Checklist - Is Your PostgreSQL Deployment Production-Grade?

1. Resilient Architecture & High Availability

- Single-node vs. Multi-node: Ensure that at least one streaming replica exists.
- Automated failover: Utilize tools like Patroni or repmgr—test your failover processes.

How Stormatics Helps: We design and implement robust HA setups with automated failover, replication monitoring, and recovery validation.

2. Performance-Oriented Configuration

- Memory, CPU, and disk-related configuration parameters tuned for workload.
- Autovacuum is configured to prevent bloat.

How Stormatics Helps: Our performance tuning services deliver quick wins by optimizing configuration and eliminating inefficiencies.

3. Security & Access Control

- SCRAM-SHA-256 authentication is enabled.
- TLS/SSL implemented; roles and privileges are granular.
- Audit logging (e.g., with `pgaudit`) is active.

How Stormatics Helps: We offer a comprehensive security hardening service to lock down your PostgreSQL deployment and align it with best practices.

4. Robust Backups & Recovery

- Physical backups are in place using `pg_basebackup` or `pgBackRest`.
- WAL archiving for point-in-time recovery.
- Regular restore drills to validate backups.

How Stormatics Helps: We implement reliable backup strategies and disaster recovery playbooks tested against real-world failure scenarios.

5. Observability & Monitoring

- Metrics collection via Prometheus + `postgres_exporter`; dashboards in Grafana.
- Visibility into slow queries, replication lag, and vacuum activity.
- Database log analysis for red flags.

How Stormatics Helps: We set up comprehensive monitoring, alerting, and observability stacks tailored to your environment.

6. Ongoing Performance Management

- Regular index reviews and `EXPLAIN (ANALYZE)` analysis.
- Partitioning and query refactoring applied where needed.

How Stormatics Helps: We work closely with your engineering team to continuously fine-tune queries, schema, and indexing strategies.

7. Maintenance & Upgrade Strategy

- PostgreSQL is on a supported major version and the latest minor patch.
- The upgrade process has been thoroughly tested and documented.

How Stormatics Helps: We handle major version upgrades—including zero-downtime upgrades—so you stay secure and feature-complete.

8. Expert Support Model

- The distinction between internal DBA support and reliance on external experts is clearly defined.
- 24/7 coverage and proactive health checks are in place.

How Stormatics Helps: Our Remote DBA and Production Support services provide you with always-available PostgreSQL experts at a fraction of the in-house cost.

Why This Matters

- **Minimize downtime** with tested failover and recovery.
- **Boost performance** through targeted tuning.
- **Protect your data** with verified backups and hardened security.
- **Stay compliant** with observability and audit controls.
- **Scale confidently** with a clear upgrade and support path.

Ready to Get Started?

Stormatics can help assess your current setup, highlight production readiness gaps, and get you to a fully hardened PostgreSQL environment. Let us help you run PostgreSQL the way it was meant to be run - secure, fast, and always available.

👉 Contact: info@stormatics.tech
👉 Learn more: https://stormatics.tech