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F. No. HQ-13021/1/2021-AUTH-I HQ
Government of India
Ministry of Electronics & Information Technology
Unique Identification Authority of India (UIDAI)
Authentication Division

UIDAI Headquarters, Third Floor,
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Gole Market, New Delhi – 110001
Date: 25.04.2022

To

All AUA/KUAs, ASAs, Biometric Device Vendors in Aadhaar Authentication Ecosystem

Sub: Upgrade of existing L0 Fingerprint Authentication Registered Devices to L1 Compliant Fingerprint Authentication Registered Devices in Aadhaar Authentication Ecosystem.
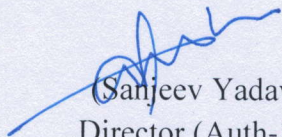
Dear Partners,

UIDAI is committed towards providing the highest quality of service in an efficient and secured manner. To enhance the security levels, UIDAI has taken several security measures to ensure security of transactions and end to end traceability during the authentication process. To make it more robust and secure, UIDAI along with biometric device vendors, STQC and C-DAC has worked on upgrade from existing L0 compliant Fingerprint Registered Devices to launch of L1 compliant Fingerprint Authentication Registered Devices in the Aadhaar Authentication Ecosystem.

2.   The key features of L1 compliant Fingerprint Authentication Registered Devices are:

   a) Device security with Level 1 compliance of the signing and encryption of biometric is implemented within the Trusted Execution Environment (TEE) where host OS processes or host OS users do not have any mechanism to obtain the private key or inject biometrics. In this case, management of private keys needs to be fully within the TEE.

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b) Secure system design in line with the key objectives of the UIDAI RD Service specification (latest version).

c) Implementation of RD Service and Management Client in line with RD Service Specification (latest version).

d) Additional fingerprint liveness check with FIR-FMR Single PID block implementation.

e) A standardized and certified device driver provided by the biometric device vendors. This device driver (exposed via an SDK/Service) encapsulates the biometric capture, any user experience while capture (such as preview), and signing and encryption all within TEE. The device driver must form the encrypted PID block before returning to the host application.

f) The detailed specifications for L1 compliant registered device are available in the document "**Aadhaar Registered Devices – Technical Specification Version 2.0 (Revision 7) January 2022**" (attached as annexure).

g) All the details with regards to Aadhaar Authentication API for L1 compliant registered devices are available in "**Aadhaar authentication API specification - version 2.5 (Revision-1) January-2022**" (attached as annexure).

3. The API specifications are also revised and updated to support L1 registered fingerprint device authentications. AUA/KUA's Authentication applications will also require minor modifications to support the L1 compliant registered device SDK. Document "**Aadhaar authentication API specification - version 2.5 (Revision-1) January-2022**" may be referred for details.

4. The application development teams of all partner entities also need to be sensitized as changes may be required in the application and backend servers to make it compatible with L1 Registered Fingerprint Devices and "Aadhaar Authentication API - version 2.5 (Revision-1) January-2022" and would need to be tested thoroughly.

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5. A number of device vendors are ready with L1 RD device certification, UIDAI will be launching L1 RD devices shortly. However, L0 RD Fingerprint and IRIS authentication devices will continue to function as same and separate notification will be issued for L0 RD authentication devices.

6. This issues with the approval of competent authority.

(Sanjeev Yadav)
Director (Auth-1)

Copy for information to:
1. CEO, UIDAI
2. DG, STQC
3. Sh. Rupinder Singh, DDG (Authentication Division, HQ UIDAI)
4. Sh. Anup Kumar, DDG (Tech Centre, UIDAI)