Provisioning Implementation of Biometric Enrollment at Indian Missions

Under the Visa issuance system, implementation of enrollment (collection) of biometric is under process. In addition to alphanumeric details outsourcing agencies need to capture biometric (ten finger prints and facial) also in due course. **However, separate rates are to be quoted for** enrollment of fingerprint biometrics and facial biometric.

1. Enrollment of 10 finger printers as per the format specified at annexure-"A". It may be noted that the finger print enrollment application software shall be provided by Government of India. NIC had already integrated few devices (Morpho Top 100, Cogent CS500E and Suprema RSG10) with application software. If outsourcing agency deploy different make/ models certified by STQC (http://stqc.gov.in/sites/upload_files/stqc/files/UID%20certificate%20of%20app roval%20list%2013-10-2011.pdf), NIC technical team shall integrate the proposed device with its enrollment software. For the purpose on integration technical resource of the concerned outsourcing agency need to interact with NIC technical team and provide all the SDKs, DLLs and other technological requirements. Recording of the finger print enrollment process with time stamp shall be part of the other infrastructural requirements (as per the requirements of mission/ local laws) in finger print enrollment process.

2. Enrollment of facial biometric as per the Indian eGovernance standards available on http://egovstandards.gov.in/ . Government of India may provide the facial capturing software for the purpose.

I.   Technical Specifications

A.   Requirement of Number 4+4+2 FP Biometric Devices

S No.	Item	Make / Model
1) Enrollment	4+4+2 FP Biometric Device	As specified in the STQC certified list http://www.stqc.gov.in/

B.   Technical Tools required to support integration efforts of the devices with IVFRT systems:

S No.	Mandatory Technical Requirements
A	Supply SDK and API (Enrolment) (.Net and Java)
1	SDK for 4+4+2 Capturing
2	SDK with capability for Fragmentation to 10 Images
3	NFIQ Quality Check with grading
4	Images - Raw, PNG, WSQ, JPEG 2000 Loss less Images,ISO 19794-2,ISO 19794-4
5	Minex Compliant Alogorithm for Minutia Extraction(ANSI-378)
6	Necessary Licenses(should not expire)
7	Minutia Templates (Proprietary)
B	Technical Requirements for 1:1

	1) Minex Compliant Algorithm for Minutia based matching on the same 4+4+2 device
C	Recording of the biometric enrollment process shall be mandatory in addition to other requirements of the RFP and local laws

C. Technical Specification for Slap Fingerprint Scanner (Recommended)

"4-4-2" Finger print Device Specification

As per specifications provided by STQC.

Device Characteristics	Values
Capture Mode	Plain live scan capture
Image Acquisition requirements	Setting level 31 or higher
Image evaluation frame rate	>3 frames/sec, continuous image capture
Capture Mode	Auto capture with built-in quality check (incorporates NIST quality considerations)
Capture Area	>76mm x 80mm
Connectivity*	USB 2, USB-IF certified

Power	Through USB
Dimension (W x H x D)	<160mm x 160mm x 160mm
Weight	Maximum 2.5 Kg
Operating Temperature	0 - 50C
Humidity	10 -90% non-condensing
Durability/Shock	IP54

*Total of only 1 USB port available for connectivity and power

Notes for the bidder:

1. The biometric devices should comply to the National e- governance standards for Biometrics

http://egovstandards.gov.in/standardsandFramework/biometric-standards/view.

1.   SDK environment should be in Java and .net.

2.   Extraction and Matching Algorithm should be Minex Compliant/listed

3.   Fingerprint Device should support 4+4+2 capture & storing of the image in raw format, Lossless PNG, ISO 19794-2,ISO 19794-4 and ANSI-378 format. The devices shall also support segmenting, compressing images to WSQ format(1:15 compression ratio) and/or lossless JPEG2000

4.   SDK should be available for integrating the finger print device with the application software. During the integration of the device with our application, vendor has to ensure technical support from the manufacturer regarding SDK as and when required.

5.   Drivers for the device should be available on Windows and/or Linux platform

6.   High quality computer based fingerprint capture (enrolment)

7.   Capable of converting Fingerprint image to "Fingerprint image and Minutiae data standard for e-Governance application in India" formulated by Department of Information Technology, Ministry of Communications and Information Technology (DIT), GOI.

*****