

Digital Strategy for Public Infrastructure: India's Experience

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15th September, 2023



Digital Progress must be Human-Centric



The Internet is a global public good but...

It lacks:

- verifiable identity
- native real-time transfer of value (like money)
- individual-control of data



India has built public goods,







Signature, Consent & Trust

> Account **Aggregator** Financial data standards

Data,

Credential

s & AI/ML

Models

Personal Health Records

DigiLocker Single app for



Discovery & Fulfilment

eCommerce

Mobility & Transport

Open Tax APIS

known as DPIs

Verifiable Identity & Registries

Aadhaar Authentication & eKYC

Health **Facility** Registry

GSTN Business ID **G2P** Direct Benefit Transfer **G2P Payments**

Mobile based

UPI Real Time,

HCX

Bharat Bill Pav Pay any bill using any app

Aadhaar eSign Sign any document on mobile

PKI/Digital Signature Make documents tamper proof

Consent Artefact Electronic std For consent

Governance has been embedded into the Laws, Institutions, & Technology



Regulators can Regulate, Innovators can Innovate

Core societal and government needs

Access

Affordability

Choice

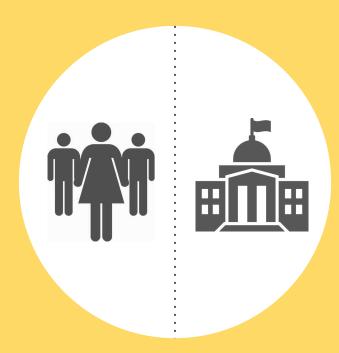
Equity

Opportunity

Agency

Privacy

Trust



Sovereignty

Inclusion

Economy

Productivity

Innovation

Competition

Governance

Security

That's why we build (physical) public infrastructure













But, societies are fast going digital

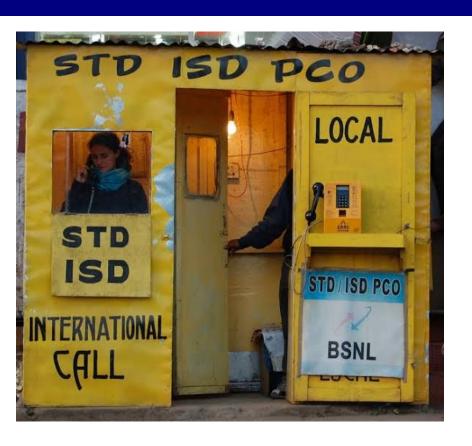


While technology is a great leveller, how do we ensure choice, access, and equity while ensuring competition, innovation, and sovereignty?

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Investing in Digital Public Infrastructure is key

India in 2008





Ambitious Socio-Economic Reform Agenda using Technology



From
Portals
to
Platforms

Aadhaar



Institution (NIU)

Unique Identification Authority of India (UIDAI)



Legal

Aadhaar Act, 2016

Rules & Regulations by UIDAI

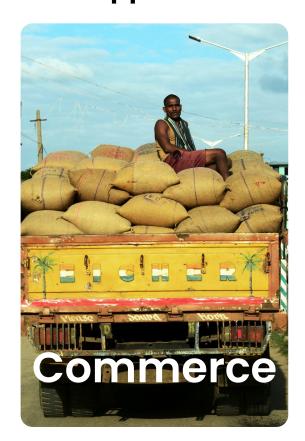
Technology

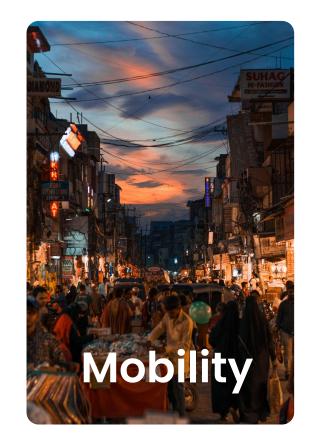
- Privacy-Preserving 12 Digital Unique Identifier
- Online Authentication & KYC through Standard APIs
- ✓ Offline Decentralised Authentication & KYC
- Certified Ecosystem of Multiple Participants (Enrollment Agencies, Device Providers, etc)



Societal Challenges requires refinement of the platform-centric approach







From Platforms to Protocols

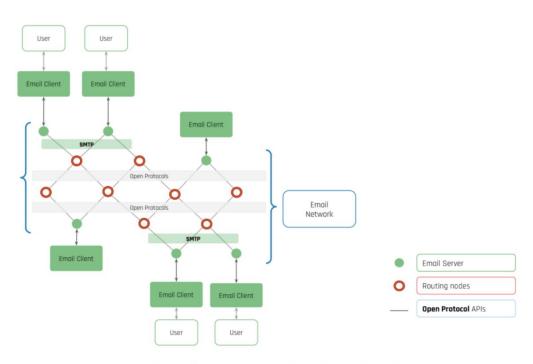


Fig. 3. Email as an example of an Open Network

Unified Payments Interface (UPI)



Institution (NIU)

National Payments Corporation of India (NPCI)



Legal

Regulated by Central Bank (RBI)

Prevention of Money Laundering Act (PMLA, 2002) for KYC

Payment and Settlement Systems Act, 2007

Technology

- Open Protocol for Digital
 Payments from any store of
 value (Bank Account, Wallet,
 Credit Card)
- ✓ P2P, P2M, G2P, any type of transaction with limits
- Certified Ecosystem of Multiple Participants (Unbundling of Liability)



50+ Mn

Acceptance Points

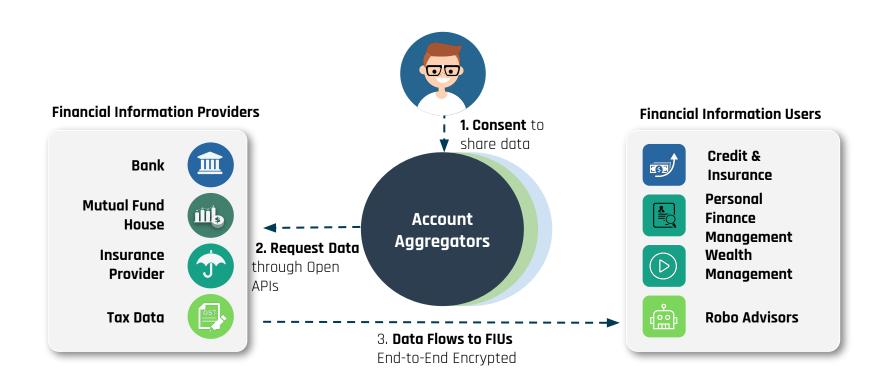
300+ Mn

users

9.9+ Bn txns/month

Account Aggregator

Part of India's Data Empowerment & Protection Architecture



Three Pillars of Governance for Data Empowerment

Multi-Sector, Multi-Provider approach



Consent Standard

APIs for Trusted
Data Sharing



DPDP Act, 2023

Sectoral
Regulations by
Sectoral
Regulators (DPB, RBI,
SEBI, PFRDA, IRDAI, MoF,
and beyond!)



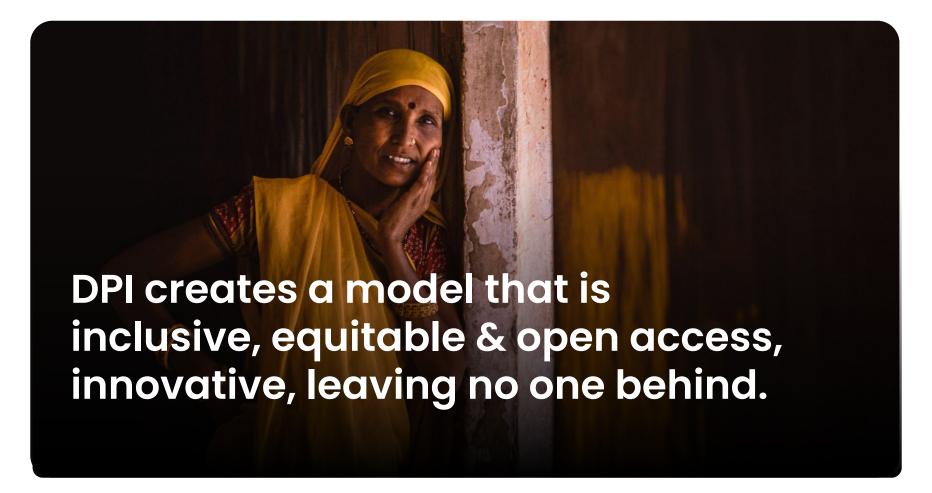
Consent Managers
(RBI-Regulated
Account
Aggregators)

Sahamati

Account Aggregator is NOT a government run central data sharing platform

It is a DPI that powers a diverse private data innovation ecosystem of 390+ Financial Institutions across sectors!







Thank You!

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