CUSTOMER SUCCESS OVERVIEW

MULTI-DIMENSIONAL SECURITY

Architected and implemented a solution that addressed every aspect of security required for a blockchain-based supplier information platform & network

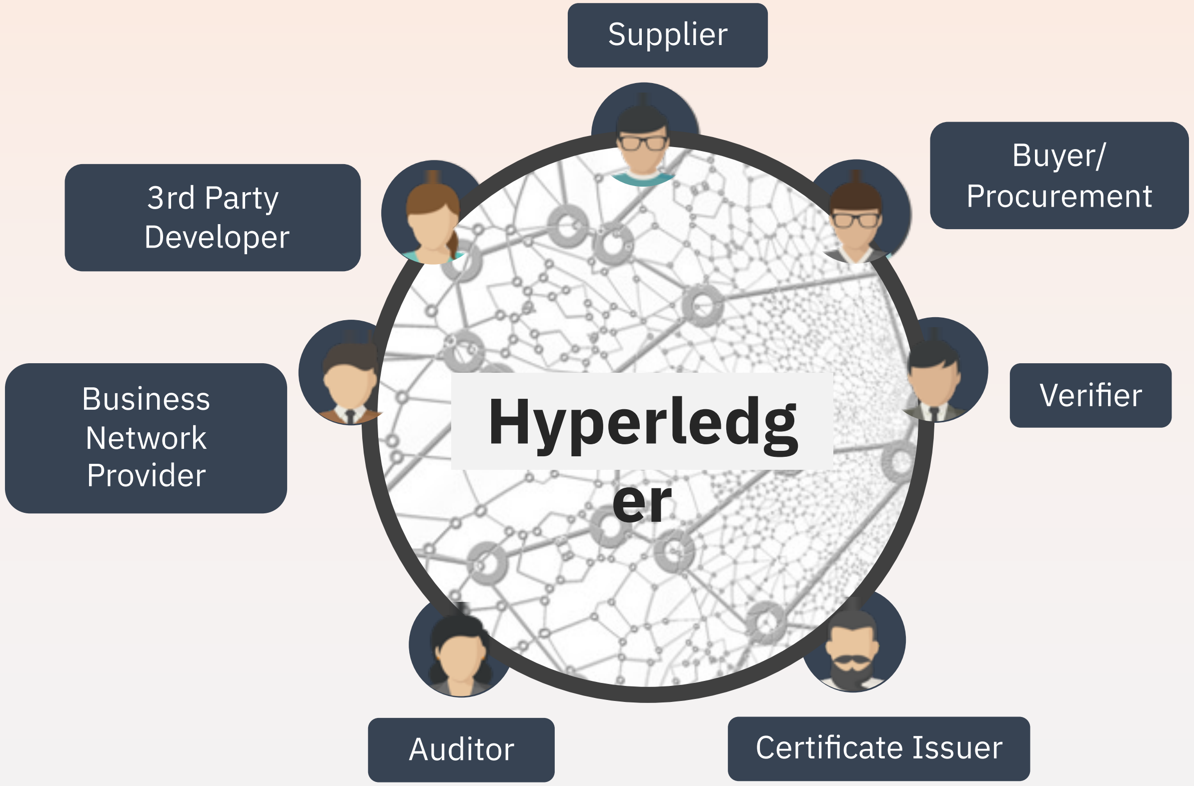
CONTEXT

Client: Technology Solutions Provider

Platform for which security solutions needs to be implemented

BLOCKCHAIN-BASED SUPPLIER INFORMATION MANAGEMENT

A trusted source of supplier information and digital identity that simplifies & accelerates supplier onboarding and lifecycle management



Supplier

Buyer/ Procurement

Verifier

Certificate Issuer

Auditor

Business Network Provider

3rd Party Developer

**Hyperledg
er**

KEY REQUIREMENTS

Design a scalable, extensible, and reliable security solution

Implement data, app, physical, system, and network security

Comply to industry standard security certifications

Adherence to country-specific regulations

SOLUTION – OUR ROLE

End-to-end responsibility from architecture & design to development & rollout of security solutions for the multi-org platform and the consortium network.

Leveraged our deep understanding & experience in technology, blockchain, enterprise & cyber security, global compliance needs, and modern engineering practices.

SOLUTION – SECURITY AREAS OF FOCUS

ARCHITECTURE FOUNDATION

BLOCKCHAIN TECHNOLOGY

DATA PRIVACY

COMPONENTS COMMUNICATION

ORGANIZATION & PEERS

DATABASE SECURITY

KEYS MANAGEMENT

NETWORK SECURITY

DDoS PREVENTION

ACCESS MANAGEMENT

CHAINYARD

SOLUTION – SECURITY KEY COMPONENTS

ARCHITECTURE FOUNDATION

- Multi-Zone, Multi-Region
- IBM Platform, Open-Source
- Regulations, Compliance
- Fail-safe (N/w, Component)
- Scalability, Reliability

BLOCKCHAIN TECHNOLOGY

- Cryptographic Chain
- Transactions Validation
- Distributed Ledger
- Permissioned Network
- Smart Contracts

DATA PRIVACY

- PII Data Protection
- Physical, Network, System
- IAM, MFA,
- GDPR, CCPA, HIPAA, SOX
- PCI-DSS, SOC 1 & 2

COMPONENTS COMMUNICATION

- HTTPS
- TLS
- gRPC

ORGANIZATION & PEERS

- Cloud account for Org
- Kubernetes Cluster
- No Inter-Org Cluster Access
- IP range whitelisting
- API-based communication

DATABASE SECURITY

- Data Encryption at Rest
- Data Encryption - TLS
- Data Service
- Keys Service
- Data Consumer Keys

KEYS MANAGEMENT

- Key & Certificates
- generated by
- Hyperledger Fabric-CA
- Elliptic Curve (ECDSA)

NETWORK SECURITY

- Cloud Service & Rules
- Securing the Ports
- Instance Hardening
- Malware Detection
- Intrusion Detection

DDoS PREVENTION

- Webapp Firewall
- Max Logins
- Max Requests / unit / time
- Traffic to specific ports
- Filters on ports

ACCESS MANAGEMENT

- Roles
- Environments
- Access Permissions
- Prod – Addtl. Security,
- Prod – Masking for Testing

SOLUTION HIGHLIGHTS

COMPLEX ENGINEERING

Security needs to be ensured across a number of components and moving parts while catering to scalability, performance, and reliability

MULTI-ORG NETWORK

Not just a multi-tenant application but a blockchain network based multi-org solution making it complex to implement security

GLOBAL SCOPE

Adherence to a variety of security regulations & requirements across the countries and the need to segment infra

COMPLIANCE CERTIFICATIONS

PLATFORM USAGE KEY STATS (PROJECTED)

36+

BUYERS

5K+

SUPPLIERS

70+

COUNTRIES

Note: *Data is indicative and are projections made for 2021/22*

CHAINYARD

Customer Success Briefs

THANK YOU

DevOps & Cloud