

Tender No. NIELIT/CCU/Tech/40/12

National Institute of Electronics and Information Technology (An Autonomous Scientific Society of Ministry of Communications and Information Technology Department of Electronics and Information Technology Electronics Niketan, 6, CGO complex, Lodhi Road, New Delhi-110003)

TENDER DOCUMENT

for

Purchase of Software Tools and Equipments for Creation of Computer Forensic Investigation Facility at SFIO

Issued by: Managing Director NIELIT

Price of this Tender Document: Rs. 1000/- Only by DD/PO (non-refundable).

Pre-bid Meeting Date & Time: 3-5-2013 at11.00 a.m.

Tender Submission closing Date & Time:13-5-2013 at 3.00p.m

Tender Opening Date & Time: 13-5-2013 at 3.30p.m



National Institute of Electronics and Information Technology
(An Autonomous Scientific Society of Ministry of Communications and Information
Technology Department of Electronics and Information Technology Electronics Niketan, 6,
CGO complex, Lodhi Road, New Delhi-110003)

TENDER DOCUMENT

Managing Director, NIELIT, invites Sealed Tenders for Supply and Installation of Softwares, Systems, Equipments and Peripherals, as listed in Annexure 'A' related to Computer Forensics Lab at SFIO(Serious Fraud Investigation office) Ministry of Corporate Affairs, paryavaran Bhawan, CGO Complex, New Delhi). Detailed Technical Specifications of the items to be supplied is given in Annexure 'C'. Following instructions should be carefully noted and followed by the bidders:

GENERAL TERMS & CONDITIONS

- 1. The bidder's bid for the softwares, as selected to bid, must be for its latest version only as, released by the OEM at that time. Software Version / Equipment Make & Model must be clearly stated by the bidder in both the bids technical and commercial.
- 2. The license for the Software Application / Tools should be procured by the qualified bidder in name of SFIO(Serious Fraud Investigation office) Ministry of Corporate Affairs, Paryavaran Bhawan, CGO Complex, New Delhi) and relevant document for the same is required to delivered to NIELIT along with the media with installable software for the softwares, as selected to bid, including the preinstalled softwares.
- 3. The equipment / item / software to be supplied should be supported by a Service / Support centre manned by the technical service / support engineers authorised by OEM.
- 4. The qualified bidder shall supply all the spares and accessories for installation & Commissioning, as may be required during erection, initial operation of the facility till successful commissioning at SFIO(Serious Fraud Investigation office) Ministry of Corporate Affairs, Paryavaran Bhawan, CGO Complex, New Delhi). The bidder will have to arrange / provide for all the testing equipment & tools required for successful installation, testing & acceptance, maintenance etc. For software items (except for subscription to online services and journals), MD5 checksum of software package files should also be provided along with supplied software for the purpose of verification of authenticity.



- 5. The Bidders should give clause-by-clause compliance for the detailed technical specification of the equipments / software applications / Tools in their technical bids. Compliance of all the terms & conditions, as stated in the Tender document, should also be given. An unpriced 'Bill of Material' for all the items as mentioned in Annexure 'A' of tender should be submitted for compliance of specifications and configurations of each of the items as part of the technical bid.
- 6. Bidder shall furnish a compliance statement of specifications & features of offered equipments/ items in the Technical Bid. Deviation on lower side of specifications will not be considered. Quotes for the latest versions of products only, as available on the closing date, shall be considered. No deviations in terms & conditions of the tender document will be accepted in any case. Complete Technical literature for each of the quoted item from OEM along with make, model number, specifications, configurations, product brochures, etc. of the systems / software / equipment highlighting the special features of their offer should be supplied by the bidder along with the quotation / technical bid.
- 7. If, a new version / model of any of the equipment, software, item, product, etc supplied to SFIO-In is released by its OEM / manufacturer within the next six months from the date of delivery; the said supplied item will be replaced by the supplier with the recently released version/model of the item without any extra cost.
- 8. A certificate on company letterhead, stating that the bidder hasn't been blacklisted by any institution/ organization/ society/ company of the Central / State Government ministry/department, or its public sector organizations during the last three years, with company stamp and signed by authorized signatory should also be submitted.
- 9. The bidder should have adequate facilities, trained manpower and staff for installation, commissioning and providing maintenance support service after the sales of the equipments in India.
- 10. The Bidder will deploy their own manpower for the installation / integration of the equipments and should not be outsourced to any third party.
- 11. For a bidder, who has submitted the tender bids, it will be automatically assumed that he had accepted all the terms and conditions of the tender. A statement specifying that the quotations are strictly as per the terms and conditions of the tender, should be enclosed with the bids. No request for deviation in the terms and conditions of the tender will be entertained. If there is any deviation from the terms and conditions of the tender or the tenderer has submitted conditional bids, the bid will be summarily rejected.
- 12. Bids should be valid for a minimum period of 120 days after the closing of the submission of bids. In case of untoward delay, if any, tenderers may be requested by NIELIT to submit their willingness in writing to extend the validity of the bids for the requested period.



- 13. Govt. Levies like Sales Tax, VAT, Service Tax, etc. shall be paid at actual rates as applicable on the date of delivery. Bids should have the basic price quote only and Sales Tax, VAT, Service Tax, etc. should not be included in the bids.
- 14. The registration number of the firm along with the CST/VAT No. allotted by the sales tax department, as well as PAN number of the firm allotted by the income tax department should be submitted, failing which bidder's bid may be rejected. The bidder should be registered with Service Tax Department of the Government of India and copy of the valid Service Tax Registration No. should also be enclosed.
- 15. **Pre-bid Meeting**: NIELIT shall hold a pre-bid meeting with the prospective bidders on 3-5-2013 at 11.00 a.m in the NIELIT Conference Room. Queries received, from the bidders, two days prior to the pre bid meeting shall be addressed. The queries can be sent to NIELIT through a FAX to 011-2436335 or return receipt / acknowledged email to shameem@nielit.in
- 16. Quotations should be submitted in two separate covers. First cover, marked "TECHNICAL BID", should consist of the technical specifications of the items offered along with the supporting literature, brochures, drawings, names of the supplier / manufacturer, standard warranty period as offered by OEM and commercial terms, etc. This cover should also consist of the 'Bill of Material' as provided in the tender document with price column for the items offered must be marked clearly as 'Quoted'. Also, the bidder must mark clearly as 'Not Quoted' against the items not being offered. Tender Fee & Earnest Money Deposit (EMD) should also be submitted in this cover. Second cover, marked "FINANCIAL BID", should consist of the 'Bill of Material' as mentioned in 'Technical Bid' and quotes for the price bids in Indian Rupees Only. Both the covers should first be sealed separately, and then these should be kept in a single sealed bigger cover. This cover should be submitted before the closing date and time of tender bids submission to the official at the address given below:

NIELIT Electronics Niketan 6 CGO Complex , Lodi Road, NEW Delhi -110003

17. The cover for the bids should bear the following inscription along with the Group and S. No. of the items for which the bid is being submitted:

"Quotation for Purchase of Software Tools and Equipments for Computer Forensic Investigation Facility at SFIO

Tender No.. NIELIT/CCU/Tech/40/12 Closing Date & Time for Submission of Bids: 13-5-2013 at 3.00p.m



- 18. The Bids must be submitted on or before the due date, i.e., 13-5-2013 by 3.00 p.m. Bids, received after the due date & time are liable to be rejected. In the unlikely event of our office closed on the closing date of the tender due to being a holiday or declared Holiday for Central Government offices, the closing date for submission of the bids will be on the following working day at the same time & venue. 'Technical Bid' covers of all the Bids received by the closing time will be opened on the same day, i.e. on 13-5-2013 at 3.30 p.m. Parties participating in the bid are requested to be present during the opening of bids.
- 19. Tenderer is duty bound to observe all the Laws, Rules, Regulations, Policies, Procedures and Guidelines of the Central Vigilance Commission and Government of India as in force from time to time.
- 20. NIELIT reserves the right to accept or reject any bid or cancel tender proceedings without assigning any reason whatsoever.
- 21 NIELIT reserves the right to change (increase/decrease) the quantity of items to be procured or to place Purchase Order for the selected items only, that is, some of the items may be omitted from procurement in entirety.
- 22. Rates quoted by the Bidder shall be final and no negotiation will be held.
- 23. Incomplete quotations are liable to be rejected.
- 24. All the pages and drawings forwarded with the quotation should be sequentially numbered and shall be signed by authorised signatory with organisation's rubber stamp.
- 25. In case of any discrepancy between rates mentioned in figures and words, the latter shall prevail.
- 26. Conditional tenders, on whatsoever ground, shall not be accepted and summarily rejected.
- 27. Any attempt of direct or indirect negotiation on the part of the tenderer with the authority to whom tender bids is to be submitted; or with the authority who is competent to finally accept it after the submission of the tender; or any other endeavour to secure any interest or any influence by the tenderer any means for acceptance of a particular tender will render the tenderer liable to be excluded from consideration.
- 28. The rates are to be quoted by the bidders in Indian Rupees only and payment shall be made to successful bidders in Indian Rupees only. The quotes should be exclusive of Sales Tax, VAT, Service Tax, etc; but inclusive of Octroi, Packaging & Forwarding charges etc, if any, for delivery at the premises, SFIO (Serious Fraud Investigation office) Ministry of Corporate



Affairs, paryavaran Bhawan, CGO Complex, New Delhi). All prices shall be fixed and shall not be subject to escalation of any description. The rates must be quoted strictly as per the 'Bill of Material' provided in Annexure 'A'.

29. SUPPLY

- (a) All the items will be supplied at SFIO(Serious Fraud Investigation office) Ministry of corporate Affairs, Paryavaran Bhawan, CGO Complex, New Delhi) for inspection and installation by bidder. All the expenses involved in shipping the equipment to the SFIO will be borne by the Bidder. All aspects of safe delivery shall be the exclusive responsibility of the Bidder. NIELIT will have the right to reject the component/equipments supplied, if it does not comply with the specifications at any point of installation/inspections.
- (b) All licenses for the softwares and software subscriptions, if any and as applicable, should in the name of "SFIO (Serious Fraud Investigation office) Ministry of Corporate Affairs, Paryavaran Bhawan, CGO Complex, New Delhi)."
- 30. **INSPECTION**: NIELIT or its representative shall have the right to inspect or to test the items to confirm their conformity to the ordered specifications. The supplier shall provide all reasonable facilities and assistance to the inspector at no charge to NIELIT. In case any inspected or tested goods fail to conform to the specifications, NIELIT may reject them and supplier shall either replace the rejected goods or make all alterations necessary to meet specification required free of cost to NIELIT
- 31. **EARNEST MONEY DEPOSIT** (EMD): The bid must be accompanied by an Earnest Money Deposit, as stated in Annexure 'B' in the form of a Demand Draft drawn on any Indian Nationalized Bank in favour of NIELIT New Delhi. EMD should be valid for a minimum period of 120 days from the closing date (original) of the tender. Quotations received without EMD are liable to be rejected.
 - (a) Earnest Money is liable to be forfeited and bid is liable to be rejected, if the tenderer withdraw or amend, impairs or derogates from the tender in any respect within the period of validity of the tender.
 - (b) The earnest money of all the unsuccessful tenderers will be returned as early as possible after the expiration of the period of the bid validity but not later than 30 days of the issue of the purchase order. No interest will be paid by NIELIT on the Earnest Money Deposit.
 - (c) The Earnest Money of successful bidder shall be returned after acceptance of the material subject to submission of Performance Bank Guarantee of the amount equivalent to 10% of the total price of the items supplied as per the purchase order placed.



32. The Financial Bids of only technically qualified bidders will be opened in the presence of their representatives on a specified date and time duly notified. The financial bids will then be passed on to a duly constituted Financial Evaluation Committee (FEC) for evaluation. If NIELIT considers necessary, revised Financial Bids can be called from the technically shortlisted Bidders, before opening the original Financial Bids. In that case, the revised bids should not be higher than the original bids; otherwise the bid will be rejected & EMD will be forfeited of such defaulting bidders.

33. WARRANTY

- (a) All the items must be quoted with minimum one year onsite warranty period; or above, if so provided by the OEM. Warranty period shall commence from the date of completion of supply, successful installation & commissioning and acceptance by NIELIT; or 45 days after the date of complete delivery, if installation is somehow delayed by NIELIT only; whichever is later.
- (b) Warranty shall include free maintenance of the whole equipment supplied including free replacement of parts. The defects, if any, shall be attended to on immediate basis but in no case any defect should prolong for more than 60 hours. The on-site comprehensive warranty period will commence from the date of acceptance of the equipment by NIELIT.
- (c) The bidder shall submit an assurance that for maintenance of the supplied item, inventory of the spares will be maintained at least for next five years from the date of supply of the hardware/equipment/software to SFIO(Serious Fraud Investigation office) Ministry of Corporate Affairs, Paryavaran Bhawan, CGO Complex, New Delhi).
- 34. **DELIVERY:** The delivery of the items must be made within four (04) weeks of placement of the purchase order. Any delay by the supplier in the performance of delivery of items shall render the supplier liable to any or all of the following sanctions forfeiture of its Earnest Money Deposit, imposition of liquidated damage as per the respective Clause (next) or / and cancellation of the purchase order for being defaulter.
- 35. **LIQUIDATED DAMAGES**: If the supplier fails to either deliver any or all of the goods or do not complete the installation within the period as specified in the purchase order, NIELIT shall without any prejudice to its other remedies, deduct liquidated damage at the rate of one per cent (1%) of the quoted price for the delayed goods for every week or part thereof.

36. PAYMENT

(a) A pre-receipted bill in triplicate in the name of NIELIT New Delhi duly supported by purchase order, Delivery Challan, Inspection / Acceptance Certificate after installation, commissioning and testing of the items at site should be submitted to NIELIT for processing of the documents for making the payment.



- (b) Bills for payment of 90% of the quoted price shall be processed for payment by NIELIT on receipt of the pre-receipted bill in triplicate after delivery and satisfactory completion of installation, commissioning, testing and acceptance of the equipment and the balance 10% payment would be released after expiry of the standard warranty period. 100% of the payment may also be released on receipt of pre-receipted bill in triplicate after delivery and satisfactory completion of installation, commissioning, testing and acceptance of the equipment, if the firm submits the Bank Guarantee for Performance Security of the amount equivalent to 10% of the quoted price, which should be valid for the duration of the standard warranty period.
- 37. PERFORMANCE SECURITY: Successful bidders shall submit a Performance Security of 10% of the cost of the equipment within 15 days of the placement of purchase order. The Performance Security should be in the form of Bank Guarantee by any Indian Nationalized Bank. The Bank Guarantee should be valid for one month more than the duration of the warranty period. In case, supplier either fails to deliver the items within delivery period or do not provide satisfactory maintenance service during the warranty period, the Performance Security submitted by the firm is liable to be forfeited. Performance Security shall be released immediately after the warranty period is over. No interest will be paid by NIELIT on the Performance Security.
- 38. **FORCE MAJEURE**: During Force Majeure i.e. Acts of God, War, Floods, Riot, Earthquake, General Strike, Lock ants, Epidemics, Civil Commodities, the bidder shall provide their best possible service in given circumstances.
- 39. **ARBITRATION:** In the event of any dispute or disagreement under or in relation to this Agreement or over the interpretation of any of the terms herein above contained or any claim or liability of the party, the same shall be referred to the Sole Arbitrator to be nominated by mutual consent of both parties therein. The intending party will serve notice in writing up on the other party notifying its intention for appointment of Arbitrator should both parties fail to agree on by mutual consent, then NIELIT will appoint the Sole Arbitrator. The provisions of Arbitration and conciliation Act 1996 shall apply. The Arbitration proceedings shall be held in New Delhi. The Arbitrator will give reason for his award and the award passed by the Arbitrator shall be final and binding upon both the parties herein. Such reference shall be deemed to be a submission to arbitration under the Indian Arbitration and Conciliation Act 1996, or of any modifications or reenactment thereof including the rules framed there under.

Terms & Conditions specific for award of Comprehensive Annual Maintenance Contract (AMC):

1. For the hardware items / equipments, maintenance contract shall be to provide comprehensive annual maintenance services at SFIO(Serious Fraud Investigation office) Ministry of Corporate Affairs, Paryavaran Bhawan, CGO Complex, New Delhi) premises



for smooth and trouble free running of the items / equipments including upgradation of the firmware in the respective system / equipment, as and when released by the OEM.

- 2. For detailed specifications of the items for comprehensive AMC after expiry of warranty period, Annexure 'C' of this tender document may be referred.
- 3. The bidder shall also have facility to provide Technical support through telephone and e-Mail.
- 4. The bidder must submit an authorisation letter from Original Equipment Manufacturer stating that the bidder is an authorised maintenance service representative for the OEM and is accordingly authorised by OEM for this tender to bid for AMC; and OEM will provide AMC support services through the bidder or directly for the item quoted during the period under warranty and AMC. The bidder is required to quote for comprehensive AMC charges for each of the next three years separately after the completion of warranty period, in the given table for submitting the quotes.
- 5. Quoted price bid for the item plus respective quoted comprehensive AMC charges for that item for the next three years will be considered for calculating the L1 Bidder.
- 6. Comprehensive AMC will be renewed and awarded on annual basis on the respective rates as quoted, on satisfactory maintenance service provided during the warranty period / last one year.
- 7. Payment for the comprehensive AMC support will be made on quarterly / biannual / annual basis, as the bill are raised by the vendor, on providing satisfactory maintenance services during the period for which payment is due / bills are to be raised.

Terms & Conditions specific for purchase of annual subscription to license of the Software Applications / Tools:

- 1. For the software license renewal / subscription of the software applications / tools, the purchase order for the same will be awarded on annual basis to supply and install the license for renewal / subscription for the respective software for one year, including version upgrades, updates / patches, new cellphone interface cables at SFIO premises, as & when due / released by the OEM, etc.; subject to satisfactory service provided during the warranty period / last one year.
- 2. The bidder is required to quote rates for purchase of software license subscription for the next three years separately for each of the year after the completion of warranty period in the given table.



- 3. Quoted price bid for the item plus respective quoted annual software subscription license renewal quotes for that item for each the next three years will be considered for calculating the L1 Bidder.
- 4. Payment for the purchase of annual software licence / renewal subscription will be made on annual basis on delivery and installation of the same and on submitting the pre-receipted bill in triplicate for the same.

Terms & Conditions specific for the Items in Group I:

- 1. For the items in Group I, the bidder may select to submit bid for any number of the items, subject to fulfilling the terms and conditions for this group in conjunction with other general terms & conditions given in this document and the evaluation of bids of the items in this group only will be done on individual item basis.
- 2. For bidding the items in this group the bidder has to submit the financial bids in separate envelopes for each of the items from Group I using separate Bill of Material (Annexure 'A').
- 3. Total EMD for the items quoted is required to be submitted in separate envelope. Prefixed EMD, for each of the items in Group I, has been given in Annexure 'B'.
- 4. It is must for the bidder in this group to bid for the comprehensive AMC software license renewal subscription too for the next three years after completion of the warranty period, as applicable. Bids received without the AMC/ SW license renewal quotes will be summarily rejected.
- 5. The Bidder can quote for any number of items from Group I. The evaluation of bids will be made item-wise, which means that the bidder quoting lowest value out of all the technically qualified bidders for an item will be the L1 and will be selected to supply the respective item, subject to fulfilling all the other requirements of the technical bid for that item.

Terms & Conditions specific for the Items in Group II:

- 1. The bidder has to submit the bids for all the items in the Group II using Bill of Material given in Annexure 'A'. If, a tenderer submit the bids which does not have quote for all the items in Group II, then the bid will be summarily rejected. Prefixed cumulative EMD, for all of the items in Group II, has been given in Annexure 'B'.
- 2. The evaluation of bids will be based on the total bid value of all the items including AMC quotes, as applicable, in Group II, which means that the L1 will be the lowest total quote



for all the items inclusive of the three years AMC quotes for the items as applicable; by all the technically qualified bidders for all the items and will be selected to supply all the Group II items, subject to fulfilling all the other terms and conditions of the tender.

- 3. It is must for the bidder in this group to bid for the comprehensive AMC/ software license renewal subscription too for the items as indicated for the next three years after completion of the warranty period. Bids received without the AMC / SW license renewal quotes will be summarily rejected.
- 4. For bidding the items in this group the bidder has to submit the financial bid in a single separate envelope for all of the items in this Group using the Bill of Material (Annexure 'A').

Terms & Conditions specific for the Items in Group III:

- 1. The bidder has to submit the bids for all the items in the Group III using Bill of Material given in Annexure 'A'. If, a tenderer submit the bids which does not have quote for all the items in Group III, then the bid will be summarily rejected. Prefixed cumulative EMD, for all of the items in Group III, has been given in Annexure 'B'.
- 2. The evaluation of bids will be based on the total bid value of all the items including AMC quotes, as applicable, in Group III, which means that the L1 will be the lowest total quote for all the items inclusive of the three years AMC quotes for the items as applicable; by all the technically qualified bidders for all the items and will be selected to supply all the Group III items, subject to fulfilling all the other terms and conditions of the tender.
- 3. It is must for the bidder in this group to bid for the comprehensive AMC/ software license renewal subscription too for the items as indicated for the next three years after completion of the warranty period. Bids received without the AMC / SW license renewal quotes will be summarily rejected.
- 4. For bidding the items in this group the bidder has to submit the financial bid in a single separate envelope for all of the items in this Group using the Bill of Material (Annexure 'A').



Bill of Material

| S.N O | Description of the Items | Qant ity | Compliance of the specifications/Configurations (YES/NO) | Price Bids Includ ing Std OEM Warra nty First year) n Rs. Only | Comprehe nsive AMC1 for Second year, in Rs. Only | Comprehe nsive AMC2 for Third year, in Rs. Only | Comprehe nsive AMC3 fo Fourth year, in Rs. Only |
|----------|---|-------------|--|--|---|--|---|
| Grou | | | | | | | |
| 1 | Fred Server | 1 | | | | | |
| 2 | Ultrakit III with write Blocking Bridges & Disk(Table au Devices) | 2 | | | | | |
| 3 | UFED TOUCH Ultimate (Ruggedizie d Kit) Cellbrite | 1 | | | | | |
| 4 | Complete Chinese Phone Data Extraction Kit(Tarantu la) | 1 | | | | | |
| 5 | XRY Complete(Micro) | 02 | | | | | |
| 6 | RF Isolation | 01 | | | | | |



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|------|--------------|-----|--|---|----------|---|
| | Box with | | | | | |
| | DVR and | | | | | |
| | Auxiliary | | | | | |
| | Supply(| | | | | |
| | Paraben) | | | | | |
| 7 | Data | 05 | | | | |
| | Recovery | | | | | |
| | and | | | | | |
| | Computer | | | | | |
| | Forensic | | | | | |
| | Software(E | | | | | |
| | ncase | | | | | |
| | Forensic | | | | | |
| | latest | | | | | |
| | version) | | | | | |
| 8 | Integrated | 05 | | | | |
| | Disk | 0.5 | | | | |
| | Forensic | | | | | |
| | Software(F | | | | | |
| | TK lab with | | | | | |
| | visualizer) | | | | | |
| 9 | Live Data | 05 | | | | |
|) | Extraction | 03 | | | | |
| | Portable | | | | | |
| | Kit(Encase | | | | | |
| | | | | | | |
| 10 | Portable) | 01 | | | | |
| 10 | Network | 01 | | | | |
| | Forensic | | | | | |
| | Suite(NeSA | | | | | |
| 11 |) | 0.1 | | | | |
| 11 | E-mail | 01 | | | | |
| | Investigatio | | | | | |
| | n | | | | | |
| | Tool(Nuix) | | | | | |
| 12 | Multimedia | 02 | | | | |
| | Projector | | | | | |
| | for lab | | | | | |
| 13 | UPS(15 | 02 | | | | |
| | KVA) | | | | | |
| Grou | | | | | , | |
| 1 | Workstatio | 05 | | | | |
| | n | | | | | |



| 2 | Laptop | 05 | | | |
|------|-------------|----|--|--|--|
| 3 | Network | 01 | | | |
| | printer | | | | |
| 4 | Scanner | 01 | | | |
| 5 | Gigabit | 01 | | | |
| | Network | | | | |
| | 24 port | | | | |
| | switch | | | | |
| Grou | ıp III | | | | |
| 1 | Hard Disk | 10 | | | |
| | for | | | | |
| | Evidence | | | | |
| | Collection | | | | |
| | and | | | | |
| | Storage(500 | | | | |
| | GB and 1 | | | | |
| | TB-1 set of | | | | |
| | 2 different | | | | |
| | size HDD) | | | | |
| | Seagate | | | | |
| 2 | NAS with 8 | 1 | | | |
| | TB Storage | | | | |
| 3 | Mobile | 5 | | | |
| | Phones | | | | |
| | (Symbian, | | | | |
| | Android, | | | | |
| | Proprietary | | | | |
| | OS,Blackbe | | | | |
| | rry) | | | | |



Annexure 'B'

Prefixed EMD

| S.No | Description of Items | Quantity | Amount for EMD(In Rs only) |
|---------|-------------------------|----------|----------------------------|
| Group I | | | |
| 1 | Fred Server | 1 | 20,000 |
| 2 | Ultrakit III with write | 2 | 32,000 |
| | Blocking Bridges & | | |
| | Disk(Tableau Devices | | |
| 3 | UFED TOUCH | 1 | 36,000 |
| | Ultimate (| | |
| | Ruggedized Kit) | | |
| | Cellbrite | | |
| 4 | Complete Chinese | 1 | 24,000 |
| | Phone Data Extraction | | |
| | Kit(Tarantula) | | |
| 5 | XRY | 2 | 12,000 |
| | Complete(Micro) | | |
| 6 | RF Isolation Box with | 1 | 6,000 |
| | DVR and Auxiliary | | |
| | Supply(Ramsey/ | | |
| | Paraben) | | |
| 7 | Data Recovery and | 5 | 70,000 |
| | Computer Forensic | | |
| | Software(Encase | | |
| | Forensic latest | | |
| | Version) | | |
| 8 | Integrated Disk | 5 | 70,000 |
| | Forensic | | |
| | Software(FTK lab | | |
| | with visualizer) | | |
| 9 | Live Data Extraction | 5 | 8,000 |
| | Portable Kit(Encase | | |



| | 1 | 1 |
|----------------------|---|---|
| Portable) | | |
| Network Forensic | 1 | 1,200 |
| Suite(NeSA) | | |
| E-mail Investigation | 1 | 60,000 |
| Tool(Nuix) | | |
| Multimedia projector | 2 | 20,000 |
| UPS(15KVA) | 2 | 32,000 |
| | | |
| Workstation | 5 | 42000 |
| Laptop | 5 | |
| Network Printer | 01 | |
| Scanner | 01 | |
| Gigabit Network 24 | 01 | |
| port switch | | |
| | | |
| Hard Disk for | 10 | 15000 |
| Evidence Collection | | |
| and Storage(500 GB | | |
| and 1 TB-1 set of 2 | | |
| different size HDD) | | |
| Seagate) | | |
| NAS with 8 TB | 1 | |
| Storage | | |
| Mobile Phones | 5 | |
| (Symbian, Android, | | |
| Proprietary | | |
| OS,Blackberry | | |
| | Suite(NeSA) E-mail Investigation Tool(Nuix) Multimedia projector UPS(15KVA) Workstation Laptop Network Printer Scanner Gigabit Network 24 port switch Hard Disk for Evidence Collection and Storage(500 GB and 1 TB-1 set of 2 different size HDD) Seagate) NAS with 8 TB Storage Mobile Phones (Symbian, Android, Proprietary | Network Forensic Suite(NeSA) E-mail Investigation Tool(Nuix) Multimedia projector UPS(15KVA) Workstation Laptop Scanner Gigabit Network 24 port switch Hard Disk for Evidence Collection and Storage(500 GB and 1 TB-1 set of 2 different size HDD) Seagate) NAS with 8 TB Storage Mobile Phones (Symbian, Android, Proprietary |



Annexure 'C

Detailed Specifications

Group I:

1.0 Fred Server

- Intel® Core™ i7-3820 CPU (Quad Processor), 3.6 GHz, 10MB Intel® Smart Cache, 5 GT/s DMI
- 32 GB PC3-12800 DDR3 1600 MHz Memory
- 1 x 300 GB 10,000 RPM SATA III Hard Drive OS Drive
- i7 motherboard with IntelX79 Express chipset
- 22" WideScreen LCD Monitor with Built-in Speaker
- 6 PCI-Express 3.0(x16)Slots
- Nvidia GT 630 4GB 128 bit DDR3 PCI-Express Video Card with 1 mini HDMI, and 2 DVI ports - supports dual monitors
- Dual 10/100/1000 Mbs Intel GbE Network Adapters
- 8-Channel High Definition Audio CODEC
- 2 ports Intel 6.0 Gb/s Serial ATA (SATA) Controller
- 4 ports Intel 3.0 Gb/s Serial ATA (SATA) Controller 1 Back Mounted
- 2 ports Marvell 6.0 Gb/s Serial ATA (SATA) Controller
- 2 PS/2 Ports



- 6 USB 3.0 ports 3 Back Mounted, 3 Front Mounted
- 10 USB 2.0 ports 10 Back Mounted
- 1 Write Blocked USB 3.0/2.0 port Front Mounted
- 1 FireWire IEEE 1394a (400 MB/s) ports 1 Back Mounted
- 2 FireWire IEEE 1394b (800 MB/s) ports 1 Back Mounted, 1 Front Mounted(Write Blocked)
- 2 x Shock Mounted SATA Removable Hard Drive Bays (IDE Capable)
- 3 x HotSwap Shock Mounted Universal (IDE/SATA compatible) Removable Hard Drive Bays
- BD-R/BD-RE/DVD ± RW/CD ± RW Blu-ray Burner Dual-Layer Combo Drive
- Extendable/Retractable Imaging Workshelf with integrated ventilation
- 103 key Microsoft Keyboard-Wireless
- Microsoft Intellimouse-Wireless
- ATX Tower Case 12 x 5¹/₄" Bays
- 1100 Watt Modular power supply
- Windows 7 Ultimate (64 bit) with XP Mode or higher
- To also include: DOS (Win98 Standalone), SUSE Professional Linux (64 bit)
- Single RAID Chassis Option
 - o 12 Channel PCIe 6 Gb/s SAS/SATA RAID Controller
 - O Qty 1 RAID Chassis with 5 removable drive bays
- RAID Set #1
 - o 2 TB 7200 RPM SATA III Hard Drive Set (Set of 5 Drives)
- Hardware Write Blocking (UltraBay 3D Hardware Write-Blocker)
 - o SAS
 - o SATA
 - o IDE
 - o USB 3.0/2.0/1.1
 - o FireWire 400/800
 - o Forensic Media Card Reader Read-Only and Read/Write switchable
 - o SCSI
- Toolbox Containing
 - o CD Case: Containing system restores media.
 - o System Keys: For removable hard drive bays and front case bezel.
 - Adapters and Cables: Cables and adapters to image and process internal/external drives including SAS, SATA, IDE, microSATA, SATA LIF, MacBook Air Blade Type SSDs, mini/micro SSD cards, 1.8 inch IDE (iPod) and 2.5 inch IDE (laptop).
 - o Digital Camera: Useful to document suspects environment and hardware.
 - Security Screwdriver Set: A varied assortment of popular security bits for opening computer enclosures that may have been locked down in a corporate environment.
- Other S/W



- o Microsoft windows 98SE Standalone DOS (pre installed & configured)
- Microsoft windows 7 ultimate 64 bit (or higher) with windows XP mode (pre installed & configured)
- Suse Linux professional (Pre-configured)
- Symantec Ghost
- o DVD/CD authoring s/w
- Original OEM S/W / H/W installation manuals
- o Drivespy/ Image, PDwipe, PD Block, PART
- Onsite training



2.0 <u>Ultrakit III with write Blocking Bridges & Disk(Tableau Devices)</u>

Specifications:

- Portable kit for acquiring a forensic image of any storage device/derive
- With built in or addon write compatible blockers/bridges
- Transfer the forensically sound image to any other compatible storage device/drive (On Laptop or PC, internal or External media)
- Blockers/Bridges should support:
 - o eSATA IDE / SATA
 - o SCSI
 - o USB
 - o Forensic Card Reader
 - o FireWire With Power Supply and Cables
 - o Forensic Duplicator With Power Supply and Cables
 - o Forensic Duplicator 2 With Power Supply and Cables

• Power Supplies:

- Two UltraBlock Power Supplies
- o Two 220V AC Power Supply Cords
- Two Molex M/M Drive Power Cables
- One SATA Drive Power Cable

• Drive Interface Cables:

- One 8" IDE Interface Cable
- o One 2" IDE Interface Cable
- One SATA Interface Cable
- One SCSI-3 Interface Cable
- o One 1.8" Hard Drive Adapter
- o One 2.5" Hard Drive Adapter
- o One ZIF Hard Drive Adapter
- o One Micro SATA Adapter
- Computer Interface Cables/Adapters
- o One eSATA to eSATA Cable
- o Two USB A to Mini 5 pin Cables
- One FireWire A (6 pin 6 pin) Cable
- o Two FireWire B (9 pin 9 pin) Cables
- One FireWire A (4 pin 9 pin) Adapter
- One FireWire A (6 pin 9 pin) Adapter

Carrying Case:



- Watertight / Airtight High Impact Custom Foam Lined



3.0 UFED TOUCH Ultimate (Ruggedizied Kit):

- Provides access to deleted data inaccessible by logical methods
- Performs physical, logical, file system and user password extractions
- Extraction of existing, hidden and deleted data
- OS Support
 - o iOS physical extraction, decoding & real-time decryption
 - Android extraction & decoding
 - o BlackBerry physical extraction & decoding
 - o Physical extraction from Nokia BB5 devices
- Portable GPS device's extraction & decoding
- Forensically sound environment with proprietary boot loaders
- Bypass phone user lock code
- SIM Cloning Facility
- Micro SIM cloning cards
- Phone power up cable
- USB Flash Drive 8 GB
- Current 5v to 6v Adapter
- Cleaning brush for Phone connectors
- SWCD
- UFED phone charger
- Ruggedized carrying case
- UFED Forensic memory card reader
- Case embedded work surface
- Car power adapter
- Standalone carrying case
- Tip & cable set
- Tip & cable organizer
- UFED solid protector case
- UFED touch device
- UFED touch screen cover
- UFED External hard disk
- Access to internal application data
- Internal phone data: IMSI history, past SIM cards used, past user lock code history
- Complete with Data Cable/s
- With Faraday Bag
- With Report Generator



4.0 Complete Chinese Phone Data Extraction Kit(Tarantula):

Specifications:

- System should be able extract physical data from of Chinese phones of with chipsets MTK, Spreadtrum, Infineon etc.
- Should also be able to recover deleted phone book, call records, SMS from Chinese handsets
- Should extract cell phone login password from Chinese phones
- Should identifies cell phone chips automatically
- Should automatically records examination log with timestamps
- Should have more than 25 data cables to connect supported Chinese handsets
- Should have universal battery charger for Chinese phones
- Should come with Faraday Bag
- Should be able access internal application data
- Should be able to extract existing, hidden and deleted data

5.0 XRY Complete(Micro):

- XRY application software and license key
- Briefcase with cable organizer
- XRY communication unit
- XRY logical mobile phone cable kit
- XRY physical mobile phone cable kit
- XRY with GPS extraction
- SIM id-cloner device with 12 month license
- 10 rewritable SIM IS-cloner examination cards
- Write protected memory card reader
- 12 month logical software license
- 12 month physical software license
- XACT hex viewer software application
- XRY reader application
- Contact cleaning brush
- With Isolation/Faraday Bag
- Free support by phone, web forum or e-mail



• Free software maintenance and upgrades

PC requirements:

Intel® atom processor 1.33 ghz, 1 gb ram, minimum 2 usb ports)

Operating system requirements:

Microsoft windows 7/8, vista, xp sp3 (32 bit systems only)

Power requirements:

AC 100-240 v | 50-60 Hz



6.0 RF Isolation Box with DVR and Auxiliary Supply(Paraben):

Specifications:

- Should be able to shield mobile/cell phones, GPS, netbooks/tablet, Bluetooth devices, laptops(Pls. check),, etc. from cellular, Wi-Fi, Bluetooth and radio signals.
- Wireless bag (of External Dimension 15" x 8.6" and effective internal Dimension 11" x 7.8" minimum)
- Able to preview the device inside of the bag
- Should be able to keep unwanted cellular, Wi-Fi, Bluetooth and radio signals out from the reach of seized mobile phones and other devices.
- Should comprise of a special weaved material made of nickel, copper and silver plated nylon woven fabric.

7.0 <u>Data Recovery and Computer Forensic Software (Encase Forensic latest version)</u>

- Should support Gallery view option to quickly reveal all photographs and graphics files stored on hard drives and other media.
- Should support Timeline view option to provide an easily adjustable, graphical calendar like display for file activity of particular interest.
- Should contain Full Unicode support to allow users to search text and fonts from any foreign country, and in any language.
- Should support acquisition Restart facility: continue a windows-based acquisition from its point of interruption.
- Should be able to recovers data from unallocated clusters, lost clusters, file/partition/disk/MBR slack, swap files
- Should have Inbuilt LinEn utility to acquire evidence via boot disk
- Should have Inbuilt WinEn utility to acquire RAM evidence
- Should do Image verification by cyclical redundancy checksum (CRC) and MD5
- Should have Inbuilt support for writing scripts & should contain pre-built scripts
- Should Support more than 150 Filters and Conditions
- Should Support combining filters to create complex queries using simple "OR" or "AND" logic
- Should have Inbuilt Active Directory Information Extractor
- Should be able to automatically rebuild the structure of formatted NTFS and FAT volumes.
- Should support Recovery of deleted files/folders
- Should have inbuilt windows event log parser
- Should have Inbuilt Link file parser to search in unallocated space
- Should have Inbuilt support for Compound (e.g., zipped) document and file analysis.



- Should support file Signature analysis
- Should have native viewing support for ~400 file formats
- Should have built-in Registry Viewer

Should Meet the below mentioned criteria for searching:

- Unicode index search search extracted text of docs
- Binary search search raw binary data
- Proximity Search
- Internet and email search
- Case Sensitive o GREP o Right to Left Reading
- Active Code Page: keywords in many languages.
- Big Endian/Little Endian, UTF-8/UTF-7
- Search files slack and unallocated space

Should Support Internet and Email Investigation for:

- Browser History Analysis
- Internet artifacts
- WEB History & cache analysis
- HTML carver
- HTML page reconstruction
- Kazaa toolkit
- Instant Messenger toolkit Microsoft® Internet Explorer, Mozilla Firefox, Opera and Apple Safari

Should Include Email Support for:

- Outlook PSTs/OSTs ('97-'03)
- Outlook Express DBXs
- Microsoft Exchange EDB Parser
- Lotus Notes v6.0.3, v6.5.4 and v7
- AOL 6.0, 7.0, 8.0 and 9.0 PFCs
- Yahoo
- Hotmail
- Netscape Mail
- MBOX archives

Should Include System Support for:

• Hardware and software RAIDs.



- Dynamic disk support for Windows 2000/XP/2003 Server
- Interpret and analyze VMware, Microsoft Virtual PC, DD and SafeBack v2 image formats
- File systems: Windows FAT12/16/32, NTFS; Macintosh HFS, HFS+; Sun Solaris UFS, FS; Linux EXT2/3; Reiser; BSD FFS, FreeBSD's Fast File System 2 (FFS2) and FreeBSD's UFS2; Novell's NSS & NWFS; IBM's AIX jfs, JFS and JFS with LVm8; TiVo Series One and Two; CDFS; Joliet; DVD; UDF; ISO 9660; and Palm

Should support reporting facility with:

- Listing of all files and folders in a case
- Detailed listing of all URLs and corresponding dates and times of web sites visited
- Document incident response report
- Log Records
- Registry
- Detailed hard drive information about physical and logical partitions
- View data about the acquisition, drive geometry, folder structures and bookmarked files and images.
- Export reports in Text,RTF (opens in Microsoft Office), HTML,XML or PDF formats.
- Smartphone and Tablet support: Acquire data from devices running the following operating systems:
 - o Apple's iOS
 - Google's AndroidTM OS
 - o Rim's BlackberryTM OS
 - HP's PalmTM OS
 - Nokia Symbian
 - Microsoft's Windows Mobile OS

8.0 <u>Integrated Disk Forensic Software(FTK lab with visualizer)</u>

- Should have built in module to Create forensic images of suspected storage device in DD,EO1, SMART & AFF format with authentication with MD5 and SHA1 hash.
- Should have built it module to analyze registry of windows based machine to extract vital information like Typed web address, USB device information, saved passwords, OS install date, OS name and version etc.
- Should have built in module to <u>Recover passwords</u> (Password recovery Tool) from 100+ applications like



- o MS Office up to version 2010
- o Adobe PDF
- o Financial Accounting software Tally
- o Win Zip
- o Stegnos, Stool etc.
- Should allow examiner to perform distributed password recovery by harness idle CPUs across the network to decrypt files and perform robust dictionary attacks.
- o Should have facility for generating biographical dictionary for password attack.
- Should have Known File Filter hash library with 45 million hashes.
- Analyst should never lose work due to a crash, as components should be compartmentalized in database, worker and GUI
- Should allow user to create physical drive from image
- Should use robust Oracle or PostgreSQL database in background to store large amount of data.
- Should allow distributed processing via distributed engines.
- Should have Wizard-driven processing to ensure no data is missed.
 - User should be able to Cancel/Pause/Resume processing
 - Should show real-time processing status
 - Should send email notification upon processing completion
- Should have advanced data carving engine which allows examiner to carve allocated and unallocated data on following criteria to reduce the amount of irrelevant data carved while increasing overall thoroughness.
 - o File size
 - o File Type
 - o pixel size (Images)
 - o should have over 50 custom data carvers for windows, MAC, Linux and Internet artifacts.
- Should perform analysis of RAM dump and show
 - All running processes including those hidden by RootKits
 - Display associated DLLs
 - Network sockets
 - Support 32 & 64 bit windows machines
- Should have Broad file system, compound file and email support.
- Should support email analysis of various email clients like
 - Notes NSF
 - Outlook PST/OST
 - Exchange EDB
 - Outlook Express DBX
 - o Eudora
 - o EML (Microsoft Internet Mail)
 - o Earthlink



- o Thunderbird
- Quickmail
- Netscape
- o AOL
- o RFC 833
- Should Supports analysis of encrypted images with popular encryption technologies, such as Credant, SafeBoot, Utimaco, EFS, PGP and Guardian Edge with known passwords.
- Should have Comprehensive support for <u>Mac</u>
 - o Process B-Trees attributes for metadata
 - o PLIST support
 - SQLite database support
 - o Apple DMG and DD_DMG disk image support
 - Crack Sparse Images or Sparse Bundles
 - JSON file support
- Should Create detailed reports and output them into native format, **HTML**, **PDF**, **XML**, **RTF**, and more with links back to the original evidence
- Should have Easy-to-understand and easy-to-use GUI with pre-defined and customizable data views, advanced filtering, dockable windows and automated data categorization.
- Should have **Database Memory Adjuster** to adjust the amount of RAM data base can utilize to perform data importing to increase overall performance of GUI

9.0 Live Data Extraction Portable Kit(Encase Portable)

- Collection of Live computer data with minimum use of hardware and software tool
- Integrated with proven EnCase software
- It should leverage the search and collection capabilities of EnCase®, delivered on a USB drive.
- Ultra-Portable Pocket-sized kit can be transported to any location with ease
- Stealth Search and collect without leaving a trace on the target machine
- While pre-installed on a USB drive, it can be easily transferred to any USB drive.
- Easy to Use Non-forensically trained personnel can collect data
- Users should be able to collect forensically sound data in any location with ease.
- Forensically Sound Collected data stored in (E01, L01, Ex01, Lx01) court-vetted formats
- The solution should search a targeted computer and automatically collect data, including documents, Internet history and artifacts, images, other digital evidence, and even entire hard drives.
- Plug in and collect data immediately
- Live machine and boot operating modes
- Customizable search and collection jobs



This Kit should contain:

- One 4GB USB drive with software installed
- One 16GB USB drive for additional storage
- One four-port USB hub
- It should have security key
- Quick reference user guide
- It should have installation DVD
- Rugged carrying case



10.0 Network Forensic Suite(NeSA):

- Loads pcap formatted dump files and rebuilds the TCP sessions
- Built in Hex View, Thumbnail View, File View and Mail View facility
- Regular expression based search capability
- Time Zone can be changed for Time Zone based analysis
- Extracts files from captured HTTP, FTP, SMTP and POP3 protocols data
- Ffilter for filtering TCP sessions as well as packets
- Supports port customization based on application layer protocol



11.0 <u>Nuix Workstation Investigator:</u>

- The software should support various email formats, like:
 - o EDB,
 - o STM (Microsoft Exchange),
 - o PST, OST (Microsoft Outlook storage files),
 - o MSG (Microsoft Outlook single mail files),
 - o NSF (Lotus notes / Domino),
 - o DBX, MBX (Microsoft Outlook Express),
 - o MBOX (standard mailboxes),
 - o GroupWise (V6.5.7) EML (standard, single email per file, as used in maildir format
 - o EMLX (Apple Mac OS X Mail.app),
 - o BOX (Fox mail),
 - SML (Koolmail),
- Hotmail and Yahoo! Mail HTML (Scraped from browser caches).
- It should also be able to identify and recover permanently deleted (from selected email databases) & encrypted information from email data base.
- Software should be able to identify similar copies emails and attachments.
- It should have an advanced query structure allowing searches through wildcard queries, fuzzy queries, Boolean operators, phrase queries, proximity queries and field-specific queries.
- It should also be able to directly read hard disks, network file shares and forensic images of both (i.e. Encase and raw dd images).
- Should be able to interrogate all metadata, text and the binary of documents to forensically identify relevant information.
- Should be able to search specific email and attachment through file type filter, comments (entered by the reviewer), classifications (entered by the reviewer), communication date, lists of hash values, list of keys words and skin tone filtering of images to identify inappropriate images.
- Should be able to provide easy-to-understand graphical interface to view results showing clearly who communicated what, to whom and when.



- Should be able to provide a network view to know communications between sender & receiver.
- Should be able to provide full indexing information (e.g. word counting) of each word.
- Should be able to show each item (e.g. documents/email/image)
- Minimum number of physical indexing core should be 4
- Minimum number of concurrent Reviewers should be 5
- Minimum case size should be 750 GB

12.0 Multimedia Projector for lab:

- Technology Brightness
 - LCD, 4000 ANSI Lumens with Day Light View technology for auto image enhancement for brighter image in lighted condition
- Resolution
 - o 1024 x 768 Pixels, XGA
- Contrast Ratio
 - 0 600.1
- Connectivity/Input/terminal
 - 2- RGB Input With selectable RGB Out, Video input, Audio Input for computer
 1,Audio Input for DVI-D & Computer-2, DVI-D Input, (HDCP Compliant), LAN
 Port, S-Video input, Remote Input, Audio input for S-Video & Video
- Wireless features
 - Built in Wireless LAN PC Card/Media Card Image, Adapter for wireless display with wireless Laptops, Multiple wireless connectivity with up to 16 wireless laptops simultaneously, Wireless slide control
- Anti-Dust/Maintenance Free Design
 - Built in Auto Cleaning Filters & completely sealed design for dust particle blocking Inorganic LCD Panels/Polarizers-for Long lasting Brightness
- Lens Shift Feature
 - o Horizontal/Vertical Lens Shift-Provided for installation flexibility
- Lamp Life
 - o 5000 Hours
- Other features
 - Day Light View Technology for presentation
 - o in lighted conditions
 - o Easy Lamp Replacement from Rear.
 - o Direct Power off facility.
 - Auto input detections



- o Built In Speaker-5.0 W Monaural Output
- o power
- o Digital Zooming.
- o Remote Control with laser pointer.

• Standard Specifications of Motorized projector Screen:

Motorized Projection Screen Size 100" diagonal (Wall Mount), White Matte, 4:3 aspect ratio along with Remote for Motorized Projection Screen

13.0 UPS (15KVA):

Specification:

• Backup Time

o 120 Minutes on Full load

• <u>Input</u>

| 0 | Input Voltage | 415V, 3-Phase, 4 wire |
|---|---------------------------------------|-----------------------------|
| 0 | Input Voltage Variation | + 25%, -30 % |
| 0 | Input Frequency | 50 Hz |
| 0 | Input Frequency Variation | +/- 10% |
| 0 | Power walk in | Progressive over 10 seconds |
| 0 | Power Factor at rated load | 1.0 (Unity) |
| 0 | Operation with Reverse Phase Sequence | Possible |

• Bypass

o Bypass Supply Voltage 230 V AC

• <u>DC</u>

| 0 | Nominal DC bus voltage | 360V |
|---|----------------------------------|-----------|
| 0 | Permissible DC voltage variation | 260V-410V |
| 0 | DC bus OV trip | 410V |
| 0 | End of discharge DC bus | 260V |
| 0 | Types of batteries supported | SMF |
| 0 | Nominal battery float voltage | 360V |
| 0 | Max. Battery charging current | 4 to 7 A |
| 0 | DC ripple | < 2% rms |
| 0 | D.C. Voltage Regulation | ± 1% |



• Output

Output Voltage

Frequency

o Power rating at 0.8 p.f.

o Power rating at 1.0 p.f.

Overload Rating

o Max. Non-linear load permissible

Output Voltage regulation

o Transient response for 100% load change

o Recovery time

o Freq. stability unsynchronized -

o synchronized -

o Max. rate of change of Frequency

Output Voltage Distortion

o Transfer time synchronized -

Unsynchronized -

Protections

Input Over/Under Voltage

o Phase fail

Overload at the output

SOAR protection for IGBTs

Output AC over/under voltage

High speed fuses for semi-conductor devices

o Snubber circuits for power semi-conductor devices

• <u>Display Metering (LCD)</u>

o AC Input/ Output Voltage

Load Percentage

o DC Voltage

o Battery Percentage

Input/output Frequency

• **Indicators**

230 VAC 1 Phase (Pure Sine Wave)

50 Hz

15 KVA,

12 KW

110 % for 60 minutes

125 % for 10 minutes

150 % for 1 minute

100 % with Crest Factor of 3:1

+/- 1%

+/- 10%

10 millisecond

+/- 0.1 %

 $\pm 3 Hz$

0.2 / 0.4 Hz/sec

< 3 % at Nonlinear load

< 2 % at linear load

0 millisecond

20 millisecond



 Mains on, Invertor on, Battery on charge, load on Invertor, Load on bypass, Mains Abnormal, Low battery, Invertor overload, DC O/U voltage, Invertor O/U voltage, Over heat etc.

95% RH

• Other Parameters

Battery Rack
 Ventilation
 Base castor wheels
 Operating Temperature
 Storage Temperature
 Yes
 O C to 45 C, continuous
 O C to 70 C

With proper rack for keeping batteries

o Relative Humidity



Group II

1.0 Workstation:

Specification:

- **CPU**: Intel Core i7-2600, 3.4 GHz, 8 MB Cache or better.
- **Chipset**: Intel Q67 Express or higher on OEM Motherboard.
- **Bus Architecture**: 4 PCI (PCI/ PCI Express)
- Memory: 8 GB atleast 1333 MHz DDR3 RAM, upgradable to 24GB.
- Hard Disk Drive: 2 x 1TB SATA Drive Serial ATA HDD
- Monitor: Atleast 20inches LED/ TFT Digital Colour Monitor
- Graphic Card with dedicated 1 GB Memory
- Should have 500W or Better SMPS
- **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 Professional 64 Bit preloaded/Windows 8, as specified, with Media and Documentation and Certificate of Authenticity.
- **OS Certifications :** Windows OS and Linux certification.
- Power Management: Screen Blanking, Hard Disk and System Idle Mode in
- 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 Parts and labor 3 years
- Should have Removable HDD racks and cable management system for better cable routing and neatness
- Should have Dual Monitor Facility.



2.0 laptop

Specifications:

Processor / Chipset

- **CPU** Intel 2nd Gen Core i7 / 2.0 GHz or higher
- **Max Turbo Speed** 2.9 GHz or higher
- Number of Cores Quad-Core
- Cache L3 cache 6.0 MB
- **64-bit Computing** Yes

Memory

- **RAM** 4.0 GB (1 x 4 GB)
- Max RAM Supported 8.0 GB
- **Technology** DDR3 SDRAM
- **Speed** 1333.0 MHz / PC3-10600

Storage

- **Hard Drive** 500.0 GB HDD / 7200.0 rpm
- **Interface** Serial ATA-300
- Optical Drive Multispeed DVDWriter Fixed

Display

- **Type** 15.6 in
- LCD Backlight Technology LED backlight
- **Max Resolution** 1366 x 768 (HD)
- Widescreen Yes
- Image Aspect Ratio 16:9
- Features HD anti-glare

Audio & Video

- Graphics Processor: AMD Radeon HD 6490M 1.0 GB GDDR5 SDRAM
- Camera Yes
- Sound Stereo speakers, Stereo microphone
- Codec IDT 92HD87
- Compliant Standards SRS Premium Sound, High Definition Audio



Input

- **Type** TouchpadKeyboard
- Features Spill-resistant, Built-in numeric keyboard, Volume control

Communications

- Wireless 802.11n, Bluetooth 3.0 HS, Bluetooth 2.1 EDR
- Bluetooth Class Class 2
- Network Interface Gigabit Ethernet
- Remote Management Protocol SNMP
- Compliant Standards IEEE 802.1x, Wi-Fi CERTIFIED,

Battery

- **Technology** 6-cell Lithium ion
- Capacity 47.0 Wh
- **Run Time** 6.25 hour(s)

AC Adapter

- Voltage Required AC 230 V (50/60 Hz)
- **Output** 65.0 Watt , 18.5 V

Connections & Expansion

- **Slots** 1.0 x ExpressCard/34 (1.0 free)
- Interfaces 4 x LAN,

Microphone input,

HDMI,

VGA.

Headphone output,

USB 2.0

- Memory Card Reader Card reader (microSD),
 - (MultiMediaCard),
 - (Memory Stick),
 - (SD Memory Card),
 - (Memory Stick PRO)



Software

- Windows 7 Professional 64-bit/Windows 8
- Microsoft Office Preloaded Includes a pre-loaded image of select Microsoft Office 2010 suites..
- Anti-Virus Software with atleast 1 year license

Miscellaneous:

Embedded Security Fingerprint reader



3.0 Network printer

Specification:

- All-in-one functions:
 - o Print, copy, scan, fax
- Multitasking Supported
 - o Yes
- Print speed, black (normal quality mode)
 - O Up to 19 ppm
- Print speed, color (normal quality mode)
 - O Up to 19 ppm
- First page out (black)
 - As fast as 17 sec
- First page out (color)
 - o As fast as 17 sec
- Monthly duty cycle
 - o Up to 30,000 pages
- Print technology
 - o Laser
- Print resolution, black
 - o Up to 600 x 600 dpi
- Print resolution, color
 - o Up to 600 x 600 dpi
- Display
 - o 3.5" (8.89 cm) touchscreen, LCD (color graphics)
- Paper handling standard,input
 - o 50-sheet multipurpose tray, 250-sheet input tray 2
- Paper handling standard, output
 - o 150-sheet output bin
- Envelope capacity
 - o Up to 10 envelopes
- Duplex printing (printing on both sides of paper)
 - o Yes
- Manual (driver support provided)
 - o yes
- Document finishing
 - o Sheetfed
- Media sizes, standard
 - o Tray 1: Letter, legal, executive, 8.5 x 13 in, 3 x 5 in, 4 x 6 in, 5 x 8 in, envelopes (No 10, Monarch); Tray 2
- Media types



- o Paper (bond, brochure, colored, glossy, letterhead, photo, plain, preprinted, prepunched, recycled, rough), postcards, transparencies, labels, envelopes
- Processor speed
 - o 600 MHz
- Memory, standard
 - o 192 MB
- Memory, maximum
 - o 448 MB
- Scanner type
 - o Flatbed, ADF
- Scan resolution, optical
 - Up to 300 dpi (color and mono, ADF); Up to 600 dpi (color, flatbed); Up to 1200 dpi (mono, flatbed)
- Bit depth
 - O Up to 11.5 ipm (b&w), up to 4.5 ipm (color)
 - o 24-bit
- Scan size, maximum (flatbed)
 - o 8.5 x 11.7 in
- Scan size, maximum (ADF)
 - o 8.5 x 14 in
- Scan speed (normal, letter)
 - O Up to 11.5 ipm (b&w), up to 4.5 ipm (color)
- Scan speed (default)
 - o Up to 11.5 ipm
- Copy speed black (normal, letter)
 - O Up to 19 cpm
- Copy speed color (normal, letter)
 - o Up to 19 cpm
- Copy resolution, black
 - o Up to 300 x 300 dpi
- Copy resolution, color
 - o Up to 300 x 300 dpi
- Copy reduce/enlarge settings
 - o 25 to 400%
- Maximum number of copies
 - o Up to 99 copies
- Faxing
 - o Yes
- Fax transmission speed (seconds per page)
 - o 3 sec per page
- Fax memory



- o Up to 250 pages
- Fax resolution, black (dots per inch)
 - o Up to 300 x 300 dpi
- Speed dials, maximum number
 - o Up to 120 numbers
- Auto redial
 - o Yes
- Fax delayed sending
 - o Yes
- Fax broadcast
 - 0 120
- Junk fax barrier
 - o yes
- Polling
 - Yes (receive only)
- Fax forwarding
 - o Yes
- Connectivity, standard
 - o 1 Hi-Speed USB 2.0 port; 1 Host USB port (front-panel); 1 Fast Ethernet 10/100Base-TX network port; 1 WiFi 802.11 b/g/n
- Compatible operating systems
 - Full software installs supported on: Microsoft® Windows® 7 32-bit and 64-bit, Windows Vista® 32-bit and 64-bit, Windows® XP 32-bit (SP2 or higher); Driver only installs supported on: Microsoft® Windows® Server 2008 32-bit and 64-bit, Windows® Server 2003 32-bit (SP3 or higher); Mac OS X v 10.5, v 10.6; Linpus Linux (9.4, 9.5), Red Hat Enterprise Linux 5.0 (supported with a pre-built package); SUSE Linux (10.3, 11.0, 11, 11.1, 11.2), Fedora (9, 9.0, 10, 10.0, 11.0, 11, 12, 12.0), Ubuntu (8.04, 8.04.1, 8.04.2, 8.10, 9.04, 9.10, 10.04), Debian (5.0, 5.0.1, 5.0.2, 5.0.3) (supported by the automatic installer); HPUX 11 and Solaris 8/9
- ENERGY STAR® Qualified
 - Yes
- Power Requirement
 - o 220 240V (+/-10%), 50 / 60Hz (+/-2Hz)



4.0 Scanner

Specification:

- Media Type Supported
 - o Paper, Envelopes, Labels, Cards, 3-D objects, 35-mm slides and negatives, Photos
- Scan Area Size
 - o 216 x 356 mm
- Optical scanning resolution
 - o 4800 x 4800 dpi
- Scanning Bit Depth
 - o 48 bit
- ADF Support
 - o Yes
- ADF Speed
 - o 25 ppm / 5.5 ipm (b&w, 200 dpi)
- Paper Capacity
 - o 50 Sheets
- Scan File Format
 - o FlashPix, GIF, HTML, JPEG, PDF, PICT, Plain Text, Rich Text, TIFF
- USB Support
 - o Yes, USB 2.0
- Operating System Support
 - o Windows 7(64, 32)
 - o Windows Vista (64, 32),
 - Windows XP Professional,
 - o Windows Server 2008, Windows Server 2003, Linux, Unix. Latest versions
- Memory
 - o 1GB RAM



5.0 Gigabit Network 24 port switch:

Specifications:

- Product Type
 - o Switch 24 ports L3 Managed
- Form Factor
 - o Rack mountable 1U
- Switch Ports
 - o 24 x 10/100/1000 Ethernet Ports Ethernet Ports
- Performance
 - o Switching capacity: 160 Gbps
- Routing Protocol
 - o RIP-1, RIP-2, HSRP, static IP routing, RIPng
- Remote Management Protocol
 - o SNMP 1, SNMP 2, RMON 1, RMON 2, RMON 3, RMON 9, Telnet, SNMP 3, SNMP 2c, TFTP, SSH, CLI
- Authentication Method
 - O Kerberos, Secure Shell (SSH), RADIUS, TACACS+
- Features
 - O Hot swap module replacement, Layer 3 switching, Layer 2 switching, dynamic IP address assignment, DHCP support, auto-negotiation, ARP support, trunking, VLAN support, auto-uplink (auto MDI/MDI-X), IGMP snooping, Syslog support, traffic shaping, Broadcast Storm Control, High Availability, Multicast Storm Control, Unicast Storm Control, Rapid Spanning Tree Protocol (RSTP) support, DHCP snooping, Dynamic Trunking Protocol (DTP) support, Port Aggregation Protocol (PAgP) support, Access Control List (ACL) support, Quality of Service (QoS), Jumbo Frames support, MLD snooping, Dynamic ARP Inspection (DAI), Per-VLAN Spanning Tree Plus (PVST+), EIGRP Stub Routing
- Compliant Standards
 - IEEE 802.3, IEEE 802.3u, IEEE 802.3z, IEEE 802.1D, IEEE 802.1Q, IEEE 802.3ab, IEEE 802.1p, IEEE 802.3x, IEEE 802.3ad (LACP), IEEE 802.1w, IEEE 802.1x, IEEE 802.1s, IEEE 802.1ae
- DRAM Memory
 - o 256 MB



• Flash Memory

o 128 MB Flash

• Status Indicators

 Port status, link activity, port transmission speed, port duplex mode, power, system

• Connectivity Slots (Interfaces)

O 24 x 10Base-T/100Base-TX/1000Base-T - RJ-45USB : 1 x 4 PIN USB Type A 1 x console - mini-USB Type B - management 1 x RS-232 - RJ-45 - management 1 x 10Base-T/100Base-TX - RJ-45 - management



Group III

1.0 Hard Disk for Evidence Collection and Storage(500 GB and 1 TB-1 set of 2 different size HDD) Seagate:

Specifications:

- 1. External Hard Disk Drives of 500GB and 1TB (eSATA)
- 2. With complete set of cables, enclosure and Driver Software for Windows OS and LINUX

2.0 NAS with 8 TB Storage:

Specifications:

- Storage atleast 8TB
- Protocol to handled
 - o CIFS
 - o NFS
 - o FTP
 - o SFTP
 - o HTTP
 - o Apple Filing Protocol (AFP)
 - o Andrew File System (AFS)
 - o MIcroSoft Rally
- Interface/Connectivity
- 10/100/1000 MbpxEthernet 2 Ports (Two Ethernet ports for local network connection, port failover and NAS to NAS replication.)
 - o Atleast USB 2.0 6 Ports
- Hot-swappable, user-replaceable Hard Disk
- Security from individual files to entire volume with encryption and folder share level
- Support with Access Control List (ACL) alongwith Quotas setting
- User-configurable RAID 0/1/5/10 & JBOD
- With eMail event Management System
- Complete with all device drivers and event management software
- Complete with set of cables



5.0 Mobile Phones

Specifications:

- (Symbian, Android, Proprietary OS, Blackberry0
- Samsung Galaxy S Duos Android 4.0.3 Ice Cream Sandwich
- Nokia E6 Symbian Smart Phone
- Nokia Asha 311- Propriety OS
- Sony Experia U Java Phone
- Blackberry Bold 3 Mobile
- Apple iPhone also
- Low cost Chinese Phones
- With minimum 4 GB memory card