

# **Blockchain Based Compliance Management System**

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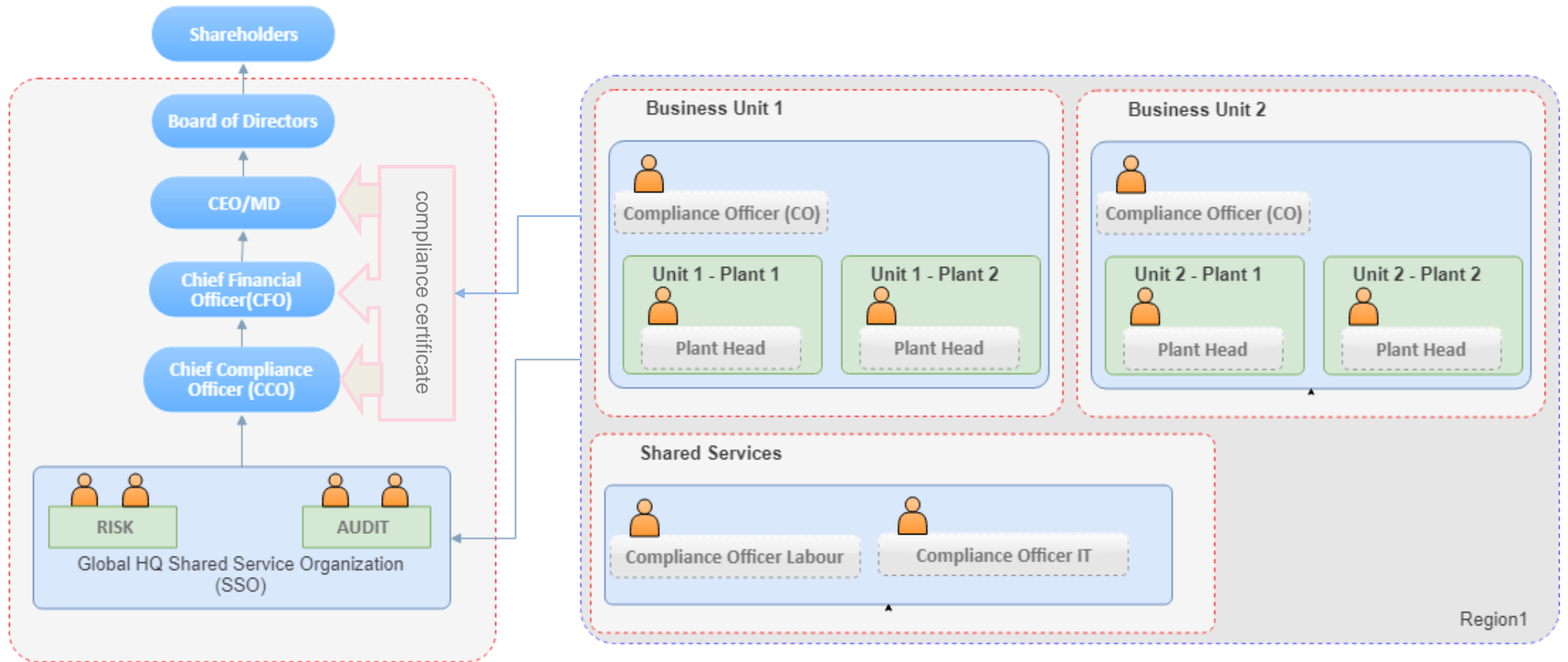
**Certified Blockchain Developer and Expert**

# Agenda

1. Compliance organizational structure
2. Traditional compliance management process
3. Reconciliation the forefront
4. What, why and how blockchain for compliance management
5. Blockchain application in compliance management
6. Blockchain system design

# ***1. Compliance Organizational Structure***

# Compliance Organizational Structure



## ***2. Traditional Compliance Management Process***

# *Traditional Compliance Management Process*

1. The current compliance process varies quite a bit among the counterparties and entities involved as all don't use the same process or technology.
2. Due to various sources of data there are chances for mismatch, missing information and timely available of complete data.
3. To safeguard the integrity of data throughout an organization, the end-to-end workflow of data transformation, complex integrations, customized reconciliation processes is a activity high on the agenda within the industry.

### ***3. Reconciliation the Forefront***

# *Reconciliation the Forefront of Regulatory Compliance Procedures*

How can firms ensure quality data is being captured and reported?

How can firms Reduce the risk of regulatory scrutiny as a result of erroneous data?

How to protect data integrity across all compliance lifecycle stages?



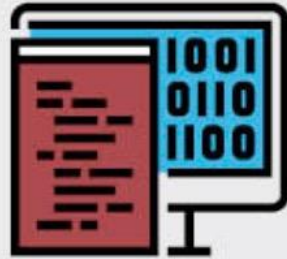
## ***4. What, Why and How Blockchain for Compliance Management ?***

# Blockchain Technology

## WHAT IS BLOCKCHAIN TECHNOLOGY?



A digital ledger that keeps a record of all transactions taking place on a peer-to-peer network



All information transferred via blockchain is encrypted and every occurrence recorded, meaning it cannot be altered



It is decentralised, so there's no need for any central, certifying authority



It can be used for much more than the transfer of currency; contracts, records and other kinds of data can be shared



Encrypted information can be shared across multiple providers without risk of a privacy breach

# *Blockchain Concept*

Blockchain technology is based on the following concepts-

1. Hashing
2. Digital Signature
3. Block in a Blockchain with mining process
4. A Chain of Blocks
5. A Distributed Chain of Blocks

# *Blockchain advantage over Traditional Technology*

1. Trustless
2. Confidentiality
3. Fault tolerance
4. Availability
5. Verifiability & Auditability

## ***5. Blockchain Application in Compliance Management***

# ***Blockchain Application in Compliance Management***

## **Blockchain Unlocks Huge Benefits Of Reconciliation**

- Using Blockchain, the participants can work in real time on shared common datasets.

## **Regulatory Compliance Record Management**

- Enabling secure compliance management & offer better visibility to regulators with lesser efforts.

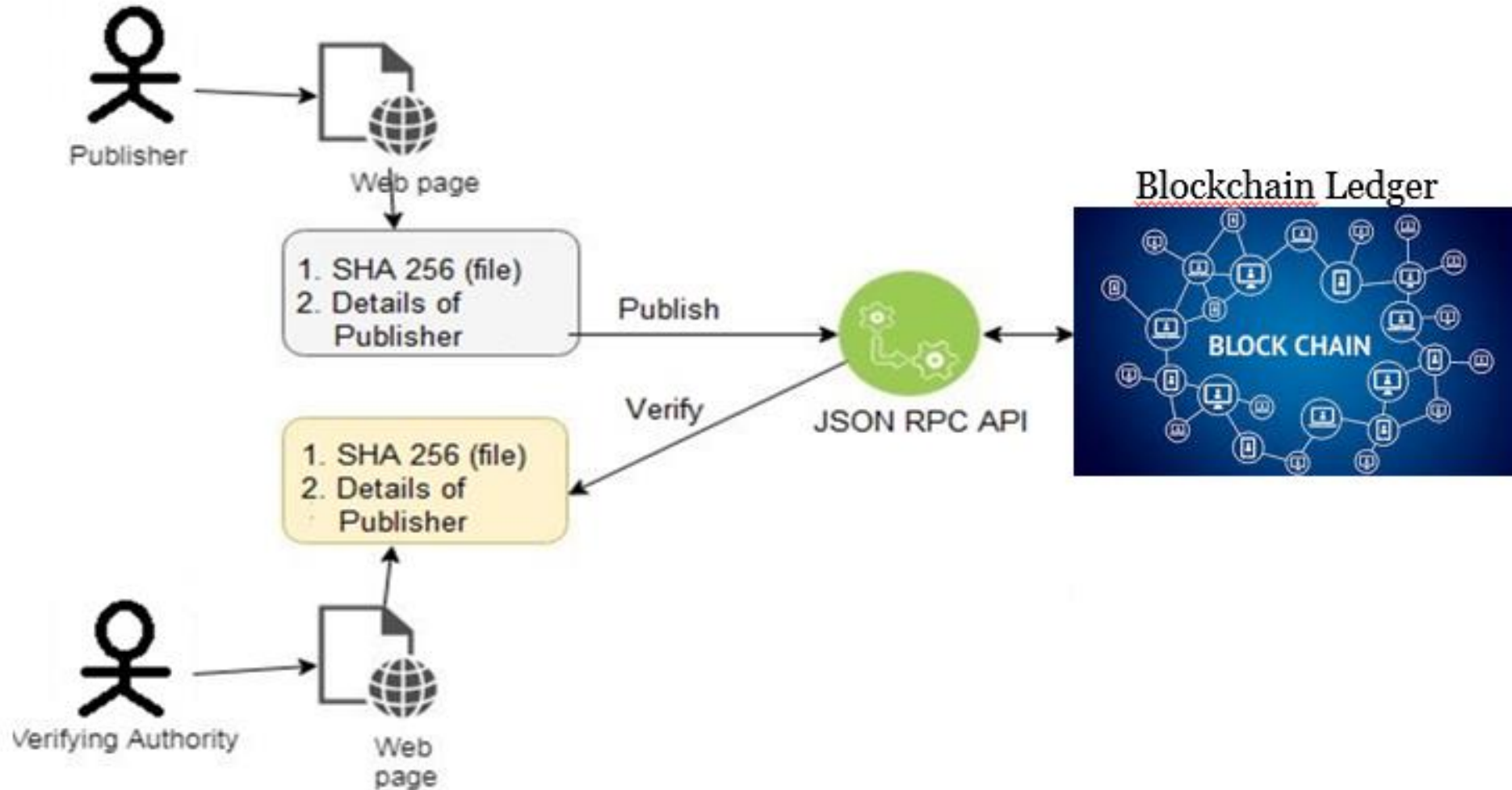
## **Regulatory Governance Improvement**

- Create auditable records of any action of users/applications/servers with provenance & non-repudiation.

## **Regulatory Data Security**

- Most secure system for maintaining and sharing critical & sensitive data internally & externally

# Regulatory Compliance Record Management



# Regulatory Governance Audit History

Compliance Task Data	Hash Data of Compliance	Compliance Data	
Original Source	Verified Proof	Compliance Data	Attachments
<b>Hash of data</b>	Hash Submitted on: 01-02-2018 11:20:35 IST	[ { "_id": "5b950a3171733599697fe419", "index": 0, "guid": "8096bf38-a7b6-421f-8aa5-14b4a0730904", "isActive": false, "ActAuthority": 1003, "ACTLawtype": "IR", "ComplianceAlert": "yes", "ComplianceEntry": "Retail" [ {"compliedDate": "10-09-2017", "DueDate": "20-09-2017", "createdby": "RetailUserbase10", "Approvalstatus": 1, "ApprovalComment": "OK", "ApprovalBy": "SSOCCRetailGroupR1" }], "ComplianceTimeExtension": 05, "Calculatedduedate": "15-09-2017", "ComplianceUploadDocument": "Yes", "uploadpath": "hostentryinMCMC", "MapperActSection": "section256A", "MapperComplianceEvent": "LabourESIC", } ]	0c86843bebad0ff49b531abf59fa7fd4f9be0ae6d24848f2f1c7db648a1eee3a
0efb96b5cdb5d2f696d19f3d8c7c426dbc2384e1116e824344815150e146d80	Hash of data		
<b>Host Node</b> <a href="https://250.65.155.165">https://250.65.155.165</a>	0efb96b5cdb5d2f696d19f3d8c7c426dbc2384e1116e824344815150e146d80 Hash of Host		
Hash of Host	a5bf56f6d6d46815ae3b7fcd b0407673030c44b54d07a57fc4dec85a732f9c10		
a5bf56f6d6d46815ae3b7fcd b0407673030c44b54d07a57fc4dec85a732f9c10	Result		
<b>User</b> ashish.jadhav	Verified Yes		
11351a532935a134fbc6aaea7e6bbd3a0c2d394e4cc66fc53848fcd784c252f2	Block Id		
	675436		<b>Block ID of transaction</b>

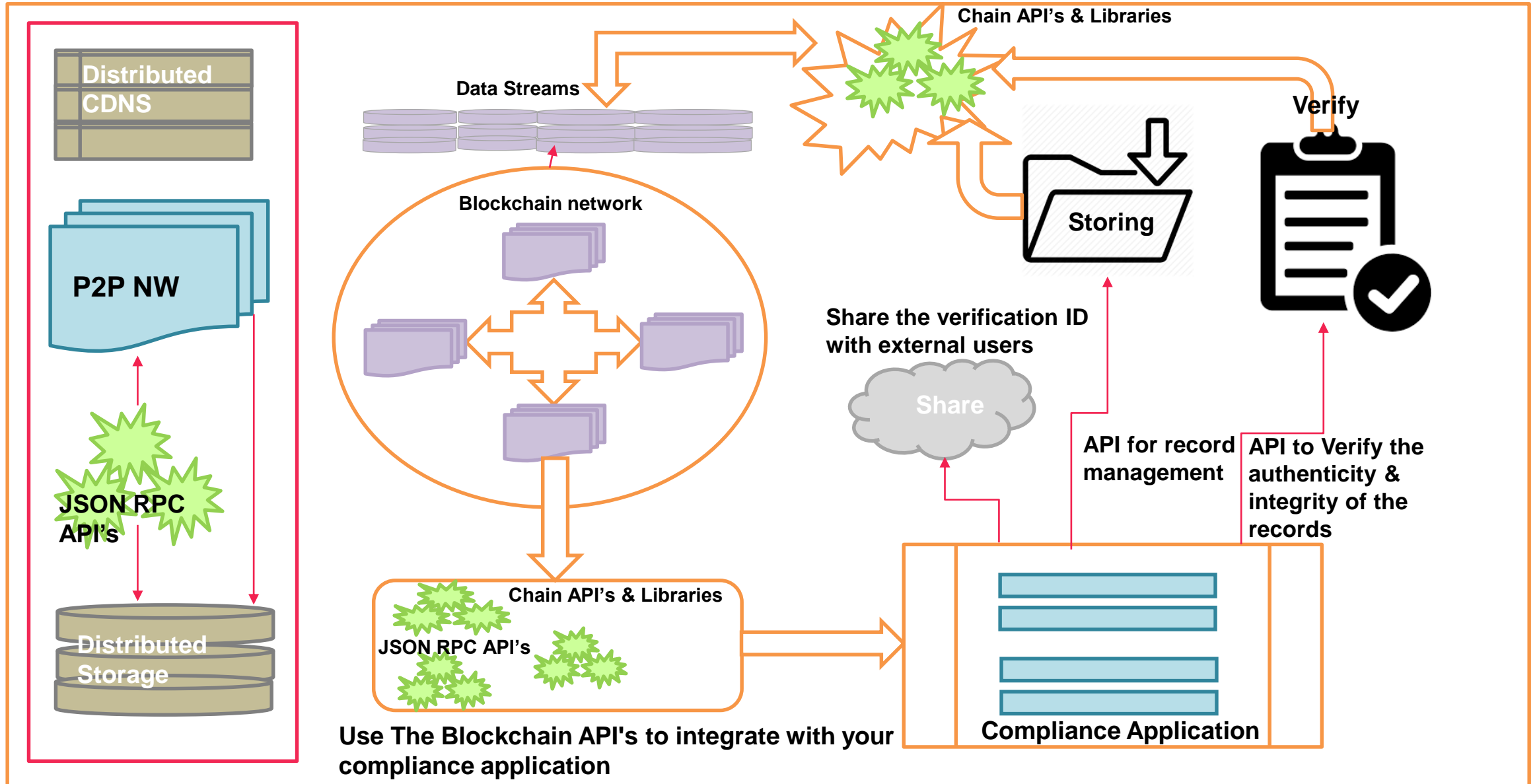


***6. How did we Implement the blockchain system design for compliance platform?***

# *Blockchain System Design*

1. Deployment of private blockchains
2. Permissioned Blockchain at the network level
3. “Handshaking” process
4. Data Streams
5. Native Assets
6. Mining and Block Signatures
7. Blockchain Explorer
8. JSON RPC API's

# System Flow



# *Thank You*

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