Credgenics Achieves 69% Cost Optimization on Aurora PostgreSQL

Amazon Aurora

Client Overview

Credgenics

Credgenics is the leading provider of Loan Collections and Debt Resolution technology, serving banks, FinTechs, and financial institutions worldwide. Recognized as the #1 Best Selling Loan Collections Platform in India for three consecutive years, their AI-powered SaaS platform manages the end-to-end collections lifecycle. In FY24, Credgenics handled over 98 million loan accounts, helping lenders increase resolution rates by 20%, improve collections by 25%, and reduce collections costs by 40%.

Up to 69 %
Annual Savings
Delivered a data-backed roadmap to achieve these savings.

90 %
Performance Boost
Eliminated critical CPU spikes of and resolved query degradation.

Immediate
Cost Reduction
Achieved instant savings by optimizing storage and backups.

Next-Gen
Architecture
A strategic migration to modern, cost-saving Graviton instances.

Amazon Aurora PostgreSQL

Managed Services

★★★★★

The Mydbops team was highly cooperative and supportive throughout the engagement, swiftly resolving issues and ensuring a smooth transition. They delivered immediate, tangible results on multiple fronts: our query performance was significantly improved through expert index and parameter tuning, while our overall costs were reduced by optimizing our entire data lifecycle—from implementing tiered backups and archival to rightsizing our database replicas.

Naveen Malhotra
Database Administrator & Architect, Credgenics, India 🇮🇳

Credgenics

Deployment Type	Database Stack / Services Used	Objective / Outcome
Cloud-Based Deployment	**Amazon Aurora PostgreSQL**	**69% Reduction in Database Costs**

Business Challenges

Overview

As India's #1 Loan Collections Platform operating at a massive scale, Credgenics' mission-critical Aurora PostgreSQL database experienced performance degradation and rising costs that threatened their operational efficiency and financial planning.

- **High CPU Spikes:** The primary instance suffered from frequent CPU spikes reaching up to 88.9%, which were directly caused by inefficient queries and led to significant performance degradation under load.
- **Inefficient Performance:** A declining buffer cache hit ratio resulted in higher disk I/O operations. This slowed down query performance and increased I/O-related costs, as Aurora charges based on usage.
- **Over-Provisioned Infrastructure:** The existing instances were not optimized for the actual workload, leading to underutilized CPU and memory resources and unnecessary infrastructure spend.
- **High Storage** Costs: Long-term retention of frequent, manual snapshots created a significant and ever-growing storage cost overhead.
- **Capital Tied Up in Inefficient Infrastructure:** The escalating operational expense was not just a line item; it represented a significant opportunity cost, tying up capital that could have been invested in product innovation and ARR growth.

Goals

The key objectives the client was aiming to achieve:

- → **Stabilize Performance:** Eliminate disruptive CPU spikes and improve query speed to ensure a seamless user experience.
- → **Reduce Costs:** Drastically lower the total cost of ownership for their Aurora clusters by optimizing every layer of the stack.
- → **Optimize Infrastructure:** Re-architect the instance and storage strategy for maximum performance and cost-efficiency.
- → **Improve Governance:** Establish a clear, long-term strategy for managing database costs and resources effectively.

Solution Provided by Mydbops

Mydbops delivered a comprehensive performance and cost optimization engagement, transforming Credgenics' Aurora PostgreSQL environment from a reactive, costly setup into a proactive, hyper-efficient asset.

Deep Performance Tuning & Query Optimization

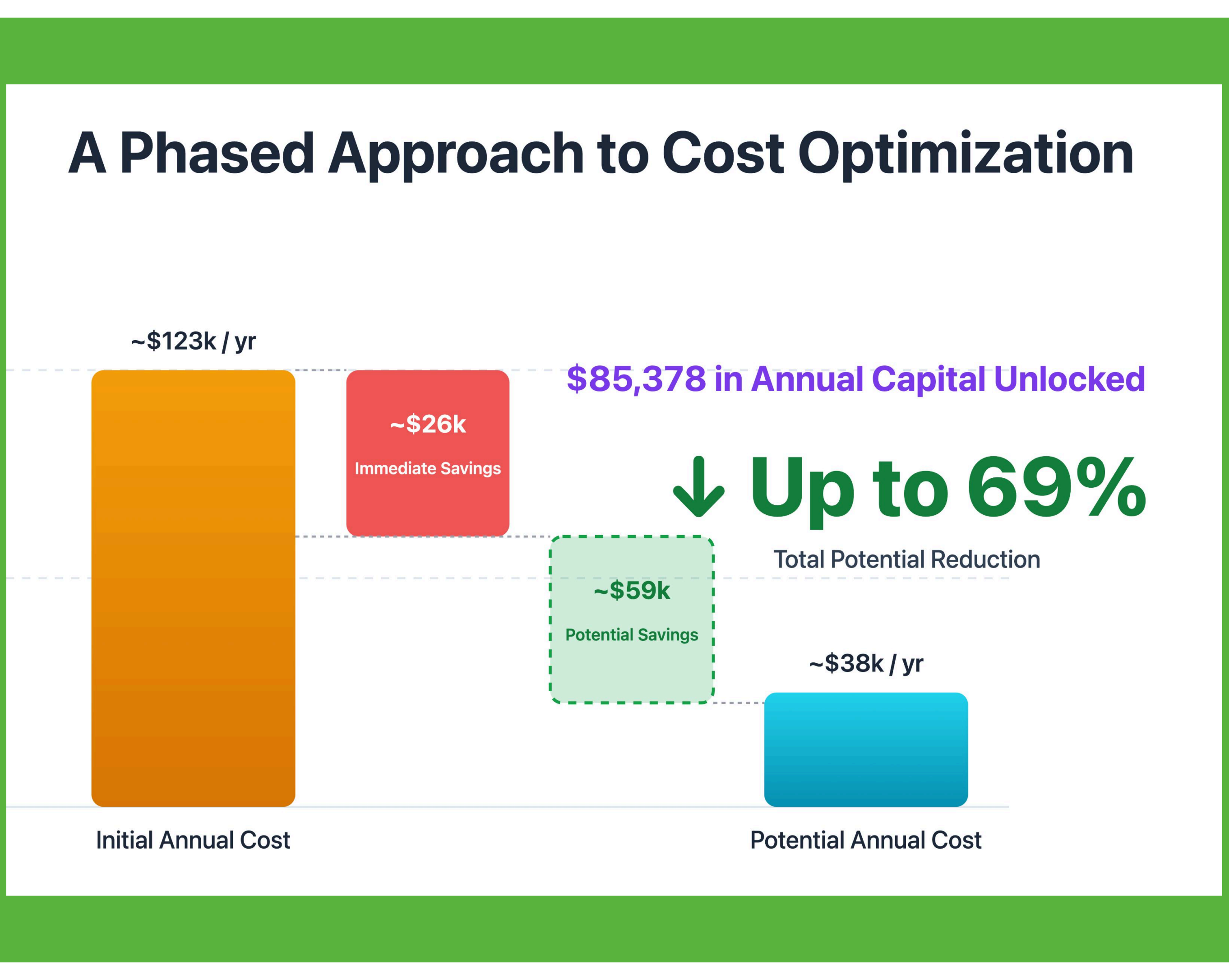
Our first step was to stabilize the core. Using Amazon Performance Insights, we identified and rewrote high CPU-consuming queries to reduce execution time and resource consumption. We then performed critical PostgreSQL parameter tuning—increasing shared_buffers to utilize ~75% of instance memory and tuning work_mem—to maximize in-memory operations and dramatically reduce costly disk reads.

Strategic Infrastructure Re-architecture

With performance stabilized, we focused on the infrastructure. The data proved the existing instances were over-provisioned, allowing us to confidently recommend downsizing to a smaller, more cost-efficient instance class. The most impactful recommendation was a strategic migration to **Graviton-powered Aurora instances**, a modern architecture proven to deliver superior performance at a lower cost.

Intelligent Cost Governance & Storage Optimization

To maximize financial efficiency, we evaluated and modeled the impact of using **Reserved Instances**, unlocking savings of up to 69%. We also addressed storage overhead by creating a new policy to move old, unnecessary snapshots to **Glacier Deep Archive**, slashing long-term retention costs.



Results & Impact

Key Outcomes

✅ **Immediate Performance Stabilization & Cost Savings**

The first priority was to stabilize the production environment. By expertly tuning PostgreSQL parameters, removing unwanted indexes, and optimizing queries, we **eliminated critical CPU spikes of up to 88.9%**. Simultaneously, we implemented a tiered backup and archival strategy that delivered an **immediate reduction in overall storage costs**.

✅ **A Confident Roadmap for Up to 69% Annual Savings**

With the environment stabilized, we provided a comprehensive architectural roadmap for future optimization. This included a strategic migration to **Graviton-powered instances** and a plan for leveraging **Reserved Instances**. This data-backed blueprint empowers Credgenics to confidently unlock up to **$85,378 in total annual savings**.

✅ **Established Long-Term Cost Governance**

Credgenics was provided with a comprehensive audit and a long-term governance checklist, empowering their team to maintain cost efficiency and make data-driven architectural decisions as they continue to scale.

Handling a Leader in India's High-Growth Fintech Market

When your platform handles over **98 million loan accounts and serves as a core engine of India's financial ecosystem**, "good enough" is not an option. Your database isn't just infrastructure; it's the bedrock of your reputation, your revenue, and your ability to scale at a moment's notice. The stakes are immense.

This is the level of pressure our team is built for.

Our work with Credgenics wasn't just about tuning a database; it was about hardening the mission-critical core of a platform that **serves millions of people in one of the world's most dynamic markets**. We provided the deep, specialized expertise needed to ensure their infrastructure could perform and scale with maximum efficiency and absolute reliability.

Your platform may serve a different market, but the stakes are just as high. You need a partner who understands that enterprise-grade database strategy is not just about the numbers—it's about ensuring the absolute reliability and performance that your revenue and ARR growth are built on..

Ready to partner with a team trusted by the leaders?

[Talk to an Optimization Expert]