

BlockchainConnect

Securing the connected digital data



Introduction

Blockchain is no longer just a niche technology used primarily in financial services. It is now making its way into many different industries and will continue to do so in the coming years. A protocol for creating decentralised, persistent, immutable and encrypted database of transactions across a peer-to-peer network, blockchain assumes an electronic environment of trusted and untrusted nodes to operate across an untrusted network.

At its heart, blockchain is a self-sustaining, peer-to-peer distributed shared digital ledger technology for managing and recording transactions without trusted intermediaries. Participants of the blockchain are relatively anonymous, and every transaction protected by sophisticated cryptography (SHA-256) that is deemed practically unbreakable. It is designed to protect against domination of the network by any single computer or group of computers, acting as a loosely-coupled network. Moreover, the protocol enforces that every core transaction is processed just once. Its verification is handled through algorithms and consensus among multiple independent computers participating in the ecosystem. Given these considerations, it is thus presumed to be immuned to tampering, fraud, or political control. In effect, blockchain technology has provided a means to transmit digital “value” across any adversarial environment.

NCS BlockchainConnect as a platform can be used in industries and operations which requires proof of digital identity – person, device or sensors; proof of ownership; long-running immutable registry; or non-repudiable transaction. Extended application of NCS BlockchainConnect Concept includes automated execution based on pre-agreed contractual terms (Smart contracts). NCS BlockchainConnect Applications and Integrations are bundled offerings that leverage aspects of the Blockchain Middle Ware and the Blockchain Infrastructure.

Challenges

- Real-time monitoring to prevent data loss, monitoring changes to state, access, custody and identity
- Real-time distribution of data on a Federated Consensus Network
- Data loss of important digital assets thus compromising, assure the integrity of the data & networks and verification of behaviors across service providers

Solutions

It features:

- BlockchainConnect Core
- BC/OS: BlockchainConnect Operating System
- BlockchainConnect Middleware
- Blockchain Application Eco-system

Benefits

- Attribution
- Exabyte - scale integrity
- Auditability
- Real-time monitoring
- Integration and interoperability
- Empowering users
- High quality data
- Durability, Reliability and longevity
- Press integrity

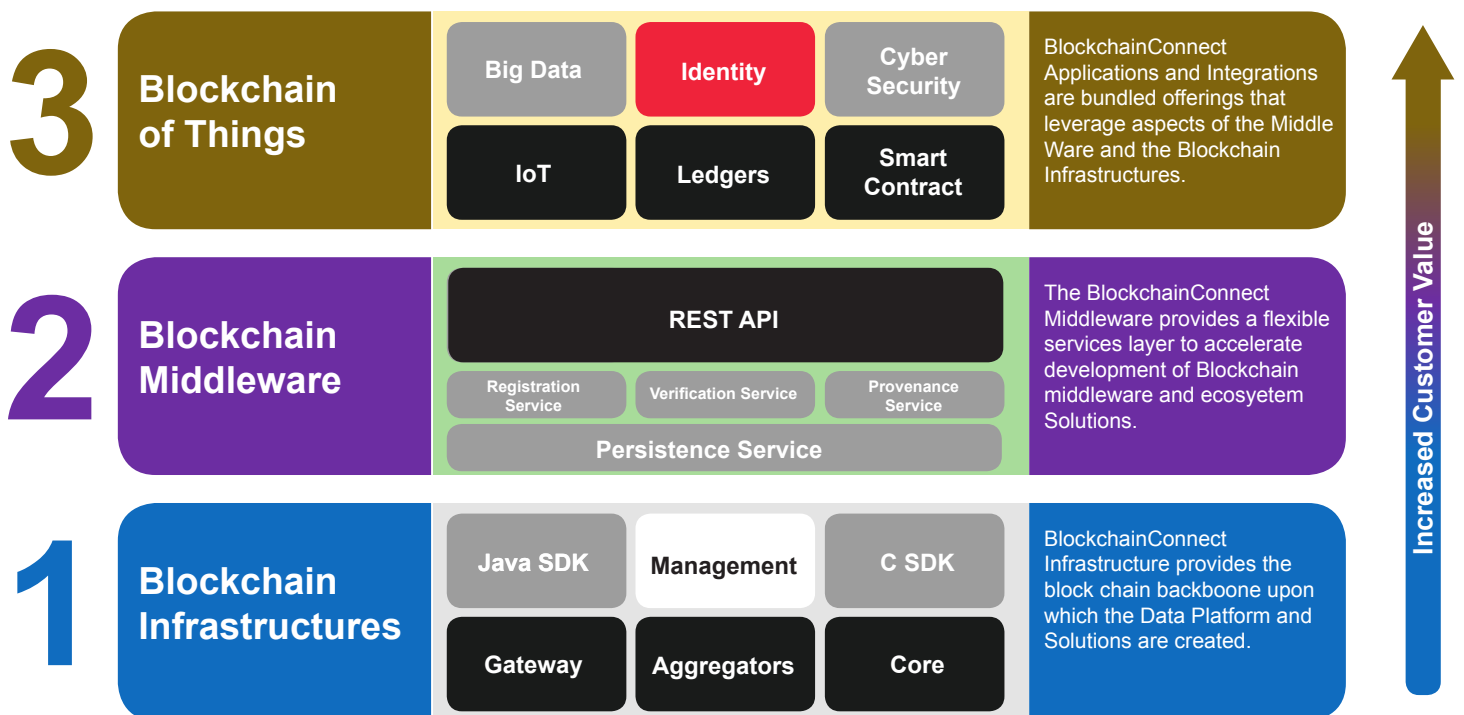
How it works

BlockchainConnect Infrastructure provides the block chain backbone upon which the Data Platform and Solutions are created. The BlockchainConnect Middleware provides a flexible services layer to accelerate development of blockchain middleware and ecosystem solutions. BlockchainConnect Applications and Integrations are bundled offerings that leverage aspects of the Middle-Ware and the Blockchain Infrastructure.

- Attribution**
 Prevents data loss of important digital assets, assures the integrity of the data & networks and verifies behaviors across service providers
- Exabyte-scale Integrity**
 Independent verification for the absence of compromise in systems, networks, devices and data
- Auditability**
 Indemnification for organisations as there is independent mathematical audit trail for what happened when across all networks and devices

- Monitoring**
 Real-time monitoring to prevent data loss, changes to state, access, custody and identity
- Integration and interoperability**
 Leverage existing investments in security and network infrastructure
- Empowering users**
 Users are in control of all their information and transactions
- High quality data**
 Blockchain data is complete, consistent, timely, accurate, and widely available
- Durability, reliability, and longevity**
 Due to the decentralised networks, blockchain does not have a central point of failure and is able to withstand malicious attacks better
- Process integrity**
 Users can trust that transactions will be executed exactly as the protocol commands, thus removing the need for a trusted third party

NCS BlockchainConnect



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