Guidance to applicant

for

Biometric Devices for UID Application

(BDCS-03-02**)**

STQC - IT Services

STQC Directorate, Department of Information Technology,
Ministry of Communications & Information Technology,
Electronics Niketan, 6 CGO Complex, Lodi Road,
New Delhi – 110003

Testing & Certification of "Biometric Devices for UID Applications"

1. Services Offered:

Third Party Testing & Certification of Devices for UID Applications.

2. Client:

Vendors (Manufacturers/ suppliers) of Biometric Devices (Face Camera, Fingerprint Scanner, & Iris Camera)

3. Purpose & Objectives of Testing & Certification:

The key aim of testing & certification is to ensure that the Device Under Test (DUT) complies with the requirements, relevant standards specifications including specifications released by UIDAI for UID applications.

The objectives are to verify that:

a) The extent to which requirements prescribed in the relevant UIDAI specifications have been fulfilled.

b) The extent to which applicable regulations, standards and specifications set out in the applicable Quality specifications are met;

c) Provide opportunity for Vendors to understand defects/ nonconformance and rectification of the same.

To grant certification and provide assurance to users of devices that the certified product meets UIDAI requirements comprehensively

4. Scope of Work:

The scope includes testing & certification of the following Devices that include:

a) Face Cameras

b) Fingerprint Image Scanners

c) Iris cameras

d) Authentication Devices.

The Devices will be tested for the following:

- The devices used for delivering various UID services including enrollment and authentication services are capable of delivering the outputs as specified by the UIDAI and meets device output interoperability requirements specified by UIDAI

- The devices should also be robust enough to be used in the varied climatic conditions of our of the country and meets the specified standards and environmental requirements.
- Additionally Vendor's Device Manager conforms to relevant UIDAI published specifications
- The device should be able to integrate with software application for enrollment/ Authentication using APIs.

The following types of tests will be conducted on the Device (DUT) as per specified requirements:
- Physical & Dimensional Testing
- Environmental Testing (Climatic & Durability)
- Safety Testing
- EMI/EMC Testing
- Relevant Data Interchange standards conformance and Security Testing (Encryption)
- Functional Testing
- Quality of data and multi vendor devices interoperability testing through actual field sample collection.
- Data Capture/Communication Performance Testing and
- Conformance to Ease of Use Guidelines.

5. Test Approach & Methodology:

The following test approach & methodology will be used:

a) The robustness of the devices will be tested by subjecting these devices to simulated environmental conditions (climatic & durability) such as temperature, humidity, dust, shock, vibration etc, as specified by the requirement relevant specification document provided by UIDAI.

b) The output of the biometric devices will be checked for compliance to relevant specification document provided by UIDAI.

c) The integration of Biometric device with Enrollment software will be tested through

1. Verification of compliance to relevant API standard published by UIDAI are complied to.

2. Carrying out
   o End to end functional testing using relevant software [a Test harness or UID Enrollment software depending on the category of certification]
   o Repeat functional testing for consistency of operations.

3. Quantitative Data Analysis: Carry out periodic field sample collection from vendor devices as per UIDAI procedure for predetermined number of Subjects.

Results from the study will provide quantities metrics that will be used to qualify devices. This is a very crucial procedure for ensuring consistency and interoperability. This procedure applied in particular to biometric capture devices.

Data collection will be done by UIDAI / its representative. STQC will do dta analysis.

Note:

In order to verify compliance to the device specifications and other RFP requirements one or more of the followings will be used:

- Testing may be conducted in the STQC laboratory.
- External test laboratory/ client's test facility may be used to conduct the testing (where test facilities are not available with STQC).
- Compliance may be verified by demonstration(s) of testing using client's test facilities.
- Compliance may be verified based on the test reports &/or certifications obtained by the client (subject to verification of test results on sample basis).

To carry out testing following shlla be arranged:

- Enrollment Client Software would be provided by UIDAI.
- During certification, complete compliance to Enrollment client needs to be checked as per the specifications of the Biometric devices API released on UIDAI website.In order to ensure Compliance to Biometric Devices API, the certification agency needs to develop the test harness in compliance with the released API and its subsequent versions and own maintenance.
- For authentication devices, various authentication components may need certification which adheres to relevant specifications published by UIDAI.
- In order to conduct quantities biometric devices analysis using field sample collection, Certification authority needs to develop and main a test harness. Since the quantitative analysis is often repeated process, Certification agency
- Certification authority has to carry out Statistical and qualitative analysis as per UIDAI guidance.

5. Inputs Required by STQC:

Access to the followings information & facilities/ systems to undertake testing of DUT will be required by STQC:

- UID Requirements – RFP Document, Biometric device specifications, API Documentation

- Device Documentation – Biometric device specifications, Design Document, User/ Operations Manual, SDK Documentation
- Enrollment Software Application – Software Requirements Specifications (including functional & non-functional requirements), Design document, User/ Operational manual, Software work flows, Navigations, Business Rules & Validation Rules
- Biometric Device to be tested with SDK, software application, database & test samples
- Test environment for testing of specialized parameters (if required)
- Internal test reports of client
- Arrangement to witness the testing at client's facility, in case the in-house facility for the same is not available with STQC
- Third party test reports and certificates required from the client
  o Quality Management System (ISO 9001 Certificate)
  o Image Quality (FBI Appendix 'F')
  o WHQL (Windows Hardware Quality Lab Certificate)
  o Security
  o Safety
  o Calibration
  o EMI/EMC

Vendors would need to be directly providing the documentation to STQC and as per the certification needs provide additional information/Test results.

6. Activities to be performed:

6.1 Testing Activities:
a) Study & Understanding
b) Test Planning & Preparation
c) Test Execution
d) Test Report Preparation

6.2 Certification Activities:
a) Analysis of test results
b) Verify compliance to evaluation criteria
c) Issue of Certificate (if evaluation criteria is met)

7. Deliverables:

The following deliverables will be provided to the client:
- Test Report

- Certificate, subject to fulfillment of evaluation criteria

8. Test & Certification Schedule:
- It will take about 4-6 weeks to complete the testing and certification after required inputs have been provided by the client to STQC.
- The charges for testing and certification per Biometric Device will be as per the schedule of charges.
- The service tax @ 10.30% (or as applicable) shall be extra.

9. Mode of Payment:
- Test charges are to be paid in advance along with the application for Certification; through DD/ PO drawn in favour of "Pay & Accounts Officer, DIT, New Delhi".
- The service tax @ 10.30% (or as applicable) shall be extra. The service tax No. is DL-II/ST/TT/CCT/65/ERTL/2004.

10. Terms & Conditions:
- The payments to STQC Directorate (being Government of India organization) are exempted from TDS under section 196 of Income Tax Act.
- The client shall arrange for DUT and support environment at STQC test lab where testing will be undertaken.
- In order to complete the testing, as per schedule, client shall ensure readiness of test related documentation and timely availability of the required information.
- STQC shall ensure timely completion of test activities as per plan and submit the deliverables.
- The schedules & prices given in this proposal are based on the details as mentioned in the RFP & Biometric Design Standards for UID applications.

Certification Process Flow Chart

Client

Refer to
a) Rules & Procedures for Biometric Devices for UID Application Certification
b) Guidelines to the applicants
c) Schedule of charges
d) Application form for Components of the Biometric System Certification

Submit application to the Certification Body as given in
BDCS-03-05

Certification Agreement
BDCS-03-04

Certification Body to evaluate evidence of conformity supplied by
the Supplier

Non disclosure agreement

Test Pre-requisites & Procedure

Test Activities

Test Records

Test Reports

Satisfactory

No → Corrective Action by Supplier

Issue of Provisional certificate
(Empanellment)

Testing of Biometric Device by test lab

Result Satisfactory

Grant of Certificate of approval for 3 year

Update the record and maintenance of certificate

Intimate client for non compliance if minor discrepancy, ask client to provide the information/ If major and not able to close then close the job with intimation to client