Capability Approval Methodology Concept

For

IRIS in Mobile

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Capability Approval

- An approval granted to manufacturer of mobile with integrated IRIS devices, when it has been established that processes and practices are in place to manufacture above as per UIDAI specification.

- This approval will ensure capability to manufacturer mobile with integrated IRIS devices of various forms factor with consistent quality with Aadhar based authentication.

- Approval is not an certification of mobile device per se, its a certification for IRIS device integrated in a mobile, focus is on Aadhar based authentication and service delivery through it.

- The Biometric solution (sensor + extractor + security) will be part of scope of capability approval. Hence, same solution can be used in various models without need of further testing and certification for a vendor A of a mobile manufacturer.

- The vendor B who uses the approved Biometric solution may have to undergo limited testing as per his quality plan.

Procedure for Capability Approval

• Manufacturer (Designer/Developer) has established Quality Management System (ISO 9001)

• Implements a quality plan for candidate mobile with IRIS device as specified in ISO 10005

• Committed to meet " UIDAI specification for IRIS in Mobile and Mobile phones handset as per IS 16333 Part I : 2015

• Designates Management Representation (DMR) who is knowledgeable to Certification requirements and responsible for the implementation of the above processes and quality plan.

• Manufacturer enters into a contract with STQC to provide all necessary information required for certification and demonstrate his capability as defined in capability manual.

Application for Capability Approval (CA)

Application needs to be submitted along with Capability Manual

Capability Manual (Requirements):

- Controlled document – quality plan
- Scope of Capability Approval
- Technologies/Range of Technologies
- Subcontracting use of specialist service providers
- Limits of Capability
- Design/Development to customer interface
- Design Rules
- Process compliance
- Demonstration of Capability - use of CQC
- Test Programme for CA
- Maintenance of CA
- Modification to CA
- Test Method
- Flow chart
- Release

Critical Components:
- Sensor
- Extractor
- LED Illuminator
- Lens/ Camera
- Image Acquisition Display & Control SW

Key Issues & Challenges

Biometric Image quality and performance
To provide value through services with seamless and comfort user experience for IRIS authentication to be used as a daily transaction authentication mechanism in mobile phones, it is imperative that the standard ensures only image that qualifies as "high quality" is captured and sent to the backend

Security
Consumer of technology, often, may not be aware of the repercussions due to compromise, therefore, should be managed as invisibly and seamlessly within the technology chain as possible.

Safety
Protection of Eye safety from any hazard of radiation from LED therefore ensuring that LEDs used are compliant with international standard

Ergonomics
For good user experience and proliferation human centric usable product for early adoption

IRIS in mobile specification needs to address.

Binding Mechanism

Control of mobile devices with IRIS capability

A generic mobile device with IRIS capability but without certification & approvals should not be able to connect to Aadhar backend. This is achievable through several means –

- One of the solutions could be the following: AUA develops a client application for aadhar authentication which can be downloaded from play store/app store.

- Once downloaded, the application would require activation – the rules for activation can be set by AUA/UID – approved make/model, OS version, security policies and so on.

- AUA can maintain a white list of devices whose request would be accepted for UIDAI authentication. Such controls could be mandated by UIDAI/STQC or can become part of AUA/KUA agreement.

Roles

Mobile handset manufacturers work towards bringing latest consumer technologies from other spheres.

Biometric vendors bring technologies (module) to ensure quicker compliance and roll out of entire scheme.

DeitY & STQC-UIDAI work directly with Biometric vendors for module (sensor-extractor-security combination) certification.

Biometric vendors offer this module to any mobile phone manufacturer as a standard certified component.

Use of specialist contractors and subcontracting

The subcontracting is permissible subject to the Applicant (DMR) is able to demonstrate to the Certification Body that process(es) concerned is (are).

a) Performed in a manner which satisfies the appropriate requirements of the applicable standards and the scheme

b) Carried out satisfactorily (including the relationships, dependencies and controls exercised are defined adequately).

c) DMR shall ensure that Capability Approval testing will be performed under his control included validation by an independent Laboratory.

d) Biometric solution vendor could be specialist sub contractor.

THANKS