



Digital India : JAM and India Technology Stack

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Digital India
Power To Empower

A Mission to transform India into an empowered society and digital economy

Vision of Digital India



Digital Infrastructure as a utility to every citizen



Governance and Services on Demand



Digital Empowerment of citizens

Nine Pillars of Digital India

1.
Broadband
Highways

2.
Universal Access to
Mobile
Connectivity

3.
Public Internet Access
Programme

4.
e-Governance –
Reforming Government
through Technology

5.
eKranti -
Electronic delivery
of services

6.
Information
for All

7.
Electronics
Manufacturing

8.
IT for Jobs

9.
Early Harvest
Programmes

JAM Trinity

Jan-Dhan

- A massive program of Financial Inclusion
- More than 300 million bank accounts opened

Aadhaar

- Digital-online ID Infrastructure
- 1.2 billion IDs issued
- Unique, online and Authenticable

Mobile

- Tool to access internet and service delivery
- More than a billion mobile phones in India
- Lowest tariffs in the world

Pradhan Mantri Jan Dhan Yojana

313.4 Million beneficiaries banked so far

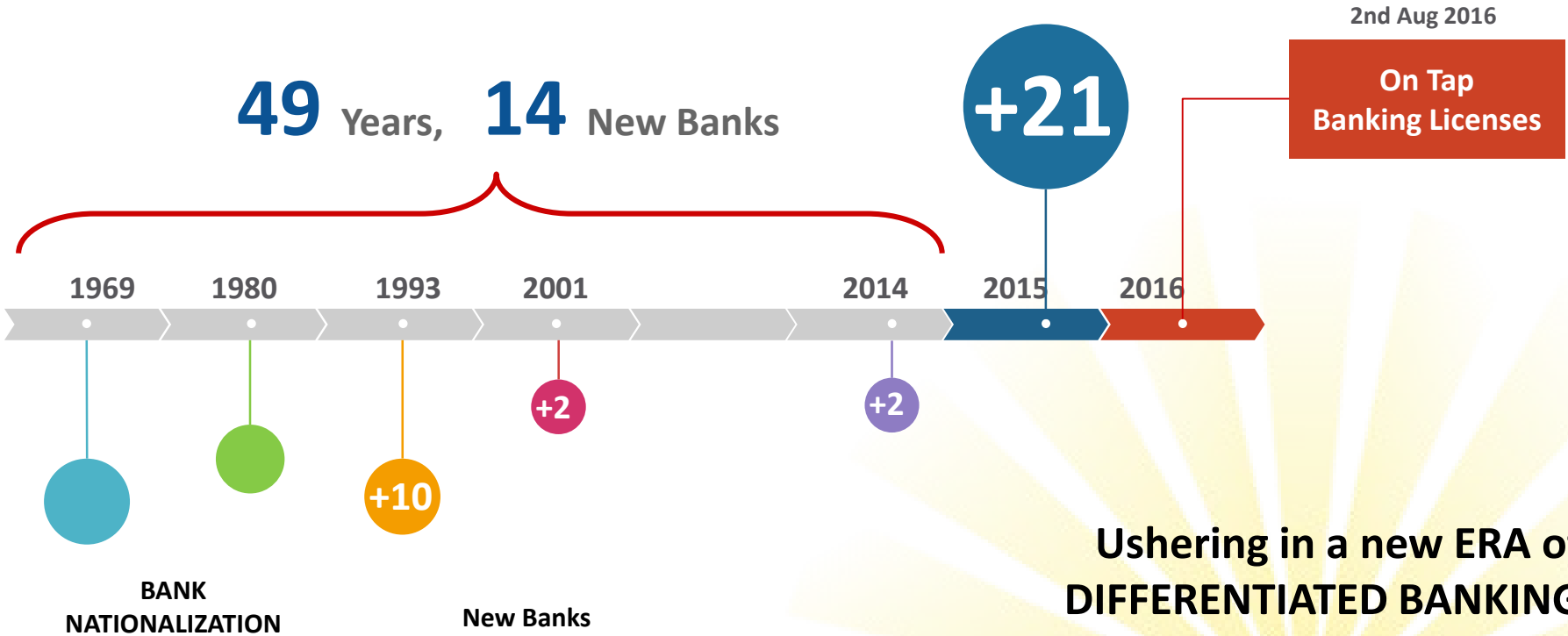
₹ 765.8 Billion balance in beneficiary accounts

**126 Thousand Bank Mitras delivering branchless
Banking services in Sub-service Areas**

And Counting...

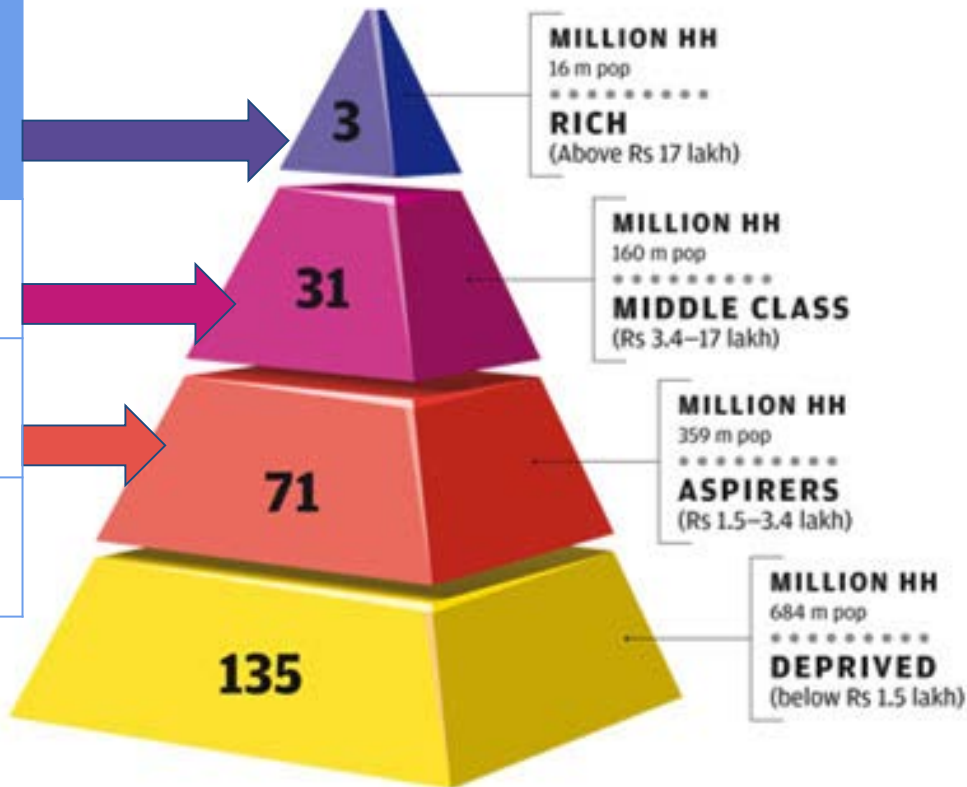
Accelerated by Regulatory Innovation

49 Years, 14 New Banks



Access, Cost and inter-operability are the key factors to take Jan-Dhan forward

Onboarding Cost	Break Even Investment	Target Market Size
Rs 1500	Rs 300,000	3M Households
Rs 100	Rs 20,000	34M Households
Rs 10	Rs 2,000	105M Households





AADHAAR

Aadhaar: Context for the Digital Identity Infrastructure

Provision of a robust, reusable ID to those who do not have any formal ID document



To clean up existing databases from ghosts and duplicates



Improve Targeting and Delivery of Services



Reduce cost of Delivery of Services

Name
DoB/Age
Gender
Address
Mobile/Email



1234 5678 9012



**Unique
Lifetime**



Features of Aadhaar

Only Numbers – No Smart Cards

Random Numbers – No Intelligence, No Profiling

Voluntary in nature

All Residents – Including Children

Uniqueness – Ensured through biometric attributes

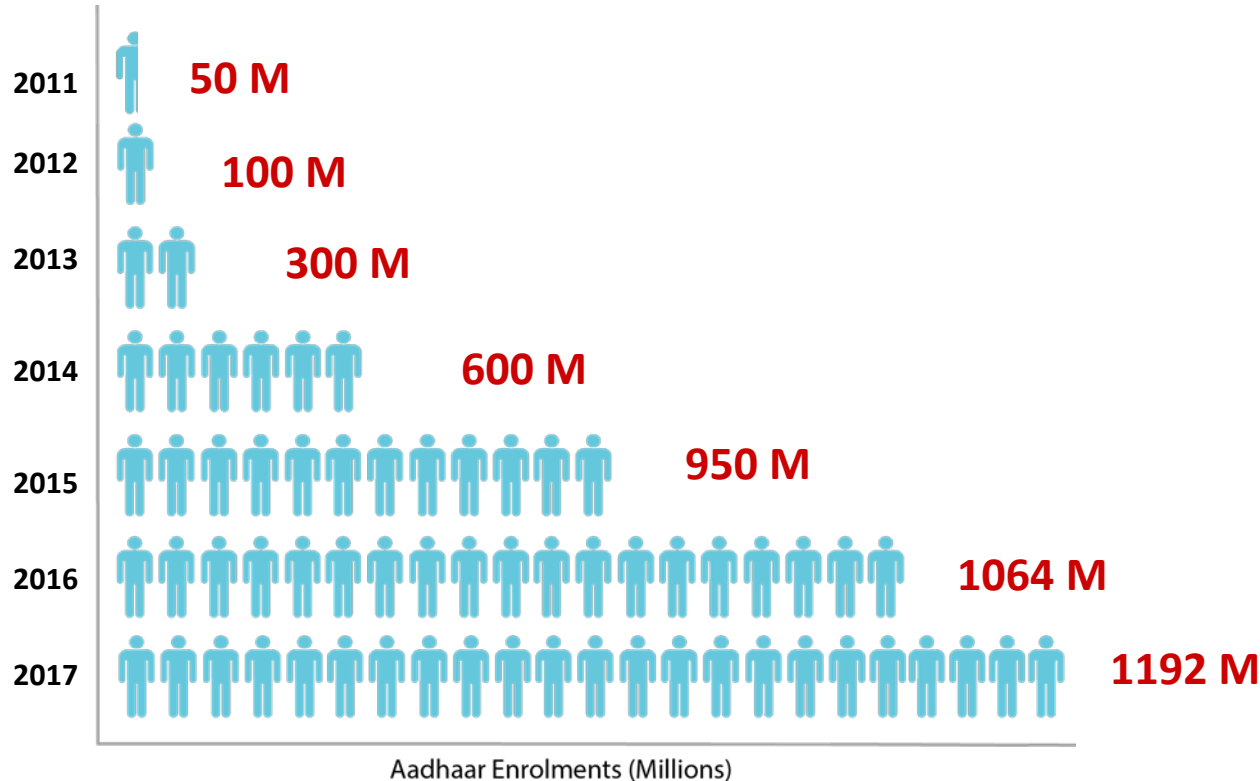
No Guarantees to Citizenship, Rights, Entitlements

Ensuring Security and Privacy of Information

Ubiquitous Authentication – From No ID to Online ID



1.2 Billion in 6½ Years



A Ubiquitous **Digital Identity Infrastructure** for a digital India

Aadhaar system can authenticate **100 M** transactions per day, in real time!

Service Delivery Potential of Aadhaar



- **Uniqueness and Existence** ensures no fakes or duplicates
- **KYC for multiple services** : Bank accounts, Financial inclusions, Mobile Connections, Social Assistance Programs
- Entitlements should reach the intended beneficiary – **non-transferability** can be ensured by **authentication at the point of service delivery**
- Many domains will be able to use as a **proof of presence** for the beneficiary

- **Identity platform** for various domains
- Aadhaar online authentication provides **a common platform** which can be used across all applications.



Aadhaar Authentication

NO MORE PHYSICAL PRESENCE

Are you who you claim to be?

Only a yes/no answer

Anytime anywhere

**Aadhaar
e-KYC**

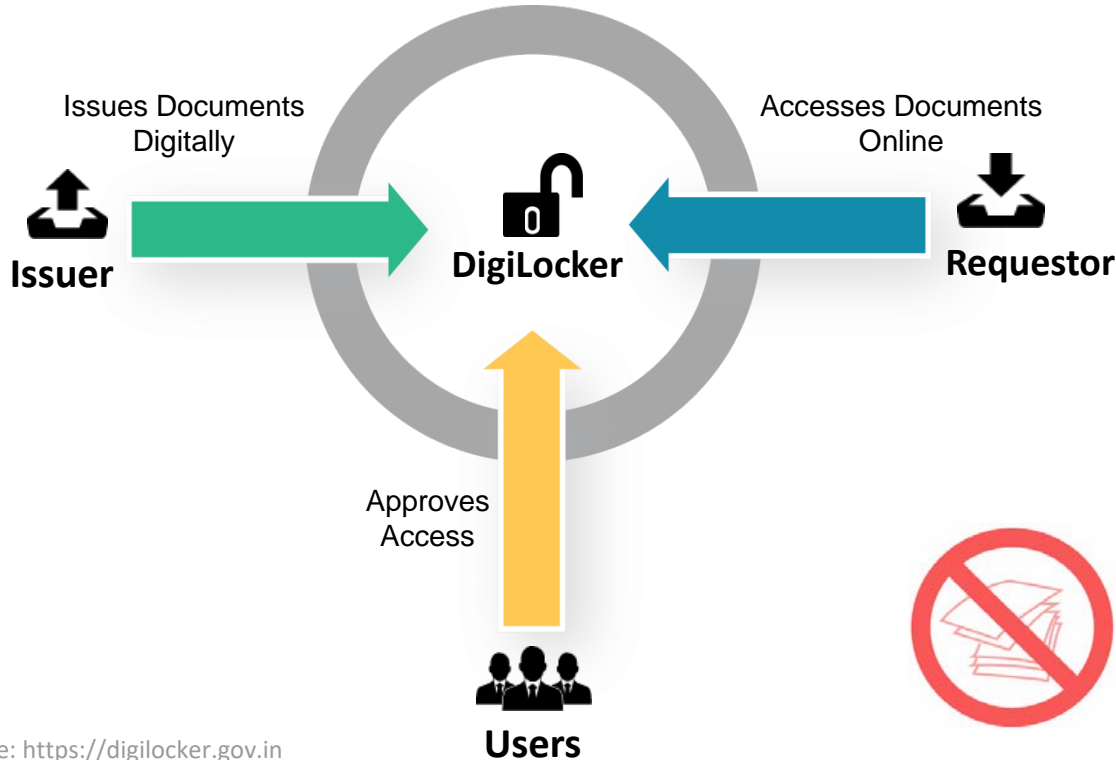
NO MORE PHOTOCOPIES!

Access ONLY via authentication

No more fake identities

No more paper

Digital Locker

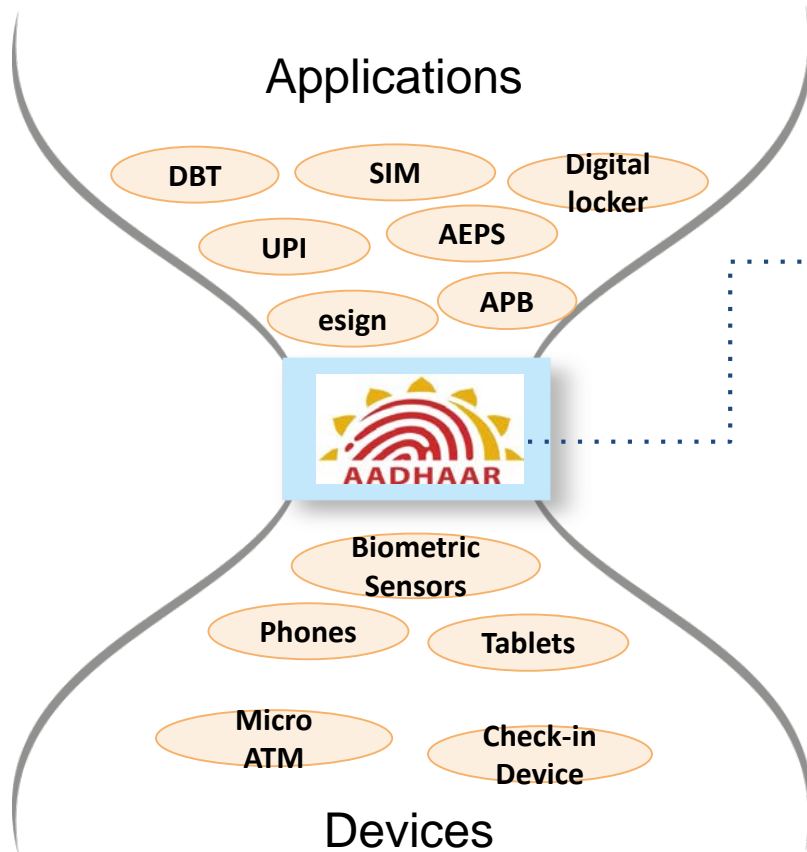


Open API based

Ecosystem driven

Digitally protected

An 'hour-glass' platform architecture



- Minimal
- Standardized
- Simple design
- Easy to execute
- Easy to write a law

- ❑ Identity as a utility, an enabler
- ❑ Allows innovation on all sides
- ❑ Amplifies ecosystem players

Financial Inclusion: Aadhaar-based Technology Enablers



- Open Bank Accounts using Aadhaar
- Linking of Aadhaar to existing bank accounts

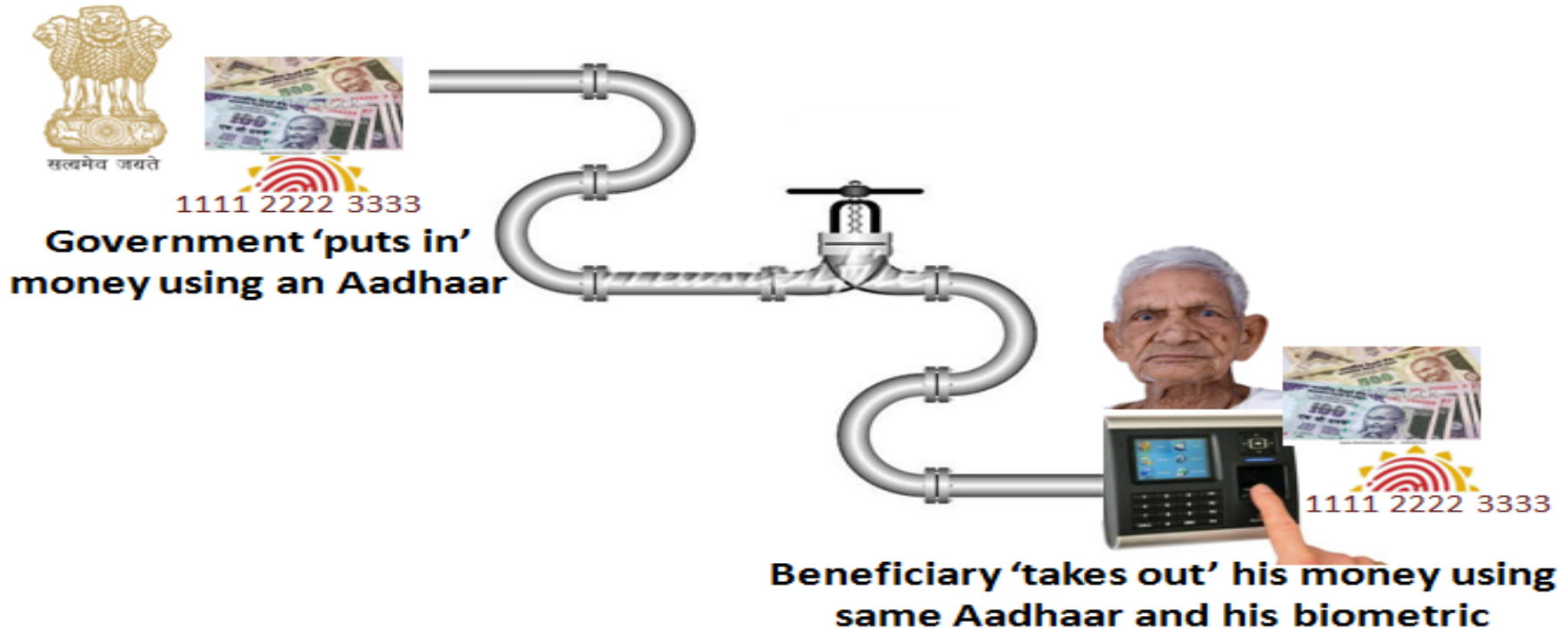


- Aadhaar Payment Bridge (APB)
- Simplifies disbursement of funds – uses only one account for all disbursements

Transactions
(AEPS)

- Aadhaar Enabled Payments System (AEPS)
- Inter-operable, portable anytime anywhere

A direct pipe to the Resident



Mobile



Mobile 'Revolution'

- One of the fastest growing telecom markets in the world
- Annual Revenue ~US\$ 40 Bn
- 1.1 Billion+ mobile connections
- Handles more than 18 Bn minutes of talk-time every day
- Lowest Tariffs in the world (1/3 Euro CentsPer Minute) and less than a Euro per GB
- Vibrant and competitive market
- Data usage of ~1500 Petabytes per month
- Internet connections ~418 million
- Adding 25 Mn. Smart Phones per month

Unified Payment Interface

Push & Pull Payments

Payments can be initiated by payer or payee.

Ubiquitous - Bank accounts

Every one with a bank account can send money to any bank account in India!



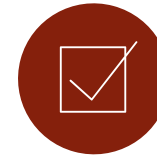
Virtual Payment Address

No need to disclose account information. Allows account portability, enhances privacy.



Easy Immediate Payments

Real-time posting
Funds are not locked!



Validation & Assurance

Real-time validation of the account and balance

Timely Notification

Immediate notifications of the payment made

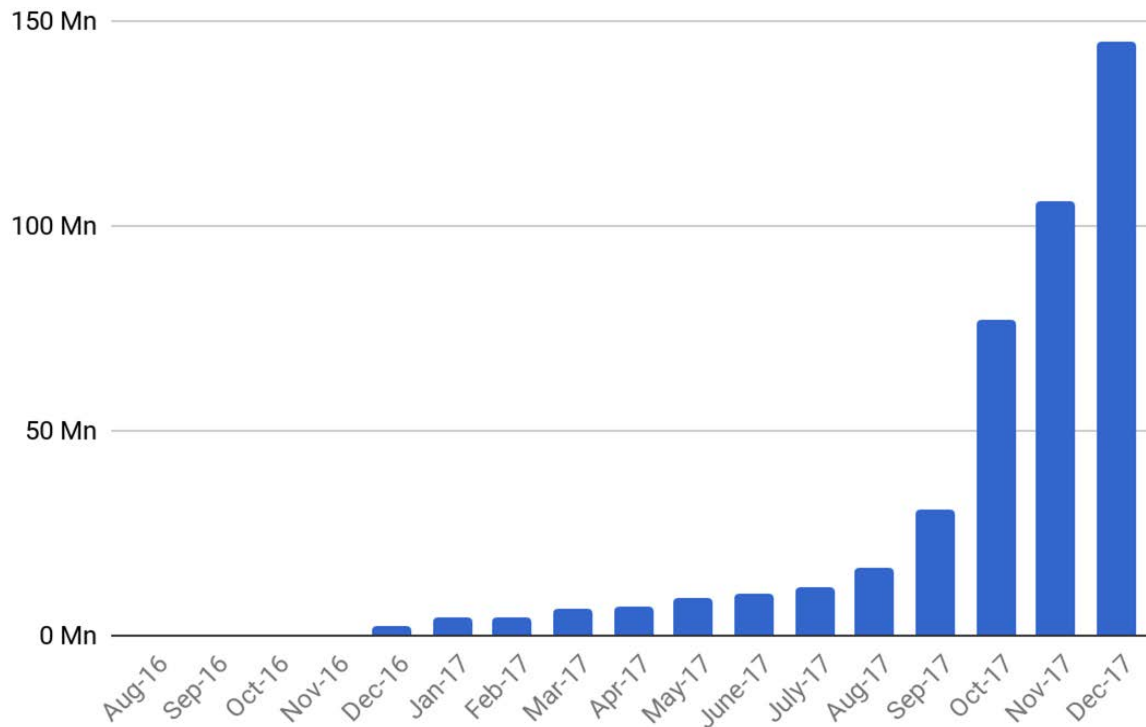


Minimal Issuer/Acquirer Cost

Smartphone replaces card and PoS machine!!



UPI doing more txns than Credit Cards In 18 Months!



Right before demonetization, UPI saw ~100k txn/month.

UPI is at ~**170 Mn Txns** in Feb and ~3 Bn \$

More transactions on UPI in 18 months than on Credit Cards in 18 years!

India's Approach to Digital Infra vs other markets



We will go from data poor to data rich nation in 5 Years!



These technology innovations and rich data will also help solve the Credit Problem



Customers with the lowest default rates have the highest interest rates

Sales Costs

Servicing Costs

No Credible Data

Solution :

Market places
Self service platforms

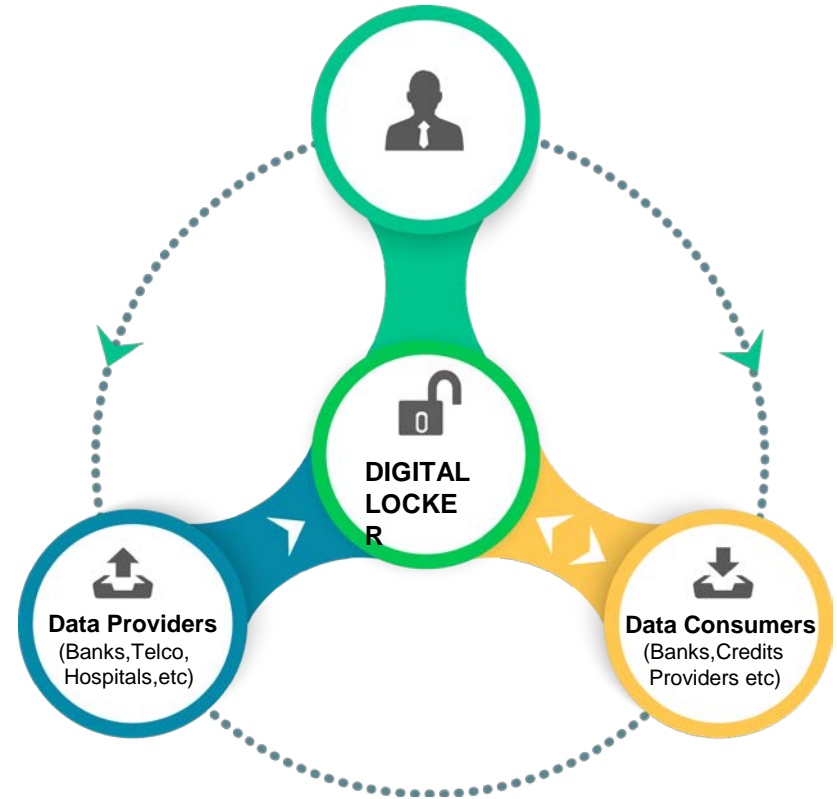
Traces from Digital
Money Transactions

Electronic Consent Architecture

All "data sharing" to be "via" the "owner" with "consent"

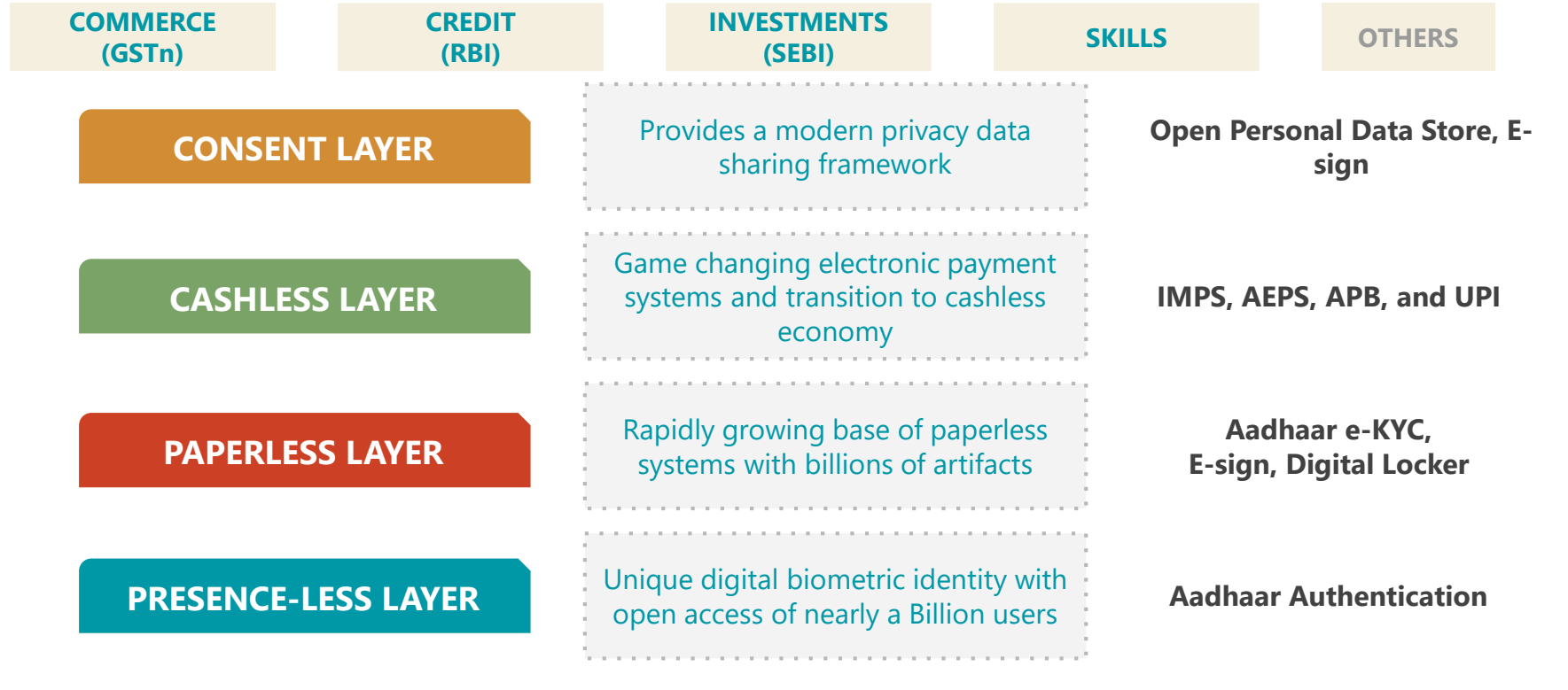
"Owner" of the data can "electronically request" his/her data and store in his/her "digital locker"

"Owner" can "choose" to share the data "for a purpose" using "electronic consent"



Aadhaar is one of the most critical enabler for India's technology stack

INDIA STACK



JAM

Jan Dhan, Aadhaar, Mobile

Why is the India Stack disruptive?

Allows Innovation



THANK YOU