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CUSTOMER SUCCESS STORIES

Flexibility Plus Five-Nines Availability: Why ACI Chose EDB Postgres® AI

CUSTOMER:
ACI WORLDWIDE

Jack Bloch
Senior Vice President
of Software Engineering at ACI

Jeremy Wilmot
Chief Product Officer
at ACI

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OVERVIEW

Payment systems giant migrates from legacy database to achieve better performance at a lower cost.

When you swipe your credit card at the counter and "Approved" pops up, there's a good chance ACI Worldwide played a role in processing your transaction.

Boasting 19 out of the world's top 20 banks and tens of thousands of merchants as customers, ACI processes more than $14 trillion in payments and securities transactions every day. That intense volume of real-time transactions comes with serious performance and regulatory requirements backed up by top-tier infrastructure.

"Given the financial nature of the transactions we process, we not only need multiple data centers for redundancy, we need those data centers to be fully synchronized in real time," explained Jack Bloch, Senior Vice President of Software Engineering at ACI.

Five years ago, when ACI's legacy database solution was still in place, meeting those demanding requirements was no easy task. While ACI's database solution could technically support them, it did so through a combination of add-ons that incurred both technical complexity and cost.

"We also found that our previous databases impacted our design decisions," continued Bloch. "We found ourselves having to adjust code to accommodate limitations in the database and how it behaved. We wanted to allow our team to make design decisions based on what was best for the application—not what was best for the database."

Along with architectural constraints, the legacy database racked up high costs. While cost wasn't the driving factor in choosing a new database, it played an important role for both ACI and its customers.

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Aligning functionality with philosophy

"We looked for an alternative that was simpler and better, and we went through a very comprehensive due diligence process," said ACI Chief Product Officer Jeremy Wilmot in an interview at Postgres Vision. "We required a lower cost of ownership than we had before, but we also wanted to add a greater flexibility and quicker time-to-market that we could pass on to our customers."

Bloch's team conducted a rigorous five-month evaluation of multiple databases, both open source and proprietary. "While a couple other databases also offered the functionality we were looking for, they did so using multiple, often overlapping products," said Bloch. "EDB Postgres Distributed provided what we needed in a single lower-cost solution—without any additional add-ons. And it's philosophically well aligned with our worldview."

That worldview tilts toward open source. "In today's technological and business environment, you never know what can happen to a business," Bloch said. "Open source technology provides us with more options and some insurance against uncertainties."

Wilmot noted another reason for selecting EDB Postgres Distributed: its multi-deployment capability. "What I mean by that is that we would be able to use this new Postgres platform in our own data centers and our own private cloud, but we could also deploy it in the public cloud." To support five-nines reliability, EDB's BDR (Bi-Directional Replication) in public cloud deployments was another must-have.

"In the payments world, as you can imagine, you've got to be 24/7/365," said Wilmot – particularly with transaction volume reaching billions per week. Soon, he added, that will rise to billions per day, and "we'll need to be able to deal with it."

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A platform to serve customers better

Reliability is table stakes in a demanding, highly regulated industry like payment processing. ACI's decision to select an EDB-supported Postgres solution had another motive, too: to serve customers better in a highly competitive market.

That starts with the lower cost of an open source solution. "The payments industry has a lot of cost pressures within it," said Wilmot. "It has regulation, it has consumer convenience, and the whole movement of digitalization that puts a lot of downward pressure on the cost base. Those who are going to win in the payment space need to be able to address that."

Speed to market was another critical factor -- for ACI's ability to compete, but more importantly, for ACI's customers. "The payments world is highly regulated and requires significant certification in order to launch new services," Wilmot said. "We wanted to be able to have public cloud deployment, open systems capabilities, that would really allow us to pass on speed to market to those customers."

Wilmot offers the example of a payment acquirer moving into a new country. "They can steal a march on their competitors by launching minimum viable products in six to nine months. Five years ago, that could have been a 24 to 30 month endeavor."

Building a long-term relationship

Since selecting EDB Postgres Distributed, ACI has been pleased with the partnership they've developed, working closely with EDB to refine and evolve the offering to meet ACI's needs. From installation and collaborative development to performance and ease of use, ACI's experience with EDB Postgres Distributed continues to validate that decision.

Today, ACI's core platform has already been migrated to EDB Postgres Distributed, as have a number of individual applications, all with satisfactory results. "PostgreSQL is a workhorse. Our performance is great," said Bloch.

"The team behind EDB Postgres Distributed has been phenomenal," he added. "They're very strong technically and also extremely responsive. When they've committed to something, they've delivered it."

"It's great to have the right technology in place," Wilmot said. "But then you really need your partners to be able to work with you tactically, in real time, in order to win in the market and make it work. And you know, I found that EDB has been a great partner for us to be able to do that."

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Jeremy Wilmot
ACI Chief Product Officer

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