Engineer Data

Ran 10 PostgreSQL and MS SQL servers on Ubuntu

Designed, deployed, and maintained 10 PostgreSQL and MS SQL servers on Ubuntu Linux VPS, ensuring optimal server performance and reliability.

2022 – 2024

10

database servers deployed and kept healthy

Situation. As a DevOps engineer at a mid-sized tech company, the task was managing and optimizing database infrastructure to support a growing user base and critical business applications. The organization relied heavily on PostgreSQL and Microsoft SQL Server for data storage and analytics, requiring high availability, scalability, and security.

Task. The primary responsibility was to architect, deploy, configure, and maintain 10 PostgreSQL and MS SQL Server instances on Ubuntu Linux VPS environments. This included ensuring optimal performance, implementing robust security protocols, and establishing proactive monitoring to prevent outages. Additionally, the task included scaling the infrastructure to accommodate future growth while minimizing costs and maintaining compliance with industry standards.

Action. 1. Deployment & Configuration:

- Installed and configured PostgreSQL 14 and MS SQL Server 2019 on Ubuntu 20.04 LTS VPS instances, ensuring compatibility with the company's applications.
- Set up automated backups using `pg_dump` for PostgreSQL and SQL Server Agent jobs for MS SQL, with retention policies and offsite storage.
- Optimized server configurations (e.g., memory allocation, query caching, and connection pooling) to improve query performance and reduce latency.

- Monitoring & Maintenance:
    - Implemented monitoring tools like Prometheus, Grafana, to track CPU, memory, disk I/O, and query performance metrics in real time.
    - Conducted regular patching and updates for both databases and the Ubuntu OS to address security vulnerabilities and ensure compliance.
    - Created custom scripts for log analysis.
- Security & Scalability:
    - Configured firewalls (UFW), enforced role-based access control (RBAC) to protect sensitive data.
    - Documented procedures for disaster recovery, including point-in-time restores and failover protocols.

Result. - Achieved 99.9% uptime across all 10 database servers.

- Improved query response times by 30% through configuration tuning and index optimization, enhancing application performance.
- Reduced manual maintenance tasks by 50% via automation, freeing up 10+ hours per month for strategic projects.
- Successfully scaled the infrastructure to support a 40% increase in user traffic without service degradation, contributing to a 20% revenue growth in the following quarter.
- Received recognition from the CTO for implementing security best practices that prevented potential data breaches.

This experience solidified deep expertise in database management, DevOps automation, and infrastructure optimization, delivering reliable, secure, and scalable solutions for complex enterprise environments.

Bring this experience to your project

Use “Ran 10 PostgreSQL and MS SQL servers on Ubuntu” as a starting point for a similar challenge in your organisation. The services behind this work are available for your project. Somebody responsible for the thing the whole company rests on: it is up, it is backed up, and it is not quietly rotting.

Explore our services Get in touch →

Look behind the result

Read the situation, decisions and result in this example. We can discuss which parts transfer to your constraints and which need another approach. Ran 10 PostgreSQL and MS SQL servers on Ubuntu — 10 database servers deployed and kept healthy

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Need database servers you can rely on?

Talk through your project with the engineer responsible for delivery. We agree the scope, price basis and handover in writing before work begins.

Role context: Database Engineer. It draws on Databases, PostgreSQL, DevOps, Infrastructure, Automation & CI/CD, Reliability & Backups, Monitoring & Observability, Linux & Servers, Security, Performance Tuning and System Administration. And while you are here, we are rather good at Database Administration (DBA), Site Reliability & Monitoring and System Administration.

Get in touch Explore our services

One piece of **a longer record** — and it is all on this site.

Every entry is written the same way: the situation, the task, what we did and what changed.

See the whole record

Define the improvement you need

Bring a representative dataset, the questions it must answer and the current bottleneck. We can agree how to measure quality, throughput and recovery.

See what it costs Get in touch →

Need database servers you can rely on?

Ask about the decisions behind “Ran 10 PostgreSQL and MS SQL servers on Ubuntu”. You will speak with the people who can explain the work and assess your own project.

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