sAmya.vedica
Powered by Blockchain & AI/ML

sAmya.vedica – reconciliation platform

OBJECTIVE

To facilitate seamless reconciliation of transactions, financial documents & transaction and account close.

FEATURES

Infrastructure: built on a microservices model with its own infrastructure under Infrastructure as Code, the platform is highly scalable.

Loosely Coupled: architecture is flexible to use existing ETL and reporting tool, if any exist in the organization. It maps microservices to those tools

Deploy: Kubernetes clusters based on-premises or cloud deployment, built for scalability and multi cloud support.

Functions: Uses Advanced SQL, GraphQL, AI/ML to achieve the final goal. Core engine of the platform is highly scalable.

Security: Microservices and underneath infrastructure is secured with API token security concept. All internal connections run on SSL. Infrastructure built to create network separation in a cloud deployment. Enterprise's Identity System can be connected to ensure proper access via role management.

Blockchain integrated: Integrand-chain comes in-built with the platform for managing inter-companies (same group or otherwise) reconciliation by integrating blockchain with Financial and Inventory management system. This prevents the need to do accounts reconciliation as the blockchain works like distributed General-Ledger.

OVERVIEW

Reconciliation has been a legacy problem with almost all organizations, particularly for BFSI and Utilities companies. Data coming from multiple sources need to be reconciled with own applications data or various financial documents related with suppliers and customers need to be in synch to prevent revenue leakages, invoices should be in synch accurately with time & material utilization, etc. Whenever an organization needs to do a monthly or quarterly account close, multiple types of reconciliations are required. Similarly, for e-commerce companies or App-based transaction companies, while reconciliation with collections is critical, at the same time reconciliation with back-end merchants payments is critical too to maintain a healthy business environment. Reconciliation becomes another critical activity for large conglomerates to consolidate their taxes, intra-group inventory transfers and resources billing.

GenX sAmya.Vedica is an AI/ML and Blockchain powered reconciliation platform to resolve all issues related with reconciliation. The platform has a loosely coupled architecture which allows it to use the existing tools running in the organization for data sourcing and reporting. The heart of the platform is a canonical, clean data-set and various AI/ML and heuristics algorithm which matches transactions and throw un-reconciled data and create a business process for manual intervention with an owner from Identity System..
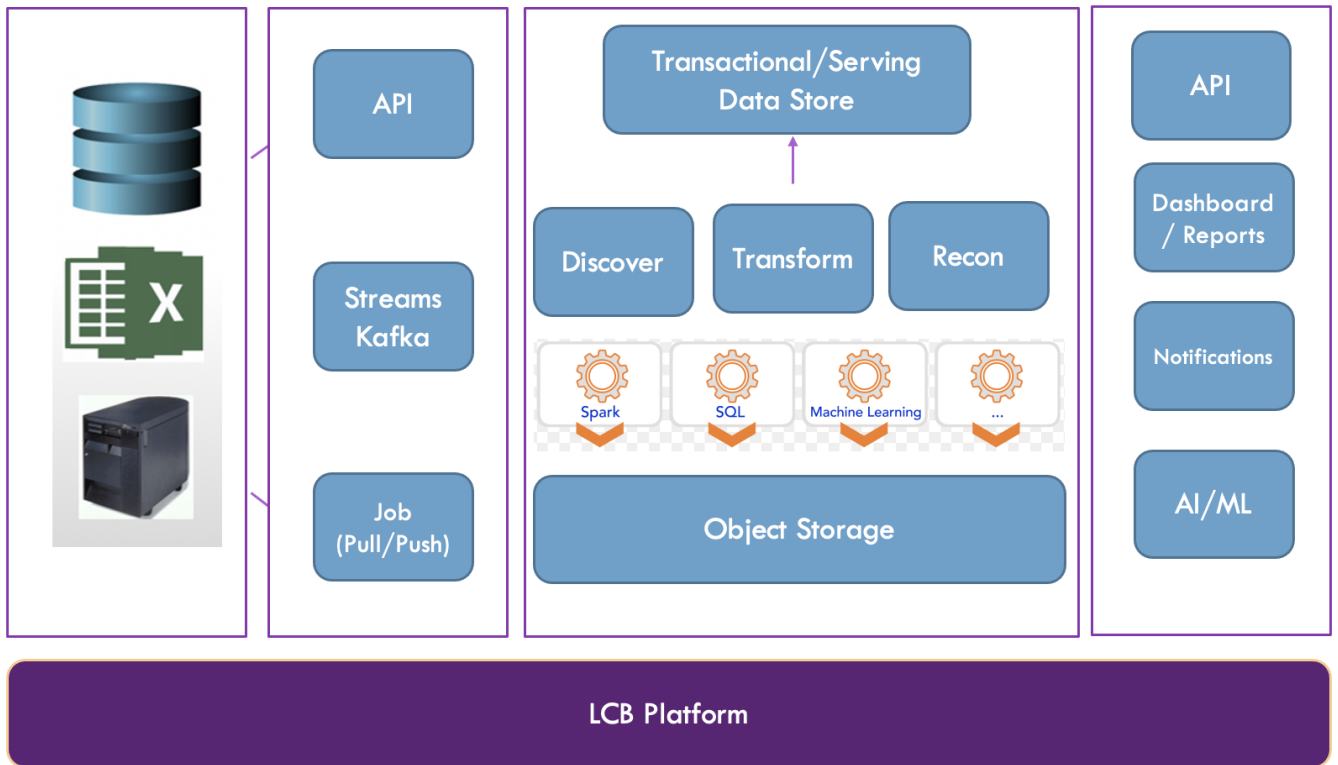
HOW DOES IT HELP

- Data can be sourced from any type of format to bring it to the recon platform. New sources can be identified through Machine Learning.
- Multi-variate Regression analysis along with Neural network are the core algorithms deployed for recon.
- Facilitation of easy deployment of platform as it is bundled with its infrastructure and Docker images.
- Built-in process manager to work on faulty or mismatched transactions.
- Graphical and textual reports are published by the platform with easy understanding of recon.
- Can be integrated with ERP systems to populate "Netting" transactions. Users can use the platform to do automatic accounts close or identify discrepancies.
- Integration of Blockchain with ERP systems can help in creating a distributed general-ledger for subsidiaries of large business conglomerates. In general, this can work in an inter-company settlement of transactions and inventory as well if enterprise ready to expose their Enterprise Applications via APIs.
- Many times invoices presented to customers are wrong as they don't match with dispatch list or actual services delivered. The platform helps in reconciliation to ensure correct invoiceing by integrating with AR system.
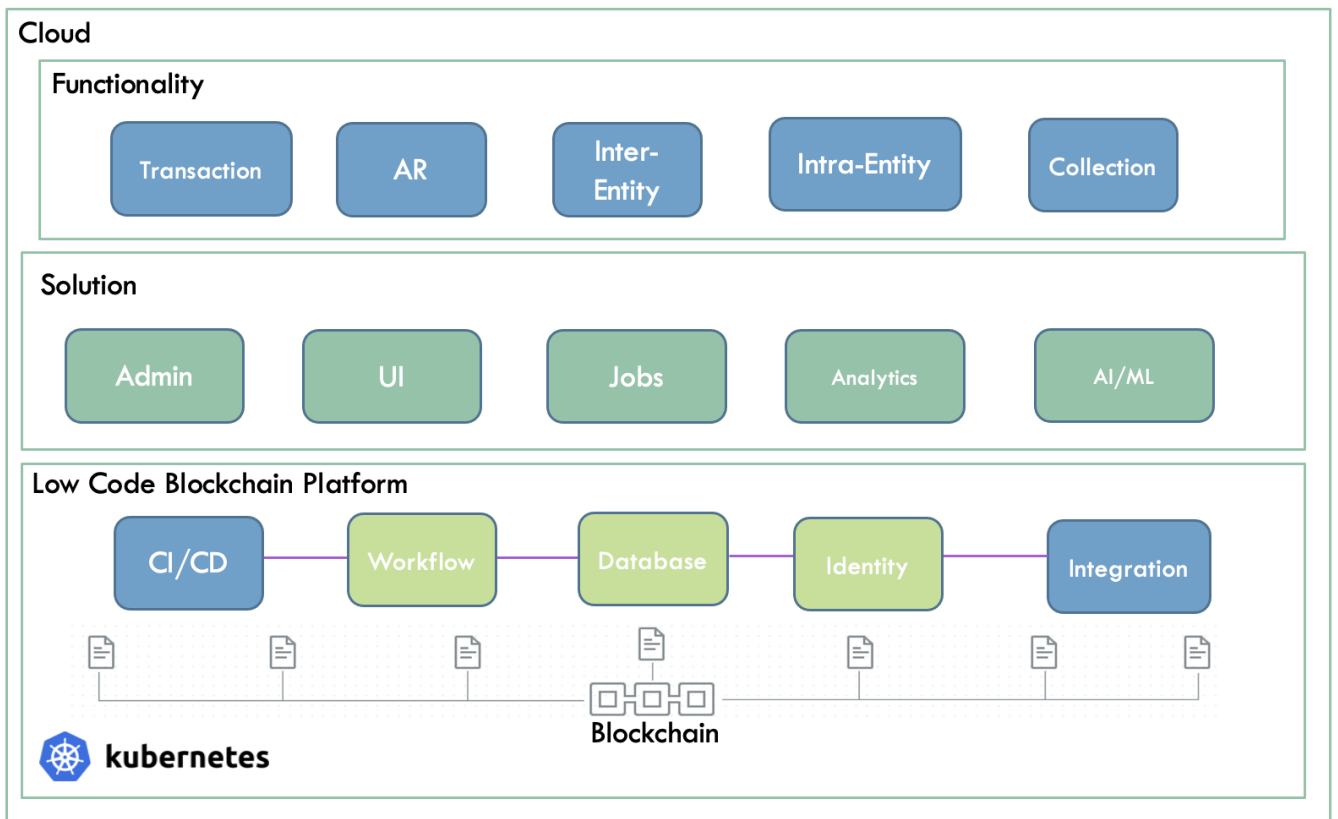
CONTACT

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sAmya.Vedica Architecture

LCB Platform

Deployment View

Above diagram shows the technical design of the reconciliation platform built on integrand's LCM platform which is built on cloud native architecture principals and can be deployed in private data center or public cloud.

Principals
1. Distributed Application
2. Cloud Native
3. Highly scalable
4. Microservices driven.
5. API first

Reconciliation platform is critical for matching and reconciling high scale of transactions or documents to find the mismatch or anomaly detection. Outcome of the reconciled output can be an input to other applications like SAP, Dashboard/reporting or further AI/ML engine to drive intelligence.

Application is built using strategy to abstract out key infrastructure and Platform features. Deployment architecture shows the layered development approach:

- Infrastructure – Core infrastructure like Compute, Storage & Hardware
- Low Code Blockchain Platform – Databases, Kubernetes Cluster, Blockchain network, Smart contracts, Identity, Workflow, Integration service
- Business Specific Microservices – Microservices with business specific functionalities

With our CI/CD, developer productivity is one of the key principals followed to build and deploy the application which would fasten the development of business specific microservices as well.

About Integrand

Integrand is a product development company. Integrand envisages application of AI/ML and Blockchain Technology across various business use cases. Primarily, Integrand is focused on (a) a low code blockchain platform called "integrand-chain" and various materialization of this product under SaaS model, and (b) an AI/ML based product called sAmya.Vedica which can be deployed for solving critical business cases like reconciliation, forecasting, predictive analytics and NLP.

Healthcare, land tokenization, education records, contracts management etc., are all parts of Government operations where "integrand-chain" would help in storing records in the most trusted and secured way. sAmya.Vedica AI/ML platform would be helpful for utilities, enterprises, medical and healthcare organizations with their respective business cases in data/transactions reconciliation and in extracting intelligence from humongous data that these organizations manage.

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