

ValueChain

Overview

ValueChain is a blockchain enabled solution developed for Organizations to bring financial renaissance in their strategic planning.



This Platform helps transform the end-to-end business processes and create a digital ecosystem to have better transparency, trust, and efficiency in day-to-day operations.

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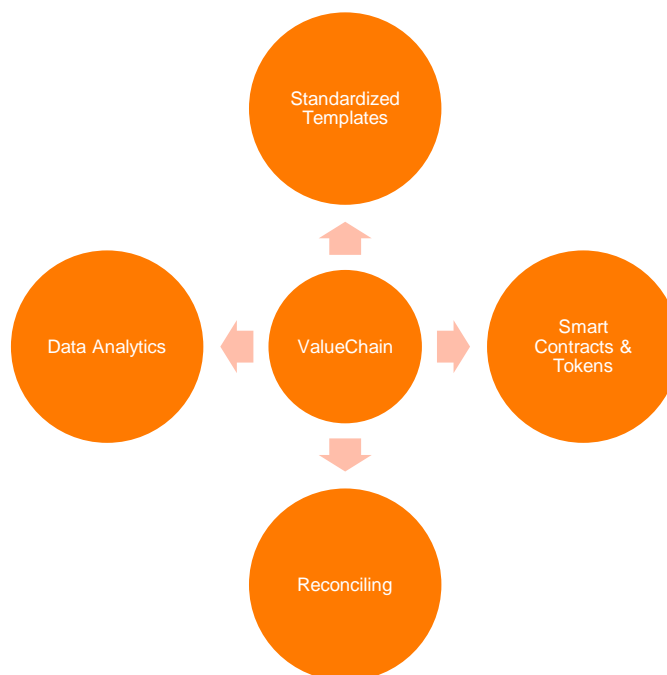
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Introduction

Blockchain is playing an integral role at the enterprise level to integrate and digitalize systems and improve performance by providing traceability and transparency.

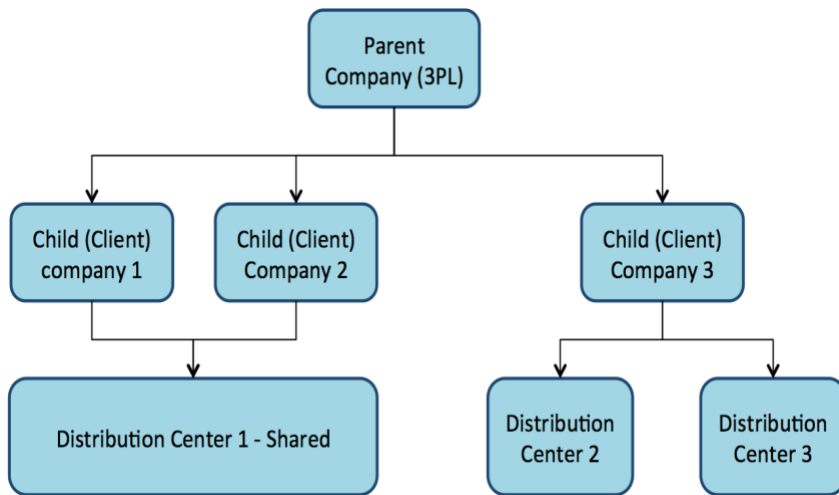
Blockchain is potential to change dynamics of systems which are built to provide ease in operational processes. Instead of customizing existing applications to integrate with legacy system in large organizations, Blockchain provides standardized apps and tokenize model on the blockchain network along with effective authentication and authorization.

ValueChain – Blockchain enabled solution supports existing operational processes like contracting, invoicing, procuring and payment to monitor each transaction and measure return on investment for the money invested in any service or product.



In any organization, there are pre-approved processes for employees to follow for contracting, invoicing, procurement. Users will use these standardized templates to input data based on the category whether it is related to contracting, invoicing or procurement right from the time when management declares budget for each department. Once we capture data, with the help of smart contracts and tokens, System will monitor each transaction to see where the organization's money is being spent. Based on expenditure, system will reconcile the data and create near real time reports for organization to do analysis and get the real time picture to measure return of their budget.

Problem Statement



Every large organization is nested with their parent-child relation along with external vendors, Distribution centers, subsidiaries. While allocating budget for each entity and monitoring it's value becomes difficult hence, each of these organizations adopt various systems to ease their operational processes.

In present scenario, Organizations are using various ERP systems, MIS, and databases to integrate all processes together and generating reports to monitor transactions and measure output. Existing process are time consuming and generates aggregated reports to understand how organization is spending money on and what is the outcome of it. The process is long and complex as various departments are involved to collect and report financial and non-financial information and to generate results it takes approximately six months and more. These reports may or may not be useful in terms of making decisions. This affects their efficiency in order to allocate budget for the next year expenditure and performance management.

There are 3 major challenges with the current process,

- Lack of accurate and real time reporting of result for allocated budget
- Incomplete visibility on financial and non-financial data
- Significant cost for reconciling and exchanging reports

Proposed Solution

ValueChain – Blockchain enabled solution supports effective decision making. Organizations need a single source to know financial and non-financial information provided continually to support decision making and that's where blockchain really comes into the picture. It helps optimizing capacity off core financial management and gives clarity on how organization monies are spent and what is the outcome of it.

Every organization analyzes previous year's budgeting reports to make strategic decisions for the next year's budget and this is where ValueChain plays integral role to provide qualitative data to organization's strategic decision.

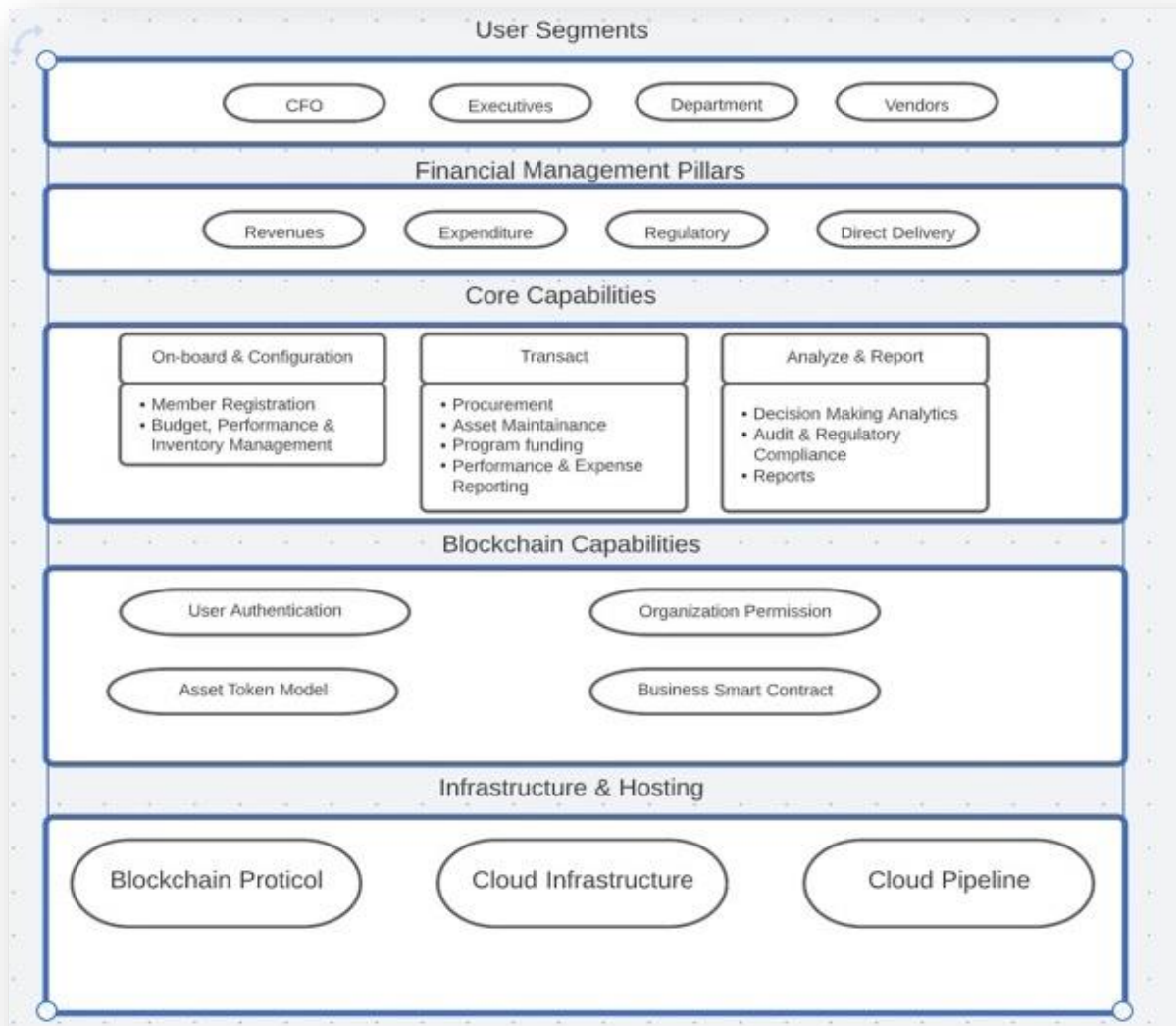
This solution is architecturally decentralized and for organizations it is centralized to provide overview of organization's core 4 financial pillars

1. Revenue
2. Expenditure
3. Regulatory
4. Direct Delivery

ValueChain enables below 5 major features to organizations for transparent and efficient financial management.

- Integrating financial and nonfinancial reporting in the organization
- Reconciling and consolidating information within and across Organization and external entities
- Producing near-real-time performance reporting and advanced analytics
- This enables Organization to see exactly where money is being spent and what is being achieved.
- The solution can be used by CFOs, Executives or departments, delivery agents and external entities.

ValueChain Capabilities



ValueChain is a multi-layered solution where there are 5 layers including User segment, Financial management pillars, Core capabilities, Blockchain capabilities and Infrastructure & Hosting.

User Segment –

Since it's a permission-based application, any user who has authority to participate in budgeting decision, reconciling, and reporting can access this application with the right permission based on their role.

Financial Management Pillars –

In any organizations, there are 4 major pillars to monitor and to take decisions on. While monitoring expenditures to check where they have spent monies on and what is the outcome of it, reviewing revenue, regulatory and direct delivery is also pay a major role in financial management to balance out each vertical.

Core Capabilities –

ValueChain provides On-boarding service for members to register and provides performance and inventory management to monitor funds and assets. Also, during budget allocation, Management gets real-time reporting to assess previous year's revenue and expenditure to make coming year's budgeting which is based on data.

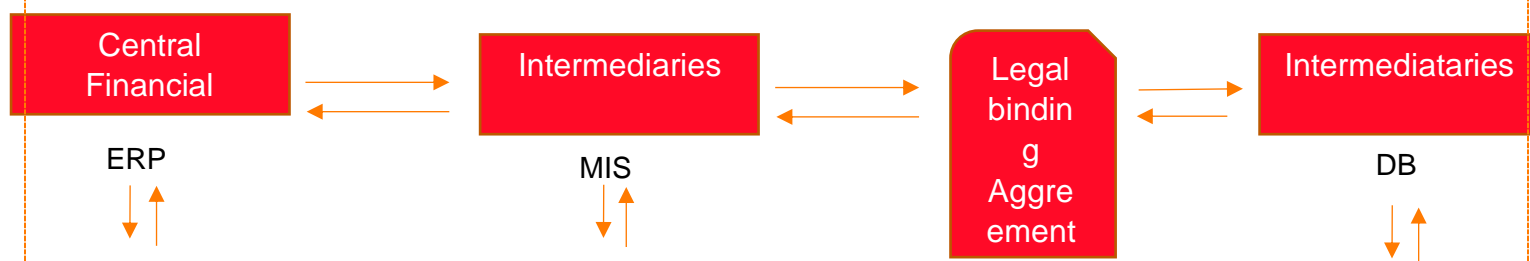
Blockchain Capabilities –

ValueChain is a blockchain enabled enterprise level permission-based solution with the provision of user authentication where roles and access is defined based on individual's role and responsibilities. IT also provide organization level permission and security. For business logic, ValueChain uses smart contracts to bring business logic together and token model to create fungible and non-fungible tokens. ValueChain is using ERC 1155 which is multi-token to optimize smart contract count and gas price.

Infrastructure & Hosting –

ValueChain is hosted on Azure cloud where it is making use of serverless model and API management to integrate with smart contracts. For follow software lifecycle best practices, Cloud pipeline is implemented for development, testing, and deployment.

Solution Architecture



To represent Funds & assets on blockchain



To encode business logic pertaining to onboarding, configuration & Transact management.

For financial management, every organization is using various software's which are already exists in the market and for that they have to integrate all those software's to generate reports which is time consuming. ValueChain is a blockchain enabled solution which sits on the existing software's, gathers historical data from them and at the same time deploys standardized template for any new investment. Once system get funds and asset again it, it creates fungible and non-fungible tokens to trace those and generate real time reporting. ValueChain uses ERC 1155 token so that based on organization's requirement multiple smart contracts can be created and one smart contract can hold both fungible and non-fungible tokens which optimizes smart contract itself and the gas price.

Project Plan



Currently, ValueChain is in Ideation phase where team is creating proof of concept to make sure we don't get any hurdles in future.

Product Ideation –

Talent Pool	1 Month	2 Month	3 Month	4 Month	5 Month	6 Month
Project Manager						
Solution Architect						
UX Designers						
Full-stack Developers						
Blockchain Developers (Solidity)						
DevOps Engineer						

Conclusion

ValueChain is a single source platform where organizations can record, reconcile and analyze financial and non-financial information to see where their monies being spent and what is a outcome of it. Based on this data, organization can make strategic decisions for coming years which will increase their productivity and efficiency to create measurable roadmaps to achieve organization vision.