Boardwalk Digital Ledger Overview

The Digital Economy

We are in a time of unprecedented change and mass company extinctions. Between 2000 and 2015, 52% of the Fortune 500 have either gone out business, were acquired or ceased to exist. *Digital transformation* is a pressing conversation in C-suites globally – and the journey to 100% digital has become an imperative. Nowhere is the need for digital transformation more acute than in the complex world of supply chain where lack of visibility and speed can kill the heartbeat of the business.

But, while the numbers and types of software applications continue their torrid pace of growth, companies continue to share information manually using Excel, email and phone calls. This slows the business and decreases needed visibility. The impact of this across the value chain is enormous— a series of cascading buffers around inventories, costs, and pricing negatively impacting revenues and margins.

Getting to 100% digital means eliminating these manual, high touch processes, digitalizing them, and unifying and integrating them with the core systems of the business. But this hasn't worked in the past. Why? The simple answer is that the plethora of applications built and deployed in the extended supply chain are based on the same class of technology. One that is not flexible to change and doesn't support one of Excel's key ingredients - off-line usage. The result: The use of Excel is so widespread; many consider it a supply chain application.

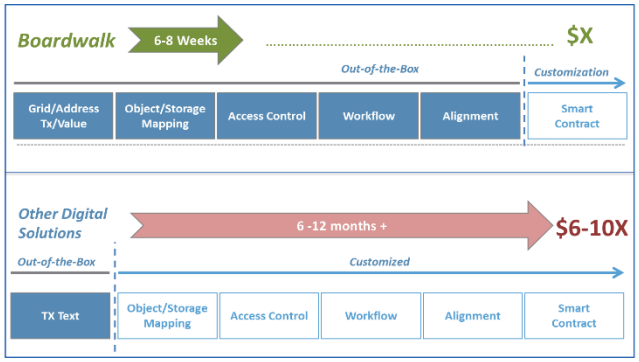
> ***"This week, I worked with nine manufacturing clients that have something in common. What? Each manufacturing company has spent millions on the implementation of SAP and JDA supply chain planning software, and they don't use it. Instead, the planning for these large companies is being done in spreadsheets. It is a dirty little secret in the industry. People pretend."***
>
> Lora Cecere – Supply Chain Shaman

Getting to 100% Digital with Boardwalk

Boardwalktech took a different approach. Over 14 years with millions of dollars of R&D investment, Boardwalktech developed a new flexible platform (Boardwalk) to manage information and create applications that transform multi-party data exchange with rapid time to value.

Clients have realized:

- Reduced cycles times up to 75%
- Reduced inventories 2-5%
- Reduced $Millions in penalties
- Recovery of 15-20% manual work
- Predicted late orders 60 days out
- Reduced compliance risk
- Resulting increase in revenues and improved margins



With two patents, the fruit of Boardwalktech's years of innovation is the shareable digital ledger – which today is the centerpiece of blockchain. With clients including Coca-Cola, Levi's, PricewaterhouseCoopers, Rockwell Automation, AON and many others, Boardwalktech's technology has been proven across the enterprise landscape.

Boardwalktech's innovation takes the shareable ledger concept out of traditional blockchain and extends it as a central authority ledger platform specially targeted to solve enterprise supply chain challenges. Gartner coined the term Central Ledger Technology (CLT) and predicts that 40% of blockchain projects through 2021 will be Centralized Ledger Technology (CLT) based.

The Technology - What makes Boardwalktech's Platform Unique

Boardwalktech's core IP is a transaction chaining technology, patented in 2008, that manages information in a new way, and at a level of granularity that surpasses existing SQL or NoSQL approaches. The data granularity and transaction chaining matters for several reasons:

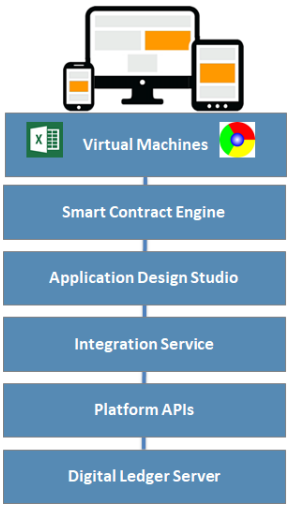
- **Trust** - Boardwalk establishes trust between multiple parties by enabling a granular, time-based exchange between all parties providing better data integrity and quality with a complete understanding of the provenance of all information exchanges between all parties.
- **Alignment** - Transaction chaining with granular data provides a new level of collaboration and visibility for multi-party participants that drive rapid, continual alignment of processes.
- **Learning** - In enterprise applications, where interactions are complex and multi-step, Boardwalk captures all transactions providing insight to valuable work-in-process information which means you can move your operating mode towards inference and prediction, and away from reaction.

Boardwalktech's approach to delivering the Boardwalk Digital Ledger includes:

- A focus on enterprise applications with a central trusted party who controls the data, security, and environment shared between participants both within and between enterprises. Boardwalktech leverages current security and trust factors in place and builds on that with its transaction chaining technology.
- Boardwalk enables participation in the ledger-based application through a virtual machine that is easily launched on the desktop or mobile device for each participant. The virtual machine provides interaction with the ledger under the access control and security constraints of the network.
- An ability to integrate and assimilate existing processes and legacy apps. With Boardwalk, you can rapidly turn a manually run, multi-party information exchange into an integrated, digital ledger application.

The Boardwalk Digital Ledger includes the following capabilities:

- Immutable, linked, and hashed transactions – all updates to the shared digital ledger are captured on a net change basis, versioned, and are linked in a transaction chain with immutable transaction IDs. All transaction update changes are hashed providing verifiability to all network participants.
- Workflow based consensus with the rules defined by the controlling party for and with the participants. This consensus mechanism identifies which transactions are significant to the parties based on work-in-process (WIP) and data lifecycle rules.
- Provenance of decisions are captured. With Boardwalk, the provenance of all the WIP interactions and final smart contract transactions are captured. This is the key to aligning systems, people and processes and quickly re-aligning in response to process changes.
- With access to time-based transactions, inferences can be derived from the data using machine learning which can be used in-line to drive course corrections within operational processes, thereby continually improving the application.



- An out-of-the-box application builder and smart contract designer framework for configuring digital ledger applications very rapidly – 6 weeks versus 6-12 months+ for alternatives.

Boardwalktech's digital ledger platform eliminates high touch manual processes and delivers improved multi-party information exchanges, reduced business risk, and a richer data environment for predictive analytics. These benefits will result in freed up capital, improved cash flow, and better margins as well as stronger relationships with all trading partners.