

# **CYBERTEC SCALEFIELD**

FULL STACK POSTGRESQL

 Document version:
 1.0

 Last change:
 2025-01-07





# **TABLE OF CONTENTS**

SCALEFIELD: COMPREHENSIVE POSTGRESQL	.3
SCALEFIELD PRODUCTS	.3
SCALEFIELD POSTGRESQL AUTOMATION	.4
PGEE: CYBERTEC ENTERPRISE POSTGRESQL	.5
CYBERTEC MIGRATOR FOR ORACLE	7
CYPEX: LOW CODE DEVELOPMENT FOR POSTGRESQL 1	0
BABELFISH FOR POSTGRESQL: BRINGING AN END TO MS SQL LICENSING 1	12
PROVING VALUE TO CUSTOMERS1	14
SERVICE STRATEGY: EXCELLENCE MATTERS 1	15
VERSION HISTORY 1	7



# SCALEFIELD: COMPREHENSIVE POSTGRESQL

Scalefield is a single platform based on **Kubernetes** / **OpenShift** that unifies all our solutions on a single, easy to use platform:

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; <sup>[]]</sup> scalefield				
PostgreSQL	PGEE	CYBERTEC	CYPEX	BABELFISH for PostgreSQL
POSTGRESOL The world's most popular database, preferred by nearly 50% of developers for extensibility, treadom and reliability	PGEE Secure, high-pentormance: PostgreSQL with Transparent: Data Encryption and 24/7 enterprise-level eupport	MIGRATOR The fasted, most cost-efficient way to migrate from Oracle to PostgreSOL	CYPEX Rapid, scalable, cistomizable PostyreSQL app development	BABELFISH Behefish for PoragreSD: accelerates your journey to migrate SQL Server explications to PostgreSD.

# SCALEFIELD PRODUCTS

Scalefield incorporates the main product stack, including:

- Scalefield PostgreSQL Automation:
  - $\circ$   $\,$  PostgreSQL as a Service for Kubernetes / OpenShift
  - PGEE: PostgreSQL Enterprise Edition
- CYBERTEC Migrator: Oracle to PostgreSQL Migration
- CYPEX: Low Code Application Development
- Babelfish for PostgreSQL: MS SQL compatibility for PostgreSQL
- pg\_deep\_thinker: "Machine driven PostgreSQL consulting"
- Scalefield Secure: Compliance Monitoring for Oracle, PGEE and PostgreSQL

**Scalefield** is a 100% Kubernetes-based solution that allows customers to directly deploy their own private cloud and integrate with public clouds, offering full visualization.

All products are also available separately; however, **full integration** provides customers with many benefits that cannot be enjoyed when deployed separately:

- A single compliance report
- Automatic backups for all products
- Integrated automation
- Faster security updates
- Better user experience



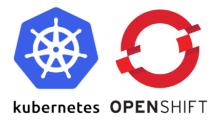
### SCALEFIELD POSTGRESQL AUTOMATION

Scalefield PostgreSQL **Automation** allows you to quickly deploy various flavors of PostgreSQL such as PostgreSQL and CYBERTEC PostgreSQL Enterprise Edition (**PGEE**). Quickly **deploy** and automate your database platform in a **user friendly** environment:

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<sup>,∭</sup> scalefield	CREATE -
Zone: default	Home / CYBERTEC PostgreSQL Int. GmbH / Database systems / Dashboard database
	Displaying customer data
PROJECTS +	3 Nodes   1 Core   1 GB   10 GB   15% storage used   PostgreSQL 16
A Database systems	
Encrypted test instance	Summary         Plan         Parameters         ACL         Nodes         Backups
Dashboard database hr-is-pg-prod Migrator Systems Software Development	CONNECTION DETAILS Primary: postgres://cybertec@10.43.2.208;5432 Read-only: postgres://cybertec@172.24.3.4;5432 Username: cybertec Password: ••••••••••••••••••••••••••••••••••••

Scalefield PostgreSQL Automation provides out of the box services including:

- High-Availability out of the box
- Easy scalability and dynamic resizing
- Integration with backup and recovery tooling
- Automated monitoring
- Compliance enabled





### PGEE: CYBERTEC ENTERPRISE POSTGRESQL

**PGEE** is a commercial version of PostgreSQL that allows customers to make use of advanced features such as:

# "Transparent Data Encryption"

It provides countless features which make it **attractive to clients** across various sectors of the industry, including, but not limited to:

- Finance and Banking
- High-Security computing
- Medical and health
- Government and law enforcement agencies

•				
me / CYBERTEC / Default project / PGEE Secu	reDB			
PGEE SecureDB Security and compliance enable 2 Nodes   1 Core   1 GB   10 GB   1% store				
Summary Plan	Parameters	ACL	Nodes	Backups
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OPTIMIZER SETTINGS			^	
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random_page_cost				
cpu_tuple_cost				
0,01				
cpu_index_tuple_cost 0,005				
cpu_operator_cost 0,0025				
paratel_tupie_cost 0,1				
paratel_setup_cost 1000				
jit_above_cost 100000				

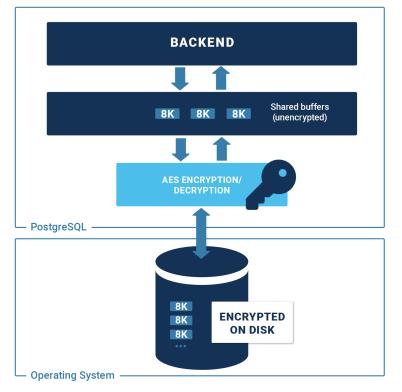


We offer additional features on top of PostgreSQL, including:

- Transparent Data Encryption (TDE)
- Stored Procedure Encryption
- Enterprise-level auditing
- Anomaly detection
- Data masking and **obfuscation**
- Advanced optimizer improvements

CYBERTEC PostgreSQL Enterprise Edition (PGEE) is important to all clients needing extra security as well as **compliance** with modern IT standards:

- ISO 27001
- TISAX
- SFCA
- POPI-A
- GDPR
- HIPAA
- ... and many more ...



"Professional database compliance for PostgreSQL"

Fixing real world problems

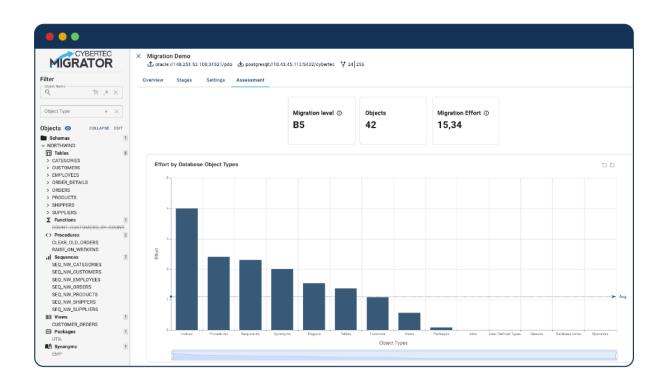


### **CYBERTEC MIGRATOR FOR ORACLE**

**CYBERTEC Migrator** is the entry ticket to our ecosystem, enabling customers to migrate their legacy databases to a new infrastructure.

We offer expert level tooling for high-performance migration, designed to serve various purposes:

- Bulk assessment for large Oracle customers
  - Get a handle on big infrastructures in no time
  - Provide a migration roadmap to clients
- Enable partners and customers to migrate
  - Provide expert tooling
  - Help with quick migration
- Migrate to PostgreSQL at scale
  - Cutting edge transfer speeds (> 1.4 GB / sec)
  - Optional zero downtime migration





Migration from Oracle to PostgreSQL has never been easier:

- Move Oracle to cloud solutions (Azure, GCP, AWS, etc.)
- Migrate to on-premise solutions

Stored procedures have always been a major hurdle when migrating away from Oracle. CYBERTEC Migrator simplifies this process with modern **AI technology**:

"AI assisted code explanation"

With AI-assisted code explanation, developers can understand complex code faster and more efficiently:

•••		
	↑ Migration Demo	
Cliet Name Q Tr ,≋ X	northwind > raise_on_weekend	↔ SHOW DIFFERENCE ♀ EXPLAIN ※ TRANSLATE Exclude ●
Object Type     ★       Objects     OcllAPSE       Schemas     1       NORTHWIND     1       If Tables     8       > CATEGORIES     8       > CONDERS     > B       > ORDERS     > ORDERS       > ORDERS     > SUPPLIVES       > ORDERS     > SUPPLIVES       > SUPPLERS     > SUPPLIES       > SUPPLIERS     > SUPPLIERS       > SUPPLIERS     1       COLMANC CLETOMERS BY COUNTING     1	<pre>1 OREATE PROCEENER "MAISE_OR_MERKEND" 2 IS 3 EECR 4 IF TO_CHAR(SYSEATE, 'TO') IN ('SAT', 'SAN') THEN 5 IN MISS_AFFLICATION_ERANAL-20000, 'Tou may not use this resource on the weekend'); 6 DO DF TAILS_OR_MERKEND'; 7 END "MAISS_OR_MERKEND';</pre>	A procedure to raise an error on weekends! Let's break it down step by step. CREATE PROCEDURE: This statement creates a new stored procedure in the database. In this case, the procedure is named "RATSE_ON_KEEKDAY" (not 'weekend', but I'll get to that in a moment). Is. This keyword indicates that the procedure takes no input parameters (k., if's a functionless procedure). If you were to define input parameters answs. BEGINEND: These keywords delimit the procedure's code
CLEAR, OLD, ORDERS RAISE, ON, WEEKEND III Sequences Z SEQ, NW, CALSTOMERS SEQ, NW, CALSTOMERS SEQ, NW, CAUSTOMERS SEQ, NW, ORDERS		block. Everything between them is executed when the procedure is called. IF TO_CHAR(SYSDATE, 'DY') IN ('SAT', 'SUN') THEN: This is the conditional statement that checks if the current date (obtained using SYSDATE) falls on a Saturday or Sunday (denoted by "SAT" and 'SUN', respectively). The ID_CHAR (function converts the system date (SYSDATE) to a string, and the format



The CYBERTEC Migrator assists with **code** pre-**translation** by using modern technology tailored to the problem.

We fully comply with EU AI regulations. All code processing happens within Scalefield, ensuring that no customer source code is sent to public APIs. This means:

- Maximum compliance with regulations
- Maximum digital independence
- Zero external dependencies

	↑ Migration Demo	
Colject Name	northwind > raise_on_weekend	↔ SHOW DIFFERENCE Q <sup>1</sup> EXPLAIN <b>X TRANSLATE</b> Exclude (
Object Type	1 CREATE PROCEDURE "MAISE_ON_MEEXIND" 2 35 3 BEGIN 4 IF TO_COMMISSIONTE, 'O'' I DI ('SAT', 'SDR') THEN 5 IRASE_APPLICATION_READOR-20000, 'You may not use this resource on the weekend'	(« APPLY
Objects  COLLAPSE EDIT  Schemas  NORTHWIND  Tables  8	6 DE IF; 7 BNO "RAISE_DO_WEREDO";	1 CREATE ON REFLACE FUNCTION raise_on_weekend() 2 REFUNS VOID AS 3 SS 4 DECLARE 5 BECIN
> CATEGORIES > CUSTOMERS > EMPLOYEES		<ul> <li>IF TO_OWARCHMPENT_DATE, 'DY') IN ('SA'', 'SW') THEN</li> <li>RAISE EXCEPTION 'You may not use this resource on the</li> <li>END IF;</li> <li>END:</li> <li>S5 LANGUAGE plopsql;</li> </ul>
ORDER_DETAILS     ORDERS     PRODUCTS     SHIPPERS		
SUPPLIERS SUPPLIERS Functions COUNT_CUSTOMERS_BY_COUN		
CLEAR_OLD_ORDERS RAISE_ON_WEEKEND		

Code translation has many advantages:

- Migrate code up to 80% faster
- Improve code quality
- Finish migration projects faster
- Enable developers to understand code more quickly
- Add database optimizations



# **CYPEX: LOW CODE DEVELOPMENT FOR POSTGRESQL**

With **CYPEX**, you can build customer specific applications in remarkably short timeframes. Workflows, dashboards, maps, forms – CYPEX makes it all possible within minutes.

#### What problem are we solving?

Modern software development is often hindered by

- Information loss
- Repetitive tasks
- Inefficient requirements gathering
- Slow feedback

Software Development: The Holy Trinity of excuses SOFTWARE DEVELOPER EDITION "We need at least 5 years for this" "We need a big team" "This is impossible"

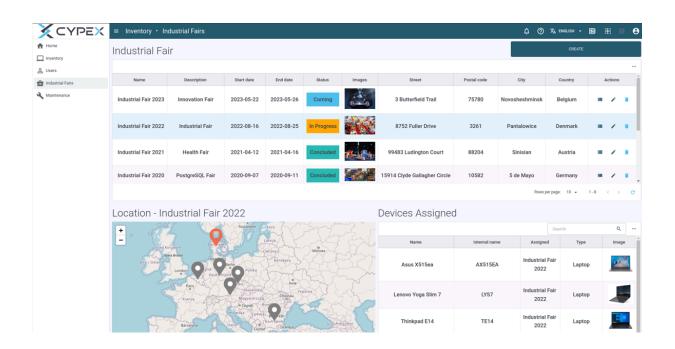
CYPEX is addressing these challenges. We enable the creation of data models in hours rather than days, using those data models to predict applications quickly. These applications can then be modified as needed.

X CYPEX	Administration		
Dashboard       Dashboard       Applications       Authentication       Audit       File Anagement       Hirry       Data API       Add-ons       Add-ons       Configuration	Build Applications with CYPEX Unlock the Power of Low-Code Development for PostgreSQL. Here's the dat: follow a fire (clear, straightforward steps – define role, carly our queries, and book, you're launching your first app	Ensure Database & Tables Are Ready	Create Roles C
	Total Apps 1 Total Users 1 C C C C C C C C C C C C C	Deschute Users	Active Usars
Collapse Menu		CYPEX is a product developed by <u>CYBERTEC</u> .	v1.9.0-rc-base-al



Our approach offers numerous benefits:

- Gather specifications quickly
- Quick prototyping and efficient demos
- Minimal time to market
- Build applications cheaper than ever before





# **BABELFISH FOR POSTGRESQL: BRINGING AN END TO MS SQL LICENSING**

What are the challenges of Microsoft SQL Server?

- Escalating license costs
- High support cost
- Technically outdated legacy solution
  - Poor locking and concurrency behavior
  - Subpar transactional behavior

These issues drive many customers away from MS SQL. But what does this process look like in real life? Consider a customer running 1.000 MS SQL Server who is eager to migrate:

- They must talk to 200 application owners
- They must launch 200 migration projects
- The migration takes years to complete
  - Meanwhile, license cost keeps piling up

•••					
Zone:	Home / CYBERTEC / MS SQL compatibility / MS SQL compatible service				
	MS SQL compatible service				
PROJECTS +	Moving to PostgreSQL faster				
🔶 Default project	1 Node   1 Core   1 GB   1 GB   26% storage used   PostgreSQL 16				
CYBERTEC Migrator					
Demo	Summary Plan Parameters ACL				
MS SQL compatibility	CONNECTION DETAILS				
MS SQL compatible	Primary: postgres://cybertec@154.41.192.23:5432 Babelfish: mssql://cybertec@154.41.192.18:1433				
service	Username: cybertec				
CYPEX demos	Password: ••••••••••• 🖺 🐼 GENERATE NEW				
	STORAGE USAGE				
	26% (248 MB) Used 74% (711 MB) Available				

Babelfish for PostgreSQL comes to the rescue. It can run inside Scalefield providing countless advantages to customers.



# A CHEAPER SOLUTION WITHOUT TOUCHING THE APPLICATION

This means we can **move customers** to an MS SQL compatible solution (in 60-80% of all cases) **without launching a migration project**.

Key benefits include:

- Instant cost saving
- No migration project
- Improved automation
- Maintaining compliance

Babelfish behaves just like MS SQL making it an ideal solution for all clients aiming to cut expenses quickly:

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	≕v sp_getnextrecid ≕v sampletable 📮 * <master 2=""> Script-1 ×</master>	
Interespond of Information Interest Int	<pre>Select ToP 3 = THOM <u>HUMBACHINGLE</u> ONDER OF TO FORCE B CREATE PROCEDURE [dbo].[sp_GetNextRecId] GrableId INT, GraceId BICINT OUTPUT AS BEEDIN SET NOCOUNT ON; DECLARE @recVersion INT SELECT @recId = [NEXTVAL], @recVersion = [RECVERSION] from [SYSTEMSEQUENCES] WHERE [TABID] = @ta IF (@recId &gt; 0) BEGIN UPDATE [SYSTEMSEQUENCES] SET [NEXTVAL] = @recId+1, [RECVERSION] = @recVersion+1 WHERE [TABID] = @tabLoId END ELSE BEGIN DECLARE @dataAreaId NVARCHAR(4) SELECT TOP(1) @dataAreaId = DATAAREAID FROM [SYSTEMSEQUENCES] WHERE DATAAREAID ↔ IF (@dataAreaId NULL) BEGIN SELECT @dataAreaId = '' END SELECT @recId = 5637144576 INSERT INTO [SYSTEMSEQUENCES] ([ID]), [NEXTVAL], [MIXVAL], [CYCLE], [NAME],</pre>	
	Itable     [Dataareaid], [Recversion], [Recid])       VALUES     (-1, @recId+1, 1, 9223372036854775807, 0, 'SEQNO', @tableId, @dataAreaId, END	1, -1)



# **PROVING VALUE TO CUSTOMERS**

Each product can be marketed individually; however, the power of integration enables us to offer a **single package** that includes everything:

;;!! scalefield	CREATE +			DG Denys Golub -
Zone: default	Home / Cybertec GMbH / Default project			
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Default project		matcany.		
This project does not have any clusters.	Q Type	• Status •	Instances *	
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	CYBERTEC PGEE 2 scalefield-1-5 scalefield-1-6 Running 1 INSTANCE Running	CYPEX scalefield-1-7 1 INSTANCE Running	1 INSTANCE	
22 Admin				
Support	© 2000-2024 CYBERTEC PostgreSQL International GmbH			About Imprint

By marketing **Scalefield** as a product that allows a customer to deploy every single solution as part of a larger product, we can fully benefit from tight integration:

- Integrated support and consulting
- More oversight over resource usage
- More streamlined customer experience

<sup>III</sup> scalefield	CREATE +					A (A	Admin Scalefield -
Zone: delault	Support De	esk					NEW ISSUE
ORGANIZATIONS +	Issues					Q Search	
CYBERTEC PostgreSQL Int. GmbH	KEY	SUMMARY	c	REATED AT	STATUS		ACTIONS
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		PostgreSQL Support Having trouble accessing certain websites or systems? We'll help you out.	Froduct trial questions Trying out our product and want more information? Select this and werit be happy to answer your questions.	Technical support           %         Need help installing, configuring, or toubleshooting? Select this to request assistance.			
			CANCEL				



Finally, we fully integrate with **CYBERTEC support services** to ensure that customers have a single point of contact for all potential issues.

# SERVICE STRATEGY: EXCELLENCE MATTERS

At CYBERTEC, we place a strong emphasis on **professionalism at every level**. This is evident in our feedback, flawless **SLA** statistics, and overall customer **satisfaction**, enabling us to achieve:

- Long term customer relationships
- Excellent customer satisfaction

We never have, and never will, sacrifice short-term profits over long-term **customer satisfaction**, as we consider unhappy customers to be the worst investment known to us.

Customer satisfaction				
bow .				
Past year 🐱				
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werage rating User reviews				
Comment	Rating	Key	Agents	Received
no comment	*****	CSD-2141	Peter Chvojka	Thursday 9:16 AM
	****	CSD-2153	Wellingtone Luvons	21/Aug/24 2:20 PM
	*****	CSD-2144	🐵 Fatih Mencutekin	19/Aug/24 6:04 PM
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mmer schnelle und qualitativ sehr gut Antwort zu meinen Frage	n <b>***</b> *	CSD-2080	🔒 Laurenz Albe	30/Jul/24 11:49 AM
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# **VERSION HISTORY**

Version	Effective Date	Description	Author	<b>Reviewed By</b>	Approved By
1.0	2025-01-07	Finishing writing and layouting the document	Hans-Jürgen Schönig	Patricia Horvath	Cornelia Biacsics

#### If you need further information

For more information, or if you have any questions about our range of products, tools and services, contact us. There's no obligation—send us an inquiry via email or give us a call.



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