

EdGE Networks Built a Reliable Data Foundation to Safeguard Enterprise Operations and Prevent Downtime

Overview

Edge Network is an AI-driven HR technology provider for global enterprises. As user traffic grew, the company required a high-volume database architecture without service interruptions or security risks. Mydbops set up and benchmarked a high-availability PostgreSQL cluster with automated failover and encryption. This gave Edge Network the operational stability needed to handle heavy traffic securely.

Zero Downtime Setup

Zero downtime during setup & switchovers.

24 / 7

Reliable Performance

Round-the-clock stability under heavy traffic.

100%

Data Security

Complete SSL and table data-at-rest encryption.

Proactive

Incident Alerting

Real-time monitoring via Prometheus Alertmanager.

PostgreSQL

Consulting Services

About

Edge Network builds artificial intelligence and data science platforms to help organizations address talent acquisition and workforce optimization. Its core AI engine analyzes skill sets, demographics, and career trajectories to align internal talent with business demand. In 2026, Edge Network’s enterprise platform operates at scale, having processed over 35 million resumes and 10 million job descriptions for global enterprise clients including Wipro, HCL, Virtusa, Microland, IQVIA, and L&T Infotech.

★★★★★

Professional service from Database setup design to deployment of servers. We got good advice right from the beginning on what tools to choose for our master-slave setup, replication, and fault tolerance. Server setup and deployment were done professionally with neat documentation for us to handle maintenance.

Senthil Kumar Thangavelu

Director of Engineering, Edge Networks

Deployment Type	Database Stack / Services Used	Objective / Outcome
Cloud-Based Deployment	PostgreSQL	Zero Downtime & 24/7 Operational Stability

Business Challenges

- Overview**
- As Edge Network expanded its enterprise AI platform, managing high query volumes on cloud infrastructure introduced key operational risks:
- Downtime and Revenue Risk:** Service interruptions during database updates or traffic spikes directly threaten enterprise client operations and expose Annual Recurring Revenue (ARR) to contract penalties.
 - Database Performance Bottlenecks:** Heavy query workloads caused uneven server utilization, risking slow response times for enterprise HR portals during peak operational hours.
 - Complex Failover Management:** Manual intervention during server failures risks prolonged outages, operational overhead, and inconsistent data synchronization across nodes.
 - Data Security and Compliance Requirements:** Handling sensitive employee and enterprise hiring data across cloud environments required strict data-at-rest encryption and transport security to satisfy compliance mandates.

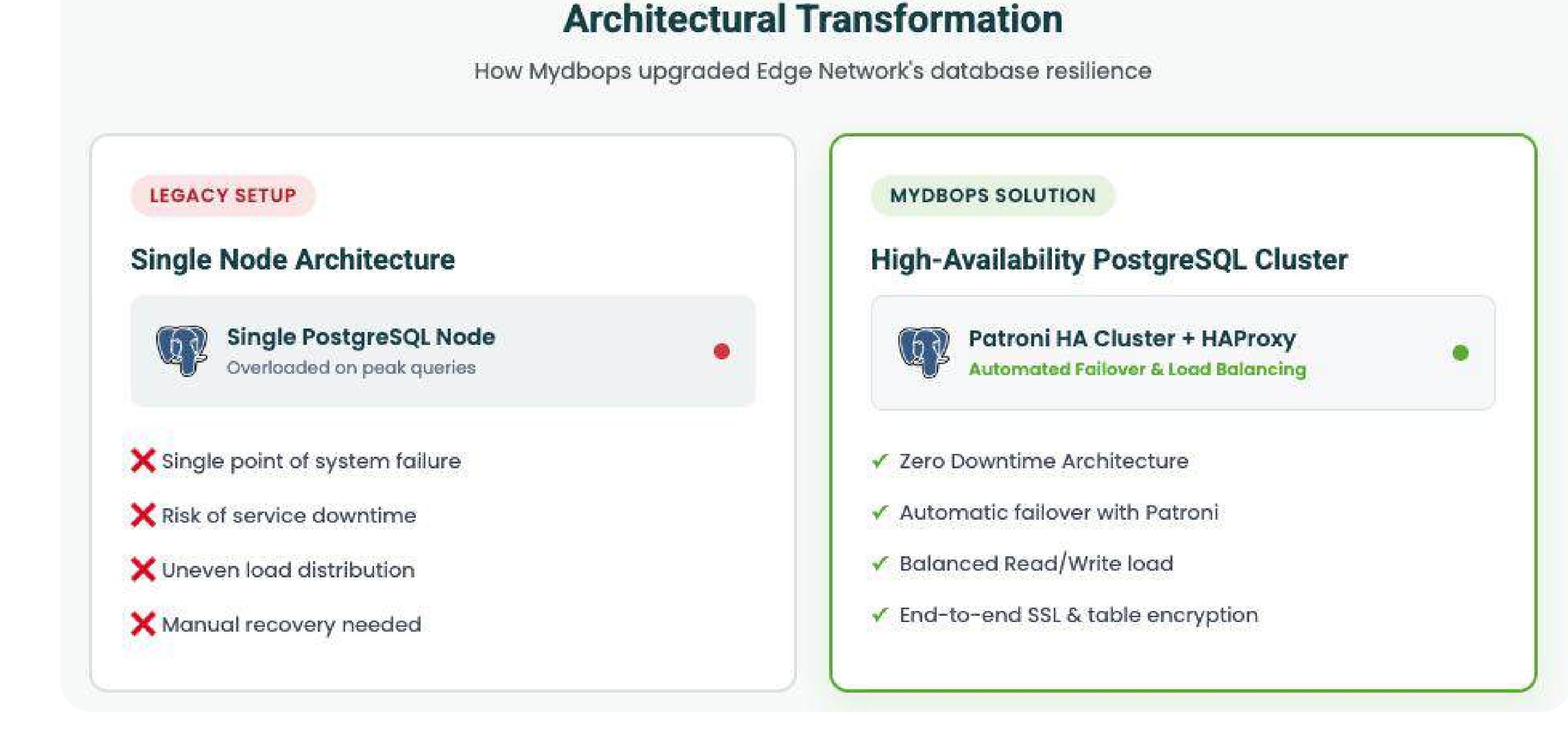
Goals

→ Ensure zero downtime during database setup, switchover, and ongoing production operations.

→ Prevent revenue loss caused by database outages, slow query processing, or unmonitored infrastructure failures.

→ Balance read/write queries evenly across database nodes to handle high concurrent user traffic.

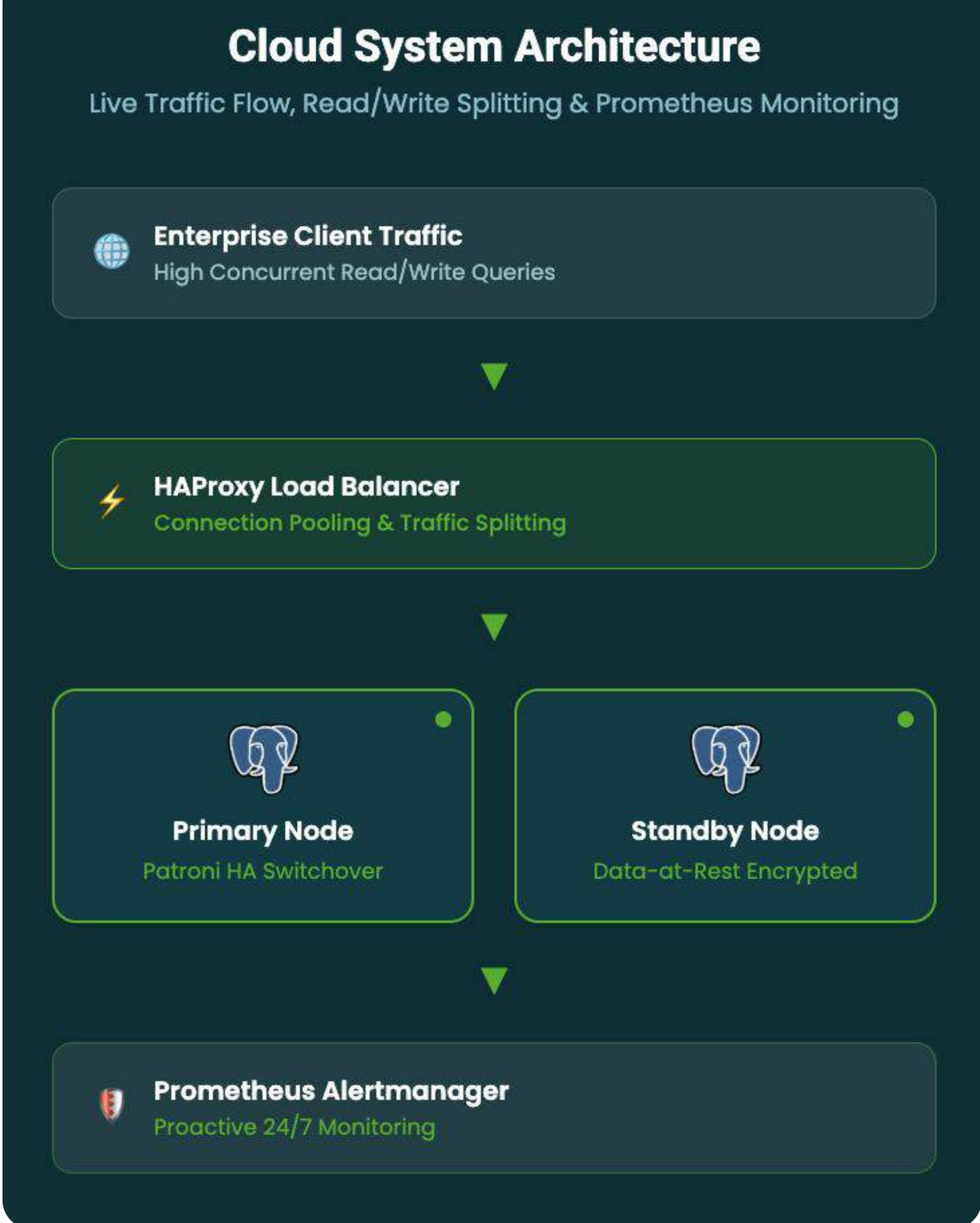
→ Implement complete data-at-rest encryption and secure SSL connectivity to protect corporate records.



Solution Provided by Mydbops

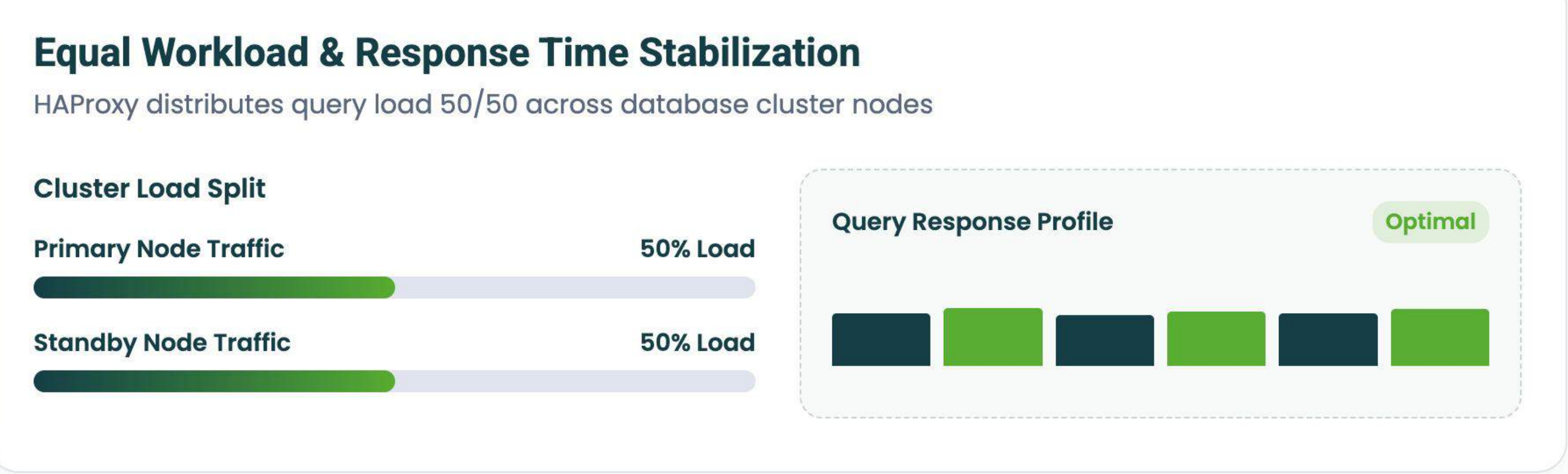
Mydbops acted as the database architecture consultant, working closely with the Edge Network team to build a high-availability database platform tailored for cloud deployment.

- Architecture Planning and Hardware Optimization:**
Gathered operational inputs remotely to define precise hardware requirements on the cloud, aligning database capacity with actual traffic patterns.
- High Availability and Read/Write Splitting Setup:**
Implemented a PostgreSQL cluster utilizing Patroni for automated leader election and switchover, alongside HAProxy for connection pooling and read/write traffic distribution.
- End-to-End Security Implementation:**
Configured SSL encryption across transport layers and enabled data-at-rest encryption across PostgreSQL tables to protect corporate data assets.
- Benchmarking and Performance Validation:**
Tested and benchmarked SQL response times to ensure optimal performance under heavy operational loads prior to live deployment.
- Proactive Alerting and Documentation:**
Configured Prometheus Alertmanager for real-time operational monitoring and provided thorough documentation for internal maintenance teams.

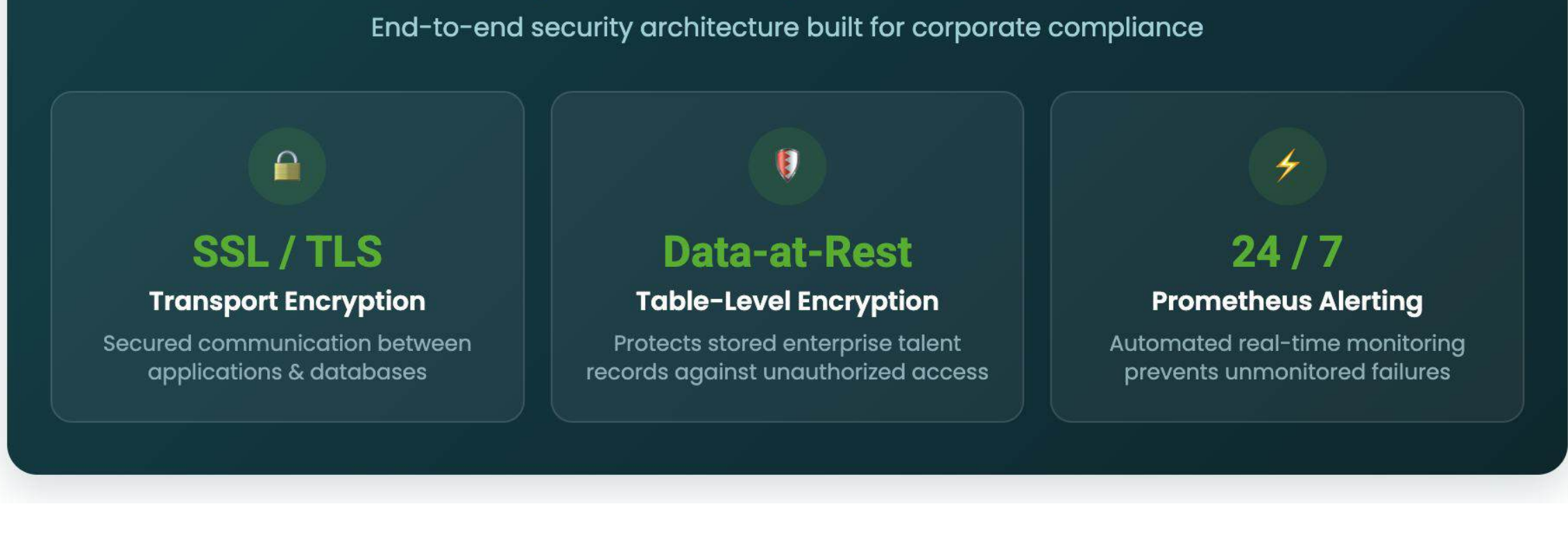


Results & Impact

- Key Outcomes**
- Complete Protection Against Operational Downtime**
By deploying a high-availability architecture with automated switchover, Edge Network eliminated service interruptions during database maintenance and node failures. This zero-downtime architecture safeguards core operational availability and protects ARR from outage-related SLA penalties.
 - Balanced Workload Distribution Under Peak Traffic**
The implementation of HAProxy connection pooling and read/write splitting distributes database traffic evenly across cluster nodes. This prevents single-node saturation, ensuring consistent response times for global enterprise clients during peak recruitment cycles.



- Enterprise Security and Regulatory Compliance**
Enforcing end-to-end SSL transport security and table-level data-at-rest encryption ensured that sensitive enterprise HR records remain secure. This posture meets strict corporate compliance guidelines required by enterprise IT clients.



- Reduced Operational Risk Through Proactive Monitoring**
Setting up real-time alerting via Prometheus Alertmanager allowed infrastructure teams to detect and address potential security bottlenecks before they impacted end users, ensuring stable round-the-clock operations.

Conclusion: Building Database Stability for Enterprise Growth

For enterprise needed to ensure that its AI platform reliability directly determines business continuity and customer retention. Edge Network required to ensure that its AI platform could handle expanding client workloads without exposing corporate customers to downtime or data risks.

By partnering with Mydbops, Edge Network successfully modernized its database architecture into a high-availability PostgreSQL environment. Mydbops delivered optimized hardware recommendations, automated failover, and complete encryption—all while maintaining zero operational downtime. This foundation allows Edge Network to deliver stable, 24/7 service performance to its global enterprise client base.

Take the Next Step with Mydbops

Unplanned database downtime and unoptimized infrastructure put enterprise ARR and customer trust at risk. Mydbops provides the technical expertise and architectural guidance required to design, secure, and scale enterprise database environments.

[Consult with a Certified Database Expert](#)