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Postgres and EDB Propel MDS Global's Modernization, Expanding Reach in Telecom Sector

CUSTOMER: MDS GLOBAL

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Stephen Randall
MDS Global CTO

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A seamless and cost-effective migration that continues to pay dividends for the organization and its customers

The global telecommunications industry is immense, with a total value approaching two trillion dollars. No wonder so many third-party players dedicate themselves to serving it. One multibillion dollar niche within that ecosystem is known as business support systems (BSS), which deliver services that enable telecom providers to run their customer-facing business operations.

MDS Global, a UK provider of BSS services, has established itself as a technology leader in the space. It was an early adopter of DevOps methodology, which helped the company respond quickly to stakeholder needs. The company's portfolio of solutions helps its telecom customers manage all aspects of monetization, assurance, and customer steering for complex products and services.

In 1995, MDS Global built the first iteration of a billing and customer care system that would eventually become known as the Cloud Monetisation Platform (CMP) - a highly successful application adopted by many of the world's largest telecommunications providers. But by 2016, CMP was clearly showing its age.

Taking a hard look at legacy systems

MDS Global had made numerous improvements to CMP in the 21 years since its initial launch. The need for an overhaul, however, was increasingly obvious.

In particular, the embedded DB2 database management system was becoming a burden. While existing customers recognized the value that CMP provided, new prospects often questioned the use of such older infrastructure as the backbone of a modern application. Moreover, DB2 had become troublesome and expensive to develop against as the engineering team continued to innovate.

As MDS Global began reaching beyond its existing customer base, the expense for DB2 loomed larger. MDS Global CTO Stephen Randall explains: "We were looking to expand our reach both globally and into smaller telecommunications providers. These smaller customers had different budget expectations, so we also needed to figure out how to reduce costs."

The team recognized the opportunity to provide more deployment flexibility and accelerate development – by embarking on a dramatic application modernization initiative. As part of that effort, MDS Global embraced virtualization, which allowed CMP to run on virtually any hardware platform. The licensing costs of DB2 would have made such broad distribution prohibitively expensive. But that wasn't the only reason MDS Global decided to switch from DB2 to a widely supported database with a lower cost: Postgres.

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A modern application gets a modern foundation

The MDS Global team chose to tackle the re-architecture of the CMP application in-house. Tapping into the open source community and its widely available resources, the team managed the migration quickly and successfully. All things considered, it was an easy upgrade. And since going live on PostgreSQL 11, the team has performed subsequent upgrades without incident.

Randall says: "For some of our customers, we offer the platform as a managed service, while other customers prefer to manage it themselves. In the past, our self-managed customers had to have a big team, because everything was so complex and required very specialized knowledge. Now, it's not only painless for them to get up and running on the platform; they can easily find local people with Postgres experience. The result is that our team can really focus on helping with the product rather than the infrastructure."

Randall notes that adoption of Postgres has also been a boon for MDS Global's own developers. "We have so much more flexibility now. These days, each developer can spin up a new environment for development and testing, making it easier to identify and correct errors at the developer level. With the Community Edition, we effectively have no barriers, and the team can experiment, innovate, and generally move faster. We can get more done because, for the same budget, we now have more resources and money to spend on functionality as a direct result of the migration."

Capitalizing on success with a second migration

With the success of CMP's migration to Postgres, Randall and the team identified a second migration project related to MDS Global's Spend Analyzer offering. Spend Analyzer provides a telecommunication company's B2B customers with valuable insights, allowing them to capitalize on that knowledge to save costs.

As MDS Global continued to gain traction in emerging markets, those customers expressed a great deal of interest in what Spend Analyzer could do for them, but often balked at the cost of running it on the Oracle database on which it was architected.

"In some of our new regions, there's a resistance to both vendor lock-in and just the general cost of running an Oracle database," explains Randall. "We knew that to increase adoption of Spend Analyzer, we needed to eliminate both those objections. Even our larger customers were looking for additional price flexibility."

Unlike the CMP database migration, which had included a number of other application modernization elements, the Spend Analyzer migration was solely focused on the database migration itself. Yet this was no easy task, because a significant position of Spend Analyzer had been written to Oracle's proprietary specifications.

Randall admits: "We needed specific help around the conversion. With CMP, we were able to manage everything in-house because we were rearchitecting the application all together. For Spend Analyzer, we realized that we needed more help than the free open source tools could provide. EDB's robust Oracle conversion tools significantly reduced the amount of work we would have spent on reducing the dependency on Oracle."

With the help of EDB's pre-sales and engineering teams, MDS Global was not only able to perform a seamless migration, but also to do so cost-effectively, while saving customers time and money that would have previously been incurred with an Oracle-based infrastructure.

"We've been so impressed with how quickly things moved, and the quality answers we got from real people supporting us that got to the nub of a problem. EDB gives us support at a consultative level rather than a ticket level. That really showed in how we had the same contact person we worked directly with whenever we had a challenge, rather than having to go through a generic helpdesk all the time."

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Migrations continue to pay dividends

Cost advantages are only part of the migration benefits. As MDS Global increasingly targeted smaller organizations with more limited budgets, the company expected an uptick in customers choosing MDS Global's cloud-based offering rather than its on-premises one.

"We were anxious to have a database that we could take into the cloud with minimal effort," remembers Randall. "What we didn't fully appreciate, however, was how the move to Postgres would improve our ability to innovate faster and try new things. Today, we have more flexibility to change and more agility to progress our product more readily. We can get more done because we have more resources and money to spend for the same global budget."

Due to the migration, MDS Global's developers can now easily spin up new environments - complete with the database and the data - for development and testing. The development team is more likely to identify errors early and to gain comprehensive insights into the impact of changes.

Concludes Randall: "We've experienced so many benefits that trace back to the move to Postgres. On the technological side, we have far more flexibility and functionality with each new Postgres release. We move faster and can be confident that any issues will be addressed quickly either through the Community or with the help of EDB's support. In addition, the lower costs across both applications give us the price flexibility we need to pursue smaller firms, giving us a foundation to grow with them."