Blockchain Network Governance

The Data Gumbo Perspective

2020

INTRODUCTION

Governance is critical to the trust and effectiveness of a blockchain or distributed ledger business network. For businesses to trust large contracts and payments to a network, its data, smart contracts and ledgers must flow and function in a predictable, transparent and auditable way. For a network to scale, it must also be flexible, interoperable and largely self-governing.

COMPETITOR APPROACHES

ETHEREUM

Governed by the Enterprise Ethereum Alliance, a group of 100s of vendors, service providers and end users. There are infinite varieties and multiple competing factions doing separate work and voting on what goes into the overall roadmap including functionality. Companies can run their own nodes and write smart contracts, but because of Ethereum's token-driven nature, there is a certain amount of inherent standardization. Due to small block sizes transaction data is stored off chain and is not necessarily standardized.

R3 CORDA

A governing board tasked with roadmap and standards is dominated by R3 and the banks that originally backed the Corda effort. The interoperability of Corda is tied to pre-baking the exact set of transactions that can be executed and in standardizing smart contracts. R3 works with industry groups to set up multiple private blockchain networks with the operator maintaining strict control of membership. Companies can run their own nodes and must buy or write their own CordaApps to drive preset transaction types. Data about transactions is rigidly standardized.

HYPERLEDGER FABRIC

Governed by The Linux Foundation and open on GitHub, the development steering committee includes 35+ organizations. Service providers such as IBM work with individual companies or industry groups to set up private, permissioned blockchains for specific use cases or groups of use cases with no guarantee of intergroup interoperability. With Maersk and Walmart, the approach is a major company builds a system and forces its vendors to join. Companies can run their own nodes and write smart contracts but each network may have completely different data models.

THE DATA GUMBO APPROACH—CUSTOMERS, NOT COMMITTEES

Data Gumbo is the sole organization developing GumboNet™, a massively interconnected network that automates smart contracts by utilizing the unique combination of distributed ledger technology (DLT) with terms confirmed using Industrial Internet of Things (IIoT) operating field data.

Corporations don't worry about the implementation of an Oracle database, the intricacies of how SAP is coded or the vagaries behind Peleton's WellView program. They do worry about how to design a database that runs on Oracle's platform, how to design the chart of accounts to run in SAP and how to design a well plan to be stored in WellView. A blockchain should be no different. The intricacies of blockchain implementation should be a headache left to vendors. Customers need to be free to consider contracts to be automated, templates to be standardized, new commercial models that can be designed, and how to standardize terms that can then be used to make contract negotiations more efficient.

Data Gumbo is purpose-built from the ground up to be a flexible, self-service platform with a single roadmap and no need for design by committee. By providing a customizable set of tools to gather specific data, write legally enforceable smart contracts, store all raw data and results on the chain, and publish payments to Enterprise Resource Planning (ERP) systems, Data Gumbo puts the actual customers in the driver's seat to drive efficiencies and capture cost-savings.

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THE DATA GUMBO APPROACH—CUSTOMERS, NOT COMMITTEES (CONT.)

Key differences include:

- **Private, permissioned network with all nodes tied to specific companies:** We provide a level of 'know your customer' protection by vetting and signing service agreements with all companies or entities running corporate notes on GumboNet.
- **All companies are created equal on the network:** A company that is a vendor on one contract, may be a buyer or observer on another contract.
- **No wallets or corporate accounts:** Corporations are used to managing permissions, users and roles for their corporate systems. GumboNet provides 'Know your customer' access where each customer manages access and roles within their corporate blockchain. A corporation doesn't need to worry about wallets or how to manage access to them.
- **Security:** GumboNet's smart contracts use Industrial Internet of Things (IIoT) data to confirm execution of contract terms. The encryption of IIoT data is carried into the blocks ensuring complete security of source data on top of the security derived from blockchain hashing algorithms.
- **Privacy:** Customers invite their counterparties to collaborate on a contract. Counterparties to the contract can see the data in the blocks associated with their contracts, but no other company can see the data inside their blocks.
- **Contract driven:** We enable companies to build the smart contracts they need for the job at hand, including natural language clauses, configurable data such as field data, documents, pricing and the code itself.
- **Flexible:** Companies create as many or as few ledgers and contracts as needed for the job, and invite their partners and vendors to each ledger as required.
- **API driven:** Data Gumbo provides a de facto standard with a data model that enables companies to map from existing legacy systems to a standard API for inputs, and provides a standard API out for data, contracts and blockchain.
- **Guaranteed interoperability:** Data Gumbo maintains the data model to ensure that contracts written by one Data Gumbo customer will always work with another. A company using GumboNet can immediately get value from the whole network of other companies using GumboNet without concern of redesign and/or implementation, which can potentially "strand" a company on their own island.
- **Legal enforceability:** Smart contracts serve as both legal agreements and data agreements between parties. The Legal contract can be irrevocably tied to the smart code to ensure maximum enforceability.
- **Neutrality:** Data Gumbo is an independent company focused on expanding the network. We do not compete with any of our customers. Companies, industry groups and consortia can publish standard contracts for use by their members and others but no group of companies control Data Gumbo itself.

In summary, governance of a blockchain network cannot be left to stagnate under the control of a series of committees or a few companies that have split loyalties. Data Gumbo grants maximum flexibility to our customers to write the interoperable contracts they need, while maintaining and continuously improving network infrastructure to support blockchains' effectiveness for better business.