

AN ISO 9001 CERTIFIED ORGANISATION

Part - D

Minimum Technical Requirement

&

Scope of Work

FOR

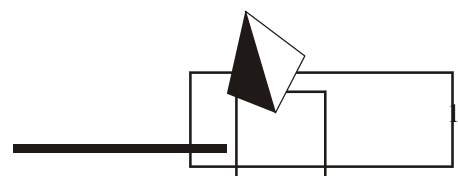
IMPLEMENTATION, DELIVERY AND SUPPORT OF

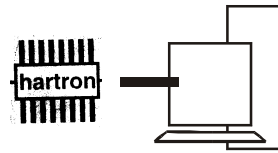
LIVE SCANNER SYSTEM

FOR

STATE CRIME RECORD BUREAU HARYANA

Scope of work
(Technical & Implementation requirement)





Technical Requirement of Live Scanner

S#	Item Details	Quantity
1	1. Live Rolled and plain Fingerprint Capturing Device (Live Scanner) 2. Application Software 3. Laptop	63 nos.

Rolled Live Fingerprint Scanner Specifications

Technical specification of the Scanner:

- Type : Optoelectronics
- Scan window size : 81.2 mm X 76.2 mm (3.2" X 3.0") or higher
- Resolution : Min. 500 PPI or better, software manageable
- Image Mode : 256 Gray Scale, 8 Bit
- Scanning time : > 0.01 Sec
- Distortion : < 1%
- Power source : From computer / Laptop USB port
- Operating temperature : 10 to 50 degree C
- Relative humidity : up to 90%
- Should detect finger automatically
- Quality Check - The system issues a message regarding the quality of rolled and plain fingerprint images prior to capturing next finger. If the image quality is good, the system offers to scan the next finger
- Image Quality - Certified JPEG 2000 / WSQ
- Image Compression Method - Certified JPEG 2000 / WSQ compression module.
- Automatic sequence - Automatic sequence checking of rolled print with respect to plain print

Other specifications:

- The system should be portable enough to carry in field operations. Laptops are to be provided by the supplier with Live Scanners (**Specifications of Laptop is placed below**).
- No external Power Supply should be required to operate in field operation.
- Should be fully in compliance with the AFIS system

Application Software Specifications:

- OS Support – WinXP / Win Vista / Win7 or higher version
- Capable of producing 10 Digit Slip with Photograph and other Demographic Data for Dossier Cell.
- Should capture image on NIST standards,
- Image resolution \geq 500 ppi and 1000 ppi (pixels per inch) in all aspects of capture, processing and archiving or better image. Software manageable & selectable.
- Minimum 256 Level Gray Scale, 8 bit.
- Temper Free Fingerprint quality control with sequence check and correction.
- Biometric Password controlled with log report of Administrators.
- User friendly application software can easily be operated by the user.
- Should be capable of performing 1: N (single digit search) search from live scanner



and other sources.

- Should be able to perform some primary fingerprint analysis to help the Fingerprint expert, such as zooming, automatic minutia detection, Single pixel thinning etc.
- Can be network ready and can be connected to AFIS system through LAN, WAN, PSTN Telephone, Wireless or Mobile.
- Interface – IEEE1394 / USB 2.0 or higher
- Preview, zoom and 10 Print Card Printing facilities
- Ability to search for an individual's data by his touch fingerprint
- On Screen Prompt feature indicating the direction of Finger roll and correct finger
- Exporting of Ten-print cards files in the following formats:
 - Print / reproduce 10digit slip (image and text data) in Haryana Police / NCRB format;
 - Conversion tool to JPEG / BMP / WSQ vise versa.

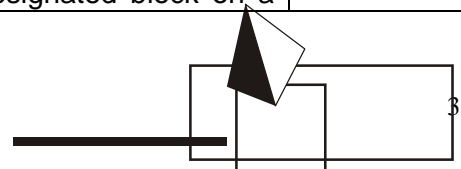
Quality check:

- i) Message regarding the quality of rolled and plain fingerprint images.
- ii) Automatic finger detection
- iii) If the image quality is good, the system offers to scan the next finger.
- iv) Image resolution \geq 500 ppi and 1000 ppi (pixels per inch) in all aspects of capture.

Accessories : All required Cables, Adaptors, USB / IEEE 1394 (Fire Wire) PCI / PCI Express card (As Required) for Desktop to connect Live Scanner through Fire-Wire Port by Fire-Wire cable / USB, Suitable case / bag to carry live scanner

Others Technical & Standard Requirement for Live Scanner System –

Description	Compliance (Yes / No)
Live scanner software should be able to capture forensic quality image of flat and rolled print impressions.	
Should have feature for integrated workflow for fingerprint with entering and viewing associated demographic information.	
Demographic data entry should be accelerated by use of pull-down menu.	
Live scanner software should guide the operator through the capturing process.	
Design to capture both thumbs together, flat print of all four fingers of each hand simultaneously followed by rolled prints.	
Live scan software should have quality control to access the quality of each captured print and alert the operator about the quality/status of the print in a real time mode.	
All the prints are evaluated automatically for quality and sequence check, allowing the system and system operator to select the best quality print.	
Live scan software enables the operator to exclude the capture of prints that are amputated, missing, bandaged and deformed.	
Live scan software supports automatic orientation of rolled finger prints and places the each print in its proper sequence within the designated block on a	





finger print slip.	
Live scan software compatible with Server, Workstation, Desktop Computer, Laptop etc.	
Live scan software compatible with all open system software like Windows, Linux, Unix, Solaris etc.	
Live Scan software capability to collect all elements on a ten print card, i.e. roll scans, 4-finger flat and thumb scans (4+4+2).	
Full Compliance with ANSI/NIST Data format for the interchange of Finger Print, Facial & SMT Information (ANSI/NIST-ITL-1-2007 or current)	
Certified Compliance to FBI Standard CJIS-RS-0010 (V7), IAFIS Image Quality specification for Scanner for 500 ppi and 1000 ppi identification flat system. Full Compliance with FBI NCIC CJIS WAN Protocol Specification, EFTS/EBTS and IAFIS Telecommunications Standard	
Electronic images must be of sufficient quality to allow for: (1) conclusive fingerprint comparisons (identification or non-identification decision); (2) fingerprint classification; (3) automatic feature detection; and (4) overall Automated Fingerprint Identification System (AFIS) search reliability.	
The fingerprint comparison process requires a high fidelity image without any banding, streaking or other visual defects. Finer detail such as pores and incipient ridges are needed since they can play an important role in the comparison. Additionally, the gray-scale dynamic range must be captured with sufficient depth to support image enhancement and restoration algorithms	
The fingerprint scanner must be capable of producing images that exhibit good geometric fidelity, sharpness, detail rendition, gray-level uniformity, and gray-scale dynamic range, with low noise characteristics. The images must be true representations of the input fingerprints without creating any significant artifacts, anomalies, false detail, or cosmetic image restoration effects.	
Tenderer have to integrate Live Scanner with existing Haryana Police AFIS hardware in all aspect, i.e. live scanner can be directly operated from AFIS as well as Finger Print Images (Rolled and Slab) and demographic details captured through Live Scanner Application Software can be imported directly to AFIS. Tenderer will develop all necessary interfaces and tools for AFIS and Live Scanner Integration. All required driver, SDK and API for integration will be procured and supplied by Tenderer only.	
Provide Technical assistance to integrate with existing AFIS and develop required Bridge software / Patch / Tools to export data to AFIS from Live Scanner application software in single or batch mode	
The Tenderer has to provide training on the Finger Print Live Scanner system to Haryana Police. Training shall be in Hindi and English. Training material should also be in Hindi and English. Some material at expert level may be in English/ Hindi. Required hardware for training, other than available in training lab of SCRB is to be arranged by Tenderer. Required software is to be arranged by Tenderer.	

Note – Bidders must provide compliance details along with technical bid.



S#	Item Description	Approximate Qty.
1	Laptop Configuration – <ul style="list-style-type: none"> • Processor Intel Core i3-370M or higher, • RAM 2GB or Higher • HDD – 320 GB • Screen Size – 14” • Operating System – Win7 Professional • Web cam with Minimum 2 MP • Bluetooth • Wi-Fi • Long Battery Backup (Minimum 6 cell) • Good Carry Bag • Warranty – 3 Years (onsite) • Certification - ISO 9001/9002, Energy star 5.0 Compliant, FCC, UL,CE 	63

Format for Price Bid

(Inclusive of all taxes & duties, FOR destination & 3 years onsite support) –

S#	Item	Qty	Make & Model	(Rs.) Unit Price	(Rs.) Amount	Total AMC Amount (Per year)
1	Live Scanner with software	63				
2	Laptop with 2.0 MP Webcam	63				
3.	Windows server CAL if required	63				

Note - In case any bidder wishes to propose higher specifications of Hardware / System software, additional price along with details may be mentioned separately in Technical as well as commercial Bids with proper justifications. However, final decision will be taken by Technical Committee for the additional higher specifications beyond the scope of this RFP.

