

# POWERING THE FUTURE OF FINANCE WITH POSTGRES

4 Must-Read Success Stories



# Financial Service Providers Future-Proof with EDB Postgres

Today's financial service providers are under pressure from multiple angles. Increased customer expectations, growing digitization, expanding data volumes, regulation complexity, security threats, rising costs, and competitive challenges are requiring banking, financial services, and insurance (BFSI) organizations to modernize and future-proof their technology.

Databases are a central part of every modernization effort, as financial companies can't afford to have an inflexible or out-of-date database tech stack that could compromise compliance or tarnish their brand. In order to be successful, BFSI organizations need reliability. They need security. They need support. They need a database that will protect their data and enable constant user access—no matter the volume of traffic. In short, they need a better database, and database partner, that embodies their vision for the future. This is why top financial service providers are moving to open source, EDB-supported Postgres, and why you'll want to consider joining them.

# 4 Must-Read Success Stories

See how top BFSI firms are navigating increasing regulatory demands, customer expectations and costs by building their future on Postgres.

## 01 **BMO Financial Group**

BMO financial group remains always on with Postgres and EDB

## 02 **stc pay**

stc pay builds a leading fintech app for the Middle East market with EDB-supported Postgres

## 03 **areeba**

areeba accelerates time-to-market and innovation with Postgres and EDB

## 04 **Murex**

Murex increases flexibility, resiliency and support for trading and risk management operations with EDB



# **BMO Financial Group remains always on with Postgres and EDB**

# 01

## BMO

### Industry

Financial Services

### Key Takeaways

Deployed and operationalized Postgres Enterprise Manager with high availability, across site disaster recovery, with the help of EDB Professional Services

Reduced operational risk by adopting an always-on, highly available architecture, complete with robust disaster recovery

Proactively addressed database health issues with enhanced visibility

### Products

Postgres Enterprise Manager (PEM)

EDB Failover Manager (EFM)

EDB Professional Services

### About BMO

Established in 1817, BMO Financial Group is the eighth largest bank in North America by assets, providing personal and commercial banking, wealth management and investment services to more than 12 million customers globally. BMO is driven by a single purpose: to Boldly Grow the Good in business and life. That means helping customers achieve real financial progress, financing clients' growth and innovation, investing in the future-readiness of their workforce and leading efforts for a thriving economy, a more sustainable future and an inclusive society.

12M  
CUSTOMERS GLOBALLY

## Challenge: Managing database risk and easing workloads

BMO's digital-first agenda drives all of its technology initiatives. In keeping with this strategy, they aimed to enhance their customer experience, increase speed to market and drive efficiency by modernizing their development platforms.

The bank has increasingly standardized on Postgres as a preferred database because it provides their developers the flexibility they need to accommodate a wide range of workloads and use cases. As the bank started increasing the number of Postgres databases in production and in development, BMO knew they needed to implement high availability and disaster recovery solutions. The bank also sought to build and maintain their databases in a way that didn't drain their DBA teams.

## Solution: Leveraging EDB solutions for high availability and expert support

BMO turned to EDB for help with their high availability and disaster recovery needs. They also reached out to EDB's Professional Services team for expert support and guidance in exploring potential solutions. By working with EDB to implement EDB Failover Manager (EFM) and Postgres Enterprise Manager (PEM), BMO was able to create a highly resilient, always-on system designed for high availability and structured to support disaster recovery across multiple sites.

"The Customer Success team was incredible. They took the time to really understand what we were doing and where our limitations were. And with the help of Professional Services, we had three to four architectural solutions to consider and with their guidance, we were able to pick the one that best met our requirements and restrictions."

**Ping Yuan, Senior Manager, Technology Resiliency & Enterprise Operations, Corporate Commercial and Payments and Cloud Operations, BMO Financial Group**

“The successful implementation of Postgres Enterprise Manager has been a true partnership between BMO and EDB. This implementation enables observability and improves the resiliency of the ever-growing Postgres environment at BMO. Ping was also able to collaborate with EDB to strengthen the BMO team’s Postgres skills, helping us to quickly take advantage of open-source technologies.”

**Michael Wintle, VP and Head of Corporate,  
Commercial and Payments and Cloud Operations,  
BMO Financial Group**

# RESULT: Modernized, always-on architecture

In addition to high availability, EDB Failover Manager enabled BMO to perform rolling upgrades and patch the system without a system dump. The team also implemented EDB Failover Manager, which provided visibility into the health of each database and accompanying alerts. This freed up a considerable amount of time and increased the team's efficiency. Ongoing maintenance was also reduced with Ansible, an open source automation tool that BMO uses throughout their organization and on one of their

largest PostgreSQL databases. Ansible seamlessly manages the patching of thousands of the bank's servers and also runs automation jobs throughout their enterprise.

In the few short months since BMO implemented Postgres Enterprise Manager, the bank onboarded 22 non-production databases and 12 production databases, and now has observability across all Postgres databases.

22

**NON-PRODUCTION  
DATABASES**

12

**PRODUCTION  
DATABASES**





**stc** pay

**stc pay builds a leading Fintech app for the Middle East market with help from Postgres and EDB**

# 02

## stc pay

### Industry

FinTech

### Key Takeaways

Achieved high availability and consistent agility for core customer-facing applications

Migrated complex digital payment processing application to Postgres with the help of EDB Support

Ensured integrity of valuable data thanks to EDB backup and recovery solutions

Experienced improvements in both performance and stability with EDB-supported Postgres

### Products

EDB Failover Manager (EFM)

Postgres Enterprise Manager (PEM)

EDB Backup and Recovery Manager (BARMAN)

EDB Support

### About stc pay

Described as the Middle East's leading digital wallet, stc pay offers innovative digital fintech and payment solutions to customers throughout the region. Founded in 2018 and headquartered in Riyadh, Saudi Arabia, the payment software provider is "determined to build a digital economy in which all customers' finances are safe, secure and simply fulfilled." This customer-centric approach, combined with stc pay's focus on innovation, has resulted in exciting growth as they've sought new ways to expand their market footprint.

## Challenge: Balancing accessibility and security

High availability and security were top priorities for stc pay as they searched for the right database for their organization. As a fintech and payment application provider, stc pay handled massive amounts of data and hosted a large number of transactions on a daily basis. Being able to ensure that their customers could consistently access their application, while also guaranteeing that payment information was kept secure, were both critical to stc pay's reputation and their ability to continue growing.

But their needs didn't stop there. Since their inception, stc pay has been defined by their desire to innovate and deliver intuitive, agile and dynamic solutions. To maintain their reputation, their database needed to be as innovative as they are.

## Solution: Replacing MS SQL with open source Postgres and EDB support

stc pay's management decided to leave MS SQL in favor of open source Postgres. They saw how Postgres could grow with them and their applications, ensuring the constant uptime and accessibility that customers demand from their financial apps. While Microsoft and Oracle databases weren't feasible from a cost perspective, Postgres aligned with their needs and ambitions without putting a financial strain on their company that might ultimately hamper their growth.

stc pay began working with EDB to migrate to specific applications from SQL Server to Postgres. The value of EDB's Postgres support became especially clear when they migrated their core fintech application, which was a complex process requiring specialized expertise. After their successful migration, stc pay leveraged EDB Failover Manager (EFM) and Backup and Recovery Manager (BARMAN) to ensure the constant security and integrity of their customers' data and funds.

"There were numerous instances when EDB helped us. During our migration, the support team was crucial to helping us identify the root cause of a given issue."

Ibrahim Kawash, Database Team Lead, stc pay

“In friendly conversations with other companies here, I tell them about our performance improvements and how I would recommend Postgres.”

**Ibrahim Kawash, Database Team Lead, stc pay**

# RESULT: Increased Database Performance and Innovation

EDB's solutions and EDB Postgres Enterprise Manager (PEM) helped stc pay keep their core application running with 'five nines' of high availability, allowing their data to grow without the fear of a crash shutting down their infrastructure.

Kawash says the benefits of running stc pay's applications via Postgres were immediately apparent. "It was just much faster," Kawash says. He notes that the performance improvements are being felt

across the organization, and all teams are supported to achieve their goals. Customers are benefitting too, as they're better able to experience the power of stc pay's leading application.

As stc pay grows, their Postgres database is fully equipped to support their expansion. What's more, Postgres and stc pay's reputation for innovation has made it easy to find new team members, and Postgres' ease of use has made training new hires simple.

# 99.9999%

**CORE APPLICATION AVAILABILITY**



# areeba accelerates time-to-market and innovation with Postgres and EDB

# 03

## areeba

### Industry

Financial Services: Electronic Payments Processor

### Key Takeaways

Ensured an always-on payment processing platform using an automatic failover architecture that maintains strict ACID-compliant, transactional consistency

Achieved aggressive time-to-market timelines through an accelerated development cycle, despite the team's inexperience working with Postgres

Conserved capital to redeploy toward innovation and future needs with EDB enterprise tools for Postgres

Implemented critical building blocks for automation to be delivered through exciting Cloud Native technology for easy deployment, scaling and performance.

### Products

Postgres Enterprise Manager (PEM)

EDB Failover Manager (EFM)

Planned: Cloud Native Postgres

Planned: EDB Postgres Distributed

### About areeba

areeba is a regional e-payments technology company providing solutions in both the physical and digital spaces. The fintech is renowned for its modern, highly secure, and high-performance systems that customers can rely on for seamless payments, speed to market, easy integration, and advanced payment solutions. areeba's extraordinary experience, together with unrivaled infrastructure and operational excellence, enables them to offer banks, fintechs, merchants and governments a unique range of payment services, from issuer processing and merchant acquiring to digital payments. Through its market-leading platform and partnerships with global leaders like Mastercard and Visa, areeba is helping to transform the Middle East's relationship with digital payments.

## Challenge: Meeting financial regulations while maintaining flexibility

In a market that includes both conventional financial services institutions and global fintech companies, areeba sought to establish itself as the de facto solution for cashless payments in the Middle East. Focused on two critical solution areas, making payments and accepting payments, areeba needed a flexible database that could handle rapid innovation without sacrificing the strict Atomicity, Consistency, Isolation, Durability (ACID) performance that real-time financial transactions require.

While areeba had familiarity with major database offerings, they had concerns about whether a commercial database vendor would provide the support and attention they expected they'd need. In addition, the high licensing costs that many of those database vendors presented proved a big barrier to overcome.

## Solution: Turning to EDB to satisfy enterprise requirements and mitigate risk

Areeba first started with Postgres' Community Edition, and realized that they needed more enterprise features and support. That's when they turned to EDB. Given the sensitive nature

of the financial transactions, high availability, redundancy, and automated failover were a must, as well as monitoring, management, and backup tools to maintain the health of their system. EDB's professional services team worked closely with areeba to implement all of these enterprise features, test the new environment and ensure high availability.

"Within 2-3 weeks of engaging with EDB, we were live with a fully redundant application. We had the enterprise support we needed, and because of the professional services engagement, our team was able to go live. EDB has provided us with some very good tools around monitoring, alerts, notifications, and backups to help ensure everything would continue to run smoothly."

**Georges Abou Zeidan,**  
Infrastructure Manager, areeba



“We’re really looking to position ourselves as a technology leader, and that will require us to move much faster than a legacy player that is reliant on legacy systems. Our experience with Postgres and EDB has shown us that when you work with a true partner and the open source community, you can be sure to get the right support at the right time. And that’s exactly what’s really critical for us to achieve our aggressive time-to-market objectives.”

**Elie Soukayem, Chief Technology Officer, areeba**

# RESULT: A scalable database to meet areeba's high workload demands

By incorporating Postgres into its architecture, areeba gained a flexible technology foundation that could keep pace with its time-to-market ambitions. While the extensive Postgres community proved to be invaluable to help accelerate the platform's development, areeba relies on the enterprise tools and functionality it could only get from EDB.

EDB also provides critical insight into the future of Postgres, which ensures that areeba gets a first look at what's coming in future updates and releases, enabling them to incorporate those plans in their design and implementation decisions as

the platform continues to evolve. This ensures every key component of areeba's platform is up-to-date, strengthening security and guaranteeing that necessary updates and patches are anticipated, and don't impact customer experience.

As the team prepares to expand further into other countries in the region, local regulations around data storage will dictate where the database is deployed and managed, and the ability of Postgres to support multi-cloud and hybrid environments is critical to the company's success.



# Murex increases flexibility, resiliency and support for trading and risk management operations with Postgres and EDB

# 04

## Murex

### Industry

Financial Services

### Key Takeaways

Integrated Postgres into their MX.3 platform to increase flexibility, capabilities and cost advantages, and leveraged EDB's support for Postgres

Empowers customers to gain maximum availability and performance with Postgres and MX.3

Leverages EDB's Postgres expertise to assist customers with deployment and beyond

### Products

EDB Community 360

EDB Standard Plan  
(EDB Failover Manager, Barman)

### About Murex

For more than 35 years, Murex has provided enterprise-wide, cross-asset financial technology solutions to capital markets players. Its crossfunction platform, MX.3, supports trading, treasury, risk and post-trade operations, enabling clients to better meet regulatory requirements, manage enterprise-wide risk, and control IT costs. With more than 60,000 daily users and clients across the financial services industry, Murex is committed to providing cutting-edge technology, superior customer service and unique product innovation.

>60,000

DAILY USERS AND CLIENTS

## Challenge: Support for a seamless and risk-free integration with Postgres

Murex designed their MX.3 solution to run on Sybase, Oracle and Microsoft SQL Server databases to give their customers plenty of options. But with more and more professionals choosing open source Postgres for its lack of vendor-lock in, cloud-friendly foundation, and reduced cost of ownership, Murex decided to adapt their system so that it would be compatible with Postgres as well. Because Murex's traders and risk manager clients use their MX.3 platform to enable a high volume of trades daily and even hourly, it was critical for their system on Postgres to be deployed in a highly available manner, with disaster recovery mechanisms in place. That's why the company wanted to partner with a topnotch provider who could help ensure maximum availability and performance with Postgres at deployment and beyond.

## Solution: Integrating Postgres and leveraging EDB support

Murex researched companies that could help get the maximum value from open source Postgres. They chose to work with EDB because EDB was a well-

known leader across industries, and they saw that EDB offered the resiliency, security, high availability, support and best-in-class professional services that enable Postgres to perform at the highest levels and be always on for professionals initiating trades and doing other critical work. Along with EDB's experience and expertise, EDB's global presence was important to the team, because it ensured that their customers in various regions could partner closely with EDB and gain the support and guidance needed to be successful.

"One of the reasons we selected EDB was their global presence. We have customers all over the world, so we want a support partner who is able to be close to these customers."

**Arnaud de Chavagnac, Head of Product Marketing, Murex**



“...to give the best possible support to applications running on Postgres, we wanted to select the leader supporting Postgres open source database technology. This is why we decided to work with EDB.”

**Arnaud de Chavagnac, Head of Product Marketing, Murex**

# **RESULT: High performance, stability, and security with Postgres on the public cloud**

With EDB as their support partner, Murex has the confidence that they're able to provide the best possible support to their customers with Postgres open source technology. Their customers can select EDB's support to maintain high availability for trading, avoid vendor lock-in, modernize their systems and perform other mission critical activities. EDB's

expertise and experience help ensure their customers attain high performance, stability, and security with Postgres running on the public cloud. Their customers gain peace of mind knowing that EDB actively follows and contributes to Postgres' open source community and is readily available to help solve database issues and fully leverage the power of Postgres.

# 5 Ways Postgres and EDB are Revolutionizing BFSI

Open source PostgreSQL on its own has proven to be transformational for many BFSI organizations. And when you combine Postgres with EDB, the benefits are exponential. Because only EDB unlocks the full power of Postgres with enterprise-grade tools and support, extreme high availability, unmatched Oracle compatibility, increased security and extensibility that empowers architects, DBAs and developers to innovate like never before.

Choose EDB Postgres to:



**Automate Database Migration and Maintenance:** Financial service providers can't afford to have an inflexible database. Automate the future and rely on open source with the EDB ecosystem and tools that simplify database management.



**Reduce Costs:** Your database vendor could be costing you 80% more in licensing and support costs than necessary. Tap into EBB's migration guarantee program to move from Oracle to Postgres and save on software, support and maintenance costs.



**Ensure Mission-Critical Availability:** 70% of database outages result in \$100k to \$1M+ in revenue loss. Avoid disruptive downtime and keep mission-critical apps running to stay on top of your competitors.



**Modernize with Open Source:** Data is your currency. Out-of-date tech stacks and architectures will cost you customers and revenue and even future-focused tech employees. It's time to modernize and innovate with open source.



**Meet Regulatory and Security Requirements:** In finance, customer trust is everything. Don't let your database be your brand's weak point. Ensure your database has the essential security features to comply with regulations and maintain peace of mind.



# BUILD THE FUTURE OF FINANCIAL SERVICES WITH EDB POSTGRES

Driven by a highly competitive market, the need to modernize, meet growing customer expectations, maintain database availability, comply with regulations, reduce risk and cut costs, are all fueling the move to EDB-supported Postgres. With flexible enterprise-grade tools and specialized expertise from

EDB, BFSI firms are fully equipped to build a scalable and reliable database that adheres to stringent compliance and storage requirements, prevents data loss, simplifies maintenance and accelerates innovation. In other words, everything needed to secure your future in financial services.

**Discover how EDB can help you build your future on Postgres**



## ABOUT EDB

EDB provides enterprise-class software and services that enable businesses and governments to harness the full power of Postgres, the world's leading open source database. With offices worldwide, EDB serves more than 1,500 customers, including leading financial services, government, media and communications and information technology organizations. As one of the leading contributors to the vibrant and fast-growing Postgres community, EDB is committed to driving technology innovation. With deep database expertise, EDB ensures extreme high availability, reliability, security, 24x7 global support and advanced professional services, both on premises and in the cloud. This empowers enterprises to control risk, manage costs and scale efficiently. For more information, visit [www.enterprisedb.com](http://www.enterprisedb.com).