

HYPERHACK 2024

HH24_030

Blockchain based National Scholarship Portal (NSP)

BlockNSP

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About National Scholarship Portal



- One-stop portal for Indian students to apply for scholarships
- Covers both state and the central government scholarships
- Part of Digital India initiative and the National e-Governance Plan
- Applications received are processed, verified, sanctioned and disbursed to students.
- Aims to reduce discrepancies in fund disbursement
- Current website : <https://scholarships.gov.in/home>
- Statistics :

135.17 Lakhs



Total Applications

33.95 Lakhs



Verified Applications

1824.21 Crores



Amount Disbursed

150



Total Schemes

Problem Statement

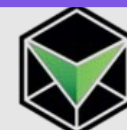
To address the challenges in the existing Scholarship Disbursement in India via NSP

Current National Scholarship Portal

- Partially automated system.
- Redundant paperwork
- Restricted to Government scholarships
- Application process complexity
- Restricted to one scholarship at a time.
- Lack of integration with DigiLocker.
- Lack of transparency in decision making.

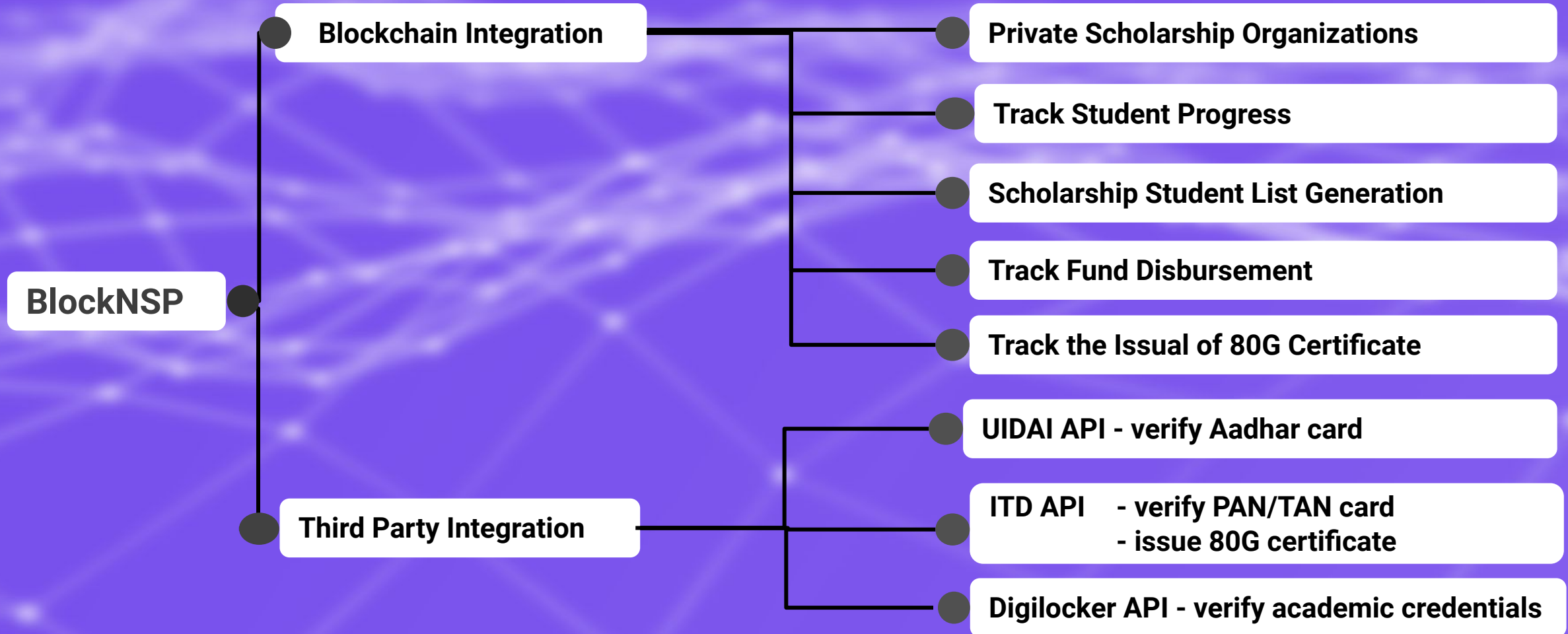
- Decentralized Scholarship announcements.
- Searching delay
- Manual Verifications
 - Risk of errors and fraud.
 - Leads to delays
- Complex Application Process
 - Lower participation rates.
 - Discourage students

Current Private Scholarship Organisation



Proposed Solution

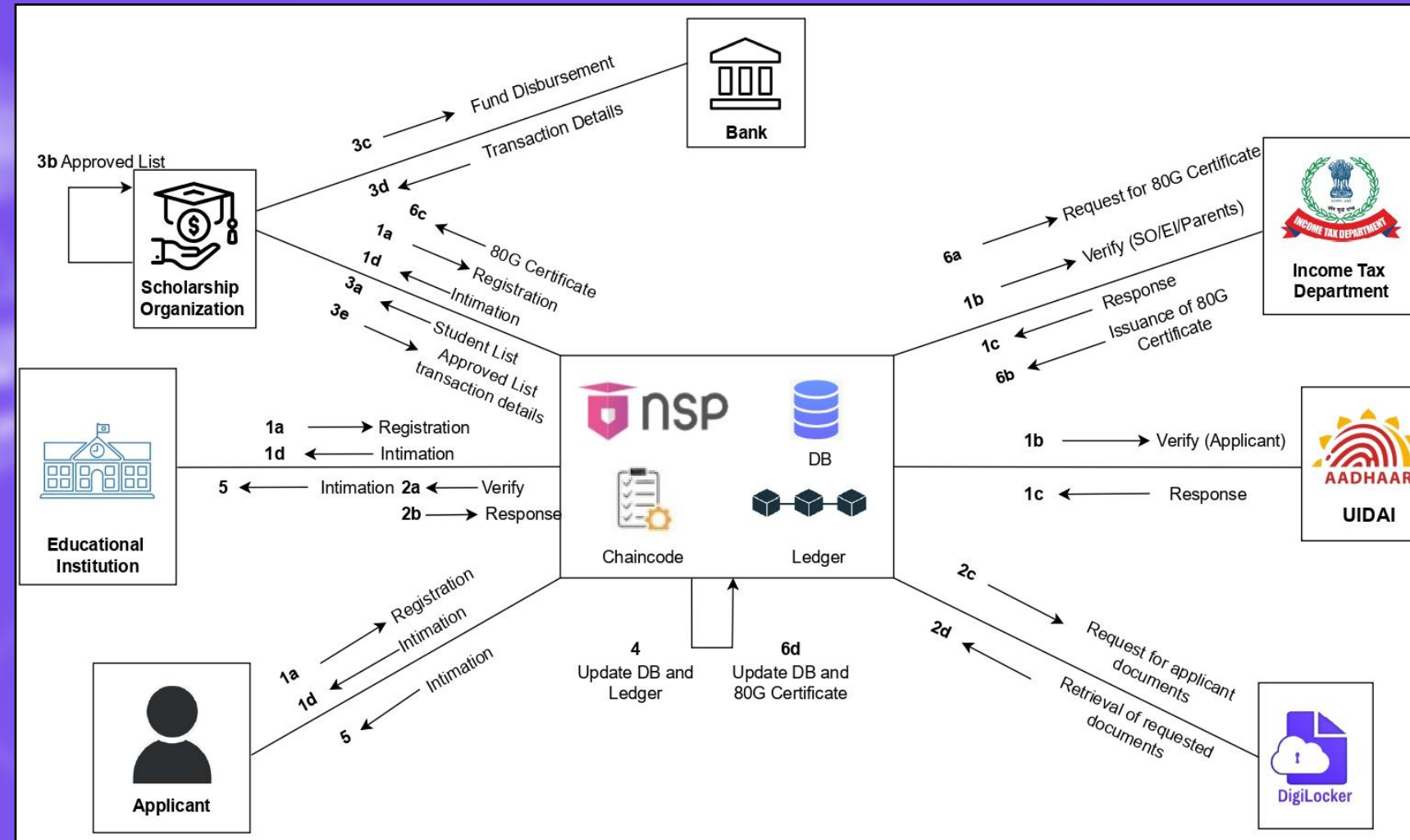
Incorporate Blockchain based fund Disbursement in National Scholarship Portal (NSP)



Process Flow

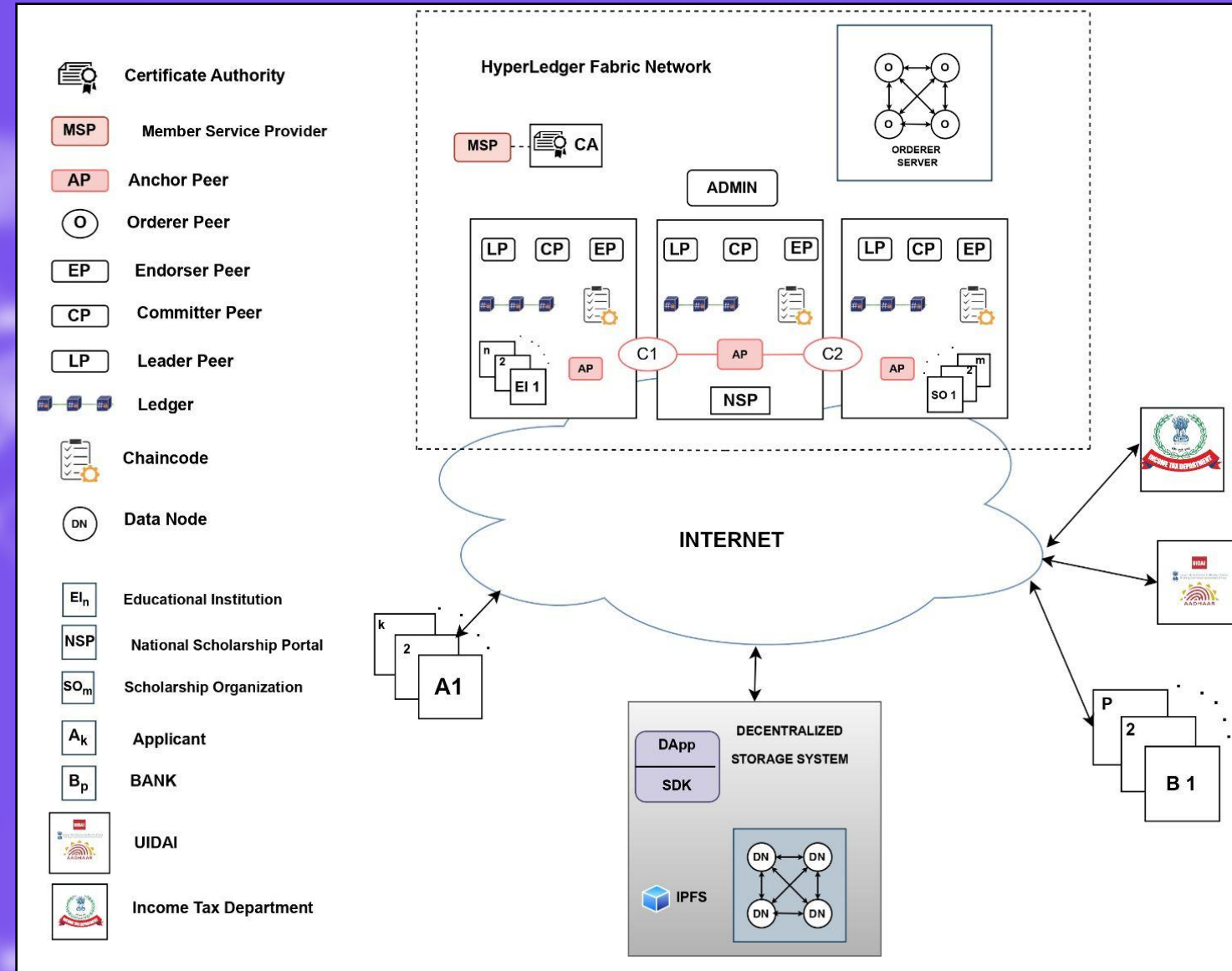
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1. Stakeholder Registration and Verification via UIDAI and ITD APIs
2. Academic Verification via DigiLocker
3. Student List Approval and Fund disbursement via Banks
4. Track Fund Transfer
5. Intimate transaction details to Stakeholders
6. Initiate 80G Certificate Generation



Solution Architecture

- Hyperledger Fabric v2.4
- Organizations in the HFN
 - National Scholarship Portal (NSP)
 - Education Institution (EI)
 - Scholarship Organization (SO)
- Organizations maintain a copy of
 - Ledger
 - Chaincode
- HFN has 2 channels
 - C1 : NSP and EI
 - C2 : NSP and SO
- HFN provides Orderer Service
- Decentralized Storage via IPFS



Solution Uniqueness

Blockchain based National Scholarship Portal

- Centralized Portal
 - for Government & Private Scholarships.
- Fool-Proof verification via Third Party Integration
- Issual of 80G certificate via IT Department
- Track the student progress throughout the studies
- Full tuition fee coverage via eligibility-based scholarships.
- Reduces time delay in Verification & Fund Transfer

2 - 3 months



2 weeks

Solution Benefits

**Hyperledger Fabric
in the
proposed solution**

- Immutable Ledger offers
 - Data Security
 - Transparent Fund Disbursement
 - Ensure Accountability
- Smart contracts ensures Process Automation for
 - Document Verification
 - Student List Generation
 - Track Fund Transfer
 - Stakeholder Intimation
 - Issual of 80G Certificate
 - Ledger updation

Demo Video

- YouTube Link : <https://youtu.be/UsxJwS-7ASI>
- Github repo Link : <https://github.com/LifnaJos/HyperHack2024-BlockNSP>
- Solution is in progress.

Future Roadmap

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