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Is Your Data Strategy Ready For Digital-First Business?

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How Financial Services Speeds Blockchain and AI/ML Technologies from Pilot to Production

I've always worked with leaders eager to harness the power of data to transform businesses. Everything from client data to unlock new revenue opportunities to business data to drive automation and efficiency. Technologies like blockchain, artificial intelligence (AI) and machine learning (ML) promise to revolutionize the use of data for wide-ranging applications from personalization to risk mitigation. And nearly every executive has incorporated them into their digital strategies.

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While some financial services organizations have successfully transitioned from pilots to production, others struggle to graduate new technologies from experimental, limited-scope phases to permanent, line-of-business programs. Skill sets, legacy technologies and budget are top challenges. Only 30% of blockchain projects will make it into production, predicts Forrester.[1]

Similarly, many AI/ML projects also remain stuck in pilots that never reach production.

How can financial services organizations go from the art of the possible to the realization of value and truly transform their businesses?

Data Is the Common Thread

Global financial institutions generate terabytes of data each day from ordinary operations. This data is often accumulated over many years, fragmented across many repositories and stored on outdated or inflexible technology—all of which hinder the progress of even the best data strategies.

There's an easier way to stay relevant. It requires IT and business process modernization that eliminates data silos and supports new technology integration. That's how financial services IT projects move seamlessly from pilot to production to achieve business outcomes:

- Unlock the potential of data to drive automated, smart and real-time experiences customers expect.
- Support fintech integrations for robust marketplaces.
- Drive automation and efficiency in the back office.
- Protect against fraud and information security threats.

No other industry invests in digital transformation as aggressively as financial services. And COVID-19 has further accelerated plans, according to financial leaders surveyed. Yet new investment in innovative technologies will be wasted without an easy way to integrate it with existing platforms—the legacy IT and data infrastructures running

inside banks and other financial services firms today. A flexible, robust digital foundation does both.

The financial institutions that I've seen entering new markets fastest are those with a flexible digital foundation. One with cloud-capable infrastructure, modern distributed data architectures and new cloud-native applications—integrated with new technologies from blockchain to AI/ML.

Blockchain Generates New Revenue and Drives Cost Savings

Blockchain breaks down data silos, keeps data safe and streamlines complicated transactions and operations. It creates a single source of truth—through distributed trust infrastructure—that harnesses end-to-end, cross-industry workflows to deliver value to customers and partners. No wonder it's a high priority for financial services CIOs.

The financial services sector is ripe for blockchain because all transactions are multi-party workflows—consumers, banks, stores, payment processors and the like. Firms intend to operationalize Distributed Ledger Technology (DLT) to streamline and simplify these workflows, strengthen security, as well as automate the reporting and auditing that goes with them.

When financial services organizations find an enterprise-grade solution like VMware Blockchain, they benefit from a proven digital foundation and can easily deploy and manage permanent, high-performing, line-of-business blockchain programs at scale. A big part of what it means to be enterprise-grade is to offer comprehensive 24 x 7 x 365 support. Surprisingly, many vendors fail at this. And without enterprise-grade blockchain solutions, financial services organizations find they lack the ease of deployment and management needed to convert pilot projects to permanent programs.

Forrester predicts in 2021: "The majority of networks that transition from pilot to production will run on enterprise blockchain platforms."[2]

Broadridge Financial Solutions, a well-known global financial solutions provider that processes a staggering $10 trillion dollars in transactions per day, recognized the need for an enterprise-grade blockchain platform to underpin its Distributed Ledger Repo (DLR) platform. Repos, also known as repurchase agreements, are overnight and term loans. With VMware Blockchain, Broadridge can transform capital markets infrastructure and help clients generate many millions of dollars in new revenue and save many millions of dollars in operational costs.

Horacio Barakat, Head of Distributed Ledger Repo for Broadridge Financial Solutions, says, "VMware Blockchain provides a platform for us to model and enforce multi-party agreements on a Scalable Byzantine Fault Tolerant platform. This creates a single, shared, and trusted source of truth enabling the automation and digitization of repo processes and reducing reconciliation efforts."

The Australian Securities Exchange (ASX), a top 10 listed securities exchange group that executes many millions of trades daily, is achieving its goal of supporting increasing transaction volumes and enabling secure data sharing that protects customers' privacy with enterprise-grade blockchain. ASX uses the combination of VMware Blockchain and Digital Asset's expertise in smart contracts and distributed ledger technology.

"DLT can help financial services firms transform data, preserve privacy and confidentiality, and remove manual processes that exist in the industry," explains Dan Chesterman, CIO of ASX.

A seamless path to production comes only from deploying a robust digital foundation that can help accelerate production timelines and ensure ease of ongoing operations required in production.

AI/ML Fights Fraud at Banks

Financial services firms also have invested heavily in AI—and ML, a subset of AI—to make smarter decisions, automate operations and predict activities among other benefits. The most frequent use of AI/ML in banks is to combat fraud.

AI/ML includes deep learning with large data sets and hardware accelerators, as well as many techniques that perform well on standard microprocessors, to make smart decisions faster and more accurately than humans. These approaches empower financial services firms that continuously collect and process data, if care is taken to ensure it is used responsibly and ethically. With ML, predictive models for fraud detection can be built using data gathered in corporate data centers or by exploiting cutting-edge technologies like federated learning in edge locations.

Although the potential for AI in financial services is evident, deployment lags. The primary reason: legacy core financial services applications and infrastructure are unable to support it. Modern infrastructure does.

ML applications are container-based, extremely resource intensive and most often run close to where data is stored—at the edge, in the data center or public cloud. A digital foundation that embraces a vision in support of any cloud, any app, any device with a multi-cloud Kubernetes runtime and modern software tool chain supports consistent, repeatable processes. It is the ideal solution to build, run and manage modern apps, enabling AI/ML projects to move from pilot to production, realizing business value faster.

New Technologies Fuel Competitive Success

Financial services organizations can stay competitive with fintechs and deliver the digital experiences customers expect by harnessing the power of new technologies to fuel progress. They can unlock all of their data and leverage it for deeper analytics, personalization, improved risk management and large-scale automation. They can gain insights that translate into new features and experiences and put them in market quickly while maintaining trust and security.

Those with a digital foundation—flexible, consistent infrastructure and operations coupled with modern data architectures and applications—at their core will have a faster delivery, lower cost advantage compared to organizations with only legacy architectures. Future-ready digital foundations like VMware's any cloud, any app, any device architecture simplify the path to production for banks looking to adopt new technologies and open APIs for banking.

The question now is which financial services institutions will close the pilot to production gap fastest to thrive in our digital-first economy?

To learn more, visit vmware.com, listen to the "Don't Break the Bank" podcast or check out the Future Ready Bank.

[1] Forrester Blogs, "Predictions 2021: Blockchain Is A Tale Of Two Speeds," Martha Bennett, October 2020.

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