



Identity & Digital Frontiers

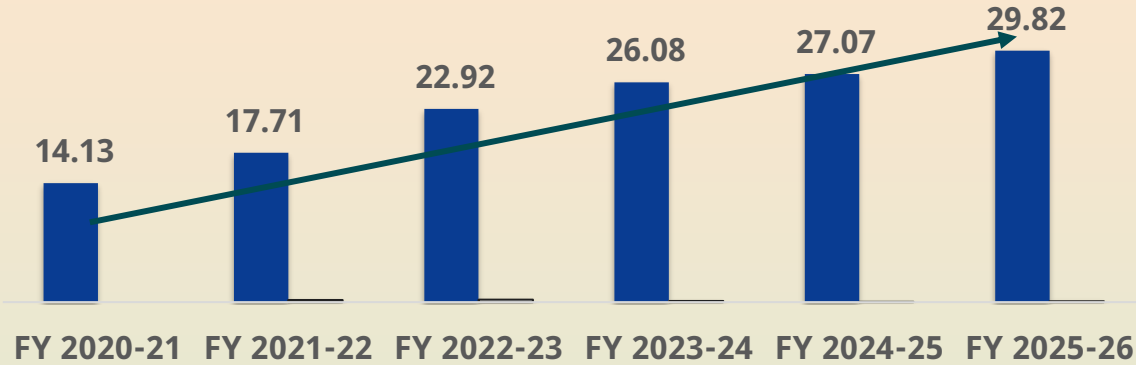
Verifiable credentials & interoperability



मेरा आधार,
मेरी पहचान

Aadhaar Authentication at a Glance

• Total Authentications since inception **~180 Bn** Total eKYC transactions **~30 Bn**



Avg. growth rate in last 5 FYs **16%**

90 Mn

Authentications/day

Peak daily txn: 131 Mn

14 Mn

e-KYC Txns/ day

Peak daily txn: 21 Mn

71%

Bio Auth modality share

310%

Face Auth Avg. Y-o-Y Growth Rate

% share of auth modalities*

Biometric

62%



81%



16%



3%

19%

Demo

19%

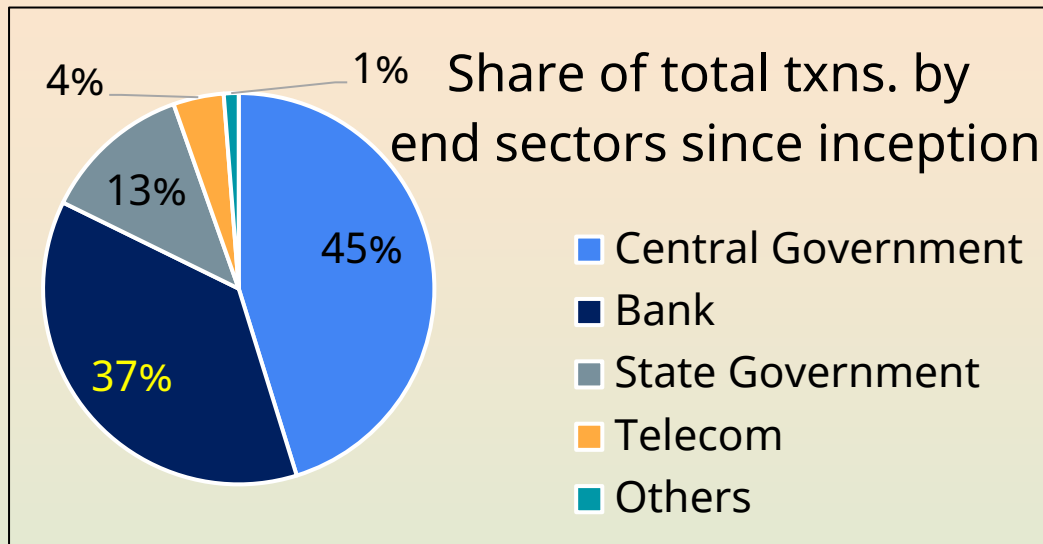
OTP

*cumulative till 31.3.2026

1.43 Billion Aadhaars Generated

Aadhaar Authentication User Ecosystem

Entity Type	No of onboarded entities
Central Govt.	83
State Govt.	266
Banks, Insurance, financial institutions, eSign, Telecom	311
Total	660



Entity Type	No. of entities onboarded	Government Benefit Schemes	Other than Government Schemes
Central Govt.	83	39	44
State Govt.	266	164	102

Aadhaar Authentication in Government Benefit Schemes

Total Schemes

~3,000

Govt. based Schemes

~USD 510 Bn

Disbursed till 31.3.2026

~USD 90 Bn


Savings till 31.3.2024

Some prominent schemes


Social Security/
Financial Aid

118 Schemes

~30 Mn Users


Employment,
Training, Internship
Programs

33 Schemes

~130 Mn users


Agriculture/
Fisheries Subsidies

102 Schemes

110 Mn users



Food
and Civil Supplies

34 Schemes

~790 Mn


Subsidy in cooking
gas and Electricity

6 Schemes
~300 Mn users


Scholarship
Programs

125 Schemes

~120 Mn users

Aadhaar Authentication in Good Governance Schemes

Schemes Approved



390

Government Schemes

(other than benefit schemes)

Use Cases Implemented


Attendance in Offices/ Institutions


Registration in Examinations


Property Registration


Family/Health/ School ID Marriage Certificate


SSO/eAuction/ Award portals


Visitor Management/ Railway Ticket Booking

Evolution of digital identity from Aadhaar's Lens

Aadhaar Effect

Passwords and manual ID checks dominated verification across digital and physical spaces. Aadhaar bought it in digital identity verification in India

Aadhaar solved for deduplication of identity in a database by allocating a unique ID

KYC costs of ~USD 6-9 was reduced to **0.03 USD**

Created savings worth USD 90 billion since 2013 through Direct Benefit Transfers

89% of adults have access to bank accounts (35% in 2011)



Next Frontier

Focus now shifts to combating authentication frauds & achieving 130 million verification per day

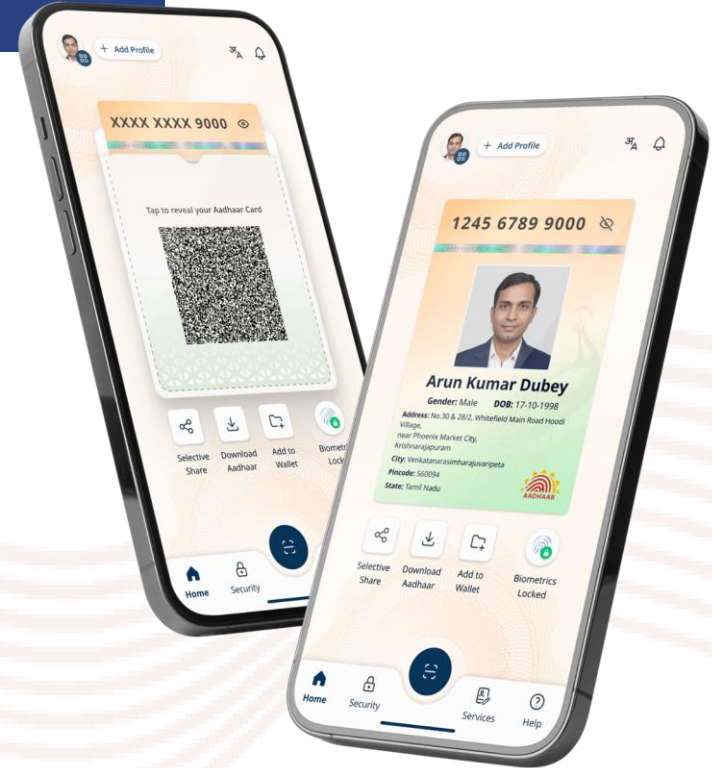
Focus on encouraging the offline verification (create usage of identity sharing through digital offline means as a user preference)

Improve liveness models through continuous training

Provide sandbox for open dataset testing to help ecosystem to improve models

Expand the use to low assurance use cases such as hotel check-ins, event management and police verification

Next digital frontiers



Strategic Pillars for Aadhaar's Next Five Years



Offline Verification

Leverage verifiable credentials-based identity sharing frameworks to scale the next generation of identity assurance technologies.



Interoperability

Work towards global interoperability across identity systems to unlock the potential of seamless and trusted cross border identity verification use cases.



Research & Development

Develop the ecosystem through innovation sandboxes, particularly for biometric technologies focused on liveness detection, fraud prevention, and resident support services.

Aadhaar is ready for global interoperability with Aadhaar's Verifiable Credentials



Empower users

Aadhaar VC allows selective disclosures of PII Data through SD-JWT, mDOC data formats - ensuring privacy and portability.



Wallet Ecosystem

Aadhaar VC is interoperable with wallet which are compliant with Aadhaar guidelines



International Standards for Issuance & Presentation

Aadhaar VC prescribes the use of international standards such as OPENID4VCI, OPENID4VP & W3C DC API (WIP) for Exchange of Aadhaar Credentials



Zero Knowledge Proof (Under Development)

BBS+ & Longfellow based algorithms for age assurance use case

Aadhaar Verifiable Credentials

Aadhaar based Verifiable credential ecosystem

Wallet



Live In Aadhaar App & Google Wallet
Coming soon in Digilocker & Samsung Wallet

21 million credential downloads in 3 months

110 RPs use wallet-based VC sharing

Issuer Services

Credential Issuance

Trust Registry

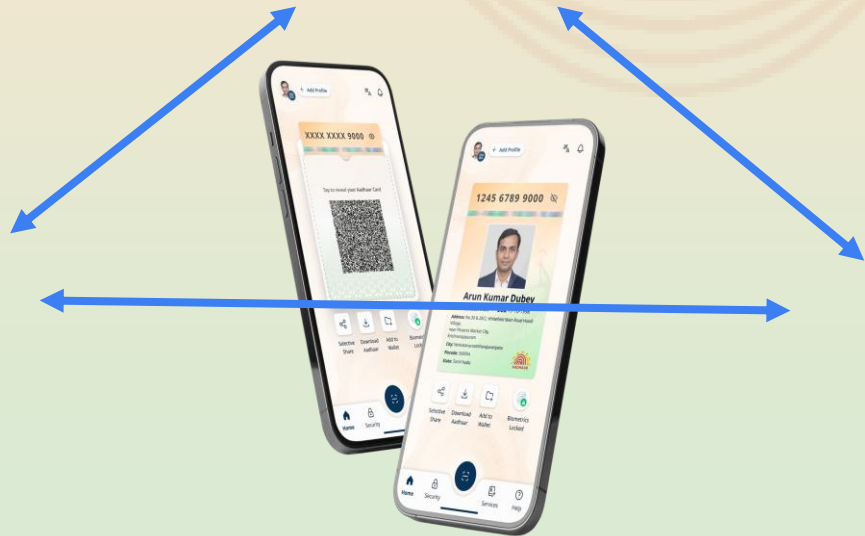
Dispute Resolution

Relying parties

Finance

Hospitality

Gig Economy

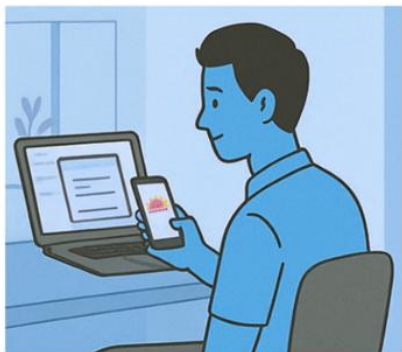


Scan QR

Use Case 01

At a hotel check-in

It replaces the hassle and safety concerns of your aadhaar being copied and kept.



Book hotel online with
Aadhaar verification



Scan QR at hotel reception
via Aadhaar App



Personalized welcome
on arrival



Secure, paperless check-in

Scan QR

Use Case 02

At a security gates in societies

Verified QR access: only authenticated visitors can enter, eliminating fake IDs and spoofed codes for safer societies.



Delivery Executive reaches the society



Delivery Executive scans the QR at the entry of the Society



Security Personnel can see the details shared



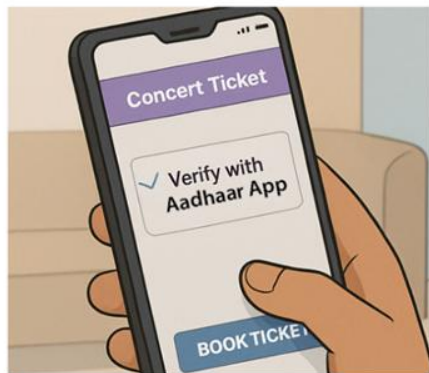
Delivery Executive is allowed inside the building

Bluetooth/NFC

Use Case 03

At a security gates in concerts & events

Zero knowledge proof at concert entries-
The security doesn't even need to know your name.



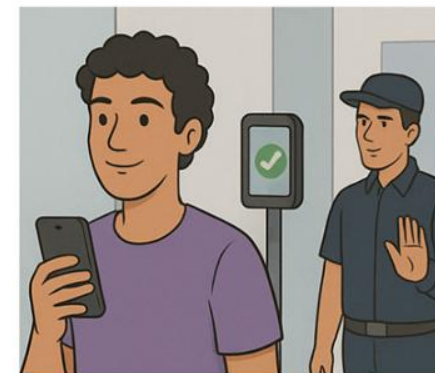
Book Concert Ticket
Link Aadhaar ID



Arrive at the venue
with Digital Ticket



Scan QR and
Face Authentication



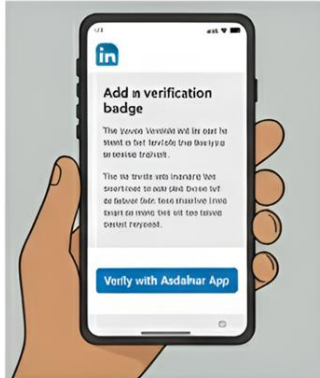
Enter Securely

App to App Intent

Use Case 04

Social Media Profile Verification

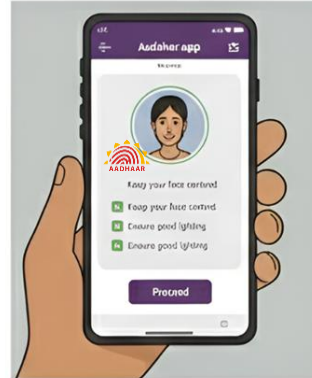
Verify your social media profile with Aadhaar for a trusted identity badge.



Initiate verification on social platform



Approve the requested details on Aadhaar app



Face Authentication



Identity confirmed with verifier badge on Social Media

Show Aadhaar Card

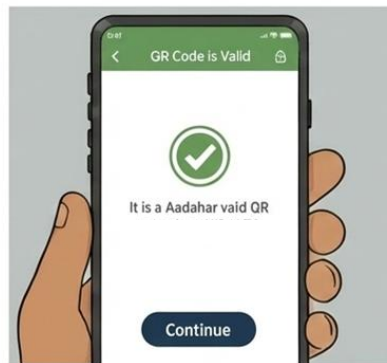
Use Case 05

Verify against Fake Aadhaar

Scan the QR code in physical Aadhaar card and know whether it is a real card.



Scan Physical PVC Card
Link Aadhaar ID



Screen Shows Verified
Aadhaar Details



House Help Identity
Confirmed



Verified Identity

International Interoperability & Trust

Cross Border Usage of ID

Enable seamless verification of identity credentials across national boundaries.

Creation of Trust Framework

Establishing the technical and legal standards for mutual recognition.

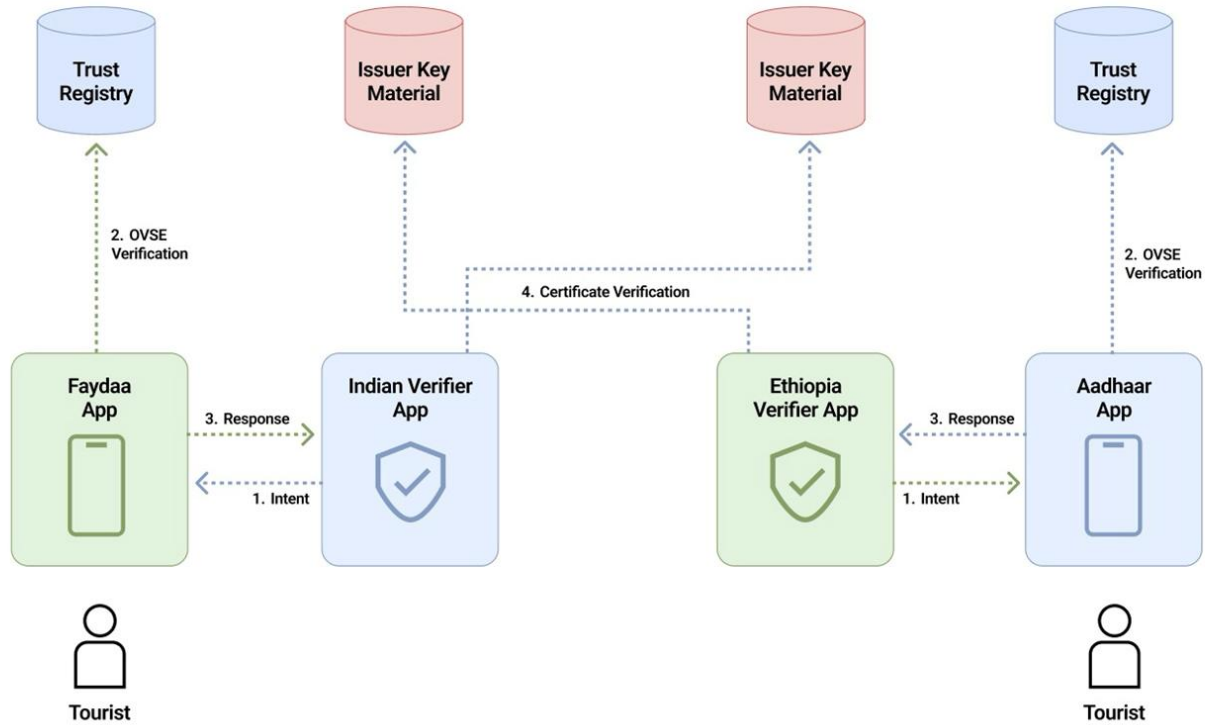
Privacy Preserving Usage

Ensuring data minimization and user consent in every transaction.



INDIA

ETHIOPIA



Storyboard: A Student, One Credential. Seamless Travel

Storyboard: Aarav in Africa. One Credential. Seamless Travel.

Aadhaar Verifiable Credential (openID4VP) makes cross-border travel simple, private and secure.

- ### 1 Meet Aarav

Aarav, an Indian student from Bengaluru, is selected for a student exchange program in Kenya.



Excited for the journey ahead!
- ### 2 He uses his Aadhaar Verifiable Credential (AVC)

Aarav opens the Aadhaar App and creates an openID4VP based Verifiable Credential.


 - Secure
 - Selective Disclosure
 - You are in control

Issued by UIDAI • Digitally Signed Cryptographically Secure.
- ### 3 Pre-clearance / Travel Authorisation

Aarav shares only the required attributes with Kenya's border pre-clearance system before departure.



Advance Passenger Identity Pre-clearance. Faster, Safer, Paperless.
- ### 4 At the Airport – Departure

Aarav heads to the airport. The AVC is in his mobile wallet (ISO 18013-5) compliant).



All set. No physical documents needed.

Added to Google Wallet
- ### 5 Smart e-Gate at Departure

He presents his credential at the e-Gate. Liveness is matched with his face photo in the AVC.



Face Liveness + Biometric Binding Secure. Quick. Contactless.
- ### 6 Onboard with Confidence

Aarav boards his flight to Nairobi knowing his identity is pre-verified.



Trusted Identity. Smoother Travel.

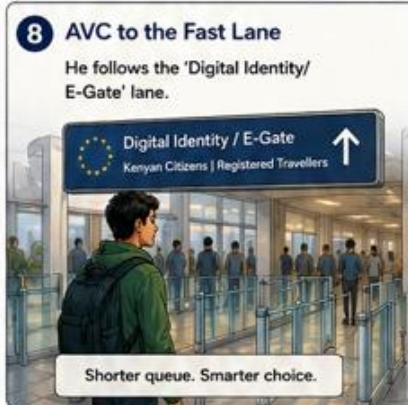
Story continues...

7 Arrival in Africa
Aarav arrives in Nairobi.
Shorter queues at the border.



But Aarav has a better way.

8 AVC to the Fast Lane
He follows the 'Digital Identity/
E-Gate' lane.



Shorter queue. Smarter choice.

9 Present AVC with openID4VP
Aarav presents his Aadhaar Verifiable
Credential using openID4VP.



Secure request. Minimal data shared.

10 Selective Disclosure in Action
He shares only what is necessary.
Nothing more.




Privacy by Design. Data Minimisation.

11 Verified. Karibu Kenya!
The system verifies the credential
offline-capable, cryptographically signed,
and compliant.



Offline Verification. High Assurance.
Seamless Experience.

12 Experience Africa
Aarav steps out and begins his
African adventure.



One Credential. Infinite Possibilities.



Aadhaar Verifiable Credentials (AVC)
Built on open standards.
openID4VP | ISO 18013-5 | W3C VC



Your Identity. Your Control.
Share only what's needed.
Verify anywhere. Trust everywhere.



Building India-Africa Digital Identity
Interoperability for a trusted and
seamless future.

Call to Action



Interoperable Platform

Work on creating an interoperable platform for global identity standards.



Fraud Detection

Develop ID-related fraud detection and prevention techniques.



Biometric Research

Research on the frontiers of biometrics for secure identity.



Thank You!



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