

Reimagining Repo



As a neutral and trusted market solutions provider, Broadridge Financial Solutions saw an opportunity to make the \$10Tn repo market safer and more efficient, revolutionizing a critical capital markets function that supports the financing activities of global corporations and local municipalities alike.

As an early adopter of Daml, Digital Asset's multi-party application framework, and a long-term user of VMware solutions, Broadridge recognized the value that Daml smart contracts running on VMware Blockchain could bring to the operationally intensive bilateral repo market. Leveraging these partnerships, Broadridge created an innovative platform that combines smart contract technology with essential data and processing safeguards to deliver a robust, enterprise-grade solution that removes inefficiencies and significantly reduces the cost and risk of repurchase agreements.

The Challenge

Repo transaction processing historically requires high degrees of manual reconciliation and intervention, creating significant operational overhead and capital usage due to asynchronous settlement of cash and securities.

High market volumes and multiple participants result in fragmentation, fails and disputes since there is no single source of truth for the lifecycle of the trade.

The Solution

Broadridge partnered with Digital Asset and VMware to create a fully automated end-to-end repo service that supports the simultaneous settlement of cash and securities, removing risk from the process and significantly decreasing capital costs.

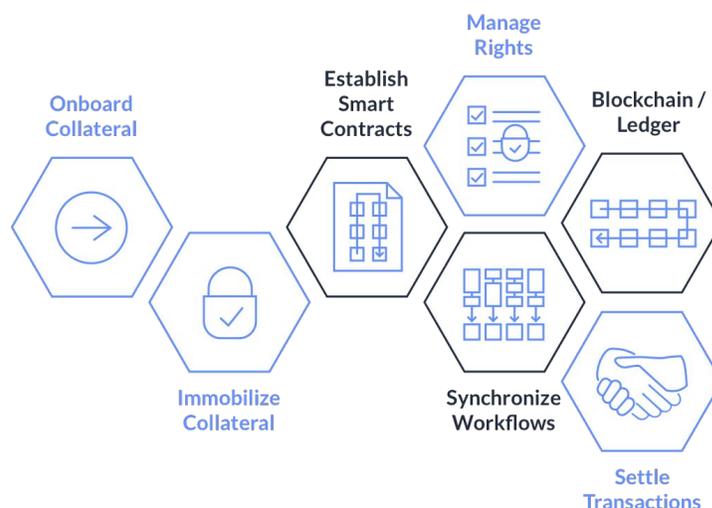
The Distributed Ledger Repo (DLR) platform lets all transaction participants share a single, real-time view of the entire trade lifecycle with one source of truth that automates repo agreement terms and adheres to market rules. Greater operational efficiency, minimal fails/disputes, and reduced custodial and technology costs combine to save millions of dollars.

The combination of ledger-based transaction capabilities, enhanced collateral management and optimization features will facilitate broad adoption and the transformation of this essential market.

"We shared a vision for transforming the repo market to benefit all market participants. Together with Digital Asset and VMware, we have created an easily-integrated, scalable solution that supports complex financial contracts across lifecycles and workflows."

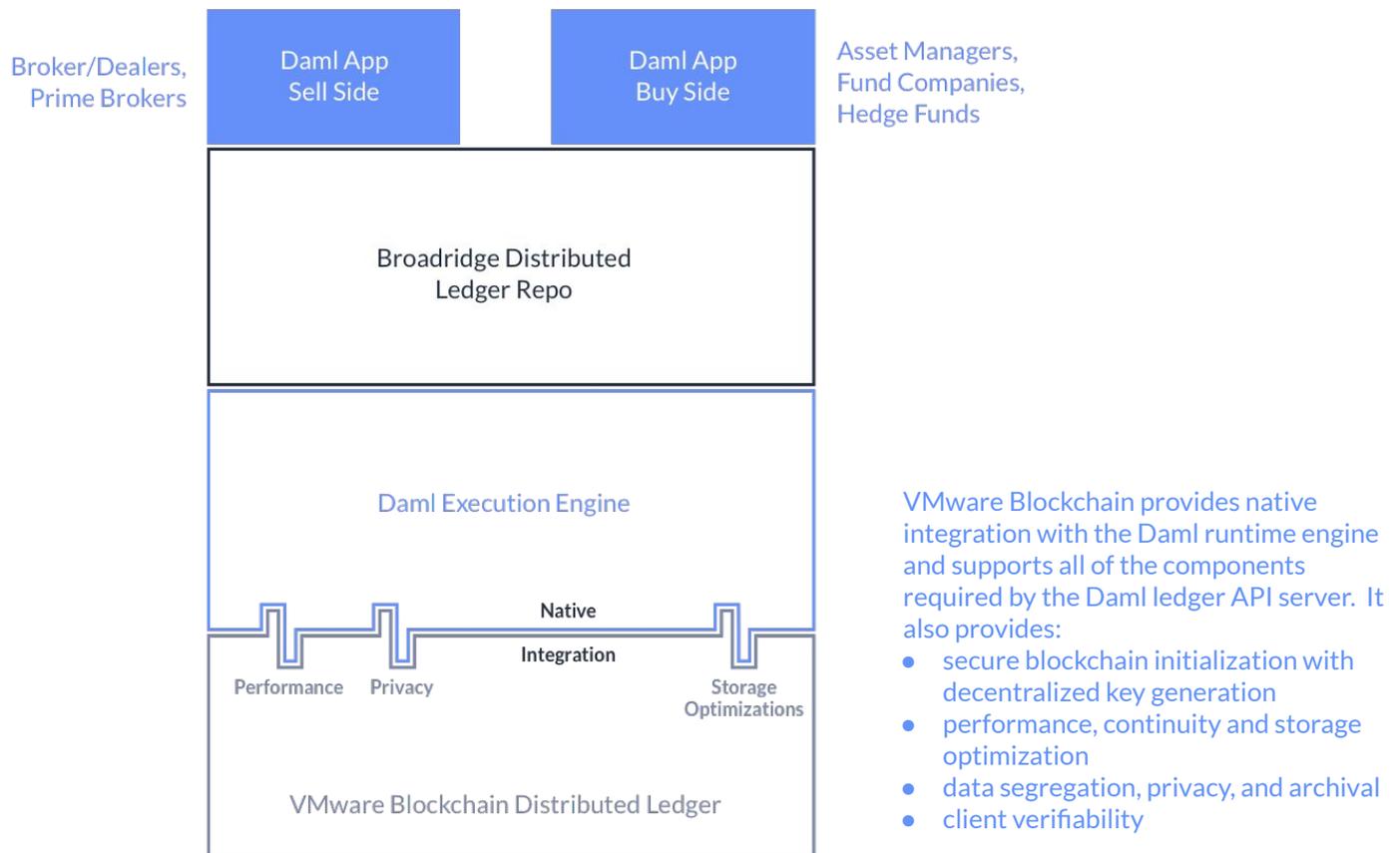
Vijay Mayadas

President, Global Fixed Income and Analytics, Broadridge



Broadridge's new [Distributed Ledger Repo platform](#) uses multi-party workflows, smart contracts and blockchain security to streamline a complex life cycle, while operating at the speed and scale demanded by dynamic markets.

Native integration delivers performance, efficiency and security



Writing enterprise applications that perform complex multiparty workflows requires a trusted blockchain platform that can be integrated with existing systems, as well as a feature-rich smart contract language that empowers developers to build distributed applications that can fully take advantage of the underlying platform's capabilities.

VMware Blockchain with Daml is designed for the performance, scale and high availability that market infrastructure providers require. The solution also implements the full Daml sub-transaction privacy models, enabling use cases that require atomic transactions while preserving fine-grained data disclosure.

Broadridge leveraged [Daml](#) to create their DLR application, modeling the repo process and lifecycle workflows across sellers and buyers, from repo creation to maturity.

- Common data model for assets and workflows
- Automation of complex, multiparty processes
- Efficient code with the highest level of security and privacy
- Synchronized workflows and simultaneous settlement
- Extensibility to other asset classes
- Flexible deployment options to facilitate widespread market adoption

Realizing the value of the DLR platform required the enterprise grade production software and support of [VMWare Blockchain](#) with Daml:

- Provable data integrity to guarantee all parties share a single source of truth
- Privacy by design with data segregation to support regulated industries
- Ease of Day 2 operations with built in management, deployment, and monitoring 24x7x365 for VMBC and Daml Driver
- Flexible deployment options, supporting today's centrally managed on-premises solution and tomorrow's multi-organization, multi-cloud future
- Scale and performance to meet DLR's growing needs

Next steps and benefits

Following successful pilots of the DLT-based bilateral repo solution, VMWare Blockchain and Digital Asset have continued to develop functionality and onboard clients prior to an expected launch in Q1/2 2021.

Participants and the market can expect significant advantages, including the ability to:

- Eliminate settlement exposure and minimize capital costs
- Reduce operational risk and cost by eradicating manual processing and errors
- Safeguard and enhance rights and permissions

These benefits only increase as more providers join the platform.

Broadridge Financial Solutions, Inc. (NYSE: BR), a \$4.5 billion global Fintech leader, is a leading provider of investor communications and technology-driven solutions to banks, broker-dealers, asset and wealth managers and corporate issuers. Broadridge's infrastructure underpins proxy voting services for over 50 percent of public companies and mutual funds globally, and processes on average more than U.S. \$10 trillion in fixed income and equity securities trades per day. In 2018, Broadridge was awarded a U.S. patent for its Repo platform and won the FTF News Best Blockchain Initiative. Broadridge is part of the S&P 500® Index and employs over 12,000 associates in 17 countries.

Daml is a smart contract language that simplifies multi-party workflows across your infrastructure, the cloud and multiple persistence layers. Used with traditional databases or with enterprise-scale distributed ledger technology (DLT), Daml helps solve your complex business problems across internal businesses or with clients, partners and vendors. It separates business logic from systems code, giving you a unique way to model and execute the interactions at the heart of your enterprise. By creating a layer that sits across multiple applications, Daml simplifies processes, drives efficiencies by combining common tasks and creates a single source of data that can be used simultaneously across multiple applications.

VMware software powers the world's complex digital infrastructure. The company's cloud, app modernization, networking, security and digital workspace offerings help customers deliver any application on any cloud across any device. VMware Blockchain is an extensible and scalable enterprise-grade blockchain platform that provides a digital foundation that enterprises can trust to build business networks and deploy business-critical decentralized applications.