

POSTGRES COMPATIBILITY INDEX

MAYUR/DBE@VEEAM



Craig Kerstiens - Finger lime evan... ✅ @craigkers... · Dec 3, 2024 ⚡ ...

"Postgres compatible"

- No views/triggers/sequences
- No foreign key constraints
- No extensions
- No NOTIFY ("ERROR: Function pg_notify not supported")
- No nested transactions
- No JSONB

What, what IS it compatible with?

e1g 41 minutes ago | unvote | next [-]

Just tried a quick test cluster -

Identifies as PG 16.5
No views/triggers/sequences
No foreign key constraints
No extensions
No NOTIFY ("ERROR: Function pg_notify not supported")
No nested transactions
No json(b)

45

77

930

150K



WHEN AMAZON UNVEILED DSQL, SOCIAL MEDIA BUZZED WITH VIRAL DISCUSSIONS ABOUT ITS TOUTED POSTGRESQL COMPATIBILITY.

ORIGIN STORY



Gunnar Morling @gunnarmorling.dev · 18d
I think it's about time we get a TCK which asserts what "Postgres compatible" means. Like, you need to have sequences, foreign key constraints, views, etc. in order to be able to claim that.

1 2 19 ...

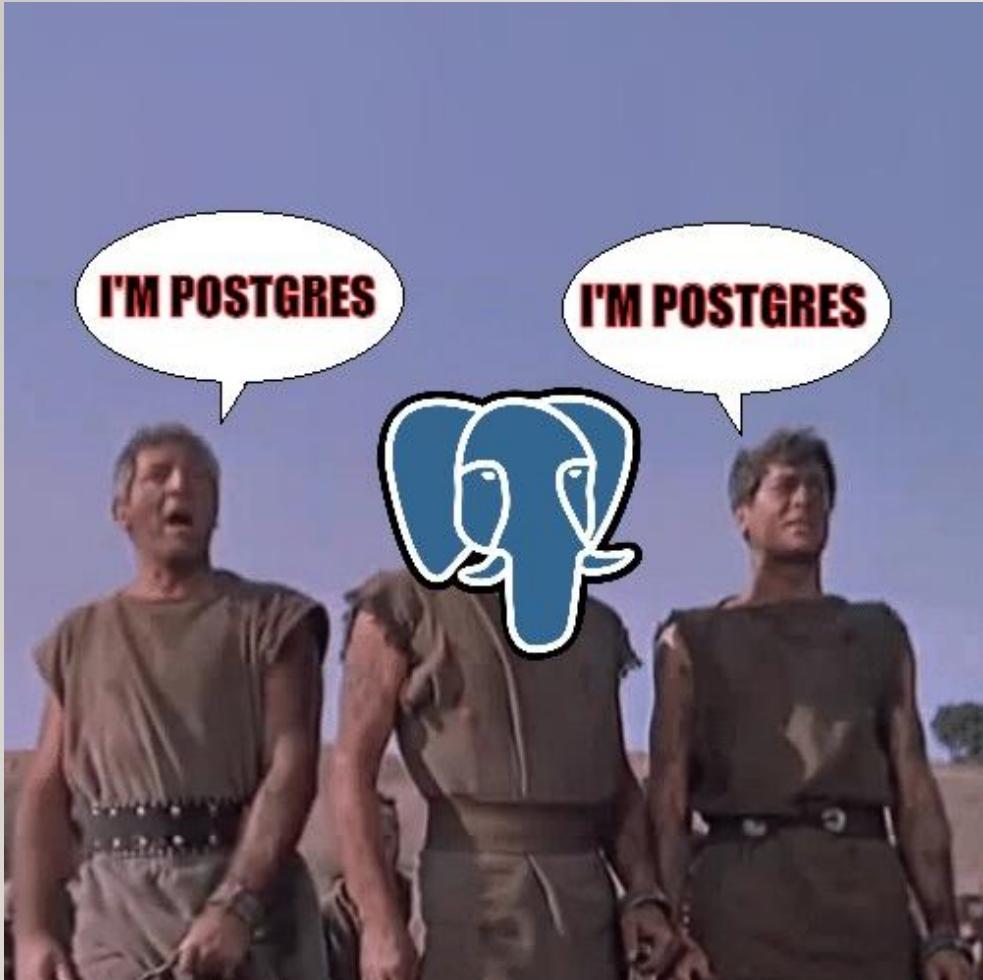
Tudor Golubenco @tudor.golubenco.org · 18d
I think we need levels of it. Level 1 is "uses the Postgres wire protocol" and nothing else. Level 5 is actual Postgres with any extensions. And then a few levels in between.

3 2 11 ...

DBA @pgdba.bsky.social · 17d
Something like this? Postgres compatibility index "alpha version"
github.com/secp256k1-sh...

postgres-compatibility-index/postgres-compatibility-index at main · **secp256k1-sha256/postgres-compatibility-index**
Contribute to secp256k1-sha256/postgres-compatibility-index development by creating an account on GitHub.
github.com/secp256k1-sha256/postgres-compatibility-index

4 5 9 ...



I'M
SPARTACUS



Winning is not enough. All others
must lose.

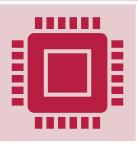
— *Larry Ellison* —

AZ QUOTES

द्युप्त्रिया राजेस्वरी

Postgres

Postgres Compatibility Index (PCI)



PCI runs a battery of tests on the database in question, poking at every feature Postgres has to offer.



Each feature is scored, depending on whether it works, or implodes spectacularly.



The results are weighted, calculated, and distilled into a single PCI score, a percentage of compatibility perfection.

```
vbrdev@pglinuxdev:~/postgres-compatibility-index/postgres-compatibility-index$ pyt
Feature Geospatial Types failed in data_types: type "geometry" does not exist
LINE 1: CREATE TABLE test_geo (geom GEOMETRY);
          ^
Feature Vector failed in data_types: type "vector" does not exist
LINE 1: CREATE TABLE test_vector (embedding VECTOR(3));
          ^
PCI Score: 88.57%
PCI testing completed. Report saved as 'pci_report.json'.
PCI Autotest in action, failures were induced on purpose to check sc
```

```
===== PostgreSQL Compatibility Report =====
```

```
Overall Compatibility Score: 85%
```

```
The following features failed:
```

Category	Feature
data_types	Vector
procedural_features	Triggers

PGSCORECARD

PGSCORECARD.COM

PostgreSQL Compatibility Index

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Summary

The PGScorecard is a framework for comparing closeness of various Postgres derivatives to the community Postgres. "PG Scorecard" is Open Sourced.

Postgres Compatibility Scores:

- EDBPostgres(EPAS) : 100%
- pgEdge : 100%
- Neon : 96.67%
- AlloyDB : 93.17%
- AuroraServerlessV2 : 93.17%
- YugabyteDB : 84.42%
- CockroachDB : 40.21%
- AuroraDSQL : 21.05%

Postgres Derivative

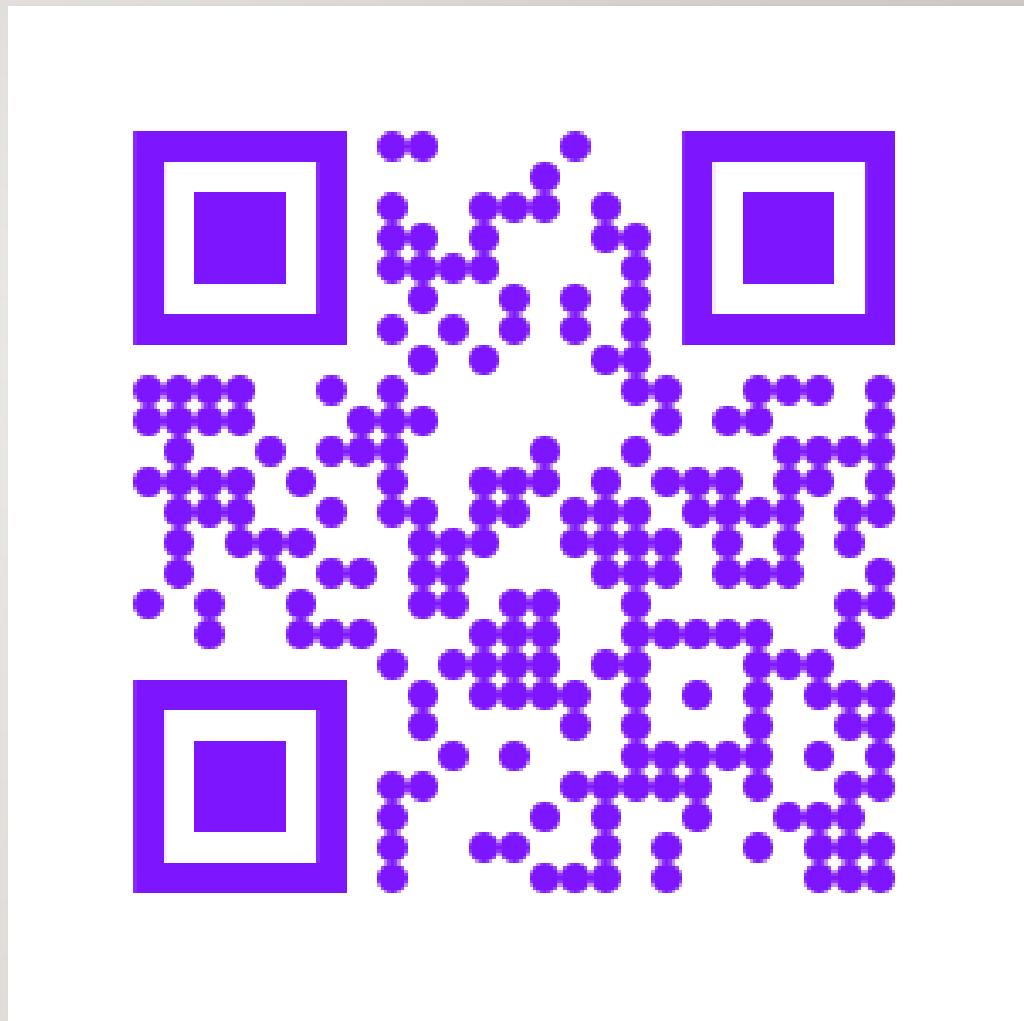
Postgres Attribute

Data Types

Sub-Category	EDBPostgres(EPAS)	pgEdge	Neon	AlloyDB	AuroraServerlessV2	YugabyteDB	CockroachDB
Primitive Types	✓	✓	✓	✓	✓	✓	✓
Complex Types	✓	✓	✓	✓	✓	✓	✓
JSONB	✓	✓	✓	✓	✓	✓	✓
Geospatial Types	✓	✓	✓	✓	✓	✓	✗
Custom Types	✓	✓	✓	✓	✓	✓	✓
Full-Text Search	✓	✓	✓	✓	✓	✓	✓
Vector	✓	✓	✓	✓	✓	✓	✓

DDL Features

Sub-Category	EDBPostgres(EPAS)	pgEdge	Neon	AlloyDB	AuroraServerlessV2	YugabyteDB	CockroachDB
Schemas	✓	✓	✓	✓	✓	✓	✓



I'M BATMAN

NOT A DEVELOPER



PR for new DB Addition



Open-Source code contribution

Database Comedy Blog



Mayuresh B.

Database Specialist @ Veeam
Software | Databases, RDBMS, ...





THANK
YOU
