

SQL Server → PostgreSQL Migration Pack

Prove it before you flip it: the test phases, entry/exit criteria, and sign-offs.

Pack	SQL Server → PostgreSQL Migration Pack
Document	Testing strategy (15 phases)
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PRINCIPLES

Principles

Test against evidence, not optimism. Every phase has written entry and exit criteria; exit requires sign-off, not elapsed time. Nothing ships with a red row.

TEST PHASES**Test phases**

1. Test environments

Refreshable PostgreSQL environments per wave, sized like production for performance tests.

2. Schema parity tests

Object counts and definitions compared source vs. target automatically — zero drift tolerance.

3. Data parity: row counts

Per-table row counts compared after every load; mismatches block the wave.

4. Data parity: checksums

Checksum aggregates per table (and per partition for large tables); tolerance is zero.

5. Data parity: sampling

Column-level sampling on high-risk types: money, datetimeoffset, unicode, bytea, uuid.

6. Functional regression

Application test suites run against PostgreSQL; failures triaged as app bug, conversion bug, or accepted difference.

7. Performance baseline compare

Top queries replayed from the baseline workbook; p95 compared, regressions owned.

8. Concurrency tests

Locking and isolation behavior tested under concurrent load — especially where hints were removed.

9. Operational tests

Failover, backup/restore, and PITR rehearsed in the test environment before cutover.

10. Security tests

Role grants, RLS policies, and masking verified per role with negative tests.

11. Cutover rehearsal

Full cutover run in non-prod with timings recorded; rehearsal issues have owners.

12. Defect triage

Defects classified: data, conversion, app, performance, ops — with severity and owner.

13. Entry/exit criteria

Each test phase has written entry and exit criteria; exit requires sign-off, not elapsed time.

14. Test data strategy

Production-like data available without violating residency or privacy rules.

15. Sign-off

DBA, application owner, and business stakeholder sign each wave's test exit.