

# Aadhaar Information Security Policy

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## Scope

This is with reference to the Aadhaar Authentication Services from Unique Identification Authority of India (UIDAI) for the stakeholders of Pradhan Mantri Kaushal Vikas Yojana (PMKVY 2.0) Scheme, being implemented by National Skill Development Corporation (hereinafter referred to as “NSDC” or “AUA” or “KUA”).

This document details the Information Security Policy and standards applicable to NSDC as an Aadhaar Authentication User Agency (AUA) / KYC User Agency (KUA).

## Document distribution

All Employees of NSDC including its contractors and third parties who access information through NSDC information system or handle any information Asset of NSDC related to Aadhaar.

## Table of Contents

<b>1. Information Security Policy for Aadhaar Authentications.....</b>	<b>3</b>
1.1. Policy Statement.....	3
1.2. Policy Scope .....	3
1.3. Updating and Distribution of the Policy Document.....	3
1.4. Terms and definitions.....	3
<b>2. Information Security Domains and related Controls .....</b>	<b>4</b>
2.1. Human Resources .....	4
2.2. Asset Management.....	5
2.3. Access Control .....	5
2.4. Password Policy .....	6
2.5. Cryptography .....	6
2.6. Operations Security .....	7
2.7. Communications security .....	9
2.8. Information Security Incident Management .....	9

# 1. Information Security Policy for Aadhaar Authentications

## 1.1. Policy Statement

Security of UIDAI Information Assets handled by the NSDC for providing services, is of paramount importance. NSDC shall ensure the confidentiality, integrity, and availability of these at all times by deploying controls commensurate with the asset value.

## 1.2. Policy Scope

This Aadhaar Information Security Policy is applicable wherever UIDAI information is processed and/or stored by NSDC. This policy shall be read in consonance with NSDC's Information Security Policy.

## 1.3. Updating and Distribution of the Policy Document

The instant policy may be amended from time to time.

## 1.4. Terms and definitions

S. No.	Terms	Definition
1	AAS	AADHAAR Authentication Server
2	API	Application Program Interface
3	AUA/ASA	Authentication User Agency/Authentication Service Agency
4	CA	Certifying Authority
5	CIDR	Central Identities Data Repository
6	CN	Common Name
7	Asset	<p>An asset is anything that has value to the organization. Assets can be classified into the following 5 categories:</p> <ol style="list-style-type: none"> <li>1. Paper assets: (Legal documentation, manuals, policies &amp; procedures, organizational documents etc.)</li> <li>2. Physical assets: (computer equipment, communications, utility equipment, buildings etc.)</li> <li>3. Software assets: (database information, applications, software code, development tools, operational software etc.)</li> <li>4. People assets: UIDAI human resources and stakeholders.</li> <li>5. Service assets: (Logistics, building management systems, communications, utilities etc.)</li> </ol>
8	Information/	Information that has value to the organization (UIDAI). Including but

S. No.	Terms	Definition
	Information Asset (IA)	not limited to Citizen biometric and demographic information, personally identifiable information, employee information, organization information such as CIDR details etc.
9	IT	Information Technology
10	KUA	Know your customer User Agencies
11	NDA	Non-Disclosure Agreement
12	NTP	Network Time Protocol
13	OTP	One Time Password
14	PID	Personal Id entity Data
15	SOP	Standard Operating Procedures
16	SPOC	Single Point of Contact
17	SSL	Secure Sockets Layer
18	STQC	Standard testing and quality control
19	VA	Vulnerability Assessment
20	VPN	Virtual Private Network

## 2. Information Security Domains and related Controls

### 2.1. Human Resources

1. NSDC shall appoint a SPOC/team for Aadhaar related activities and communication with UIDAI;
2. NSDC shall conduct a background check or sign an agreement/NDA with all personnel/agency handling Aadhaar related authentication data. UIDAI or agency appointed by UIDAI may validate this information.
3. An induction as well as periodic functional and information security trainings shall be conducted for all NSDC personnel for Aadhaar related authentication services. The training shall include all relevant security guidelines per the UIDAI information security policy for Authentication, Aadhaar Act, 2016 and Aadhaar Regulations, 2016.
4. NSDC is aware of the UIDAI disciplinary and proper communication processes in the event of an information security breach.
5. All employees accessing UIDAI Information Assets shall be made aware of UIDAI information security policy and controls.

## 2.2. Asset Management

1. All Assets used by the NSDC (business applications, operating systems, databases, network etc.) for the purpose of delivering services to residents using Aadhaar authentication services shall be identified labelled and classified. Details of the Information Asset shall be recorded.
2. The assets which are scheduled to be disposed shall be disposed as per NSDC's Information Security Policy;
3. Before sending any equipment out for repair, the equipment shall be sanitized to ensure that it does not contain any UIDAI sensitive data;
4. AUA / KUA shall not transfer or make an unauthorized copy of any identity information from removable media to any personal device or other unauthorized electronic media / storage devices.
5. AUA shall implement controls to prevent and detect any loss, damage, theft or compromise of the assets.
6. Authentication devices used to capture residents biometric should be STQC certified as specified by UIDAI.

## 2.3. Access Control

1. Only authorized individuals shall be provided access to information facilities (such as Authentication application, audit logs, authentication servers, application, source code, information security infrastructure etc.) processing UIDAI information;
2. NSDC employees with access to UIDAI information assets shall:
  - a) Have least privilege access for information access and processing;
  - b) The operator must be logged out after the session is finished.
  - c) Implement an equipment locking mechanism for workstation, servers and/ or network device
3. The application should have auto lock out feature i.e. after a certain time of inactivity (15 mins or as specified in the AUA/KUA policy document), the application should log out.
4. Access rights and privileges to information processing facilities for UIDAI information shall be revoked within 24 hours separation of respective personnel or as mentioned in the exit management policy of the organization Post deactivation, user IDs shall be deleted if not in use as per Exit formalities
5. Access rights and privileges to information facilities processing UIDAI information shall be reviewed on a quarterly basis and the report shall be stored for audit purposes;
6. Common user IDs / group user IDs shall not be used. Exceptions/ risk acceptance shall be approved and documented where there is no alternative;
7. Procedures shall be put in place for secure storage and management of administrative passwords for critical information systems if done manually then a fireproof safe or similar password vault must be used to maintain the access log register.

8. The users should not be provided with local admin access rights on their system. In the case of administrative access being provided, the users shall be prohibited from modifying the local security settings. Modifying the same shall result in disciplinary action.
9. Three successive login failures or as per the access control policy/password policy of the organization should result in a user's account being locked; they should not be able to login until their account is unlocked and the password reset in case of server logins. The user should contact the System Engineers/Administrators for getting the account unlocked. For applications there should be an automatic lock out period of 30 mins in case of three consecutive login failures or as per the access control policy/password policy of the organization.
10. The local security settings on all the systems shall be aligned and synced with the Active Directory or similar solutions for local policy enforcement.
11. If the application is operator assisted, the operator shall first authenticate himself before authenticating the residents.
12. The access rules of firewalls shall be maintained only by users responsible for firewall administration.

#### **2.4. Password Policy**

1. The allocation of initial passwords shall be done in a secure manner and these passwords shall be changed at first login;
2. All User passwords (including administrator passwords) shall remain confidential and shall not be shared, posted, or otherwise divulged in any manner;
3. Avoid keeping a paper record of passwords, unless this can be stored securely;
4. If the passwords are being stored in the database or any other form, they should be stored in encrypted form.
5. Change passwords whenever there is any indication of possible system or password compromise;
6. Complex passwords shall be selected.
7. Passwords shall not be hardcoded in codes, login scripts, any executable program or files;
8. Password should not be stored or transmitted in applications in clear text or in any reversible form.
9. Passwords shall not be included in any automated log-on process, e.g. stored in a macro or function key;

#### **2.5. Cryptography**

1. The Personal Identity data (PID) block comprising of the resident's demographic / biometric data shall be encrypted as per the latest API documents specified by the UIDAI at the end point device used for authentication.
2. The PID shall be encrypted during transit and flow within the AUA ecosystem and while sharing this information with ASAs;

3. The encrypted PID block should not be stored unless in case of buffered authentication for not more than 24 hours after which it should be deleted from the local systems;
4. The authentication request shall be digitally signed by NSDC.
5. While establishing a secure channel to the AADHAAR Authentication Server (AAS), the NSDC shall verify the following:
  - a) The digital certificate presented by the AAS has been issued / signed by a trusted Certifying Authority (CA);
  - b) The digital certificate presented by the AAS has neither been revoked nor expired;
  - c) The Common Name (CN) on the certificate presented by the AAS matches with its fully qualified domain name (presently, auth.uidai.gov.in);
6. Key management activities shall be performed by NSDC to protect the keys throughout their lifecycle. The activities shall address the following aspects of key management, including;
  - a) key generation;
  - b) key distribution;
  - c) Secure key storage;
  - d) key custodians and requirements for dual Control;
  - e) prevention of unauthorized substitution of keys;
  - f) Replacement of known or suspected compromised keys;
  - g) Key revocation and logging and auditing of key management related activities.

## 2.6. Operations Security

1. NSDC shall complete the AADHAAR AUA on-boarding process before the commencement of formal operations;
2. Standard Operating Procedure (SOP) shall be developed for all information systems and services related to UIDAI operations. The SOP shall include the necessary activities to be carried out for the operation and maintenance of the system or service and the actions to be taken in the event of a failure;
3. Persons involved in operational/development/testing functions shall not be given additional responsibilities in system administration processes, audit log maintenance, security review of system or process and which may compromise data security requirements;
4. Where segregation of duties is not possible or practical, the process shall include compensating controls – such as monitoring of activities, maintenance and review of audit trails and management supervision;
5. The Test and Production facilities / environments must be physically and/or logically separated.

6. The Operating System as well as the network services used for communication shall be updated with the latest security patches.
7. A formal Patch Management Procedure shall be established for applying patches to the information systems. Patches should be updated at both application and server level;
8. Periodic VA exercise should be conducted for maintaining the security of the authentication applications. Reports shall be generated and shared upon request with UIDAI.
9. NSDC employees shall not intentionally write, generate, compile copy or attempt to introduce any computer code designed to damage or otherwise hinder the performance of, or access to, any PID information;
10. All hosts that connect to the AADHAAR Authentication Service information shall be secured using endpoint security solutions. At the minimum, anti-virus / malware detection software shall be installed on such hosts;
11. NSDC shall ensure that the event logs are to be recorded and stored to assist in future investigations and access control monitoring;
12. Regular monitoring of the audit logs shall take place for any possible unauthorized use of information systems and results shall be recorded. Access to audit trails and event logs shall be provided to authorized personnel only;
13. The authentication audit logs should contain, but not limited to, the following transactional details:
  - a) Aadhaar Number against which authentication is sought;
  - b) Specified parameters of authentication request submitted;
  - c) Specified parameters received as authentication response;
  - d) The record of disclosure of information to the Aadhaar number holder at the time of authentication
  - e) Record of the consent of Aadhaar number holder for the resident
  - f) Details of the authentication transaction such as API Name, AUA / KUA Code, Sub-AUA, Transaction Id, Timestamp, Response Code, Response Timestamp, and any other non-identity information.
14. Network intrusion and prevention systems should be in place;
15. Logs shall not, in any event, retain the PID, biometric and OTP information;
16. The logs of authentication transactions shall be maintained by NSDC for a period of 2 years, during which an Aadhaar number holder shall have the right to access such logs, in accordance with the procedure as may be specified;
17. Upon expiry of the period of 2 years, the logs shall be archived for a period of 5 years or the number of years as required by the laws or regulations of NSDC, whichever is later, and upon expiry of the said period, the logs shall be deleted except those records required to be retained by court or for any pending disputes;



18. All computer clocks shall be set to an agreed standard using a NTP server or must be managed centrally and procedure shall be made to check for and correct any significant variation;
19. The AUA server host shall reside in a segregated network segment that is isolated from the rest of the network of the NSDC; The AUA server host shall be dedicated for the Online AADHAAR Authentication purposes and shall not be used for any other activities;

## 2.7. Communications security

1. In case of a composite terminal device that comprises of a biometric reader without embedded software to affect the encryption of the personal identity data, communication between the biometric reader and the device performing the encryption shall be secured against all security threats / attacks
2. Terminal devices shall provide different logins for operators. These users shall be authenticated using some additional authentication scheme such as passwords, AADHAAR authentication, etc.;
3. Each terminal shall have a unique terminal ID. This number must be transmitted with each transaction along with UIDAI assigned institution code for the AUA as specified by the latest UIDAI API documents
4. A Unique Transaction Number (unique for that terminal) shall be generated automatically by the terminal which should be incremented for each transaction processed;
5. The network between AUA ASA shall be secured. AUA shall connect with ASAs through leased lines or similar secure private lines. If a public network is used, a secure channel such as SSL or VPN shall be used.
6. The AUA server shall be hosted behind a firewall. The firewall rules shall block incoming access requests to the AUA server from all sources;
7. Special consideration shall be given to Wireless networks due to poorly defined network perimeter. Appropriate authentication, encryption and user level network access control technologies shall be implemented to secure access to the network;
8. Use of web-based e-mail shall be restricted to official use and in accordance with the acceptable usage guidelines or as per organization policy;
9. UIDAI should be informed about the ASAs, the AUA has entered into an agreement;

## 2.8. Information Security Incident Management

1. NSDC shall be responsible for reporting any security weaknesses, any incidents, possible misuse, or violation of any of the stipulated guidelines to UIDAI immediately.

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