India Stack Developer Conference

Jan 25, 2023

Current State of Aadhaar: Enrolment Saturation

135.4 Cr
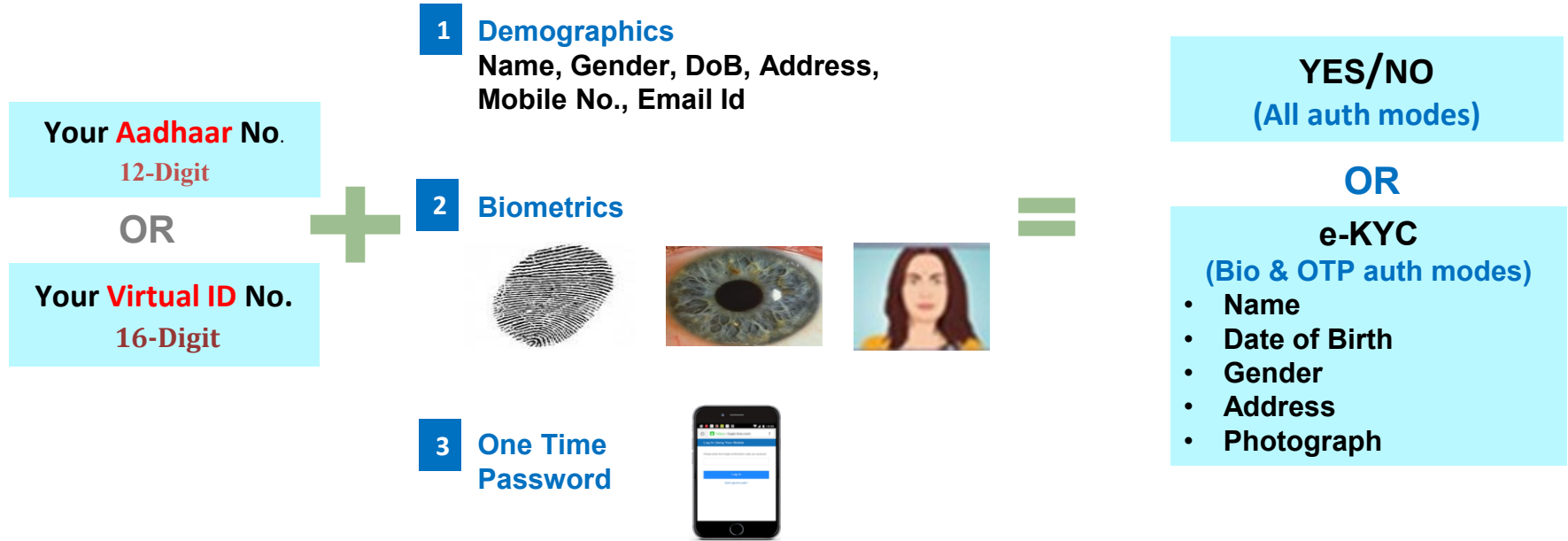Aadhaar Generated
Till Date

Updates now more than 4 times the new enrolments

Aadhaar ('Live') Saturation

Age Group	Saturation
Overall	94.5 %
Adult (>18 years)	~ 100 %
5-18 years	95.3 %
0-5 years	37.2 %

(Online) Aadhaar Authentications

AADHAAR
Mera Aadhaar, Meri Pehchaan

Your Aadhaar No.
12-Digit

OR

Your Virtual ID No.
16-Digit

1 Demographics
Name, Gender, DoB, Address,
Mobile No., Email Id

2 Biometrics

3 One Time Password

YES/NO
(All auth modes)

OR

e-KYC
(Bio & OTP auth modes)
- Name
- Date of Birth
- Gender
- Address
- Photograph
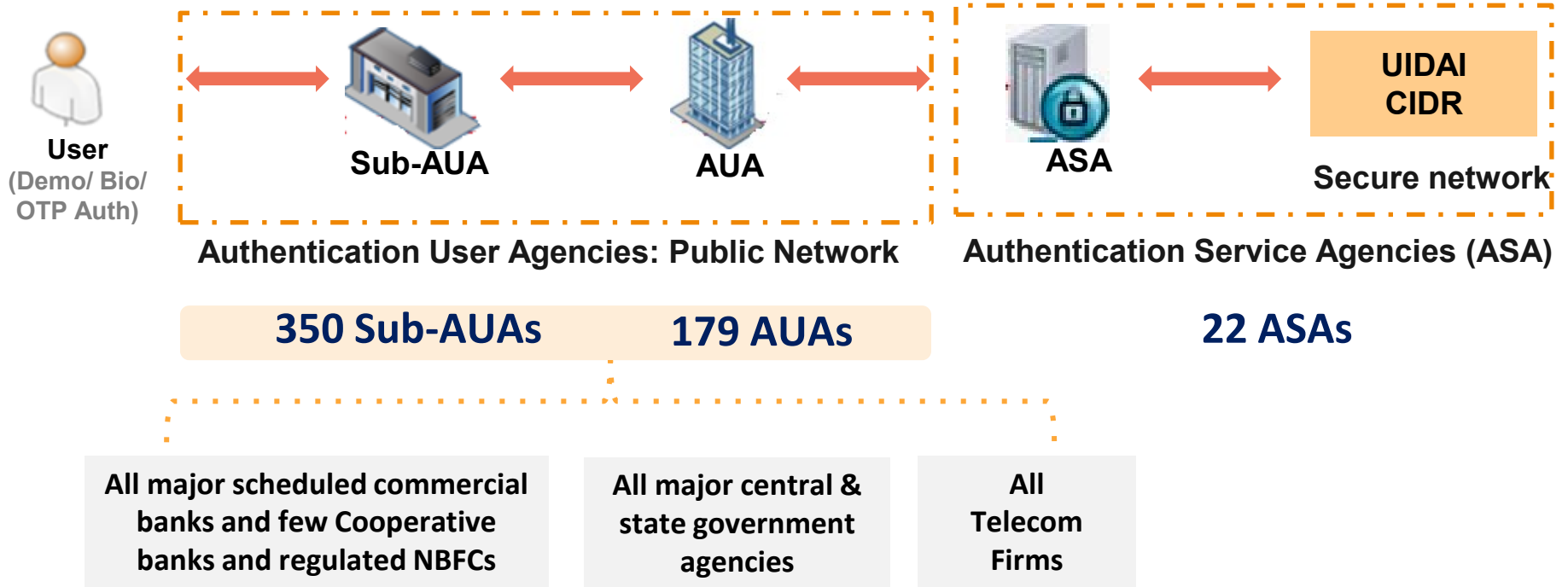
7+ Cr authentications a day **& growing**

**Current total authentication transaction capacity of 10 Cr transaction/day;
Capacity being augmented to handle 20 Cr transactions/day**

Online Authentication Ecosystem

User
(Demo/ Bio/ OTP Auth)

Sub-AUA

AUA

ASA

UIDAI CIDR

Secure network

Authentication User Agencies: Public Network

Authentication Service Agencies (ASA)

350 Sub-AUAs

179 AUAs

22 ASAs

All major scheduled commercial banks and few Cooperative banks and regulated NBFCs

All major central & state government agencies

All Telecom Firms

Another 300 NBFCs (regulated by SEBI, RBI, IRDA) already notified to use Aadhaar; Many more being added in near future

Increasing Usage of Aadhaar: Cooperative Banks & NBFCs

- **Cooperative Banks**: Steps being taken to onboard all Cooperative Banks to Aadhaar platform: consultations with NABARD and NPCI underway on design and costs involved

- **NBFCs:** Efforts underway to make on-boarding process for NBFCs simpler in consultation with DoR and the financial regulators such as RBI, SEBI, PFRDA & IRDA

Recent Initiatives: Face Authentication Introduced

Launch of mobile-based Face Authentication on Oct 15, 2021: ~ 1 Cr transactions in Dec, 2022

- **10 Entities on-boarded till date: NIC - DoPPW (Jeewan Praman), NIC AeBAS, NHA, FRUITS (Karnataka), RBL Bank, Kotak Mahindra Bank, GVWV & VSWS (Govt. Andhra Pradesh), Airtel Payments Bank Ltd., NTA, APT Online**
- **Process of on-boarding underway for another 9 entities**

Safe
Contactless
Secure

#FaceAuthentication

The Offline Version for Face Match also being tested

Recent Initiatives: Authentication Charges Reduced

Aadhaar
Mera Aadhaar, Meri Pehchaan

Online Authentication
(Requires registration with UIDAI)

Offline Verification / Voluntary Usage
(Can be done by anyone including Private Agencies)

Yes/No

Government Agencies — **FREE**

Per transaction charges for all non-govt. agencies — **₹0.50**

eKYC

Government Agencies — **FREE**

Telecom Firms — ~~₹20~~ **₹1**

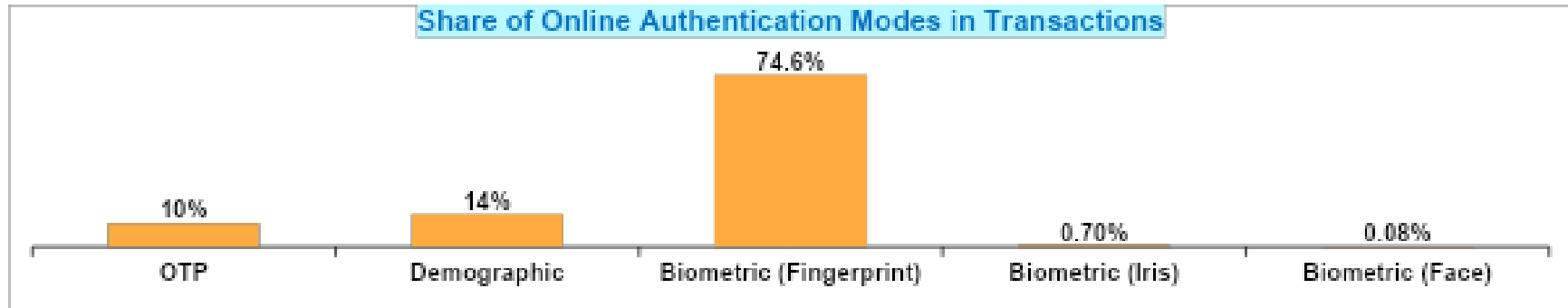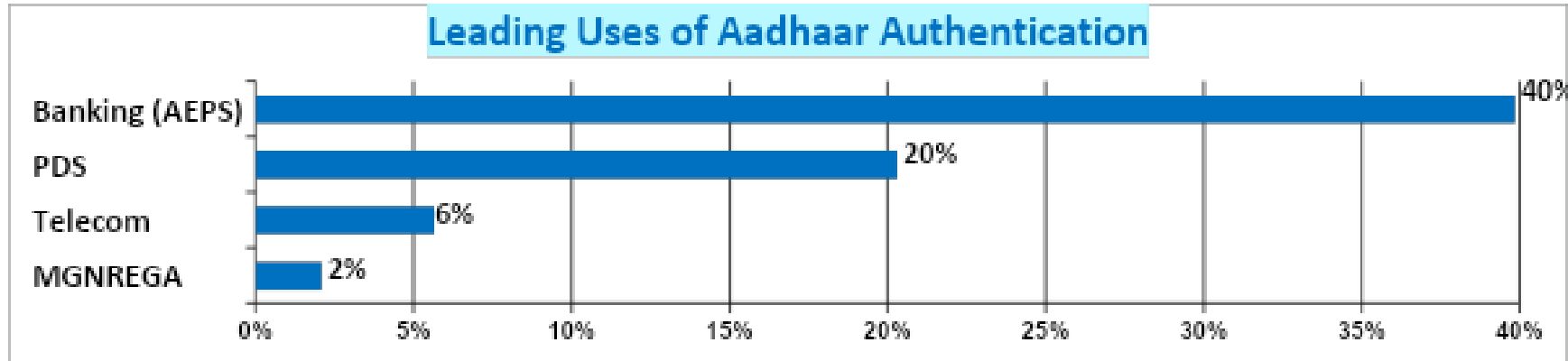Other entities including Banks — ~~₹20~~ **₹3**

Has always been Free For All

Special Focus on increasing Voluntary use of Aadhaar including via Offline Verification mode

Breakup of (online) Authentication Transactions

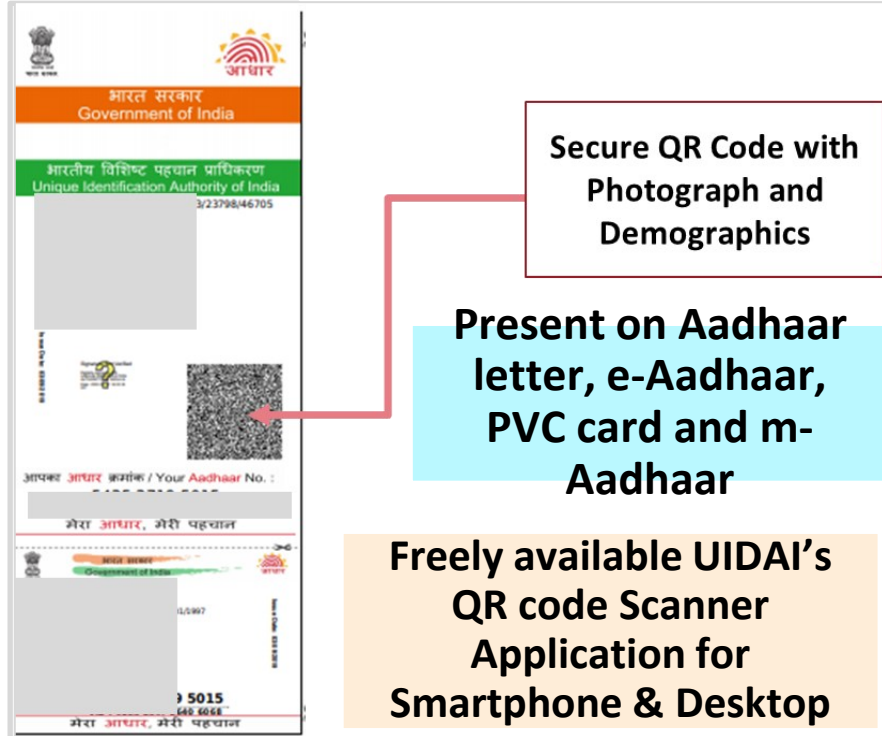## Share of Online Authentication Modes in Transactions

Mode	Share
OTP	10%
Demographic	14%
Biometric (Fingerprint)	74.6%
Biometric (Iris)	0.70%
Biometric (Face)	0.08%

Leading Uses of Aadhaar Authentication

Use	Share
Banking (AEPS)	40%
PDS	20%
Telecom	6%
MGNREGA	2%

Offline Verification of Aadhaar

Use of Aadhaar for identity verification and carrying out KYC process locally

Digitally Signed Secure QR Code

Secure QR Code with Photograph and Demographics

Present on Aadhaar letter, e-Aadhaar, PVC card and m-Aadhaar

Freely available UIDAI's QR code Scanner Application for Smartphone & Desktop

Aadhaar PVC Card

Other Digital Formats of Aadhaar

- **XML/PDF**
- **Preferred format for high quality photo**
- **Can be Shared online**

Increasing Offline Use of Aadhaar by Businesses
mAadhaar-based Use-cases Development Underway

1
Offline KYC through Deeplinking

2
Sharing Aadhaar Offline KYC with an Entity app running on another device

3
Local face Match for AUAs

4
Access Control Flow

Resident Consent Driven

Completely Offline

Uses Local Face Match

Developed Around mAadhaar

Aadhaar and India Stack
The Digital Public Infrastructure

Aadhaar Provides the Foundational Identity Layer to the India stack

APB	AEPS	eKYC	eSign & Digilocker	UPI
Aadhaar as a central key for channelizing the Govt benefits & subsidies		Digital process of Know Your Customer verification	Issuance and verification of documents & certificates in a digital way	The most advanced card-less public payments system

- **AEPS** enabling doorstep banking: >40 crore transactions/month through 35 Lac Micro ATMs
- **eKYC** led to opening of > 45 crore bank accounts under PMJDY
- **eSign** Replacing the costlier and less-efficient dongle based Digital Signature Certificates
- **Aadhaar-linked Digilocker**: A Paperless way of storing Essential Documents
- **UPI registration based on Aadhaar** for benefitting the no-frills account holders

AADHAAR
Mera Aadhaar, Meri Pehchaan

eKYC Related Enhancements
Need Based KYC Data Exchange

```
                    ┌──────────────┐     ● eKYC Data Set
                    │   eKYC++      │     ● Historical Data on Demographics
                    └──────────────┘       Data
┌──────────────┐                         ● Targetted to Improve Regulatory
│    eKYC      │                           Compliance
└──────────────┘
                    ┌──────────────┐     ● Selective eKYC
                    │   eKYC--     │     ● Individual or Combination of any of
                    └──────────────┘       the Demographics Data
```
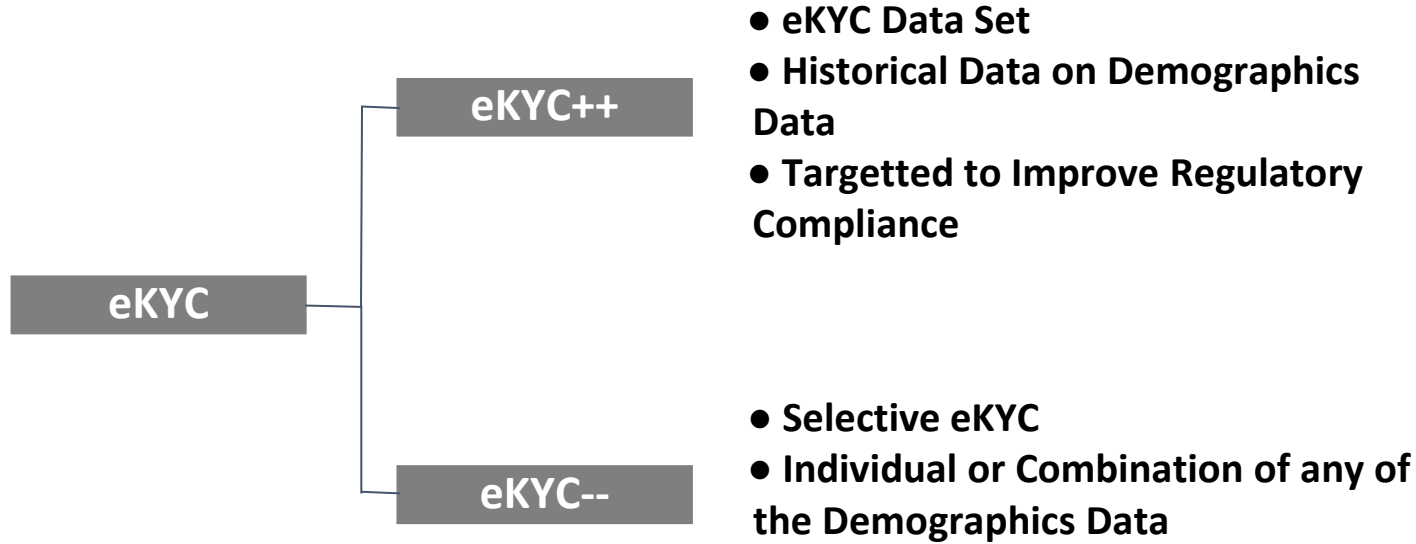
Would be Made Available Across All Channels (KUA/myAadhaar/mAadhaar)

Collaboration with Industry & Academia
Promoting Usage and Strengthening Aadhaar Ecosystem

- **Data Science Workbench**
  - For the Larger Research Community for Leveraging Anonymized Feature Database
  - Development of AI/ML Based Products and Services for Residents

- **Bug Bounty Programme**
  - In Progress for Technology Infrastructure and Application Eco-system

- **Standardisation**
  - Discussion Underway with MOSIP for Development of Standards
  - Will Promote Development of Secure Biometric Devices

Collaboration with Industry & Academia *contd..*
Promoting usage and strengthening Aadhaar ecosystem

- **Development of Indigenous Automated Biometric Identification System (ABIS)**

    ❖ **Development underway in collaboration with IIIT, Hyderabad**

    ❖ **Based on Deep learning (Artificial Neural Networks)**

- **Volunteers from Industry**

    ❖ **Supporting product development activities at UIDAI**

- **Young Professionals and Interns from Premiere Institutes**

    ❖ **About 40 Young Professional spearheading niche technology**

Developer Initiatives
Promoting Innovation through Collaboration

- **UIDAI's Sandbox**
  - Environment to Develop Products and Services Around Aadhaar APIs
  - NASSCOM has Expressed Interest to Collaborate.
  - Benchmarking of the Indigenous Biometric SDKs

- **Git Repository**
  - Effort Underway to Collate Aadhaar Product Documentation in Git
  - Reference Code around Aadhaar APIs and Products
  - Issue Tracker for Two way Communication with the Developer Community

Thank You