

# FROM LEGACY TO LEGENDARY TRANSFORMING BANKING FOR THE REAL-TIME ERA

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In an age when movies stream instantly and dinner arrives at your doorstep within minutes, why should banking lag behind? The meteoric rise of real-time payment systems like Brazil's Pix is reshaping financial services worldwide, and the U.S. banking industry is feeling the heat. With the likes of Zelle, RTP, and FedNow ushering in the era of 24/7 digital transactions, legacy core banking systems are struggling to keep up.

But, meeting these modern demands doesn't mean starting over. With the right modern software, banks can deliver real-time payments, embrace open banking, and unlock the power of artificial intelligence—all without the pain of replacing their core.

## Why Banks Must Adapt—Now

U.S. financial institutions are losing share to digital-first, nonbank financial players built for speed and convenience. Creating real-time digital user experiences can be challenging when constrained by an inflexible legacy infrastructure.

The solution isn't to rip out and replace core systems—an expensive, risky, and time-consuming process—but to bring in a real-time transaction ledger to de-couple this high demand function from the core.

## The Digital Twin Approach

With the digital twin approach, a real-time transaction ledger works alongside a core banking system. Select accounts are replicated to the digital twin.

The digital twin authorizes transactions and updates balances for these accounts whether the core is up or down - providing a faster, and more affordable transactional ledger.

With the digital twin handling transaction authorizations, core systems continue generating reports, calculating fees, managing compliance and the many other complex tasks required as the backbone of banking operations.

Here's how this approach benefits banks:

- **Real-Time Payments:** Authorizes transactions 24 X 7 whether the core is up or down.
- **Cost Efficiency:** Core banking systems charge for each transaction and balance inquiry - digital twin solutions charge a small fee on a per-account basis.
- **AI-Readiness:** Provides structured, up-to-date data for foundational AI models, supporting applications like fraud detection and personalized customer interactions.

## Addressing Open Banking Demands

Open banking initiatives require financial institutions to provide real-time access to account balances, transaction histories, and other data to authorized third parties.

By creating a twin of account balances on a real-time transaction ledger, the digital channels and authorized third parties can reference the balance and related information in the digital twin rather than make expensive calls to the legacy core which may or may not be online.

## Unlocking AI's Potential

AI represents a game-changing opportunity for banks, offering innovations in fraud detection, predictive analytics, and personalized services. However, AI relies on timely, structured, and high-quality data to be effective.

Modern technology with real-time data from the core and accessible to third-party systems are ideal to support the creation of foundational models for AI, which require vast amounts of up-to-date data to build predictive, decision-making algorithms.



## Positioning for a Real-Time, AI-Driven Future

Banks don't need to rip and replace their core systems to remain competitive. The digital twin approach can provide a bridge to the future, enabling real-time processing, open banking compliance, and AI readiness without disrupting existing operations.

The future of financial services will be defined by speed, compliance, and intelligence. With pragmatic solutions banks can modernize their systems while preserving stability, and preparing for the next generation of banking innovation.

To learn more about the digital twin approach, [contact Matera's team of banking experts for a deeper dive.](#)



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### ABOUT MATERA

Matera is a pioneer in modern technology powering banks and credit unions with cutting-edge solutions for Core Banking, Instant Payments, and QR Code Payments. With over 30 years of expertise and a team of 1,000+ professionals, Matera is the trusted partner behind some of the world's largest financial institutions. Two of the top three global banks, three of the top 10 U.S. banks, and one-third of all banks in Brazil rely on Matera's technology. Operating across Brazil and North America, Matera is redefining the future of digital finance. To learn more, visit: [www.matera.com](http://www.matera.com).

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