

Consolidated Pre-bid Queries and Clarifications

**Request for Proposal (RFP) For Supply & Installation of Required Hardware, Forensic Equipment, Tools and Material for Digital Investigation Lab
in Detective Department Hyderabad Police Commissionerate**

Ref. No - TSTS/ CS/FORENSIC/2015, Tender Issue Dt- 27.10.2015, Pre-bid Meeting Dt 09.11.2015

#	Page No, Clause No	As per RFP	Name of the Bidder & Clarification Requested	Amendment/Clarification Issued
1.		General	<u>M/s AGS Management Services:</u> Can the bidder submit tender for any one product in the schedules. Kindly allow us to participate for a particular item given in the schedules. Give the clarification in this regard	Yes. The bidders have choice to bid for any of the line items - either for single item or for multiple items of Schedule-I & Schedule-III.
2.		General	<u>M/s AGS Management Services</u> Because of Festival, It is difficult to get the MAF from all the OEM's w.r.t items given in Schedule II & III by 19th Nov 2015. Kindly extend the date of Tender submission atleast by 10 days	Bid Closing date : 01-12-2015 , 03:00 PM.
3.	13, 1.3	Delivery time for Items in Schedule - III 2 Weeks	<u>M/s AGS Management Services</u> Kindly extend upto a minimum of 4 weeks as we have to import the 3d scanner device	Amended as: Schedule-III items- Delivery & installation time: 4 Fweeks from date issue of Purchase Order.
4.	25 &26	Technical Evaluation	<u>M/s AGS Management Services</u> Technical Evaluation of 3D Scanner in Schedule - III, Kindly give exception in this regard Since Marks are allotted to previous works done in India. Technical presentation, Process flow and live demo we can do. So kindly give exception to allocate marks for previous experience in technical evaluation .	Read as: The Technical Evaluation & Presentation as mentioned at page 25 & 26 of RFP shall be applicable for Schedule- I items only. The Technical Evaluation for Schedule-III items is mentioned in the Annexure-I attached to this document.

5.	39, Point 4	Part-B, Eligibility Criteria- For Schedule III - Forensic Sample Collection Kit. The Bidder should have supplied and maintained similar Forensic Sample Collection kits in the last 3 financial years to Govt depts./ PSUs in India	<u>M/s AGS Management Services :</u> For Item No. 12 in Schedule – III. For 3d Scanners with the said specs is not used much in any of the govt/PSU's. Kindly give exception to this point w.r.t 3D Scanner.	Please refer Annexure-I attached with this clarifications document.
6.	83, point 12	3D Laser Scanners Specifications	<u>M/s AGS Management Services</u> The specifications mentioned does not give what kind of 3D scanner is required. If the scanner is required for indoor purpose or Outdoor purpose. Kindly let us know the scanning range of the scanner and additional specifications required w.r.t 3D Scanner. Based on this we can propose the right product	Please refer Annexure –I & for revised specifications refer Annexure-II attached to this document.
7.	68, No-8	All-in-One Laser Printers (Print, Scan, Copy with ADF)	<u>M/s Canon India Pvt Ltd:</u> To change to Print/Scan/Copy/Fax with ADF As this 25/26 PPM printer with ADF option, it will come with fax.	Amended as: All-in-One Laser Printer with Print/Scan/Copy/Fax with ADF
8.	69, No 9B	Legal Size Black & White Photo Copier : Interface -Network Ethernet- 10Base-T / 100Base-TX / 1000Base-T (RJ-45) Others USB 2.0 x 2 (Host), USB 2.0 (Device), SD Card / Memory Stick	<u>M/s Canon India Pvt Ltd:</u> Request to remove SD card/ Memory Stick since it is not available across most of OEMs.	Removed - SD card/ Memory Stick from Photo Copiers (a), (b) & (c).
9.	74, S.no.20 & 75, S.no. 23	Digital Camera (High resolution) & Digital Cameras	<u>M/s Canon India Pvt Ltd:</u> Request you to specify the focal length for close up & wide angle lens. 1. For wide angle lens –there are fish eye lens with 8-15mmf4:24mmf/1.4&f/2.8 2. For Closeup lens- there are lens from 50mm to 180mm focal length with best aperture values.	The revised specifications are enclosed in Annexure-II attached to this document.

10.	11	Schedule – II items -Sl. 1 to 36	<u>M/s Dell India Pvt Ltd & M/s Akshara Enterprises:</u> Request to Maintain the separate schedule for Sl. 20, 21, 22, 23, 24, 25, 26, 29, 30 and 35 Since some of the product lines OEMs are out of IT Hardware scope and response is very meagre. Hence we request you to make a different schedule for non-IT product lines. This will helps us as well as other vendors also to participate in tender for IT related products.	Please refer Annexure –I attached with clarifications document
11.	13, Point 1.3	Delivery & Installation: For Schedule –II – IT Hardware – 2Weeks	<u>M/s Dell India Pvt Ltd & M/s Akshara Enterprises:</u> Request for amend to deliver the goods /Services, install and commission the same within 3 to 4 weeks from the date of signing of the contract.	Read as: Delivery & Installation for Schedule –II IT Hardware items – 4 weeks from date of issue of Purchase Order.
12.	63, 64	Schedule – II – IT Hardware Server – I :Cache Memory -128 MB L3 Cache Storage Bays -8 SFF 2.5" Hot Plug drive bays Hard Disk Drive -4 X 2TB 12G SAS 15K RPM SAS drives Operating System - Windows 2013 Server licensed version	<u>M/s Dell India Pvt Ltd & M/s Akshara Enterprises:</u> Request for amend to 20 MB L3 Cache per socket Request for amend to 16 SFF, 2.5" Hot plug Drive Base. Request for amend to 6TB Raw Space after RAID 5 using 600 GB 15K 12G SAS drives Request for amend to windows 2012 Standard Server license since 2013 is not launched.	Read as: Cache Memory: Minimum 20 MB L3 Cache per socket. Storage Bays: 16 SFF, 2.5" Hot plug Drive Base for future expandability. Hard Disk Drive: After Raid configuration, it should be have minimum 5TB Raw Space with 15K RPM. Operating System – Windows 2012 standard version.
13.	64	Schedule – II – IT Hardware Laptops – I: Keyboard & Mouse OEM Standard Keyboard and Touchpad HDD-1 TB 7200 rpm SATA or higher	<u>M/s Dell India Pvt Ltd & M/s Akshara Enterprises:</u> Request for amend to OEM Standard Keyboard and touchpad with spill free Request for amend to 1TB with 5400 rpm Hybrid drive with 8GB Cache .	Read as: Keyboard & Mouse OEM Standard Keyboard and Touchpad and should be Water resistant. HDD- 1TB with minimum 5000 rpm or higher

14.	65	<p>Schedule – II – IT Hardware – Workstations: Should have 500W or Better SMPS</p> <p>Should have Removable HDD racks and cable management system for better cable routing and neatness</p>	<p><u>M/s Dell India Pvt Ltd & M/s Akshara Enterprises:</u> Request for Request to amend to 365W Thunderbolt Chassis</p> <p>Request for amend to Remove HDD racks</p>	<p>The revised specifications are enclosed in Annexure-II attached to this document.</p>
15.	65 , 66	<p>Schedule – II – IT Hardware Forensic Servers - Cache Memory 128 MB L3 Cache</p> <p>Storage Bays -8 SFF 2.5" Hot Plug drive bays</p> <p>Hard Disk Drive -4 X 2TB 12G SAS 15K RPM SAS drives</p> <p>Operating System -Windows 2013 Server licensed Version</p>	<p><u>M/s Dell India Pvt Ltd & M/s Akshara Enterprises:</u> Request for amend to 20 MB L3 Cache per socket</p> <p>Request for amend to 16 SFF, 2.5" Hot plug Drive base</p> <p>Request for amend to 6TB Raw Space after RAID 5 Using 600 GB 15K 12G SAS drives since all OEMs support up to 600GB with 15K RPM only.</p> <p>Request for amend to windows 2012 Standard Server license since 2013 version not launched.</p>	<p>Read as: Cache Memory: Minimum 20 MB L3 Cache per socket.</p> <p>Storage Bays: 16 SFF, 2.5" Hot plug Drive Base for future expandability.</p> <p>Hard Disk Drive: After Raid configuration, it should be have minimum 5TB Raw Space with 15K RPM.</p> <p>Operating System – Windows 2012 standard version.</p>
16.	66	<p>Schedule – II – IT Hardware Laptops – II- Keyboard & Mouse- OEM Standard Keyboard and Touchpad</p> <p>HDD -1 TB 7200 rpm SATA or higher</p> <p>Graphic Card-4GB NVIDIA</p>	<p><u>M/s Dell India Pvt Ltd & M/s Akshara Enterprises:</u> Request for amend to OEM Standard Keyboard and touchpad with spill free</p> <p>Request for amend to 1TB with 5400 rpm Hybrid drive with 8GB Cache</p> <p>Request for amend to 2GB NVidia since the Maximum Graphic card support for commercial laptops is 2GB</p>	<p>Read as: Keyboard & Mouse OEM Standard Keyboard and Touchpad and should be Water resistant.</p> <p>HDD- 1TB Hybrid drive with minimum 5000 rpm or higher</p> <p>Graphic Card – Minimum 2GB NVIDIA</p>

17.	68	<p>Schedule – II – IT Hardware High end workstations for Linux- Should have 500W or Better SMPS Should have Removable HDD racks and cable management system for better cable routing and neatness</p>	<p><u>M/s Dell India Pvt Ltd & M/s Akshara Enterprises:</u> Request for amend to 365W Thunderbolt Chassis Request for amend to Remove HDD rack</p>	<p>The revised specifications are enclosed in Annexure-II attached to this document.</p>						
18.		<p><u>Delivery Schedule</u></p>	<p><u>M/s Kwick Soft Solutions:</u> The Delivery Schedule has been changed from 2 weeks to 4 weeks but this is too less. About 60% of the items are to be imported and the procedure for the import is very cumbersome nowadays as a lot of approvals have to be obtained from Chartered Accountants, Bankers, Regional Office, RBI etc. Further, to manufacture the quantities as required in this tender will take some time. Even the local items, will take time to procure, consolidate and manufacture the kits. Hence, we feel that you should provide a maximum of 3 months from the supply order to complete the entire delivery (which could be staggered). Please consider this point as we do not want to be penalized for slightly delayed delivery.</p>	<p>Not considered. However, the Delivery & Installation timelines are revised as:</p> <table border="1"> <tr> <td>Schedule-I– TOOLS</td> <td>4 weeks</td> </tr> <tr> <td>Schedule-II – IT HARDWARE</td> <td>4 weeks</td> </tr> <tr> <td>Schedule-III- FORENSIC SAMPLE COLLECTION KITS</td> <td>4 weeks</td> </tr> </table>	Schedule-I– TOOLS	4 weeks	Schedule-II – IT HARDWARE	4 weeks	Schedule-III- FORENSIC SAMPLE COLLECTION KITS	4 weeks
Schedule-I– TOOLS	4 weeks									
Schedule-II – IT HARDWARE	4 weeks									
Schedule-III- FORENSIC SAMPLE COLLECTION KITS	4 weeks									
19.	81, S.no 3	Narcotics detection kits	<p><u>M/s Kwick Soft Solutions:</u> The Narcotic Drug should be “GHB” and not “OHB” as mentioned.</p>	<p>Read as: GHB instead of OHB for Narcotics detection kits.</p>						
20.	81, S.no 7	Blood samples FTA cards (25 Pack)	<p><u>M/s Kwick Soft Solutions:</u> Should these be 1 spot or 2 spot?</p>	<p>Read as: FTA cards – 2 spots</p>						
21.	83, S.no 11	Forensic light source	<p><u>M/s Kwick Soft Solutions:</u> a. 62mm Camera filters – how many? Should it be 3 – Yellow, Red and Orange? b. Additional Batteries and Chargers – 1 or 2? c. For the Battery pack it is mentioned as 10A, 450nm. This is not clear. We recommend 10A, 12V to suit Indian conditions.</p>	<p>Read as: 62 mm camera filters -2 Addl. Battery – 1 10 A or more 450 nm light source</p>						

22.	83, S.no 12	3D Laser scanners	<p><u>M/s Kwick Soft Solutions:</u> A little more detailed specification could be added as follows:</p> <ul style="list-style-type: none"> a. Range - > 300 metres. b. Ranging error - +2mm to -2mm c. In built camera – Required. d. Vertical Field of View – 300 degrees e. Horizontal field of view – 360 degrees f. Data Storage - > 16GB SD Card g. Weight - < 10 Kgs. h. Software Specifications: <ul style="list-style-type: none"> (i) Editing Scan Data – Automatic search for reference spheres and black and white reference targets. (ii) Automatic coloring of the scans i. Data management of projects j. Sharing – Automatic panoramic scan images, Web based administration tools. k. Import & Export – Control points for geo-referencing; Scan Points; CAD Objects; Import Digital photos; Export panoramic images; Direct data transfer to other software like AutoCAD; Revit; Goemagic and many more. l. Distance Measurement Analysis. m. Forensic Analysis Tools: <ul style="list-style-type: none"> (i) Bullet Trajectory Analysis (ii) Blood Spatter Analysis 	The revised specifications are mentioned in Annexure-II attached to this document.
23.	83, S.no 13	Set of Light Amplification Magnifiers	<p><u>M/s Kwick Soft Solutions:</u> What are the magnification levels. You could mention it as 5x, 6x, 7x and 8x.</p>	<p>Read as: 5x, 6x, 7x and 8x magnification levels</p>

24.	84	Illuminated swing arm magnifier	<p><u>M/s Kwick Soft Solutions:</u> The item description is Fuming Chamber whereas the specification is for a portable Humidifier. Please change this description.</p>	<p>Not Applicable for light amplification (SI.14)</p> <p>For Fuming Chamber Pg.No.84, SI.No.18 Read as: PUMA 100A or Sirchie or CAS30 of Air Science Ltd., USA or better version</p>
25.		General	<p><u>M/s Pyramid Cyber Security:</u> 1) Can We select the items from the schedule 1 & can we bid for the same? 2) Is OEM & MAF certificate is mandatory for all the tools? 3) Bid Security validity period & date for BG has to be change or can be modify (As the contradictions between the time period)</p>	<p>1. Yes. Please refer Annexure-I attached with this clarifications document</p> <p>2. Yes, MAF from OEM is mandatory for all the tools.</p> <p>Read as: Bid Security Validity Period: Validity period for DD/Banker cheque: 3 Months OR Validity period for Bank Guarantee : upto 31/01/2016.</p>
26.	Point.1.1	<p>Scope of Work The Bidder Should supply all the required items in the schedule awarded</p>	<p><u>M/s Foundation Futuristic Technologies (P) Ltd:</u> In a schedule there are many tools for which only one supplier is available in India. There should be facility to bid any number of items by a bidder and the EMD amount should be separate for each product which can be attended by number of products.</p>	<p>Yes. Please refer Annexure-I attached with this clarifications document</p>
27.	60	<p>Schedule I- Tools Serial No. 1. ADF Triage</p>	<p><u>M/s Foundation Futuristic Technologies (P) Ltd:</u> No Perpetual license is available. The license issued by OEM is time bound only. Alternate product like Encase Portable can be used</p>	<p>Read as: ADF Triage or better version</p>

28.	60	Schedule I- Tools Serial No. 6. Forensic Falcon-	<u>M/s Foundation Futuristic Technologies (P) Ltd:</u> There is only one supplier in India for this specific tool and name of the Product should be Forensic Duplicator. The specifications should be generic to enable for more than one bidder to bid in this tender.	Read as: Forensic Falcon or better version
29.	60	Schedule I- Tools Serial No. 7. Media Clone/Z Clone, Imaging Tool	<u>M/s Foundation Futuristic Technologies (P) Ltd:</u> There is only one supplier in India for this specific tool and name of the Product should be Media Cloning; Imaging Tool. The specifications should be generic to enable for more than one bidder to bid in this tender.	Read as: Media Clone/Z Clone, Imaging Tool or better version
30.	60	Schedule I- Tools Serial No. 8. Write Blocker Set for SATA, IDE, USB, Firewire and SCSI	<u>M/s Foundation Futuristic Technologies (P) Ltd:</u> SCSI has been discontinued by OEM. SAS is the latest write blocker which can be used in place of SCSI.	Read as: Write blocker sets with latest versions/ features
31.	62	Schedule I- Tools Serial No. 24. Vaccum Chamber for disk repair	<u>M/s Foundation Futuristic Technologies (P) Ltd:</u> The specification /Details of product should be provided.	Read as: The cost effective best solutions available for Disc repairs for Police Digital Investigation Lab
32.	62	Schedule I- Tools Serial No. 25. Multimedia Evidence Processing Solution by Ocean Systems – Video Forensics-	<u>M/s Foundation Futuristic Technologies (P) Ltd:</u> There is only one supplier in India for this tool and Product should be Multimedia Evidence Processing Solution – Video Forensics and the specifications should be generic to enable for more than one bidder to bid in this tender	Read as: Multimedia Evidence Processing Solution by Ocean Systems – Video Forensics or better version
33.	60	Schedule I- Tools Serial No. 7. C5-enterprise	<u>M/s Foundation Futuristic Technologies (P) Ltd:</u> There is only one supplier in India for this tool and Product should be CDR Analysis Software and specifications should be generic to enable for more than one bidder to bid in this tender.	Read as: CDR Analysis Software, C5-enterprise or better version
34.	63	Schedule I- Tools Serial No.33. Multimedia 2D, 3D making equipment	<u>M/s Foundation Futuristic Technologies (P) Ltd:</u> The specification /Details of product should be provided.	Read as: Multimedia 2D, 3D graphics & images – latest available versions

35.	Point No.4	Part-B- Eligibility criteria –Bidder should have a relevant experience in the field of Supply, installation, commissioning of Forensic Software Tools & Training to an investigating State/ Central/ PSU during each of the last three financial years-	<u>M/s Foundation Futuristic Technologies (P) Ltd</u> Can an authorized partner of OEM issue authorization to another company to submit bid for this tender?	As per RFP.
36.		Part –A Point No. 1.1 Scope of Work: The Bidder Should supply all the required items in the schedule awarded.	<u>M/s Indoteq Office Automation Systems</u> In one schedule there are some tools for which only one supplier in India then how can the bidder bid for all the items of schedule. There should be facility to bid for any number of items of any schedule.	Please refer Annexure-I attached with this clarifications document
37.		Part-B- Eligibility criteria – Point No.4 Bidder should have a relevant experience in the field of Supply, installation, commissioning of Forensic Software Tools & Training to any investigating State/ Central/ PSU during each of the last three financial years.	<u>M/s Indoteq Office Automation Systems</u> If the bidding firm has no experience in Supply, installation, commissioning of Forensic Software Tools & Training but the OEM/Company who is providing backend support have required experience then the bidding company should be eligible to submit bid. Past Experience should not be considered when OEM authorizes the vendor with support certification.	As per RFP.
38.		EMD	<u>M/s Indoteq Office Automation Systems</u> There should be facility to bid any number of items by a bidder and the EMD amount should be separate for each product which can be added by number of products. EMD flexibility as per the number of products quoted.	Please refer Annexure-I attached with this clarifications document
39.	17, Point XI	1.11. Other Conditions- A Tender shall be declared non-responsive and will be summarily ignored on the following grounds: Bidder has not quoted for entire quantity as specified in the list of requirements in the quoted Annexure.	<u>M/s 3rd Eye Techno Solutions Pvt Ltd:</u> There are multiple OEMs for the listed products in the tender document for schedule-1. In this case none of the vendors may be able to participate in the tender. Kindly allow more bidders to participate for individual items through relaxing this clause.	Please refer Annexure –I attached with this clarifications document

40.		<p>EMD</p> <p>Past Experience</p>	<p><u>M/s 3rd Eye Techno Solutions Pvt Ltd:</u> We would like to point out that kindly bifurcate the EMD item wise.</p> <p>If the OEM is promising to extend their support, will OEM's experience be considered for a bidder to participate?</p>	Please refer Annexure-I attached with this clarifications document
41.	50	<p>Form P1- Company Profile ISO 27001 or higher Information Security certification details and its validity</p>	<p><u>M/s 3rd Eye Techno Solutions Pvt Ltd:</u> As this is information security certification & nothing to do with Cyber Forensics hence, is it compulsory to participate in the tender?</p>	<p>Read as: ISO 9001 or equivalent quality certification for all items.</p> <p>ISO 27001 or equivalent for information security related items.</p>
42.	60. S.no 8	Write Blocker Set for SATA, IDE, USB, Fireware and SCSI - Should support USB, SATA, IDE, SCSI and Fireware	<p><u>M/s 3rd Eye Techno Solutions Pvt Ltd:</u> May add SAS write blocker in the same kit.</p>	Refer Sl. No. 30 this document
43.	60	Schedule- I, Item-10	<p><u>M/s 3rd Eye Techno Solutions Pvt Ltd:</u> UFED for PC with CHINEX have one add-on and very useful product i.e. UFED Cloud Analyser which will help in getting private cloud data using mobile credentials extracted from mobile phones seized during investigation.</p>	<p>Read as: UFED – Chinex or better version</p>
44.	37	<p>Pre Qualification Criteria: The Bidder should be a Registered company under Indian Company Act, 1956 / Firm registered under the Partnership Act 1932 and should have completed 5 years of business in India.</p>	<p><u>M/s 3rd Eye Techno Solutions Pvt Ltd:</u> There will be very few/negligible number of firms who would have supplied all the equipment that they are bidding for the last 5 years. In fact, there would be newer firms(1 yr old, 2 yr old) but still have very good reputation and technically sound but would be barred to participate in the tender due to this clause. Request to relax this clause.</p>	Please refer Annexure –I attached with this clarifications document.

45.	37	<p>Pre Qualification Criteria: Turnover Criteria: Supporting Documents- Audited Balance Sheet and Profit & Loss Statement of the last 3 financial years. Income Tax Returns of the last 3 financial years as on March, 2015.</p>	<p><u>M/s 3rd Eye Techno Solutions Pvt Ltd:</u> This 3 year balance sheet clause will bar some potential bidders, who only deal in cyber forensics and share good reputation in the industry. This will invite lesser bids & limited competition. Request to remove or relax this clause.</p>	Please refer Annexure-I attached with this clarifications document.
46.	6	<p>Bid Closing date: 19-11-2015, 03:00PM</p>	<p><u>M/s AKS IT Services</u> Our firm is keen to participate in the tender but due to very short time available for bidding, it is requested to kindly extend the bid submission date till 1st week of December-2015.</p>	Refer Sl.No 2 of this document.
47.	83, s.no 12	<p>3D Laser scanners - Digitization of SOC with 360 degree scanning and panoramic photography and documentation. To scan in toto by rotating the scanner 360 degree capable of capturing complete data from SOC, It can be utilized for reconstruction of scene in 3D view. Laser Scanners X Series - Perfect instruments for 3D Documentation.</p>	<p><u>M/s Elcome Technologies Pvt Ltd:</u> It requires to give the proper generalized Specifications for 3D Laser Scanner. The Specifications given as per your tender implies to a particular company called FARO. A 3D Laser Scanner requires the following Specifications generally: 1) Scan Rate 2) Range 3)Accuracy 4) Camera Resolution 5) IP Configurations 6) Post processing software We would like to request you to give the generalized specifications in brief.</p>	The revised specifications are mentioned in Annexure-II attached to this document.
48.	7 39	<p>Schedule-III items Bid Security EMD- Rs. 1.50 lakhs Turnover Criteria: The Bidder shall have minimum annual turnover of Rs. 1.00 cr in each of the last three (3) financial years i.e., 2012-13, 2013-14 & 2014-15</p>	<p><u>M/s Technomaxx Forensics Pvt Ltd:</u> EMD should be Item wise instead of schedule wise and also thereby reducing the minimum turnover clause accordingly.</p>	Please refer Annexure-I attached with clarifications document.

49.	13	Schedule-III items Delivery Period - 2weeks	<u>M/s Technomaxx Forensics Pvt Ltd:</u> We request you to increase Delivery Period from two weeks to four weeks for the schedule three items because most of the items are to be imported and requires so many logistic and procedural formalities.	Refer Sl.No 18 of this document
50.	39	Schedule-III items The Bidder should have supplied and maintained similar Forensic Sample Collection kits in the last 3 financial years to Govt depts./ PSUs in India.	<u>M/s Technomaxx Forensics Pvt Ltd:</u> We also request for reducing the period of experience for supplying the material from three to two years enabling more potential bidders and make the tender highly competitive	Please refer Annexure-I attached with this clarifications document
51.	83, s.no11 s.no 18	Forensic light source Fuming Chamber for Finger Print Development	<u>M/s Technomaxx Forensics Pvt Ltd:</u> We would like to bring to your notice that there is no mention of number of different wavelength / colors required. The specification are of a different product i.e. humidifier. So we request you to review it	Read as: Superlite MO5 or better version with spectral range 1)UV Lens - 315 nm/15 W LED, OP 1000 mW 2)Violet Lens - 405 nm/15 W LED, OP 2000 mW 3)Blue Lens - 455 nm/30 W LED, OP 3000 mW 4)Visible Lens – 400 to 700 nm/6500k/80 W LED, OP 3500 mW 5)Visible Lens – 400 to 700 nm/6500k/30 W LED, OP 5000 mW Or better specifications Refer Sl. no. 24 of this document
52.	7, point 1	EMD	<u>M/s CYINT Technologies</u> It is mentioned in RFP that the bid document price is to be drawn in favour of “The Managing Director, APTS(TU)”, however, it is not mentioned in whose favour will we make the EMD?	Refer page 42-Bid Security (EMD) Form in RFP.

53.	7, point 2	<p>Bid Validity: 120 days from the date of opening of bid.</p>	<p><u>M/s CYINT Technologies</u> Refer page no-7/point 2: Bid Validity mentioned is"120 days from the date of opening of bid" whereas on page 14/point i of General Terms & Conditions, it is mentioned " The Price quoted should be valid for a period of one year". Please clarify the applicable Bid Validity period.</p>	As per RFP
54.		<p>Schedule –I items</p>	<p><u>M/s CYINT Technologies</u> Please note that there are total 36 items listed in Schedule-I most of which are specialised tools & only few tools listed are items available off the shelf. For specialised tools it is not practically possible for all the vendors to have OEM authorisation certificates for all the products listed in the schedule and OEM authorisation certificates are not available for the Off-the-shelf items such as Adobe Software, Corel Draw, CAD Drawing etc.</p> <p>You are requested to either allow for partial bid within each schedule or make it compulsory for all the bidders to bid for certain number of items out of the total items duly keeping EMD value as it is.</p>	<p>As per RFP.</p> <p>Please refer the Annexure-I attached with this clarifications document.</p>

55.	60	<p>Schedule- I : Sl.No 1,2 & 3 items</p> <p>A bootable forensically sound environment to boot supporting all file types and formats. Clipboard Dump, Cookie Information, Drive Encryption Status, Installed Applications, Internet Browsing History, Search History, Mapping, Network Information, Physical Memory Dump, Screenshot, System Information, USB Device History, User Profiling, Visited Website Summary, Unified search of all evidence , e-mail review , Distributed process capabilities.</p>	<p><u>M/s CYINT Technologies</u></p> <p>Please note that Eforce is an OEM and not a product also the relevant combined technical specs mentioned in the RFP – ADF Triage, Eforce, Encase Portable does not clarify as to which product of Eforce should quote.</p>	<p>Read as:</p> <p>ADF Triage, Eforce, Encase Portable or better solutions</p>
56.	10 & 60	<p>Schedule –I: UFED Ultimate Ruggedized with Chinex PC Model along with connecting chord</p>	<p><u>M/s CYINT Technologies</u></p> <p>Please note that there are two version of this particular product UFED Touch and UFED 4PC where UFED Touch is a standalone device and comes in ruggedized casing, UFED 4PC is a PC model software version doing exactly the same thing as UFED Touch and comes with all accessories as UFED Touch but does not have a ruggedized version. In the RFP, it is mentioned PC model as well as ruggedized. Note that the PC model does not come in a ruggedized case. Looking at the specs we assume Dept is looking for UFED Touch Stand Alone Device. It is requested to delete the words PC Model from the product specifications as the same is creating confusion.</p>	<p>Read as:</p> <p>UFED -Chinex or better versions</p>
57.	11	<p>Schedule –I: Damaged SIM Card Data Recovery Lab</p>	<p><u>M/s CYINT Technologies</u></p> <p>There are multiple tools available in the market for data recovery from damaged sim cards. However depending on the cost of the solution the recovered data will vary. The Department is requested to kindly provide with some Technical specifications or mention the Name of the product as it is done for rest of the products.</p>	<p>Read as:</p> <p>Best available solutions/tools for damaged SIM Card Data Retrieval</p>

58.	11	Schedule –I: Multimedia Evidence Processing Solution by Ocean Systems - Video forensics	<u>M/s CYINT Technologies</u> The department has mentioned DELL workstation. However, the technical specifications for the same are not mentioned. Kindly specify the technical specifications of the workstations.	For specifications of Work stations, please refer Annexure-II attached to this document.
59.		Schedule-II items: 5KVA & 10 KVA UPS	<u>M/s RCALL- Tech Power Systems Pvt Ltd:</u> We have rate contract prices for 5 & 10KVA as per the tender specifications. Kindly request to consider our rate contract so that the delivery can be made in 2 weeks.	No change. As per RFP.
60.	12	Schedule II – LED Search Light	<u>M/s Scientific International:</u> We have supplied 10 watt 219 nos of LED Search lights to Police dept, Hyderabad City. Request to give extension order so that the same devices can be supplied at the rate finalised by Police dept, Hyderabad city in January-2015. Consider our request.	As per RFP.
61.		Schedule –III Forensic sample collection kits	<u>M/s Scientific International:</u> We have received order for supply of 60 nos of Crime Scene Investigation kit from Police Commissionerate, Hyderabad in February-2015. We can supply the same item at the same rate already supplied to from Police Commissionerate, Hyderabad. Consider our request.	As per RFP
62.	83	Schedule-III: Forensic Light Source	<u>M/s Scientific International:</u> Provide a clarity regarding the Technicalities in Wavelength of each filter Head unit with its wattage capacity.	Refer Pt. no 21 & 51 of this document.
63.	83, 84	Schedule-III: High Intensity Crime Scene Light Source	<u>M/s Scientific International:</u> Provide a clarity regarding the Technicalities in Wavelength of each filter Head unit with its wattage capacity.	Read as: Superlite 400 with optical spectral magnifier and 320 to 700 nm spectral range divided into 10 spectral selectable (5) filter views, liquid light guide 180 cms and telescopic arm of 140 cms height or better specifications

64.		EMD for Schedule-III items	<u>M/s Scientific International:</u> We are permitted to submit EMD of SCHEDULE NO 3 of all participating items of EMD As Rs.1,50,000/- Divided by all 23 items in the current schedule as respective EMD required along with the tender for Each item of to quote. Please confirm	Please refer Annexure –I attached with this clarifications document
65.		Schedule – II - IT Hardware- Item – 9 Photo Copiers – (a) , (b) & (c)	<u>M/s Signy Technologies Pvt. Ltd.:</u> Separate Schedule may be created	Please refer Annexure –I attached with this clarifications document at List of Items Schedule-III Sl.no 24.
66.		Schedule – II - IT Hardware- Item – 9 -Photo Copiers – (a) (b) & (c) Specifications For Photocopiers (a), (b) & (c): RAM – 16 MB Speed – 20 CPM (a) / 25 CPM (b) & (C)	<u>M/s Signy Technologies Pvt. Ltd.:</u> 1000Base-T (RJ-45) Others USB 2.0 x 2 (Host), SD Card / Memory Stick - may be omitted.	Removed- SD card/ Memory Stick from Photo Copiers (a), (b) & (c). Amendment to specifications: Photocopiers (a), (b) : RAM – minimum 128 MB Speed – minimum 20 CPM Copy Dpi- minimum 600 x 600 dpi Photocopiers (c) : RAM – minimum 1GB Speed – minimum 20 CPM Copy Dpi- minimum 600 x 600 dpi
67.		Schedule – II - IT Hardware- Item – 9 - Specifications of Photo Copiers – (b)- Maximum Original Size – Legal.	<u>M/s Signy Technologies Pvt. Ltd.:</u> Maximum Original Size – Legal may be changed to A3/Legal.	As per RFP
68.		Schedule – II – IT Hardware Item no- 27 & 28 LED TV - 32” & 42”	<u>M/s Signy Technologies Pvt. Ltd.:</u> Separate Schedule may be created	As per RFP
69.	New Addition	Facial Recognition in Live Environment (1 no)	New Line item added in Schedule-I	Please refer Annexure-II for specifications

70.	New Addition	Facial Recognition based on backend image based forensic investigation tool with a database size of 100,000+ images (1 no)		Please refer Annexure-II for specifications
71.	New Addition	Class 10 SD Cards a. 8GB- 25 nos b. 4GB – 50 nos	New Line item added in Schedule-III	Please refer Annexure-II for specifications
72.		Schedule-I: ElcomSoft Password Recovery Bundle – Forensic Edition Rainbow table.		Please refer Annexure-II for detailed specifications

Annexure-I

(Consortium bid is not permitted for this RFP)

➤ Schedule- I – Tools: (Total Items -38)

The bidders have choice to bid for any of the line items - either for single item or for multiple items mentioned at Sl. No 1 to Sl. No 38(as per revised list) of this schedule duly complying with the revised PQ criteria. However, Item-wise EMD has to be submitted by the participating bidders as per the **Revised EMD Details** as mentioned below.

Revised Pre-Qualification Criteria:

The Bidder must meet the minimum conditions of eligibility provided herein. Proposals of only those Bidders who satisfy the Conditions of Eligibility will be considered for evaluation and eligible for the “Technical Stage” evaluation.

#.	Pre-Qualification Criteria	Supporting Documents
1	The Bidder should be a Registered company under Indian Company Act, 1956 / Firm registered under the Partnership Act 1932 and should have completed 3 years of business in India.	Company Registration certificate VAT / Service Tax Registration certificate PAN Number with a copy of filed recent tax returns.
2	The bidder should be a manufacturer/ authorized representative of a manufacturer/ whole sale dealer and should be in business of manufacture and or supply Forensic Sample Collection kits for a minimum period of Three (3) years in India as on bid calling date.	Manufacturer’s Authorization Form for each participating item specific to this tender should be submitted with undertaking from OEM on the aspects mentioned in the RFP. The Bidder should submit the Manufacturer’s/ OEM Authorization specific to this tender as per the format Annexure-III (in RFP) for Hardware items and Software.
3	The Bidder shall have minimum cumulative annual turnover of Rs. 50.00 lakhs in the last three (3) financial years i.e., 2012-13, 2013-14 & 2014-15 The Bidder should have a positive net worth during each of the last three financial years as on March, 2015	Audited Balance Sheet and Profit & Loss Statement of the last 3 financial years. Income Tax Returns of the last 3 financial years as on March, 2015. CA certificate on positive net worth for the past 3 yrs.
4	Bidder should have a relevant experience in the field of Supply, installation, commissioning of Forensic Software Tools & Training to any investigating State/ Central/ PSU agency during each of the last three financial yrs.	Work Order copies along with Satisfactory certificate from the clients supporting the supply and installation should be submitted.

5	The bidders should not have been debarred/blacklisted by any State Government, Central Government, Central & State Govt. Undertakings/ enterprises/ Organizations and by any other Quasi Government bodies/ Organizations, World Bank or any major Enterprise / Organization in India for non-satisfactory performance, corrupt & Fraudulent or any other unethical business practices.	Undertaking to this effect shall be submitted by the Bidder on their letter head by the authorized signatory stating/ declaring that no cases pending against the firm/organization either in Government (State or Union) for involvement in cases for supply of sub-standard goods/material or track record of supply of inferior quality or no enquiries on past supplies are being conducted or underway to be submitted. If bidders who were black listed and subsequently revoked should also submit the revocation letter.
6	The bidders should have atleast 1 service centre in Hyderabad	Self declaration with address of service center.

Understanding of the Project:

Bidder should provide the technical approach, methodology and work plan for supply of Forensic Tools, Key staff to Install & handle the technical support & any other details. *(The bidder should submit supporting relevant documents/ manuals for Schedule – I items) (Form P#6).*

Details of key staff committed for the assignment

Bidder should have adequate Manpower for installation of the software technical support team & training the department officials as per Project deliverables. (The bidder should submit Self-Certification by the authorized signatory for all Schedules) (Form P#7).

➤ Schedule- II – IT Hardware Equipment: (Total Items: 25)

The items mentioned at Sl. No 9, 20, 21, 22, 23, 24, 25, 26, 29, 30 & 35 (page no 11 & 12 of RFP) are removed from this schedule and added to Schedule-III. The bidders should bid for entire items of revised schedule duly complying with the revised PQ criteria.

Revised Pre-Qualification Criteria:

The Bidder must meet the minimum conditions of eligibility provided herein. Proposals of only those Bidders who satisfy the Conditions of Eligibility will be considered for evaluation and eligible for the “Technical Stage” evaluation.

#.	Pre-Qualification Criteria	Supporting Documents
1	The Bidder should be a Registered company under Indian Company Act, 1956 / Firm registered under the Partnership Act 1932 and should have completed 3 years of business in India.	Company Registration certificate, VAT / Service Tax Registration certificate, PAN Number with a copy of filed recent tax returns.
2	The bidder should be a manufacturer/ authorized representative of a	Manufacturer’s Authorization Form for all the items in the schedule <i>(except for</i>

	manufacturer/whole sale dealer and should be in business of manufacture and or supply and maintenance of IT hardware, Office Automation equipment for a minimum period of Three (3) years in India as on bid calling date.	LAN cable & LED Pointers) specific to this tender should be submitted with undertaking from OEM on the aspects mentioned in the RFP.
3	The Bidder shall have minimum annual turnover of Rs. 4.00 cr in each of the last three (3) financial years i.e., 2012-13, 2013-14 & 2014-15 The Bidder should have a positive net worth during each of the last three financial years as on March, 2015	Audited Balance Sheet and Profit & Loss Statement of the last 3 financial years. Income Tax Returns of the last 3 financial years as on March, 2015. CA certificate on positive net worth for the past 3 yrs.
4	The Bidder should have supplied and installed items in any Govt dept/PSU/Banks/Local bodies in India - Laptops, Printers, Servers, Work Stations, Scanners, UPS(5KVA & 10KVA), Generators, LED TVs, Projectors, in the last 3 years with a minimum combined value for all above items of Rs. 1.00 cr in each of the last 3 financial years in India	Work Order copies of the items mentioned in the criteria along with Satisfactory certificate from the clients supporting the supply and installation should be submitted.
5	The bidders should not have been debarred/blacklisted by any State Government, Central Government, Central & State Govt. Undertakings/ enterprises/ Organizations and by any other Quasi Government bodies/ Organizations, World Bank or any major Enterprise / Organization in India for non-satisfactory performance, corrupt & Fraudulent or any other unethical business practices.	Undertaking to this effect shall be submitted by the Bidder on their letter head by the authorized signatory stating/ declaring that no cases pending against the firm/organization either in Government (State or Union) for involvement in cases for supply of sub-standard goods/material or track record of supply of inferior quality or no enquiries on past supplies are being conducted or underway to be submitted. If bidders who were black listed and subsequently revoked should also submit the revocation letter.
6	The bidders should have atleast 1 service centre in Hyderabad	Self declaration with address of service center.

➤ **Schedule- III – Forensic Sample Collection Kits & Other Items: (Total items -35)**

The items mentioned at Sl. No 9, 20, 21, 22, 23, 24, 25, 26, 29, 30 & 35 (page no 11 & 12 of RFP) are removed from schedule II and are included in this schedule.

The bidders have choice to bid for any of the line items - either for single item or for multiple items duly complying with the revised PQ criteria

Revised Pre-Qualification Criteria:

The Bidder must meet the minimum conditions of eligibility provided herein. Proposals of only those Bidders who satisfy the Conditions of Eligibility will be considered for evaluation and eligible for the “Technical Stage” evaluation.

#.	Pre-Qualification Criteria	Supporting Documents
1	The Bidder should be a Registered company under Indian Company Act, 1956 / Firm registered under the Partnership Act 1932 and should have completed 3 years of business in India.	Company Registration certificate VAT / Service Tax Registration certificate PAN Number with a copy of filed recent tax returns.
2	The bidder should be a manufacturer/ authorized representative of a manufacturer/whole sale dealer and should be in business of manufacture and or supply of relevant items (those items for which the bidder is quoting)for a minimum period of Three (3) years in India as on bid calling date.	Manufacturer’s Authorization Form for each participating item in the schedule specific to this tender should be submitted with undertaking from OEM on the aspects mentioned in the RFP.
3	The Bidder shall have minimum cumulative turnover of Rs. 20.00 lakhs of the last three (3) financial years i.e., 2012-13, 2013-14 & 2014-15 The Bidder should have a positive net worth during each of the last three financial years as on March, 2015	Audited Balance Sheet and Profit & Loss Statement of the last 3 financial years. Income Tax Returns of the last 3 financial years as on March, 2015. CA certificate on positive net worth for the past 3 yrs.
4	The Bidder should have supplied and maintained similar items (for which the bidder is participating) in the last 3 financial years to State/Central Govt depts./ PSUs/ Large Corporate firms in India.	Work Order copies along with Satisfactory certificate from the clients supporting the supply and installation should be submitted.
5	The bidders should not have been debarred/blacklisted by any State Government, Central Government, Central & State Govt. Undertakings/ enterprises/ Organizations and by any other Quasi Government bodies/ Organizations, World Bank or any major Enterprise / Organization in India for non-satisfactory performance, corrupt & Fraudulent or any other unethical	Undertaking to this effect shall be submitted by the Bidder on their letter head by the authorized signatory stating/ declaring that no cases pending against the firm/organization either in Government (State or Union) for involvement in cases for supply of sub-standard goods/material or track record of supply of inferior quality or no enquiries on past supplies are being

	business practices.	conducted or underway to be submitted. If bidders who were black listed and subsequently revoked should also submit the revocation letter.
6	The bidders should have atleast 1 service centre in Hyderabad	Self declaration with address of service center.

Technical Evaluation for Schedule-III items:

The PQ qualified bidders shall be called for live demonstration /presentation of the product to the evaluation committee for evaluation of features & specifications as per the RFP & clarifications issued. The evaluation committee shall award marks in this stage and only TQ qualified bidders shall be considered for next stage of evaluation.

Revised EMD Details:

Item	EMD Amount
Schedule-I: TOOLS	Rs.30,000/- per each participating line item.
Schedule-II : IT HARDWARE Items	Rs. 11.00 lakhs.
Schedule-III: FORENSIC SAMPLE COLLECTION KITS & Other Items	Rs. 20,000/- per each participating line item.

Revised List of Items Schedule wise:

Schedule- I Tools:

Sl.	NAME OF THE TOOL	Qty
1.	ADF Triage	10
2.	EFENSE	10
3.	Encase Portable	10
4.	RECON for MAC OS X	2
5.	Macquisition	2
6.	Forensic Falcon	3
7.	Media Clone/Z clone, Imaging Tool	3
8.	Write Blocker Set for SATA, IDE, USB, Fireware and SCSI	10
9.	XRY mobile extraction tool	1
10.	UFED Ultimate Ruggedized with Chinex PC Model along with connecting chord	5
11.	Oxygen Forensic	5
12.	Encase Version-7	5
13.	FTK 5	5
14.	MAC Forensic Lab	2
15.	ElcomSoft Password Recovery Bundle - Forensic Edition rainbow table	1

16.	Elcomsoft Mobile Forensic Bundle	1
17.	IEF (Internet Evidence Finder)	3
18.	X1-Social Discovery	3
19.	e-discovery	3
20.	Black Throne GPS Forensics Kit	2
21.	VMware Workstation Pro for Windows	5
22.	VMware Fusion 8 Pro for MAC	3
23.	Damaged SIM Card Data Recovery Lab	1
24.	Vaccum chamber for disk repair	1
25.	Multimedia Evidence Processing Solution by Ocean Systems - Video forensics	1
26.	Google Earth Software license	1
27.	<i>C5- enterprise +</i>	5
28.	<i>Cell ID Extractor</i>	5
29.	<i>I2 Software with database management - i-aps including high end servers</i>	1
30.	<i>Adobe software</i>	10
31.	<i>Coral draw</i>	5
32.	<i>CAD Drawing</i>	5
33.	<i>Multi Media 2D, 3D making equipment</i>	2
34.	<i>Photoshop</i>	10
35.	<i>CODED</i>	1
36.	<i>Tomtology navigation devices</i>	1
37.	Tool for Facial Recognition in Live Environment	1
38.	Facial Recognition based on backend image based forensic investigation tool with a database size of 100,000+ images	1

Schedule-II- IT Hardware

Sl.	NAME OF THE EQUIPMENT	Qty
1.	Servers (High end RAID (redundant array of independent disks) Servers)	2
2.	Laptops (I)	65
3.	Work Stations	22
4.	Servers for Forensic Tools	2
5.	High end Laptops for Field level analysis - Windows 7 OS	16
6.	High end Laptops for Field level analysis – MAC	5
7.	High end workstation for Linux	1
8.	All-in- One Printers	8
9.	A3 Flatbed Scanner	60
10.	LCD Projector 3D enabled with rechargeable 3D goggles	12
11.	UPS 5 KVA Online	5
12.	UPS 10 KVA Online	20
13.	Outdoor Generator 15KVA	5
14.	24 Port Switches	20

15.	Wi-Fi Access points	6
16.	LAN cable Cat 6A UTP	100 mts
17.	USB Pen drives 16 GB	125
18.	Internal Hard Discs 2 TB capacity – 50 nos, 4TB capacity – 20 nos, 1TB capacity- 50 nos	120
19.	LED TV 32 inch	25
20.	LED TV 42 inch	1
21.	Photo Printers	3
22.	Counting Machine	1
23.	LED Pointers	12
24.	Projector Screens	20
25.	Portable Generators 5 KVA	20

Schedule-III Forensic Sample Collection Kits & Other items

Sl.	NAME OF THE ITEM	Qty
1.	Body Fluid (Blood, Semen and Saliva) Collection Kit	100
2.	Explosive Detection Test kits	20
3.	Narcotics detection kits	50
4.	Gun Shot Residue detection kits	20
5.	Bullet Hole Testing kit	20
6.	Blood Alcohol/Urine Specimen Collection Kit	18
7.	DNA samples collection kit	18
8.	Arson and fire debris collection kit	36
9.	Liquid Silicon Plaster Casting Kits for Tyre & Foot impression	18
10.	Latent Print Development Kits for clues	20
11.	Forensic light source	18
12.	3D Laser scanners a. High End with Indoor/Outdoor facility b. Portable <i>Revised Specifications are enclosed in Annexure –II of this document.</i>	1
13.	Set of Light Amplification Magnifiers – (4 Nos. set)	20
14.	Illuminated swing arm magnifier	1
15.	Drysafe evidence chamber	20
16.	Stereo Microscope	20
17.	High Intensity Crime Scene Light Superlite 400	1
18.	Fuming Chamber for Finger Print development	18
19.	Fluorescent invisible detection with six fluorescent colours visible stain detection powders and feather brushes set in carrying case	18
20.	Magnetic powder sets for developing finger prints along with applications	18

21.	Gas Masks	36
22.	Video spectral comparative 5000	1
23.	TigerUV	18
24.	Photo Copiers (a) A3 Photo Copier - 1no (b) Legal Size Photo Copier- 18 nos (c) Legal size Color Copier - 06 nos	25
25.	DSLR Digital Camera (with zoom lenses and wide angle lenses- polarized (sun lenses)) <i>Revised Specifications are enclosed in Annexure –II of this document.</i>	30
26.	HD Video Cameras	18
27.	Video camera high-end professional – HD 4K recording	2
28.	DSLR Camera High resolution (with zoom lenses and wide angle lenses- polarized (sun lenses)) <i>Revised Specifications are enclosed in Annexure –II of this document.</i>	5
29.	Video Cameras (Handy Cam)	18
30.	LED Search Light	100
31.	Night Vision Binocular	25
32.	3-in-1 Mobile Jammer	5
33.	Portable Handheld Scanner	3
34.	Proli Com Umbrella	2
35.	Class 10 SD Cards A. 8GB- 25 nos B. 4 Gb- 50 nos	75

Annexure –II – Revised Specifications

Schedule-I Items (Revised List):

15.Elcomsoft Password Recovery Bundle- Forensic Edition rainbow Table (1 no)

Revised Specification:

- Industry certified: Microsoft Gold Certified Partner, Intel Software Partner, NVIDIA Developer Support
- Broad compatibility: recovers document and system passwords to various file formats
- GPU acceleration: patented technology reduces password recovery time by a factor of
- Linear scalability: allows using a number of multi-core and multi-processor workstations connected over a LAN or the Internet with linear increase of recovery speed
- Minimum bandwidth utilization and zero scalability overhead
- Flexible queue control and easy job management
- Remote management of password recovery workstations
- Completely traceable: keeps track of CPU time and resource utilization, password recovery jobs and user activities.
- **Passwarekit Forensic 2015 version3:** For identifying, by parsing and cracking of files, folders, volumes, disks protected with passwords, encryption, pattern lock. For analyzing the RAM Dumps to retrieve the encryption and decryption keys and building customized data bases which can be uploaded and used for cracking / by passing the passwords. This tool can be loaded on to the Server with graphic / hardware accelerator for achieving optimum performance.

37. Face Recognition - Backend latent face image based Forensic Investigation System (1 no)

This tool should have minimum features as mentioned below:

- Facial forensic image processing & matching
- Powerful image enhancement tools, with options for adjusting the subject pose correction, image pixels improvement, brightness, image rotation, and crop.
- The system should also be able to use sketches made by artists; computer application generated sketches or paper media printed photographs.
- Option to send multiple images search in a consolidated single command.
- Support of multiple image & video formats for capturing face images and use them for face matching.
- The matching results for configurable top n results should be displayed.
- The system should utilise advance windows & touch screen features.
- The system should have capabilities to have up to 100,000+ face image in the database which should be used for 1 : N image search.
- System should have option to add demographic data of the subjects and use the demographic data for filtering for matching.
- Able to provide facial recognition systems that can scale to over 50 million unique identities and that can also incorporate multiple biometrics modalities.
- The proposed solution shall provide a robust facial recognition technology that applies to a variety of images and image variations that were recently tested by independent reputed test laboratories, including the NIST Face Recognition Vendor Test (FRVT) 2013 and 2011 Performance of Face Recognition Algorithms on Compressed Images

- It should provide a facial recognition technology that can perform proven matching with low quality images down to 24 and pixel counts between the eyes and at varying compression ratios.
- It should provide a facial recognition technology that is efficient in use of the host hardware and servers.
- It should provide a robust partial face recognition technology including a full array of image enhancement toolsets and image match verification toolsets.
- Should provide an investigative tool and provide explanation of how the photo comparison results are affected by different photo attributes such as resolution, color depth, format, size and variations in the depiction of a face such as glasses on/off, earrings, smile, and other variations.
- Should provide the tool which can perform face biometric matching even with age difference over 20 years.
- The face latent face matching tool must give matching score for the subject image with the entire mug shot gallery the number of faces to be displayed must be configurable.

38. FAST AND ACCURATE FACE RECOGNITION IN LIVE ENVIRONMENT (1 no)

Fast & accurate face recognition

- Multiple-matching face detection from a single frame from live IP CCTV video stream.
- Combination of eye-zone extraction and facial recognition
- Recognition based on neural network or any latest technology
- Short processing time, high recognition rate.
- Recognition regardless of vantage point and facial changes (glasses, beard, and expression)
- Face detection algorithms, modes and search depths should be suitable for different environments such as fast detection, high accuracy, and infrared or thermal power cameras.

Mandatory Features/functionality for Face Recognition system

- Identification and authentication based on individual facial features
- Easy adaptation to existing IT systems
- Flexible integration into multiple types of video monitoring systems
- 1:1 verification and 1:N identification matching
- Integration with other biometric solution deployed at police department system like Automatic Fingerprint identification system (AFIS)
- Should support diverse industry standard graphic and video formats as well as live cameras.
- Should support face matching from recorded media.
- Should be able to detect face from group photo.
- Should be able to detect face from stored videos of any format.
- Should have option bulk photo enrollment.
- No limit on number of camera to be used with the FRS solution.
- Can use MPEG, H264, H265, JPEG, MJPEG
- Web based user interface.,User friendly GUI , user should be able to edit the GUI for alerts.

- Should have Image enhancement tool for still images for enrolment.

Technical Compliance for Face Recognition tools

S.No.	Parameter
1	The proposed solution must have industry stranded COTS hardware.
2	The client & server application must work on stranded windows platform Windows server 2012 or latest.
3	The alerts, matching results and enrolment should be available on a web based application. The system should have option to send an email if a match is found.
4	The number of face images in the background gallery should be scalable.
5	Only one template of face should be created and stored in the database for matching.
6	The system administrator/ user should have option to customise the view of the GUI.
7	The system should have option to create different roles and users based on the rights to be given to the user.
6	The Proposed system should use 2D face images of JPEG, PNG or any format for enrolment.
8	The proposed system must be able to check if a new enrolled face is already enrolled in the database before registering the new enrolled face in the system.
9	The proposed system should use MS SQL or Oracle database.
10	The system should have option to enrol face images in bulk with demographic data of the individual.
11	The system should have option to generate match alerts with a recorded video.
12	The system should have option to do a still image matching where a user selects a face image of the suspect and match it with the registered face images in the system. This feature should have option to do manually enhance the subject face images, rotate image, crop, change brightness, colour saturation etc
13	The system should have option to upload bulk subject images and generate alerts if any of the subject images matches with the registered faces in the database.
14	The proposed FRS must have option to generate face matching alerts on a mobile phone with android and iOS operating system.
15	The FRS system should work with ONVIF Profile S, ONVIF Version X compliant camera makes.
16	The system should have capability to create different categories of people. With option to customise the matching threshold for different categories.
17	The system should have option to configure alert for an individual based on specific camera or category type. Thus each individual and camera would be given a security level and if an individual with lower security level comes in front of a camera with higher security level should generate alert. Whereas if individual with higher security level comes in front of a camera with lower security level it may not generate an alert.
18	The system should have option to generate audio visual alerts at the control room, with option to show the matching results in different colours based on category of the matched individual's image.

19	The FRS solution must have a Quality enhancement tool to enhance the images before enrolment based on parameter. It should have option to edit the subject face image, crop a face, It should automatically detect face and eyes in the subject image, options to enhance face image: - , Smooth brightness, contrast, colour adjustment, Rotate the image, and adjust saturation level.
20	The proposed FRS should have option to utilised stored Video from CCTV system to generate matching alert.
21	The proposed FRS system should have option to input face images in JPEG, PNG etc image and search and generate face matches with the stored database.
22	The Face Recognition system must have an integrated mobile device application (Android and IOS), to enrol and verify a captured face image. The matching alerts should be provided on the mobile device over Wi-Fi or GPRS.
23	System should have option to automatically enrol face images from a CCTV camera.
24	The system should propose up to 50,000 face image database for matching, although the system should be scalable to upgrade for higher a data size as and when required with additional licence for data size.
25	The proposed system should have capabilities to capture up to XX number of Live CCTV cameras simultaneously.

Schedule-II Items (Revised List):

Sl. No 3 & Sl.No 7 – Work Stations - Specifications

Item	Description
Specifications:	<ul style="list-style-type: none"> • CPU : Intel Xenon Processor(8 core) or equivalent processor, 3.4 GHz, • Cache : 8 MB Cache or better. • Chipset : Latest Compatible chipset on OEM Motherboard. • Bus Architecture : 4 PCI (PCI/ PCI Express) • Memory : 32 GB DDR3 RAM , upgradable to 64GB . • Hard Disk Drive : 2 x 1TB SATA Drive Serial ATA HDD • Monitor : 20inches LED/ TFT Digital Colour Monitor • Graphic Card - dedicated 4 GB NIVIDA Memory • Should have minimum 300W or Better SMPS with 90% power efficiency • Keyboard : 104 keys . • Mouse : Optical with USB interface. • Ports : 6 USB Ports (with at least 2 in front), audio ports, for microphone and headphone in front, Fire wire 400 and 800 port • DVD Drive : Multispeed DVD Writer Drive. • Networking facility : 10/100/1000 Mbps on board integrated Network Port with , remote booting facility remote system installation, remote wake up, out of band management using any standard management software. • Operating System : Windows 7.1 Professional 64 Bit preloaded with free upgrade to Windows 10, and with Media and Documentation and Certificate of Authenticity. • OS Certifications: Windows OS and Linux certification. • EPEAT Registered • Power Management : Screen Blanking, Hard Disk and System Idle Mode in

	<ul style="list-style-type: none"> • Power On, Set up Password, Power supply SMPS Surge protected. • Preloaded Software: 1. MS Office 2010 and 2. Antivirus software with one year subscription • Service & Support Details warranty - 3years Onsite Warranty • Should have Dual Monitor Facility
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Schedule-III Items (Revised List):

12. 3D Laser Scanners (2 nos) - Specifications

a. High End with Indoor/Outdoor facility (1 no):

Specifications:

- Distance accuracy up to $\pm 2\text{mm}$
- Range from 0.6m up to 130m indoor or outdoor
- Noise reduction - 50%
- Measurement speed: up to 976,000 points/second
- Integrated colour camera: Up to 70 mega pixel
- Laser class: Laser class 1
- Wavelength: minimum 1500 nm
- Weight: up to 5.2kg
- Multi-Sensor: integrated GPS, Compass, Height Sensor, Dual Axis Compensator
- Size: up to 240 x 200 x 100mm
- Scanner control: via touchscreen display and WLAN
- Data Storage: Should support SD Card and should be supplied with 32 GB SD card
- Should have Water proof Peli-case.
- Battery life: minimum 4 hours
- To be supplied along with tripod & battery

b. Portable (Hand held) (1 no): Specifications:

- Handheld device
- 3D point accuracy/ whole scan accuracy : <1.5mm / 0.059 in)
- Indoor scanning volume: Up to 8m³ / 286 ft³
- IP rating: IP5X
- Operating temperature range: 0 - 40°C / 32 - 104°F
- Should have USB 3.0 Connectivity
- Inbuilt LED Flash
- Weight – less than 1 kg
- Power Supply- 5W
- Ability to measure and scan in tight and hard-to-reach areas
- Scan around corners where there is limited visibility
- Memory-scan technology allows users to pause and resume scanning at any time Auto leveling
- Flexibility to work with or without artificial targets
- Seamless integration with Focus3D laser scanner data

Sl. No 27 & Sl.No 29 – Video Cameras (HD) & Video Cameras (Handy cam):

Addition to specification- Should have Slot for Memory card/SD and should support upto 64 GB

25 . DSLR Digital Cameras (30 nos): Specifications:

IMAGE SENSOR	
Type	35.8 x 23.9mm CMOS
Effective Pixels	Approx. 12.8M
Total Pixels	Approx. 13.3M
Aspect Ratio	3:2
Colour Filter Type	Primary Colour
VIEWFINDER	
Viewfinder	Pentaprism
Coverage (Vertical/Horizontal)	Approx. 96%
Magnification	0.71x [note 1]
Eyepoint	20mm
Low-Pass Filter	Built in/Fixed
Dioptrre Correction	-3 to +1 dpt
Focusing Screen	Interchangeable (3 types). Standard Focusing Screen Precision Matte Ee-A
Mirror	Quick-return half mirror (Transmission: reflection ratio of 40:60, no mirror cut-off with EF600mm f4 or shorter)
Viewfinder Information	AF information (AF points, focus confirmation light), exposure information (shutter speed, aperture value, AE lock, exposure level, partial metering circle, exposure warning), flash information (flash ready, high-speed sync, FE lock, flash exposure compensation), white balance correction, maximum burst, CF card information
IMAGE PROCESSOR	
Type	DIGIC II
LENS	
Lens Mount	EF (excludes EF-S lenses)
Focal Length	1.0x Multiplication with EF lens fitted
FOCUSING	
Type	TTL-CT-SIR with a CMOS sensor
AF System/Points	9-point AF (plus 6 invisible Assist AF points)
Depth of Field Preview	YES
AF Working Range	EV -0.5 -18 (at 20°C & ISO 100)
AF Modes	One Shot, AI Servo, AI Focus
AF Point Selection	Automatic selection, Manual selection
Selected AF Point Display	Superimposed in viewfinder and indicated on top LCD panel
Predictive AF	YES

AF Lock	Locked when shutter button is pressed half way in One Shot AF mode
AF Assist Beam	Emitted by an optional dedicated Speedlite
Manual Focus	Selected on lens
LCD MONITOR	
Monitor	2.5" TFT, approx. 230k pixel
Coverage	Approx. 100% (for JPEG images)
Brightness	Adjustable to one of five levels
FLASH	
Modes	E-TTL II Auto Flash, Metered Manual
HotShoe/PC Terminal	YES/YES
X-sync	1/200 sec
Metering Modes	TTL full aperture metering with 35 zone SPC
Flash Exposure Compensation	+/-2 EV in 1/3-stop increments with
Flash Exposure Bracketing	YES
Flash Exposure Lock	YES
Second Curtain Synchronisation	YES
External Flash	E-TTL II with EX series Speedlites, wireless multi-flash support
EXPOSURE CONTROL	
Metering modes	(1) Evaluative metering (linked to any AF point) (2) Partial metering (approx. 8% of viewfinder at centre) (3) Spot metering: Center spot metering (approx. 3.5% viewfinder at center) (4) Center weighted average metering
Metering Range	EV 1-20 (at 20°C with 50mm f1.4 lens ISO 100)
AE Lock	Auto: Operates in 1-shot AF mode with evaluative metering when focus is achieved Manual: By AE lock button except in Full Auto mode
Exposure Compensation	+/-2 EV in 1/3 or 1/2 stop increments (can be combined with AEB)
ISO Speed Equivalent	100-1600 (in 1/3-stop increments) ISO can be expanded to L: 50 or H: 3200 (selected in Custom Function)
AEB	+/-2 EV in 1/3-stop increments 1/2-stop increments selectable with C.Fn-06
SHOOTING	
Modes	Auto, Program AE, Shutter priority AE, Aperture priority AE, Manual, Custom
Photo Effects	Monochrome (selected from the "Picture Style" menu) with options for Filters and Toning Effects
Drive Modes	Single/Continuous
Continuous Shooting	3 fps (speed maintained for up to 60 images (JPEG)/17 images (RAW))
SHUTTER	
Type	Electronically controlled focal-plane shutter

Speed	30 - 1/8,000 sec (1/3 stop increments), Bulb
Shutter Release	Soft touch electromagnetic release
RECORDING PIXELS/ COMPRESSION	
Image Size	(LF) 4368 x 2912, (LN) 4368 x 2912, (MF) 3168 x 2112, (MN) 3168 x 2112, (SF) 2496 x 1664, (SN) 2496 x 1664, (RAW) 4368 x 2912
Compression	Fine, Normal, RAW (Canon RAW 2nd edition)
WHITE BALANCE	
Type	Auto white balance with the imaging sensor
Settings	Auto, Daylight, Shade, Cloudy, Tungsten, White Fluorescent light, Flash, Custom, Colour Temperature setting. Whitebalance compensation: (1) Blue/Amber +/-9 (2) Magenta/Green +/-9
Personal White Balance	NO
WB Bracketing	+/-3 stops in full stop increments, 3 bracketed images per shutter release. Selectable Blue/Amber bias or Magenta/Green bias
FILE FORMAT	
Still Image Format	JPEG (Exif 2.21 [Exif Print] compliant)/Design rule for Camera File system (2.0), Digital Print Order Format [DPOF] Version 1.1 compliant
RAW+JPEG Simultaneous Recording	YES
Folders	Folder creation & selection is possible
File Numbering	(1) Consecutive numbering (2) Auto reset (3) Manual reset
Processing Parameters	6 Preset 'Picture Styles' with 3 User defined settings
COLOUR MATRIX	
Type	Two types of colour space, sRGB and Adobe RGB
DIRECT PRINT SOFTWARE	
Canon Printers	Canon Compact Photo Printers and PIXMA Printers supporting PictBridge
Browsing & Printing	ZoomBrowser EX/ImageBrowser
Drivers	TWAIN (Windows 98/2000), WIA (Windows Me/XP)
Image Manipulation	Digital Photo Professional (Windows 2000/XP)
PictBridge	YES
Other	PhotoStitch, Remote Capture
OTHER FEATURES	
Water/Dust Resistance	NO
Sound Memo	NO
Intelligent Orientation Sensor	YES
Custom Functions	21 Custom Functions with 57 settings

Histogram	Brightness: YES RGB: YES
LCD Panel (EL) Illumination	YES
Playback Zoom	1.5x - 10x
Power Saving	Power turns off after 1, 2, 4, 8, 15 or 30 mins
Display Formats	(1) Single image with information (2) Single image (3) 9 image index (4) Magnified view
Image Erase Protection	Erase protection of one image at a time
Image Erase	Single image, All
Self Timer	Approx. 10 sec
Firmware Update	Update possible by the user.
Menu Languages	English, German, French, Dutch, Danish, Finnish, Italian, Norwegian, Swedish, Spanish, Simplified Chinese, Japanese, Russian Traditional Chinese, Korean
Menu Categories	(1) Shooting Menu (2) Playback Menu (3) Setup Menu
PHYSICAL SPECIFICATIONS	
Body Materials	Magnesium Alloy/Plastic
Dimensions (W x H x D)	152mm x 113mm x 75mm
Weight (body only)	Approx. 810g
Operating Environment	0° to 40°C, 85% or less humidity
INTERFACE	
Computer	USB 2.0 Hi-Speed (Mini-B, PTP)
Other	Video output (PAL/NTSC)
MEMORY CARD	
Type	CompactFlash Type I/II (Microdrive compatible)
POWER SOURCE	
Batteries	Rechargeable Li-ion Battery BP-511/BP-511A or BP-512/BP-514 (BP-511A battery supplied), 1xCR2016 for date & settings
Battery Life	Approx. 800 (at 20°C), Approx. 400 (at 0°C)
Battery Check	Automatic
A/C Power Supply	Optional, Power adapter ACK-E2
ACCESSORIES	
Lenses	All EF lenses (excludes EF-S lenses)
Flash	Canon Speedlites (220EX, 380EX, 420EX, 430EX, 550EX, 580EX, Macro-Ring-Lite, MR-14EX, Macro Twin Lite MT-24EX, Speedlite Transmitter ST-E2)

Battery Grip	BG-E4
Remote Controller/Switch	Remote control with N3 type contact
Chargers	CA-PS400, Battery charger CB-5L, Battery charger CG-570, Car Battery Cable Kit CR-560, BP-511A
Power Supply & Battery	AC Adapter Kit ACK-E2, Compact power adapter
SUPPORTED OPERATING SYSTEMS	
PC	Windows 98SE/2000/Me/XP
Macintosh	OS X v10.2 to 10.4

28. DSLR Digital Cameras with High Resolution (5 nos): Specifications:

Type of Camera	DSLR
Effective Resolution	18MP
Sensor Type	CMOS
Image Stabilizer	Yes
Screen	
LCD Size (Inches)	3
Resolution (dots)	1.04M
Aspect Ratio	3:02
Shooting Specs	
Imaging Processor	DIGIC 5
ISO Sensitivity Range	ISO 100-12800
White Balance	Auto, Preset (Daylight, Shade, Cloudy, Tungsten light, White fluorescent light, Flash), Custom White Balance Correction and White Balance Bracketing Features Provided
Shutter Speed (Seconds)	30/01/4000
Burst Mode (Continuous Modes)	5fps
Scene Modes	Scene Intelligent Auto (Stills and Movie)
	- No Flash
	- Creative Auto
	- Portrait
	- Landscape
	- Close-up
	- Sports
- SCN (Night Portrait, Handheld Night Scene, HDR Backlight Control)	
Shooting mode (PSAM)	Program AE, Shutter priority AE, Aperture priority AE, Manual
Video	
Maximum Resolution	1920 x 1080
Maximum Frame rate	30fps
Media	
Storage	SD, SDHC, SDXC

File formats supported	JPEG, RAW
Connectivity	
USB Cable	Yes
HDMI	Yes
Microphone	Yes
PictBridge	Yes
Battery	
Type of Battery	Li-Ion
Numbers of Shots	440
Dimensions	
Dimensions (W x D x H)	133.1 x 78.8 x 99.8 mm
Weight	580 grams
More Features	
Other Features	Custom Functions
	- Metadata Tag
	- Intelligent Orientation Sensor
	- Playback Zoom
	- Slide Show
	- Histogram
	- Highlight Alert

Sd/-
Commissioner of Police,
Hyderabad City.