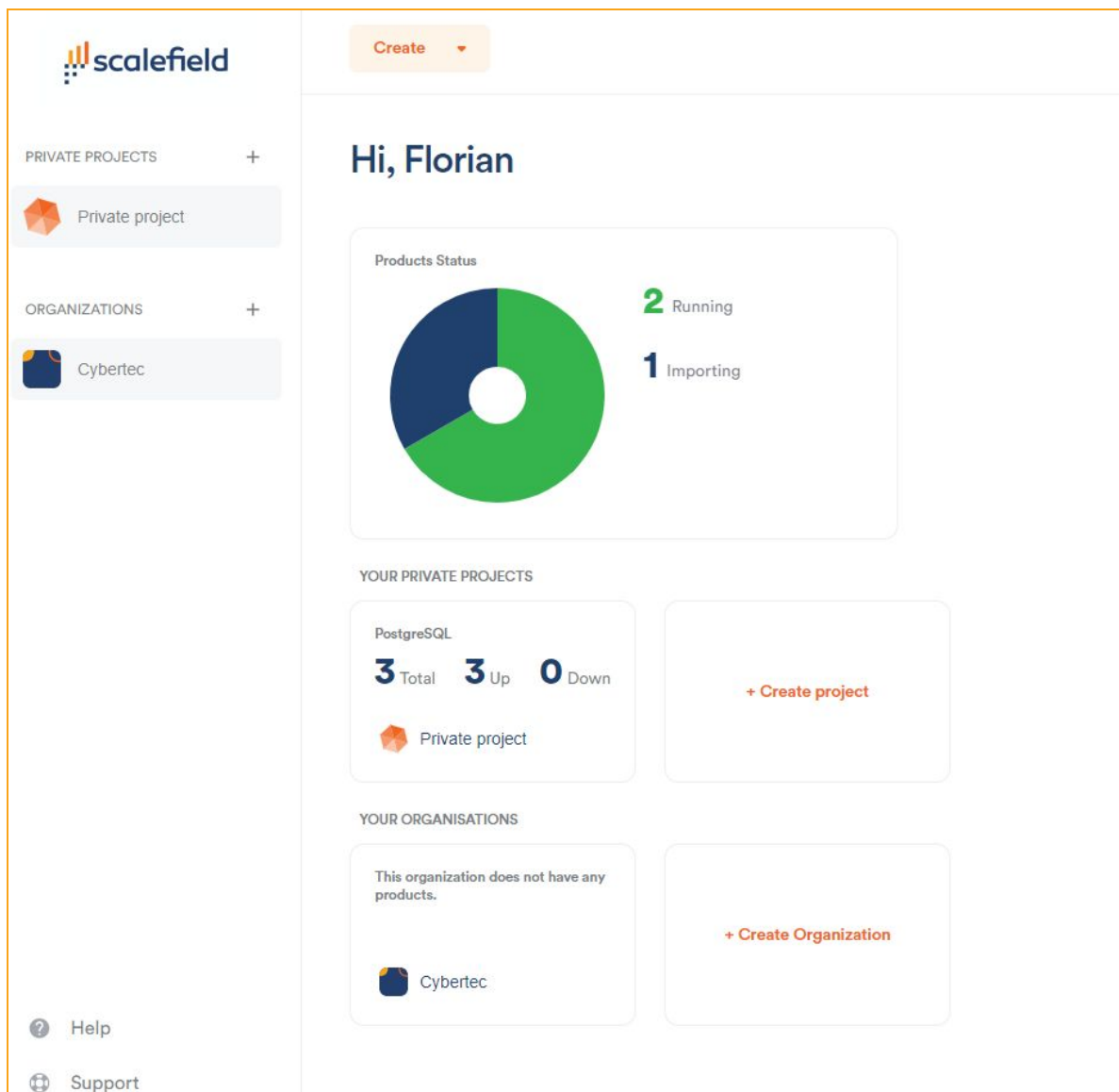
Scalefield integrates Ceph and therefore relies on rock solid storage for your data as well as for your backups.

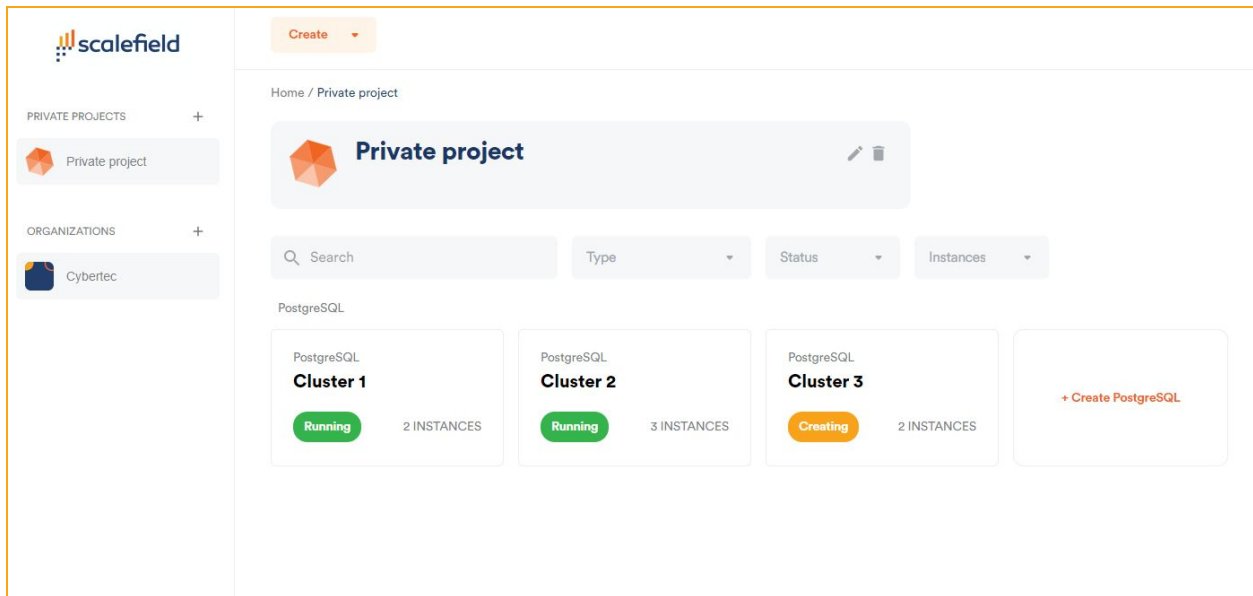
NOTE: Other storage options are available on request



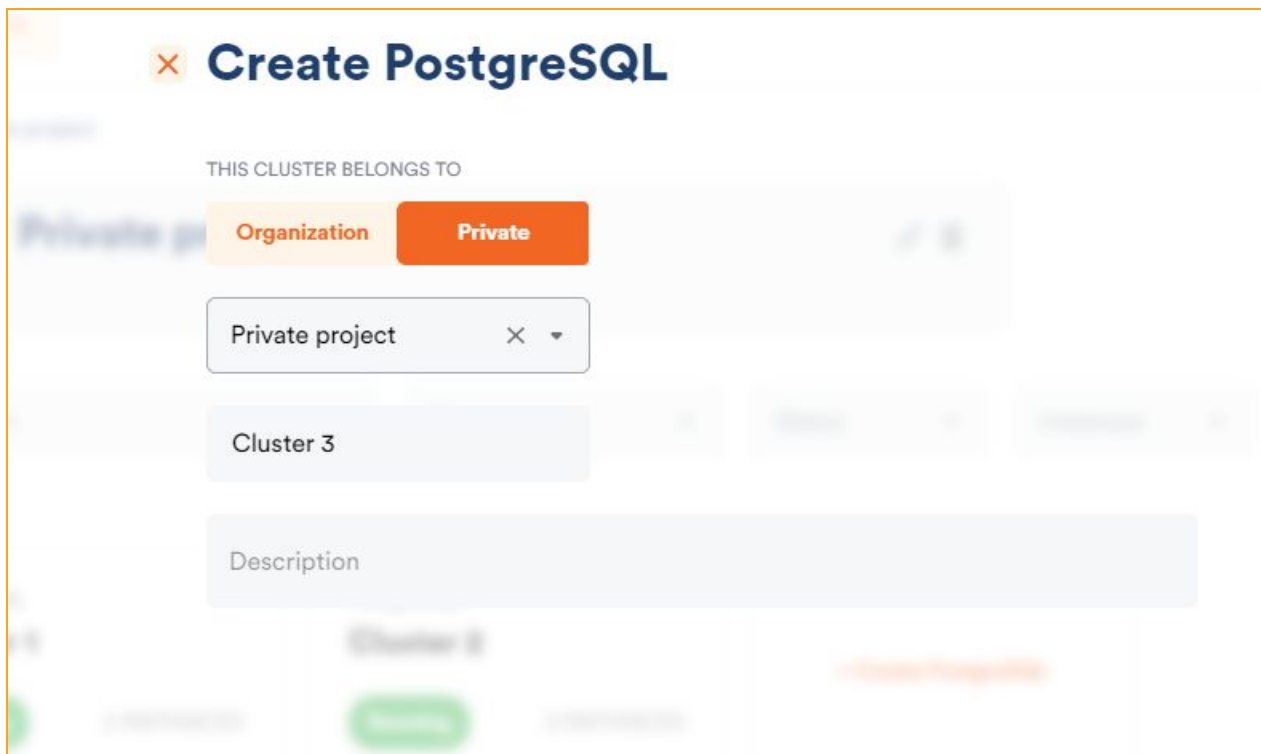
Easy-to-use graphical user interfaces

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)

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!



Logical

Continuous

Backup schedule

BACKUPS TIME00:00RETENTION PERIOD5 days

Apply

Total backup size: 0 bytes

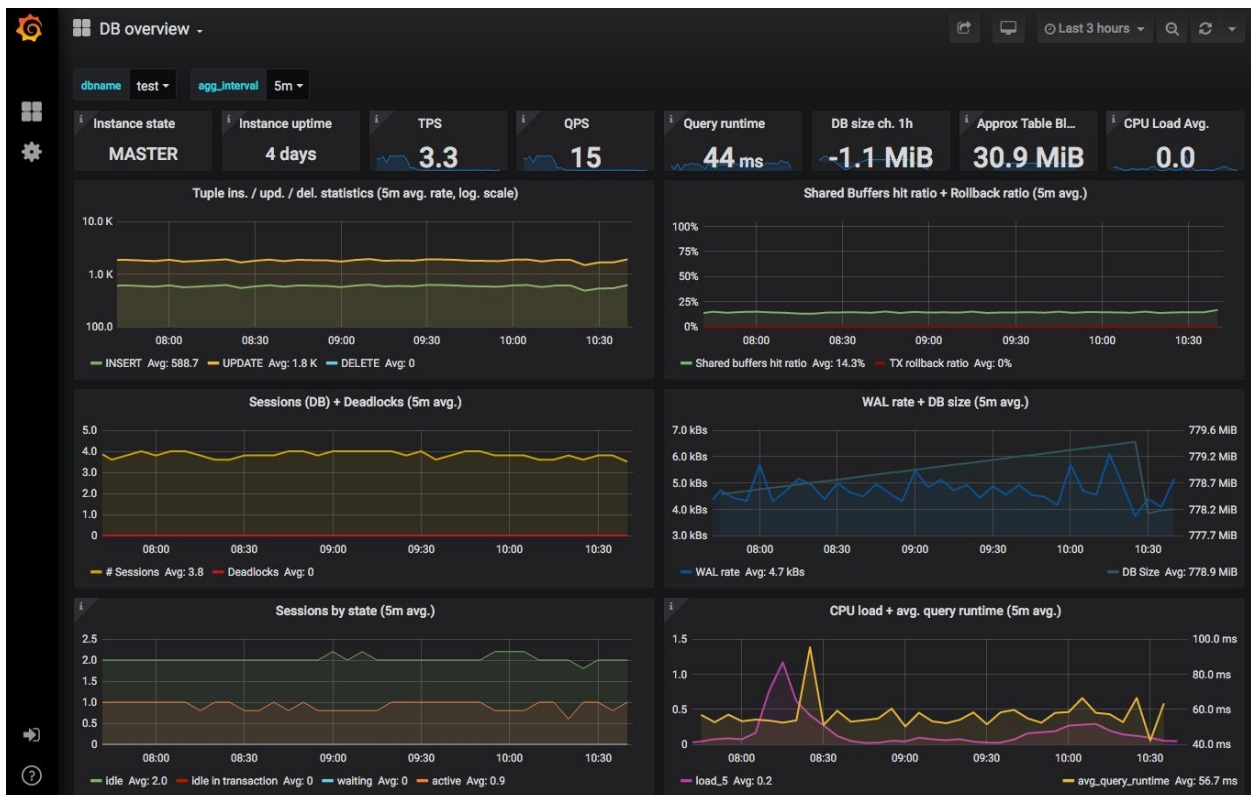
Next backup scheduled:

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

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

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

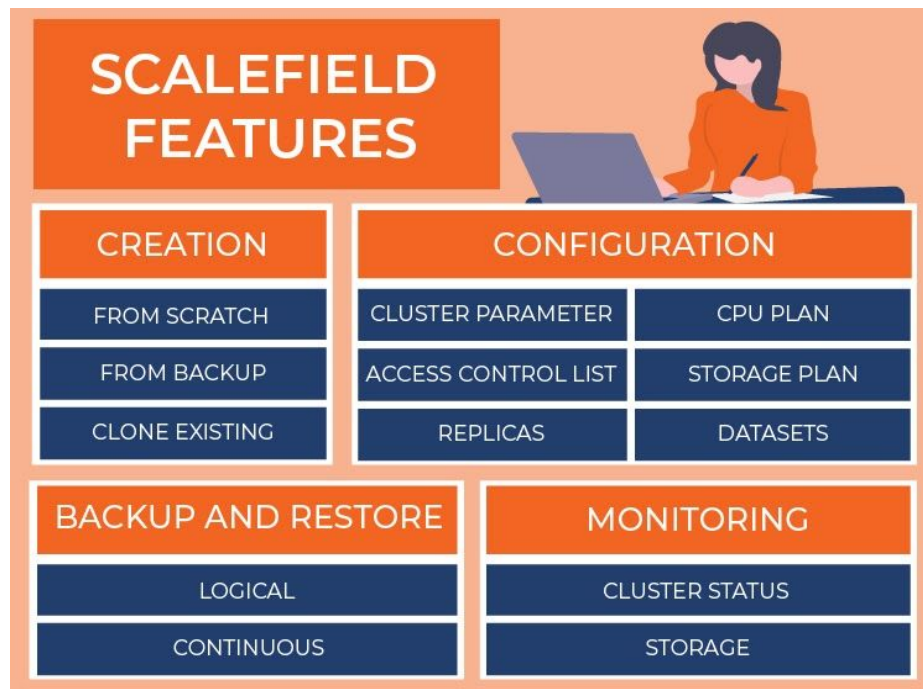
Check out our infrastructure and see for yourself!



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 configuration interface. At the top, there are tabs for 'Summary', 'Plan', 'Parameters' (highlighted), 'ACL', 'Replicas', 'Backups', and 'Datasets'. Below the tabs, there are several expandable sections: 'General', 'Optimizer settings', 'Logfiles', 'Statistics collection', 'Autovacuum', and 'Miscellaneous', each with a downward arrow. At the bottom left, there 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
- ready-to-use GIS data at your fingertips



Ready-made data sets

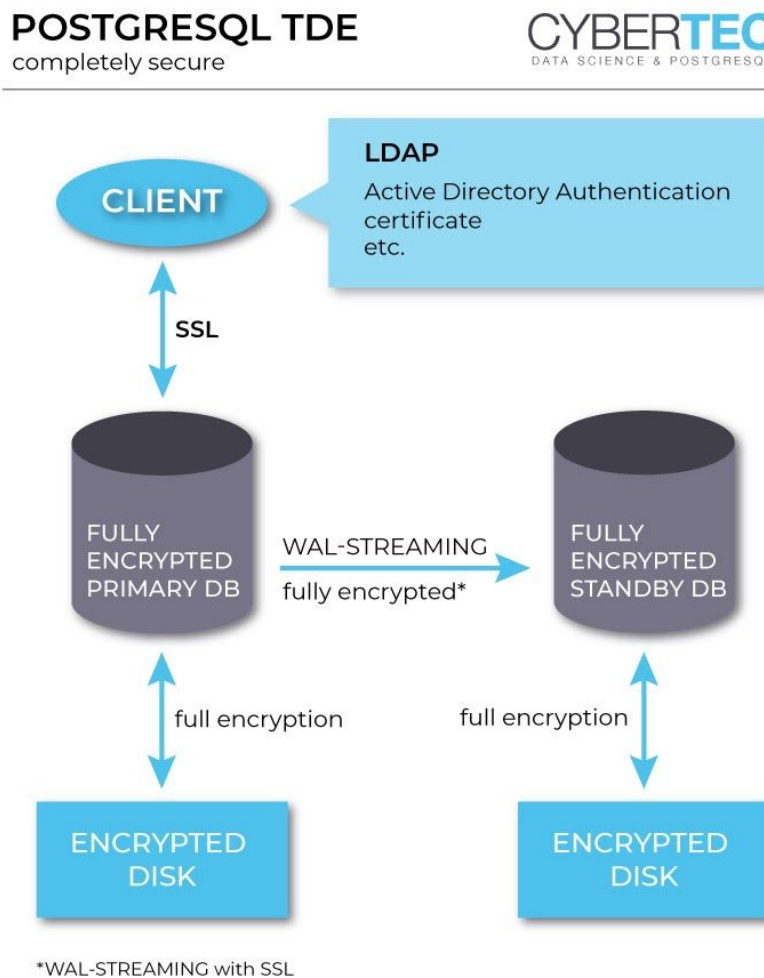
- Ready-made data sets can be integrated easily
- load data during database provisioning



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.

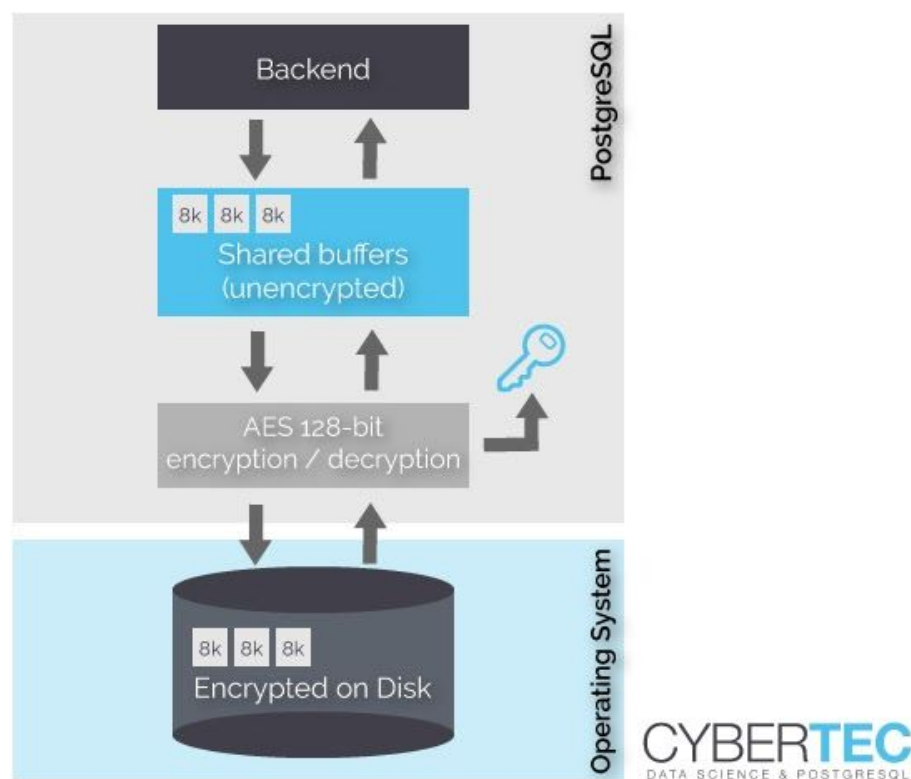




PostgreSQL TDE encrypts I/O as it happens. Each block written to the storage system is encrypted and each block read from the operating system is automatically decrypted.

“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/>



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