INTEGRATED HEADQUARTERS MINISTRY OF DEFENCE (NAVY) / DIRECTORATE OF INFORMATION TECHNOLOGY

REQUEST FOR PROPOSAL
FOR
IMPLEMENTATION OF PUBLIC KEY INFRASTRUCTURE IN INDIAN NAVY

Date Issued 22 Jun 2017

**Letters of Proposal and Commercial Submittals Due
at 1200 hrs on 03 Aug 2017**

To

Directorate Information Technology (DIT)
Integrated HQ of Min of Def (Navy)
Room No 129B, 'C' Wing, Sena Bhawan
New Delhi 110011

RFP Reference No: IT/0622/04 dated 22 Jun 2017

Tele : 011 – 23010522
Fax : 011 – 23010612

Directorate Information Technology (DIT)
Integrated HQ of Min of Defence (Navy)
Room No 129 B, 'C' Wing, Sena Bhawan
New Delhi 110011

IT/0622/04   **22 Jun 2017**

To,

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RFP FOR IMPLEMENTATION OF PUBLIC KEY INFRATSRUCTURE (PKI) IN THE INDIAN NAVY

PROPOSAL (RFP) NO IT/0622/04DATED   22 Jun 2017

Sir,

1.   The online bids under Advertised Tender Enquiry, two separate bids (technical bid and commercial bid), are invited for supply of items as listed in Part II of this RFP. Please super scribe the above mentioned Title, RFP number and date of opening of the Bid which can be viewed at www.eprocure.gov.in to avoid the Bid being declared invalid.

2.   The address and contact numbers for sending Bids or seeking clarifications regarding this RFP are given below:-

   (a)   Bids / queries to be addressed to: - **Directorate of Information Technology (DIT), Room No 129 B, 'C' Wing, Sena Bhawan, New Delhi 110011.**

   (b)   Name / designation of the contact personnel: **Joint Director Information Technology (IS). Tel No. : 011 – 23010522 & Fax No. 011 – 23010612**.

   (c)   E-mail id of contact personnel: dit@navy.gov.in

3.   This RFP is divided into five Parts as follows :-

   (a)   **Part I** – Contains General Information and Instructions for the Bidder(s) about the RFP such as the time, place of submission and opening of tenders, Validity period of tenders, etc.

   (b)   **Part II** – Contains Essential details of the Applications / Services required, such as the Schedule of Requirements (SOR), Technical Specifications, Delivery Period, Mode of Delivery and Consignee details.

(c)   **Part III** – Contains Standard Conditions of RFP, which will form part of the Contract with the successful Bidder.

(d)   **Part IV** – Contains Special Conditions applicable to this RFP and which will also form part of the contract with the successful Bidder.

(e)   **Part V** – Format for Price Bids.

4.   This RFP is being issued with no financial commitment and the Buyer reserves the right to change or vary any part thereof at any stage. Buyer also reserves the right to withdraw the RFP, should it become necessary at any stage.

Yours faithfully,

(J Harsha Vardhan)
Commodore
PDIT

Appendix A – Confidentiality and Non-Disclosure Agreement

Appendix B – Compliance Matrix by the SI

Appendix C – SIs Pre-Qualification Criteria

Appendix D - Price Bid Format

Appendix E - Fall Clause Certificate

Annexure I – Technical Specifications for Hardware

Annexure II – Technical Specifications for Software

Annexure III – Support Manpower

**INVITATION OF BIDS FOR IMPLEMENTATION OF PUBLIC KEY
INFRASTRUCTURE (PKI) IN THE INDIAN NAVY**

(RFP NO.)IT/0622/04 dated 22 Jun 2017

PART I – GENERAL INFORMATION

1.   **Critical Dates**.   The critical dates with respect to the Tender Reference No. **IT/0622/04 dated 22 Jun 2017**are as tabulated below:-

<table>
<tr><th colspan="4">CRITICAL DATE SHEET</th></tr>
<tr><th>Ser No.</th><th>Item</th><th>Date</th><th>Time</th></tr>
<tr><td>(a)</td><td>Published date</td><td>22 Jun 17</td><td>1700hrs</td></tr>
<tr><td>(b)</td><td>Bid Document Download</td><td>22 Jun 17</td><td>1800hrs</td></tr>
<tr><td>(c)</td><td>Clarification Start Date</td><td>22 Jun 17</td><td>1800hrs</td></tr>
<tr><td>(d)</td><td>Clarification End Date</td><td>04 Jul 17</td><td>1000hrs</td></tr>
<tr><td>(e)</td><td>Bid Submission Start</td><td>23 Jun 17</td><td>1600hrs</td></tr>
<tr><td>(f)</td><td>Bid Submission End</td><td>03 Aug 17</td><td>1200hrs</td></tr>
<tr><td>(g)</td><td>Opening of Tender Box for Physical Verification of documents mentioned at Para 2(a) below</td><td>04 Aug 17</td><td>1500hrs</td></tr>
<tr><td>(h)</td><td>Technical Bid Opening Start (Online)</td><td>04 Aug 17</td><td>1500hrs</td></tr>
<tr><td>(j)</td><td>Commercial Bid Opening Start</td><td colspan="2">Will be intimated in due course</td></tr>
</table>

2.   The bid to be submitted in the following manner:-

(a)   The original of following documents shall be submitted physically in the sealed tender box prior to bid submission closing date.

(i)   EMD will be a sum of ₹**20,00,000/- (Rupees Twenty Lakhs only)** should be payable to PCDA (N), Mumbai. Demand Draft (DD) should be valid for minimum 3 months period. Any firm claiming exemption should enclose proof of the same.

(ii)   Tender fee in the form of Demand Draft (DD) of ₹ 1000.00 (Rupees One Thousand) (non-refundable) in favour of Principal Controller of Defence Accounts (NAVY), Mumbai towards the cost of Tender Documents.

(b)   **Cover-1**.   Cover-1 will contain the Technical Bids consisting of following documents (This will be submitted on line):-

      (i)   **Tender Conditions Acceptance Certificate**. The bidder shall certify for acceptance of all the tender conditions of the online RFP. The certificate duly signed shall be scanned and uploaded. In case of any deviations, the bid shall be rejected. If the certificate is signed by legally authorised signatory, a copy of the authorisation letter to be uploaded.

      (ii)   Compliance of specifications certificate along with special note if any mentioned in Part II of the RFP.

(c)   **Cover-2**.   Commercial Bid will be submitted online as Cover 2 and will consist of the Commercial Bid in the form of "BOQ" (Bill of Quantities).

3.   **Time and date for opening of Bids 1500 hrs on 04 Aug 17**(If due to any exigency, the due date for opening of the Bids is declared a closed holiday, the Bids will be opened on the next working day at the same time or on any other day/time, as intimated by the Buyer)**.**

4.   **Location of the Tender Box**. Tender Box marked as "DIT Tender Box" will be kept near reception Office of SenaBhawan, Gate No. 1 opposite DRDO Bhawan, New Delhi. Following guidelines may be followed while submitting requisite physical documents as indicated in RFP. **No Technical and commercial bids will be dropped in the Tender Box except those mentioned at Para 2(a) above**.

(a)   The physical receipt of specified documents shall be mandatory prior to bid submission end date & time mentioned at Para 1(f) above.

(b)   The non-receipt of the physical documents shall result in rejection of bid.

(c)   Only those documents specified in the tender document and found in the tender box will be opened.

(d)   Physical documents as specified in case dropped in the wrong Tender Box will be rendered invalid.

(e)   The envelope containing the requisite physical documents should be addressed to Principal Director of Information Technology, Directorate of Information Technology, Room No 130, 'C' Wing, SenaBhawan, New Delhi – 110011. The requisite physical documents may be send by hand/post/speed post/courier. However, it is the sole responsibility of the tenderer to ensure requisite physical documents are received in the buyer's office prior to bid submission end date & time. The buyer by no means will be responsible for any delay in the receipt of requisite physical documents.

(f)   No post bid clarifications on the initiative of the bidder will be entertained.

5.   **Opening and Verification of Documents**.   The physical verification of the specified documents as asked for in the RFP will be done at Directorate of Information Technology, Room No 130, 'C' Wing, SenaBhawan, New Delhi – 110011, on the day of online opening of bids. The bidder may depute their representatives, duly authorised in writing, to attend the event on the due date.

6.   **Forwarding of Bid**.

    (a)   The documents specified in Para 2(a) to be deposited physically as per instructions at Para 4 above. The physical receipt of these documents is mandatory. The technical bids shall not be accepted if these documents are not received prior to bid opening.

    (b)   The technical and commercial bid will be submitted "Online Only" less documents mentioned at Para 2(a) above.

    (c)   The technical bid and commercial bid should be submitted ONLINE by the bidders duly digitally signed by the legal owner of the firm of the person authorised him to do so.

7.   **Modification and Withdrawal of Bid**.

    (a)   The Bidder may modify (re-submit) his bid **ONLINE** after submission, as per the provisions available on the portal. No bids shall be modified after deadline for submissions of bids.

    (b)   If the bidder desires to withdrawal before bid submission closing date/time, he may do so **ONLINE** in the portal. EMD (in case) submitted in physical form shall be returned Offline. However, the cost of the tender will not be returned to the firm. Once the bid is withdrawn by any firm online, that firm will not be permitted to participate against this tender.

    (c)   No bid may be withdrawn in the interval between the deadline for submission of bids and expiry of the period of the specified validity. Withdrawal of a bid during this period will result in forfeiture of Bidder's Bid security/EMD.

8.   **Clarification Regarding Contents of the RFP**.   A pre-bid meeting would be held at IHQ MoD (N)/DIT at **1500 hrs** on **05 Jul 17**. A prospective bidder who requires clarification regarding the contents of the bidding documents shall notify to the Buyer in writing about the clarifications sought not later than **1000 hrs** on **04 Jul 17**. The minutes of the pre-bid meeting would be uploaded as addendum to the RFP on www.tenders.gov.in ,www.indiannavy.nic.in and www.eprocure.gov.in websites. It may be noted that only bidders will be permitted for the pre-bid meeting.

9.   **Rejection of Bids**. Canvassing by the Bidder in any form, unsolicited letter and post-tender correction may invoke summary rejection with forfeiture of EMD. Conditional tenders will be rejected.

10.   **Unwillingness to quote**. Bidders unwilling to quote should ensure that intimation to this effect reaches before the due date and time of opening of the Bid, failing which the defaulting Bidder may be delisted for the given range of items as mentioned in this RFP.

11.   **Validity of Bids**.   The bids should remain valid for at least **180 days** from the last date of submission of the bids.

12.   **Certificates by System Integrator (SIs)**.   It is mandatory for the SIs to fill up the compliance matrix at Appendix 'B', Fall Clause Certificate at Appendix 'E' to this RFP and submit the same along with the Technical bid.

13.   **Bid Submission.**   Online Bid submission by Bidders under their original memo / letter pad inter alia furnishing details like TIN number, VAT/CST/GST number, bank address with NEFT account if applicable, etc., and complete postal & e-mail address of their office.

14.   **Two-Bid system**.   In the extant case, bids are sought under Two-bid system (separate technical and commercial bids), only the Technical Bid would be opened on the time and date mentioned at para 3 above. Date of opening of the Commercial bid will be intimated after acceptance of the Technical Bids. Commercial Bids of only those firms will be opened, whose Technical Bids are found compliant/suitable after technical evaluation is done by the Buyer.

15.   **Earnest Money Deposit**. Bidders are required to submit Earnest Money Deposit (EMD) for amount of **Rs.20,00,000/- (Rupees Twenty Lakhs only)**along with their bid. In case EMD is not found attached with the Technical Bid, the bids are liable for rejection. The EMD may be submitted in the form of an Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee from any of the public sector banks or a private sector bank authorized to conduct government business as per Form **DPM-13** (Available on MoD website).   EMD is to remain valid for a period of **ninety days** beyond the final bid validity period. EMD of the unsuccessful bidders will be returned to them at the earliest after expiry of the final bid validity and latest on or before the 30th day after the award of the contract from Director of IT, Integrated Headquarters Ministry of Defence (Navy), Dalhousie Road, New Delhi.   The Bid Security of the successful bidder would be returned, **without any interest whatsoever**, after the receipt of Performance Bank Guarantee from them as called for in the contract. **EMD is not required to be submitted by those Bidders who are registered with the Central Purchase Organization (e.g. DGS&D), National Small Industries Corporation (NSIC) or any Department of MoD or MoD itself**. A latest certificate of these organizations will be submitted along with the Technical Bids as proof towards waiver of EMD submission. The EMD will be forfeited if the bidder withdraws or amends, impairs or derogates from the tender in any respect within the validity period of their tender.

16.   **Cost of Bids**.   Cost of bids is set at ₹ 1000.00 (Rupees One Thousand). Demand draft or Bankers Cheque should be made payable to PCDA (N), Mumbai. Bidders downloading the tender document from the Internet are required to submit tender fee along with the Technical Bid.

PART II – ESSENTIAL DETAILS OF ITEMS/ SERVICES REQUIRED

Introduction

1.   Indian Navy intends to deploy a highly secure Public Key Infrastructure (PKI) in order to provide trusted cryptographic keys (certificates) for securing its communications, SSL, code signing, etc. The PKI is required to provide the foundation to support future security initiatives such as smart card-based authentication, network access control technologies, device-based authentication etc to meet the future requirement for e-governance initiatives of Indian Navy.

Scope of Work

PKI IMPLEMENTATION

2.   The following components shall be provisioned by SI as a part of PKI Sub-Project:-

        (a)   Hardware
        (b)   Software
        (c)   Services
        (d)   Audit
        (e)   Training
        (f)   Support / AMC

Hardware.

3.   Hardware is to be supplied, installed and configured by the bidder. The details are brought out in subsequent paragraphs. The primary site will be in Delhi and the DR site will be in Vishakhapatnam. This hardware shall be configured as described here:-

        (a)   Two sites – Primary site and DR Site with exactly same configuration.
        (b)   Two **set of Hardware** running in HA and FT mode.
        (c)   Each **Set of hardware** configured to support the entire CA task for Navy.

4.   Following hardware are to be provided as part of this project:

SI No	Description	Qty	Tech Specs
(a)	Rack Servers	04	Technical details placed at **AnnexureI**
(b)	Rack	02	
(c)	HSM	02	
(d)	PKI Containers/ Tokens	5000	
(e)	L3 Networking Switch – with stacking feature, with two 10G fiber ports, 10g SFP+ module	02	

5.   **PKI Containers/ Tokens**. The PKI Containers/ Tokens are to be provided with a warranty of one year. Delivery of the first lot of 1000 Tokens is to be done immediately post CCA certifications. The next lot of 4000 tokens is to be done within 90 days of certification by CCA.

Software

6.   Indian Navy as part of earlier procurement has procured requisite Microsoft Server, database, Virtualisation Environment and requisite User CAL licenses for internal usages. No server or CAL is envisaged to be procured as part of this project. In case of Microsoft Server and database licenses required during infrastructure setup by the successful bidder, the same will be provisioned by Indian Navy. In case of any other versions/implementation, the same has to be provisioned by the bidder. The SI is expected to provide the following Software as a part of this Project:-

(a)   **Implementation/ Deployment of CA Software**. The implemented/ configured CA server is to meet the requirements of CCA. **The Software must be compliant with all regulations as promulgated by CCA. The licensing model of the OEM should be server based and should be for unlimited client licenses. There will be four instances of the CA software deployment in which only two will be active at any point of time i.e Primary - 02, DR - 02.** The functionalities expected from the CA software are placed at Para 1of **Annexure II**. The solution must provide features including,but not limited to the following:-

(i)   Policy Formulation and Management
(ii)   Certificate and user repository/directory
(iii)   Server and Client certificates
(iv)   Certificate Revocation
(v)   Certificate Revocation List Support & scalability
(vi)   Off-Line Revocation Checking capability
(vii)   Handling revoked and expired certificates
(viii)   Verification of historical signatures
(ix)   Key Backup/Recovery – HSM to HSM. HSMs to support HA Mode for this functionality.
(x)   User Initialization & password Management
(xi)   Disaster recovery/business continuity plan
(xii)   Mechanism to recover dependent data on keys held in lost tokens.
Key Escrow as per existing regulations or best practices.

(b)   **Work Flow Software**.   Indian Navy currently has licenses for Microsoft Sharepoint 2013 server, EMC^2 Documentum, CA Identity Manager and Necessary Client licenses. The bidder may use the same to envision and develop custom work flows. The workflow application should include provisions for level of approvals required as per CCA. The application should utilise the authentication mechanism of existing IT infrastructure viz. Active Directory and IDAM (Currently CA Software). The application should enable issuance of certificates as mandated by CCA. Envisioning and development of integrated workflows (up to 5 or as per CCA requirements, whichever is more) to allow end

users to apply for certificates of various types. The workflows must be integrated using existing IT Infrastructure like Portal, LDAP, Single Sign-On etc. as far as possible. The workflows must integrate with LDAP / IDM to fetch user information. Forms must allow printing and saving / archiving. Printing must be as per CCA requirements. **A detailed proposal on the work flow should be included in the technical proposal with the above technologies.** The work flow software should be accessible to all users in the Indian Navy Network for requesting certificates.

Services

7. The bidder is to provide the following services:-

(a) **Integration with Existing Infrastructure**. On implementation/ configuration of the CA server, it has to be integrated with existing IT infrastructure of Indian Navy. The bidder will integrate the PKI setup with Active Directory, MS Exchange Server, SCCM, SCOM to the extent feasible for leveraging PKI infrastructure. The Integration with Active Directory and other Infrastructure Services will be in the scope of the project as follows:-

(i) Configuration of PKI software for achieving integration with existing Naval IT Infrastructure like AD/LDAP, SSO/IDM, SCCM, Anti-Virus System, Email System, SCOM, Portal etc. As far as possible, the integration efforts shall be made in consultation with the OEM that supplied / implemented the specific components.

(ii) Configure Certificate Template for Issuing Systems (i.e. IDAMSystem of Indian Navy currently from CA Technologies) with up to 05 templates, any customization or integration of creating workflow for request, issuance and approval mechanism, Security Support Systems, and Front-End / Internal-Support Systems by removing or disabling all accounts, applications, services, and Front-End / Internal-Support Systems by removing or disabling all accounts, applications, services, protocols, and ports that are not used in the CA's operations and allowing only those that are approved by the CA will be responsibility of Indian Navy and team @ Indian Navy. OEMwill be doing knowledge transfer to Indian Navy team and help in enabling Indian Navy to integrate PKI as back-end infrastructure for issuing certificate for request from IDAM Solution of Indian Navy or even manual request or auto-enrolment request as default capabilities of Active Directory and Active Directory certificate services.

(iii) Implement Active Directory based two-factor authentication only to each CA server (maximum 04 servers), knowledge transfer will be done to Indian Navy team engaged in project to enable them issuing certificate to IN Users and enabling only token based logon Windows Operating System Servers. It should support easy mechanism for CRL Export to CCA/ CA(offline).

(iv)   Restrict remote administration of access to an Issuing system, certificate management system, or security support system.

(v)   Creation of an online help website with content populated by the SI. The populated content must enable users at various levels like end user, CA, OU Admins etc. to read and learn Standard Operating Procedure for managing their respective jobs. The website must include training videos, step-by-step procedures, screenshot based help procedures etc. for better user integration. The Help Website will be hosted on Naval intranet and all resources required for the same like Virtual Machines, Operating system etc. shall be provided by the Navy. Development environment and any associated licenses shall **not be provided by Navy**.

(b)   **CCA Approval**

(i)   Preparation of a detailed Implementation Plan for project implementation and submission to Navy for approval within 15 days of contract awarding.
(ii)   Prepare a Certificate Practice Statement (CPS) under CCA/ CA guidance and get it approved by CCA.
(iii)   Setup all hardware as per CCA requirements.
(iv)   Preparation of Standard Operating Procedures for Certificate Management in Naval Environment.
(v)   Interaction with CCA for registering Indian Navy as CA which includes the creation and validation of all the required documents like CPS, agreements, contracts and other documentation including Liaison with the CCA, GoI and other Agencies. Towards this application fee and miscellaneous expenditure is to be borne by the bidder.
(vi)   Interaction with the CCA (GOI) and his office on behalf of the Indian Navy, whenever necessary during the entire contract duration including AMC period.
(vii)   Site Preparation for Primary/DC & DR Site and Preparing Operational Procedures for the operation of the CA infrastructure. This shall include operational requirements like :-

      (aa)   DR synchronization
      (ab)   Security management
      (ac)   Change and configuration management
      (ad)   Audit logs management
      (ae)   Incident management plan
      (af)   Issue, renewal and revocation of certificates for all users of NUD.
      (ag)   Key generation process
      (ah)   Distribution and storage of keys
      (ai)   Private key protection, storage and backup
      (aj)   Method of destroying the private key
      (ak)   Usage and periodic key changes
      (al)   Key compromise, detection and management
      (am)   Appointment of Registration Authorities,

(an)   Handling of applications for digital signature certificates through RAs etc.

(ao)   Implementing Privacy for subscriber's data

(ap)   Identifying best practices for key management

(aq)   CRL Dissemination

(ar)   Other procedures that may be deemed necessary

(c)   **Rollout Services**.   After the hardware and software setup is ready and accepted by CCA, the rollout shall commence. During Rollout, the SI will provide manpower to assist Naval authorities in physical verification of the application forms, certificate issuance, archival of forms etc. enrollment activities at New Delhi, Mumbai, Vishakhapatnam, Kochi and Karwar.

8.   **Audit**

(a)   Primary site and DR inspection, validation and mitigation of all observations as per CCA guidelines.

(b)   VA for the incoming system is to be conducted by any CERT-IN empaneled company. VA/PT and mitigation of all VA/PT observations is SI's liability. The SI to ensure that there is a back-to-back Non-Disclosure and Confidentiality agreement with the CERT-IN empaneled company.

(c)   Internal Audit by an agency of Indian Navy. The bidder will provide all necessary assistance required to undertake VA/PT of the setup. The VA is to be carried out prior integration of the incoming IT Infrastructure with existing Naval intranet.

(d)   All required audits by CCA shall be presented by SI, including third party audit, and audit by STQC till certifications by CCA.

(e)   The auditing would have to be completed within the time limits laid down by CCA.

(f)   DR Site must be cold standby and changeover must be possible with minimal user interaction. DR takeover drill is to be conducted once a quarter by the SI during entire contract period including AMC duration. The DR Takeover drill shall be scheduled as a surprise drill.

Training.

9.   The bidder would organize training of 20 Officers and 30 Sailors on various aspects of Information Security, public key infrastructure and licensing of CA operations through an established and appropriate training organisation. This training would be conducted at Trainers premises at New Delhi, Vishakapatnam, Kochi and Mumbai. Training duration shall be mutually decided between Navy and SI depending on the take-off level of the training and the availability of trained manpower. The training will be undertaken at an identified location twice a year for two years after signoff for probable duration of three days. The syllabus and duration of training will be mutually decided by the Indian Navy and the bidder. Online training material may be integrated with the training website as brought out above. Following additional certificate courses to be conducted/ provided by SI with certification at SI's cost:

(a)   CISA (certification for 05 Students)

(b)   CISSP (certification for 05 Students)

Support

10.   The SI shall provide support during the following phases:-

(a)   **Sign-off**.   The project signoff shall be executed after Navy is registered as a CA by CCA, issuance of first 1000 user certificates and user training for carrying out Sub-CA duties has successfully finished.

(b)   **Warranty**.   Warranty start date is defined as the date when CCA would certify Indian Navy certification to function as CA. Warranty period for all hardware components and software licenses shall be deemed to commence from the date of sign-off. Warranty for all hardware components shall commence on the day of Project Sign-off and shall last for Two years. SIs to ensure that the warranty is provided by the respective OEMs only for all the hardware items. Warranty claims from OEMs is SI's liability and Naval personnel shall only register defects with the SI. Defective Storage Devices like RAMs, HDDs and SSDs will not be returned. During this period, support for all other associated project components like software developed / customised / configured for the project, physical installations of infrastructure setup as part of this project, update of help content etc. shall be covered. The PKI tokens however are to be provided with a warranty of one year only from the date of supply.

(c)   **AMC**. Post completion of Warranty duration, the AMC period of two years will commence. The scope of AMC will be the same as that warranty. AMC support includes for all hardware, support for the software provided and installation services. Continuation of AMC will be at the sole discretion of Indian Navy. Indian Navy at any time during the AMC may terminate the contract.

(d)   **Optional Additional AMC**. Bidders are to quote for 02 years of optional additional AMC in the commercial bid. The scope of Optional AMC will be the same as that warranty. The same will however not be in the scope of the current contract. Indian Navy reserves the right to enter into an agreement for AMC with the successful bidder. AMC may be concluded at the sole discretion of the buyer.

(e)   **Support Manpower**.A resident engineer will be positioned by the successful bidder during all phases of support. The qualification and duties of the resident engineer is placed at para 1(a) of Annexure III. Further, the bidder will deploy Support Engineers for handling hardware defects and for deployed software on as required basis within 24 hours of complaint being registered with the bidder.

(f)   **Additional Manpower**.   The   SI   will   quote   for   thequalified manpower(PKI Consultant) as indicated at para 1(b) of Annexure III. The price quoted should be on a monthly basis. Indian Navy reserves the right to enter into an agreement with the successful bidder for hiring certain number of manpower (PKI Consultants) on Man Months basis as and when required. The same may

be contracted with the SI on requirement basis.In case, if Indian Navy agrees into an agreement for hiring of Manpower, the selection of personnel to be deployed is to be done in consultation with Indian Navy.

(g) **Clarification**. The level of support being offered to the end user as a part of this project is exactly the same during Warranty and AMC durations from the user's perspective and same levels of support infrastructure is to be maintained by the SI.

(h) **Support Payment**. Support payments shall be made on quarterly basis but system availability shall be calculated monthly.

11. **Registering Authority (RA)**. Registering Authority is to be setup at five locations at New Delhi, Mumbai, Kochi, Vishakhapatnam and Karwar. The process of issuing certificates will be managed by Indian Navy however it must be supported by the SI during the warranty period. The project design should cater for scaling the number of RAs in case of a requirement from Indian Navy.

12. **Obsolescence Management**. After submission of the Technical bids by the SI, if there is a change in nomenclature of the offered project components (especially software components) due to obsolescence, discontinuation of product, launch of a newer version with a new name, Merger, Acquisition, or Takeover of the OEM etc., SI shall be liable to provide an equivalent, better or newer product to the Navy while still meeting all functional and non-functional requirements of the affected component. Such a change shall be explicitly approved by this directorate prior execution. The decision of Principle Director Information Technology, in this regards shall be final.

Deliverables

13. The deliverables of the project will be:-

(a) Project plan for the implementation of the PKI setup and DR.
(b) Delivery, installation, commissioning and configuration of the supplied Hardware and Software
(c) Implement/ Configure CA software as required by CCA for carrying out CA role.
(d) Deployment of two Online Subordinate CAs in cluster in primary site, which will issue and manage the certificates for various purposes. CAs will be built in cluster for providing high availability within the same site and with similar configuration in DR site as well.
(e) CA site inspection and readiness report.
(f) Drafting of Certificate Policy and/or Certificate Practice Statement documents for the PKI. Approval will have to run through the process of Indian Navy Internal Legal and Compliance Team.
(g) Certificate templates that define the various types of certificates (Digital Signature, Code Signing, SSL Smart Card Authentication and Client Authentication) the PKI supports. Maximum up to 08 custom templates. OEM will do knowledge transfer to the Indian Navy team responsible for operating and

managing PKI to create templates during the 08 templates creating process / task.

(h)   Certificate enrolment mechanisms using Auto Enrollment, Web Enrolment pages and Network Device Enrolment Services (NDES, the SCEP-compatible service). Two dedicated Web servers will be deployed to host the Web Enrolment and NDES services.

(i)   Certificate revocation using both certificate revocation lists (CRLs) periodically issued by the CA, and using Online Certificate Status Protocol (OCSP). CRLs and OCSP will be hosted on the same two Web servers used for Web Enrolment and NDES.

(j)   Designing for secure mechanism for access management for URL, Issuance management of certificate, Access to certificate authority, access to HSM.

(k)   Provide implementation and operations guidance, and deployment the solution infrastructure in Indian Navy production environment and Disaster Recovery (DR) environment.

(l)   Segment PKI systems of Indian Navy into networks or zones based on their functional, logical, and physical (including location) relationship.

(m)   Apply security controls to all systems co-located in the same zone with a certificate system.

(n)   Configuration and creation of templates of Crypto Service Provider on as required basis to enable desktop OS to communicate with Tokens as PKI container and allow users to digitally sign documents. Support for all current variants of Windows and BOSS Linux to be ensured.

(o)   Provision for automatic generation of all reports, as required by CCA, should be made in software. Number of reports shall be up to 5 or as per CCA requirements whichever is more.

(p)   Application for CA license to be submitted to CCA including all the required documents.

(q)   CA website / application for certificate life cycle management.

(r)   Standard Operating Procedures of the CA site / application.

(s)   DR set-up plan, layout design, documentation, and SOPs with deployment. DR Drill SOPs.

(t)   Organization chart for the CA set-up for both the Primary and DR site Audit reports along with non-conformance areas and rectification procedures

(u)   VA/PT Certificate from a CERT empaneled firm. Mitigation of any observations.

(v)   CCA certificate for starting operations as a CA / Sub-CA with mitigation of any observations.

(w)   Recovery Document / SOP

(x)   Training material and the training sessions with certification courses.

(y)   Assist Indian Navy to issue first 1000 numbers of digital signature certificates and tokens to Naval Personnel

(z)   Warranty/ AMC / Support

14.   **Backup and Recovery**.   A back up policy with detailed procedures should be formulated with optimal utilisation of the available infrastructure. Audit trails for the database and procedures for database recovery from the audit trail should be developed. The system should maintain a backup of all VMs, databases, documents etc. on timely

intervals (as mutually decided between Navy and SI). Backups should be automated as far as possible. Verification procedures for backup taken should be in place. Appropriate SOPs should be prepared for recovery of the system and database with minimum down time.

15.   **Print and Online Help Options**.   Proposed system must have the facility to have Print Options for the Reports and other specified forms in general / Pre-Printed format agreed and approved by the CCA. Online and context sensitive help for all users and administrators should be part of the software. The reports must have facility to be ported in standard office automation suits like excel, word documents, pdf etc.

16.   **Development Strategy**. The firm shall submit a tentative project plan for complete development as per RFP in the technical bid. However, a comprehensive and more detailed plan will be required to be submitted by the firm post placement of order after exact assessment of scope of work. The same will be approved by the Navy prior commencement of project and would be considered as project commencement date. The project plan should indicate all activities and tasks (with interdependencies) required for attainment of objective along with payment milestones. All standards planned to be followed are to be included in technical proposal. Based on the progress achieved, the project plan would be reviewed periodically, at-least once a month.

17.   **Indian Navy's Responsibility**.   The Navy will be responsible for providing all relevant documents and data related to Indian Navy's organizational, functional and other procedures as may be relevant for design and development of the PKI solution and can be made available as required in accordance with the project plan. Access to designated sites/ establishments of Navy would be provided. Indian Navy will nominate a nodal Officer who will be the point of contact for all services.

18.   **SIs Responsibility**.   SIs will be responsible for carrying out the following major activities:- (The list is only indicative and the SIsshall carry out all other activities, which will be required to achieve the objectives described above)

    (a)   Carry out business process study and information need analysis of Indian Navy's processes to recommend a work flow for issue of certificates. SIs shall study and analyse the system requirements and business process for the functional modules required.

    (b)   Interact with CCA, STQC or any other agencies required for certifications as CA/ Sub CA.

    (c)   Define customisation needs to any base product quoted for, to match with Indian Navy's requirement and carry out such customisation.

    (d)   Supply, installation, commissioning and testing of all modules and all hardware, and other accessories to run the system effectively, optimally and efficiently.

    (e)   Supply, install and configure software, operating and other system software and any other general purpose software required to manage and administer the

system. All licences of COTS software are to be registered by the SIs in the name of 'Indian Navy' with OEM.

(f)   Prepare the SRS document before starting the design of the system.

(g)   Prepare Design documents as part of system design phase.

(h)   Supply Technical manuals and User manuals. The user manuals will be developed in consultation with Navy. The schedule of submission of draft manuals for approval by the Navy has to be separately drawn up. Sufficient time must be allowed for the Navy to study and approve the documents. Mere submission of draft documents WILL NOT be treated as achievement of mile stone for claiming stage payment.

(j)   Deliver the specified no. of copies of all legal license, registration documents, user manuals, technical manuals, systems manual and training manuals in paper format and on CDs. The number (quantities) of these documents would be finalised at System Design stage.

(k)   Supply, install, configure and run all the required modules of the COTS software system with test data, subsequently with live data at all the users sites.

(l)   Provision of sample data for functional testing would be the responsibility of the SIs. Any other activity required for execution of the project is also the responsibility of the SIs. The SIs will have to make own arrangements for any services required for the project.

(m)   During the warranty and AMC period, the SIs is to deploy adequate number of onsite engineers, to ensure required uptime. The engineers should be drawn from the same team who are involved in developing the system to facilitate bug fixing, and sort general administration, data administration, user management, security management issues etc. in addition to carry out configuration / customisations of minor nature as per the users' requirement.

(n)   The data provided to the SIs towards development of the project would need to be utilised in Naval premises only and would in no case be allowed to be taken out of naval premises in any form including electronic / digital form. In addition, the SIs must maintain necessary secrecy and confidentiality of the data provide by the Navy during the process of execution of the project. All the personnel deputed by the SIs for the project would deem to be under Official Secrets Act. In addition, the SIs is required to sign a Non-Disclosure Agreement with Navy regarding the use of data related to project.

19.   **Patches and Upgrades**. The firm shall be responsible for uploading of all patches / updates, during the warranty and the AMC period. Any associated modification of database, application, required due to patch, updates, etc. is also the responsibility of the SIs and is considered included in the scope of product support provided by the SIs during warranty and AMC.

20.   **Proposal**. The information in the proposal should be complete in itself to facilitate full technical scrutiny. The SIs must volunteer all information required for this purpose. The

Navy reserves the right to seek necessary clarifications on the technical bids. The technical proposal submitted by the SIs should necessarily cover following details:-

(a)   Company profile and details of infrastructure available for support in terms of technical manpower (hardware and software), technical competence/ skill set, system analysts, design engineers, manufacturing facilities, support infrastructure, installation team, site engineers, standards being followed etc.

(b)   Delivery schedules for complete system, hardware, documentation, installation, testing, integration and commissioning time frames and schedules.

21.   **Ownership of the Application**.   The software/solution developed/provided shall belong to the Indian Navy and SIs developing the application package shall hand over the entire application software along with system study document and any other documents relating to the project to Indian Navy.

22.   **Delivery Period**.   Delivery period for the project would be as per the delivery schedule below. Please note that order can be cancelled unilaterally by the Buyer in case items are not received within the delivery period. Extension of contracted delivery period will be at the sole discretion of the Buyer, with applicability of LD clause. The delivery period details of the project are as follows:-

(a)   Placement of Supply Order - P
(b)   Setting up of infrastructure at Delhi and Vishakhapatnam – P+180 days
(c)   Submission of application for PKI to CCA – P+180 Days
(d)   CA/ sub CA certification by CCA – D.
(e)   Issue of 1000 Tokens to various Naval users D+120 days.

23.   **Terms of Payment**.   As per current regulations, advance payment is not permissible in the instant case. However, to ensure cash flow, commensurate with progress of the project and the deliverables, staged payment schedule is suggested in succeeding paragraphs.

24.   **Payment Stages.**The Payment Stages are as follows:-

SINo	Stage	Stage Completion Definition	%age of Payment Release	Remarks
(a)	Stage I	Submission of Detailed Project Plan and delivery of hardware	40%	**Sum of SI(a) – SI(f) of Appendix D**
(b)	Stage II	Installation and Configuration of Hardware and deployment of all Software Licenses	35%	**Sum of SI(a) – SI(f) of Appendix D**
(c)	Stage III	Issue of 1000 Tokens and Certificates for 1000 users post all required Audits, Training, delivery of	25%	**Sum of SI(a) – SI(f) of Appendix D**

		remaining 4000 tokens and meeting all requirements of Project Sign-off		
(d)	Stage IV	Warranty (Two Years)	100% divided in equal quarterly instalments	**Sum of Sl(g)(i) –Sl(g)(ii) of Appendix D**
(e)	Stage V	AMC (Two Years)	100% divided in equal quarterly instalments	**Sum of Sl(g)(iii) – Sl(g)(iv) of Appendix D**

25.   Taxes will be paid on actual, if applicable and all such components are to be clearly brought out in the commercial quotes.

26.   **New Release / Versions**. The SIs shall provide new software versions (in case of COTS packages) releases and documentation during development and hand holding and warranty within 60 days of their availability in the purchaser's country and no later than 3 months after they are released in the country of origin of the product, and technical support services.

27.   **Personnel to be deployed by the SIs**. The names, titles and agreed functions of the personnel of the SIs in carrying out of the functions/ tasks detailed in the contract are to be submitted by the SIs, along with the curriculum vitae of the personnel listed by title as well by name and shall be subject to approval of the purchaser. The details of the personnel is to be part of the technical bid. The purchaser reserves the right to interview some of the proposed key personnel to ascertain their level of experience and qualification and to accept or reject any names from the list. Police verifications of the personnel deployed by the SI is to be obtained by the SI. Delays in this regard is SIs liability.

28.   Once the supply order is placed, it will be the SIs responsibility to make the project functional. Any additional cost incurred in software components required for completing the integrated turnkey project and for which the SIs has not bid at the time of submission of the final offer would be borne by the SIs.

29.   An offer received incomplete or ambiguous is likely to be rejected at the discretion of the Indian Navy without recourse to further clarifications. The Indian Navy also reserves the right to seek clarifications if considered necessary and also not accept any offer at all in case they are not reasonably priced.

30.   Any conditions/terms given in the technical or commercial bids by SIss will not be binding on the Indian Navy. All the terms and conditions for the supply, delivery, testing and acceptance, payment, warranty, uptime, penalty will be as given herein and no change in any term or condition by the SIs will be acceptable. Alterations, if any, in the tender documents should be attested properly by the SIs, failing which the tender will be

rejected. SIs will not make any assumptions while submitting their bids. If required, clarifications will be sought prior to submission of bids

31. **Consignee Details**

The Principal Director
Directorate Information Technology (DIT)
IHQ MoD(N), Room No 126 B, 'C' Wing, SenaBhawan
New Delhi - 110 011

The Flag Officer Commanding-in-Chief
(forCITO)
Headquarters, Eastern Naval Command
Visakhapatnam - 530 014

PART III – STANDARD CONDITIONS OF RFP

<u>The Bidder is required to give confirmation of their acceptance of the Standard Conditions of the Request for Proposal mentioned below which will automatically be considered as part of the Contract concluded with the successful Bidder (i.e. Seller in the Contract) as selected by the Buyer. Failure to do so may result in rejection of the Bid submitted by the Bidder.</u>

1.   **Law**. The Contract shall be considered and made in accordance with the laws of the Republic of India. The contract shall be governed by and interpreted in accordance with the laws of the Republic of India.

2.   **Effective Date of the Contract**.   The contract shall come into effect on the date of signatures of both the parties on the contract (Effective Date) and shall remain valid until the completion of the obligations of the parties under the contract. The deliveries and supplies and performance of the services shall commence from the effective date of the contract.

3.   **Arbitration.**   All disputes or differences arising out of or in connection with the Contract shall be settled by bilateral discussions. Any dispute, disagreement or question arising out of or relating to the Contract or relating to construction or performance, which cannot be settled amicably, may be resolved through arbitration. The standard clause of arbitration is as per Forms DPM-7, DPM-8 and DPM-9 (Available in MoD website and can be provided on request).

4.   **Penalty for use of Undue influence**.   The Seller undertakes that he has not given, offered or promised to give, directly or indirectly, any gift, consideration, reward, commission, fees, brokerage or inducement to any person in service of the Buyer or otherwise in procuring the Contracts or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of the present Contract or any other Contract with the Government of India for showing or forbearing to show favour or disfavour to any person in relation to the present Contract or any other Contract with the Government of India. Any breach of the aforesaid undertaking by the Seller or any one employed by him or acting on his behalf (whether with or without the knowledge of the Seller) or the commission of any offers by the Seller or anyone employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act, 1986 or any other Act enacted for the prevention of corruption shall entitle the Buyer to cancel the contract and all or any other contracts with the Seller and recover from the Seller the amount of any loss arising from such cancellation. A decision of the Buyer or his nominee to the effect that a breach of the undertaking had been committed shall be final and binding on the Seller. Giving or offering of any gift, bribe or inducement or any attempt at any such act on behalf of the Seller towards any officer/employee of the Buyer or to any other person in a position to influence any officer/employee of the Buyer for showing any favour in relation to this or any other contract, shall render the Seller to such liability/ penalty as the Buyer may deem proper, including but not limited to termination of the contract, imposition of penal damages, forfeiture of the Bank Guarantee and refund of the amounts paid by the Buyer.

5.   **Agents/Agency Commission**.   The Seller confirms and declares to the Buyer that the Seller is the original manufacturer of the stores/provider of the services referred to in this Contract and has not engaged any individual or firm, whether Indian or foreign whatsoever, to intercede, facilitate or in any way to recommend to the Government of India or any of its functionaries, whether officially or unofficially, to the award of the contract to the Seller; nor has any amount been paid, promised or intended to be paid to any such individual or firm in respect of any such intercession, facilitation or recommendation. The Seller agrees that if it is established at any time to the satisfaction of the Buyer that the present declaration is in any way incorrect or if at a later stage it is discovered by the Buyer that the Seller has engaged any such individual/firm, and paid or intended to pay any amount, gift, reward, fees, commission or consideration to such person, party, firm or institution, whether before or after the signing of this contract, the Seller will be liable to refund that amount to the Buyer. The Seller will also be debarred from entering into any supply Contract with the Government of India for a minimum period of five years. The Buyer will also have a right to consider cancellation of the Contract either wholly or in part, without any entitlement or compensation to the Seller who shall in such an event be liable to refund all payments made by the Buyer in terms of the Contract along with interest at the rate of 2% per annum above LIBOR rate. The Buyer will also have the right to recover any such amount from any contracts concluded earlier with the Government of India.

6.   **Access to Books of Accounts.**   In case it is found to the satisfaction of the Buyer that the Seller has engaged an Agent or paid commission or influenced any person to obtain the contract as described in clauses relating to Agents/Agency Commission and penalty for use of undue influence, the Seller, on a specific request of the Buyer, shall provide necessary information/ inspection of the relevant financial documents/information.

7.   **Non-disclosure of Contract documents**.   Except with the written consent of the Buyer/ Seller, other party shall not disclose the contract or any provision, specification, plan, design, pattern, sample or information thereof to any third party. Format of Non-Disclosure Agreement is placed at **Appendix 'A'** and will from the part of Contract/Supply Order placed on successful bidder.

8.   **Liquidated Damages**.   In the event of the Seller's failure to submit the Bonds, Guarantees and Documents, supply the stores/goods and conduct trials, installation of equipment, training, etc. as specified in this contract, the Buyer may, at his discretion, withhold any payment until the completion of the contract. The BUYER may also deduct from the SELLER as agreed, liquidated damages to the sum of 0.5% of the contract price of the delayed/undelivered stores/services mentioned above for every week of delay or part of a week (**beyond the contracted delivery period**), subject to the maximum value of the Liquidated Damages being not higher than 10% of the value of delayed stores/services**.**

9.   **Termination of Contract**.   The Buyer shall have the right to terminate this Contract in part or in full in any of the following cases :-

       (a)   The delivery of the material/services is delayed for causes not attributable to Force Majeure for more than (**01 months**) after the scheduled date of delivery.

(b)   The Seller is declared bankrupt or becomes insolvent.

(c)   The delivery of material/services is delayed due to causes of Force Majeure by more than (**03 months**) provided Force Majeure clause is included in contract.

(d)   The Buyer has noticed that the Seller has utilised the services of any Indian/Foreign agent in getting this contract and paid any commission to such individual/company etc.

(e)   As per decision of the Arbitration Tribunal.

10.   **Notices**. Any notice required or permitted by the contract shall be written in the English language and may be delivered personally or may be sent by FAX or registered pre-paid mail/airmail, addressed to the last known address of the party to whom it is sent.

11.   **Transfer and Sub-letting**.   The Seller has no right to give, bargain, sell, assign or sublet or otherwise dispose of the Contract or any part thereof, as well as to give or to let a third party take benefit or advantage of the present Contract or any part thereof.

12.   **Patents and other Industrial Property Rights**. The prices stated in the present Contract shall be deemed to include all amounts payable for the use of patents, copyrights, registered charges, trademarks and payments for any other industrial property rights. The Seller shall indemnify the Buyer against all claims from a third party at any time on account of the infringement of any or all the rights mentioned in the previous paragraphs, whether such claims arise in respect of manufacture or use. The Seller shall be responsible for the completion of the supplies including spares, tools, technical literature and training aggregates irrespective of the fact of infringement of the supplies, irrespective of the fact of infringement of any or all the rights mentioned above.

13.   **Amendments**. No provision of present Contract shall be changed or modified in any way (including this provision) either in whole or in part except by an instrument in writing made after the date of this Contract and signed on behalf of both the parties and which expressly states to amend the present Contract.

14.   Bidder has to submit the acceptance of Terms and Conditions Certificate as per **Appendix 'B'**.

15.   **Taxes and Duties**

(a)   **General**

(i)   If Bidder desires to ask for excise duty or Sales Tax / VAT extra, the same must be specifically stated. In the absence of any such stipulation, it will be presumed that the prices include all such charges and no claim for the same will be entertained.

(ii)   If reimbursement of any Duty/Tax is intended as extra over the quoted prices, the Bidder must specifically say so. In the absence of any such stipulation it will be presumed that the prices quoted are firm and final and no claim on account of such duty/tax will be entrained after the opening of tenders.

(iii)   If a Bidder chooses to quote a price inclusive of any duty/tax and does not confirm inclusive of such duty/tax so included is firm and final, he should clearly indicate the rate of such duty/tax and quantum of such duty/tax included in the price. Failure to do so may result in ignoring of such offers summarily.

(iv)   If a Bidder is exempted from payment of any duty/tax upto any value of supplies from them, he should clearly state that no such duty/tax will be charged by him up to the limit of exemption which he may have. If any concession is available in regard to rate/quantum of any Duty/tax, it should be brought out clearly. Stipulations like, the said duty/tax was presently not applicable but the same will be charged if it becomes leviable later on, will not be accepted unless in such cases it is clearly stated by a Bidder that such duty/tax will not be charged by him even if the same becomes applicable later on. In respect of the Bidders, who fail to comply with this requirement, their quoted prices shall be loaded with the quantum of such duty/tax which is normally applicable on the item in question for the purpose of comparing their prices with other Bidders.

(v)   Any change in any duty/tax upward/downward as a result of any statutory variation in excise taking place within contract terms shall be allowed to the extent of actual quantum of such duty/tax paid by the supplier. Similarly, in case of downward revision in any duty/tax, the actual quantum of reduction of such duty/tax shall be reimbursed to the Buyer by the Seller. All such adjustments shall include all reliefs, exemptions, rebates, concession etc. if any obtained by the Seller.

(b)   **Excise Duty**

(i)   Where the excise duty is payable on ad-valorem basis, the Bidder should submit along with the tender, the relevant form and the Manufacturer's price list showing the actual assessable value of the stores as approved by the Excise authorities.

(ii)   Bidders should note that in case any refund of excise duty is granted to them by Excise authorities in respect of Stores supplied under the contract, they will pass on the credit to the Buyer immediately along with a certificate that the credit so passed on relates to the Excise Duty, originally paid for the stores supplied under the contract. In case of their failure to do so, within 10 days of the issue of the excise duty refund orders to them by the Excise Authorities the Buyer would be empowered to deduct a sum equivalent to the amount refunded by the Excise Authorities without any further reference to them from any of their

outstanding bills against the contract or any other pending Government Contract and that no disputes on this account would be raised by them.

(iii)   The Seller is also required to furnish to the Paying Authority the following certificates:-

    (aa)   Certificate with each bill to the effect that no refund has been obtained in respect of the reimbursement of excise duty made to the Seller during three months immediately preceding the date of the claim covered by the relevant bill.

    (ab)   Certificate as to whether refunds have been obtained or applied for by them or not in the preceding financial year after the annual Audit of their accounts also indicating details of such refunds/applications, if any.

    (ac)   A certificate along with the final payment bills of the Seller to the effect whether or not they have any pending appeal/protest for refund or partial refund of excise duties already reimbursed to the Seller by the Government pending with the Excise authorities and if so, the nature, the amount involved, and the position of such appeals.

    (ad)   An undertaking to the effect that in case it is detected by the Government that any refund from Excise Authority was obtained by the Seller after obtaining reimbursement from the Paying Authority, and if the same is not immediately refunded by the Seller to the Paying Authority giving details and particulars of the transactions, Paying Authority will have full authority to recover such amounts from the Seller's outstanding bills against that particular contract or any other pending Government contracts and that no dispute on this account would be raised by the Seller.

(iv)   Unless otherwise specifically agreed to in terms of the contract, the Buyer shall not be liable for any claim on account of fresh imposition and/or increase of Excise Duty on raw materials and/or components used directly in the manufacture of the contracted stores taking place during the pendency of the contract.

(c)   **Sales Tax/VAT**

(i)   If it is desired by the Bidder to ask for Sales tax/VAT to be paid as extra, the same must be specifically stated. In the absence of any such stipulation in the bid, it will be presumed that the prices quoted by the Bidder are inclusive of sales tax and no liability of sales tax will be developed upon the Buyer.

(ii)   On the Bids quoting sales tax extra, the rate and the nature of Sales Tax applicable at the time of supply should be shown separately.

Sales tax will be paid to the Seller at the rate at which it is liable to be assessed or has actually been assessed provided the transaction of sale is legally liable to sales tax and the same is payable as per the terms of the contract.

(d) **Octroi Duty and Local Taxes**.

(i)   Normally, materials to be supplied to Government Departments against Government Contracts are exempted from levy of town duty, Octroi Duty, Terminal Tax and other levies of local bodies. The local Town/Municipal Body regulations at times, however, provide for such Exemption only on production of such exemption certificate from any authorised officer. Seller should ensure that stores ordered against contracts placed by this office are exempted from levy of Town Duty/Octroi Duty, Terminal Tax or other local taxes and duties. Wherever required, they should obtain the exemption certificate from the Buyer, to avoid payment of such local taxes or duties.

(ii)   In case where the Municipality or other local body insists upon payment of these duties or taxes the same should be paid by the Seller to avoid delay in supplies and possible demurrage charges. The receipt obtained for such payment should be forwarded to the Buyer without delay together with a copy of the relevant act or bylaws/ notifications of the Municipality of the local body concerned to enable him to take up the question of refund with the concerned bodies if admissible under the said acts or rules.

PART IV – SPECIAL CONDITIONS OF RFP

The Bidder is required to give confirmation of their acceptance of Special Conditions of the RFP mentioned below which will automatically be considered as part of the Contract concluded with the successful Bidder (i.e. Seller in the Contract) as selected by the Buyer. Failure to do so may result in rejection of Bid submitted by the Bidder.

1. **Performance Guarantee**. The Bidder will be required to furnish a Performance Guarantee by way of Bank Guarantee through a public sector bank or a private sector bank authorized to conduct government business (ICICI Bank Ltd., Axis Bank Ltd or HDFC Bank Ltd.) for a sum equal to 10% of the contract value within 30 days of signing of this contract. Performance Bank Guarantee will be valid up to 60 days beyond the date of warranty/services (as applicable). The specimen of PBG is given in DPM-09, (Available in MoD website and can be provided on request).

2. **Option Clause**. The contract will have an Option Clause, wherein the Buyer can exercise an option to procure 50% of the original contracted services / goods in accordance with the same terms & conditions of the present contract. This will be applicable within the currency of contract. The Bidder is to confirm the acceptance of the same for inclusion in the contract. It will be entirely the discretion of the Buyer to exercise this option or not.

3. **Tolerance Clause**. To take care of any change in the requirement during the period starting from issue of RFP till placement of the contract, Buyer reserves the right to **20%** plus/minus increase or decrease the quantity of the required goods/ services upto that limit without any change in the terms & conditions and prices quoted by the Seller. While awarding the contract, the quantity/services ordered has been increased or decreased by the Buyer within this tolerance limit.

4. **Payment Terms**. It will be mandatory for the Bidder to indicate their bank account numbers and other relevant e-payment details so that payments could be made through ECS/EFT mechanism instead of payment through cheques, wherever feasible. A copy of the model mandate form prescribed by RBI to be submitted by Bidders for receiving payments through ECS is at Form DPM-11 (Available in MoD website and can be given on request). The payment will be made as per stages mentioned below:-

SINo	Stage	Stage Completion Definition	%age of Payment Release	Remarks
(a)	Stage I	Submission of Detailed Project Plan and delivery of hardware	40%	**Sum of SI(a) – SI(f) of Appendix D**
(b)	Stage II	Installation and Configuration of Hardware and deployment of all Software Licenses	35%	**Sum of SI(a) – SI(f) of Appendix D**
(c)	Stage III	Issue of 1000 Tokens and Certificates for 1000 users post all required Audits,	25%	**Sum of SI(a) – SI(f) of**

		Training, delivery of remaining 4000 tokens and meeting all requirements of Project Sign-off		**Appendix D**
(d)	Stage IV	Warranty (Two Years)	100% divided in equal quarterly instalments	**Sum of Sl(g)(i) –Sl(g)(ii) of Appendix D**
(e)	Stage V	AMC(Two Years)	100% divided in equal quarterly instalments	**Sum of Sl(g)(iii) – Sl(g)(iv) of Appendix D**

5.   **Advance Payments**.   No advance payment(s) will be made.

6.   **Paying Authority**.   The payment authority will be PCDA(N), Mumbai. The payment of bills will be made on submission of the following documents by the Seller to the Paying Authority along with the bill:

(a)   Ink-signed copy of contingent bill / Seller's bill.
(b)   Ink-signed copy of Commercial invoice / Seller's bill.
(c)   Copy of Contract with U.O. number / Copy of Supply Order and date of IFA's concurrence, where required under delegation of powers.
(d)   Exemption certificate for Excise duty / Customs duty, if applicable.
(e)   Bank guarantee for advance, if any.
(f)   Performance Bank guarantee / Indemnity bond where applicable.
(g)   DP extension letter with CFA's sanction, U.O. number and date of IFA's concurrence, where required under delegation of powers, indicating whether extension is with or without LD.
(h)   Bank details for electronic payment viz Account holder's name, Bank name, Branch name and address, Account type, Account number, IFSC code, MICR code (if these details are not incorporated in contract).

7.   **Fall Clause**. The following Fall clause will form part of the contract placed on successful Bidder:-

(a)   The price charged for the stores supplied under the contract by the Seller shall in no event exceed the lowest prices at which the Seller sells the stores or offer to sell stores of identical description to any persons/Organisation including the purchaser or any department of the Central government or any Department of state government or any statutory undertaking the central or state government as the case may be during the period till performance of all supply Orders placed during the currency of the rate contract is completed.

(b)   If at any time, during the said period the Seller reduces the sale price, sells or offer to sell such stores to any person/organisation including the Buyer or any Dept, of central Govt. or any Department of the State Government or any Statutory undertaking of the Central or state Government as the case may be at

a price lower than the price chargeable under the contract, the shall forthwith notify such reduction or sale or offer of sale to the Director general of Supplies & Disposals and the price payable under the contract for the stores of such reduction of sale or offer of the sale shall stand correspondingly reduced. The above stipulation will, however, not apply to:--

    (i)   Exports by the Seller.
    (ii)   Sale of goods as original equipment at price lower than lower than the prices charged for normal replacement.
    (iii)   Sale of goods such as drugs which have expiry dates.
    (iv)   Sale of goods at lower price on or after the date of completion of sale/placement of the order of goods by the authority concerned under the existing or previous Rate Contracts as also under any previous contracts entered into with the Central or State Govt. Depts., including their undertakings excluding joint sector companies and/or private parties and bodies.

(c)   The Seller shall furnish the following certificate to the Paying Authority along with each bill for payment for supplies made against the Rate contract – "We certify that there has been no reduction in sale price of the stores of description identical to the stores supplied to the Government under the contract herein and such stores have not been offered/sold by me/us to any person/organisation including the purchaser or any department of Central Government or any Department of a state Government or any Statutory Undertaking of the Central or state Government as the case may be up to the date of bill/the date of completion of supplies against all supply orders placed during the currency of the Rate Contract at price lower than the price charged to the government under the contract except for quantity of stores categories under sub-clauses (a),(b) and (c) of sub-para (ii) above.

8.   **<u>Risk & Expense clause</u>**

(a)   Should the stores or services or any instalment thereof not be delivered within the time or times specified in the contract documents, or if defective delivery is made in respect of the stores or any instalment thereof, the Buyer shall after granting the Seller 45 days to cure the breach, be at liberty, without prejudice to the right to recover liquidated damages as a remedy for breach of contract, to declare the contract as cancelled either wholly or to the extent of such default.

(b)   Should the stores or any instalment thereof not perform in accordance with the specifications / parameters provided by the SELLER during the check proof tests to be done in the BUYER's country, the BUYER shall be at liberty, without prejudice to any other remedies for breach of contract, to cancel the contract wholly or to the extent of such default.

(c)   In case of a material breach that was not remedied within 45 days, the BUYER shall, having given the right of first refusal to the SELLER be at liberty to

purchase, manufacture, or procure from any other source as he thinks fit, other stores of the same or similar description to make good:-

    (i)   Such default.

    (ii)   In the event of the contract being wholly determined the balance of the stores remaining to be delivered thereunder.

(d)   Any excess of the purchase price, cost of manufacturer, or value of any stores procured from any other supplier as the case may be, over the contract price appropriate to such default or balance shall be recoverable from the SELLER. Such recoveries shall not exceed 10% of the value of the contract."

9.   **Force Majeure**

(a)   Neither party shall bear responsibility for the complete or partial non-performance of any of its obligations (except for failure to pay any sum which has become due on account of receipt of goods under the provisions of the present contract), if the non-performance results from such Force Majeure circumstances as Flood, Fire, Earth Quake and other acts of God as well as War, Military operation, blockade, Acts or Actions of State Authorities or any other circumstances beyond the parties control that have arisen after the conclusion of the present contract.

(b)   In such circumstances the time stipulated for the performance of an obligation under the present contract is extended correspondingly for the period of time of action of these circumstances and their consequences.

(c)   The party for which it becomes impossible to meet obligations under this contract due to Force Majeure conditions, is to notify in written form the other party of the beginning and cessation of the above circumstances immediately, but in any case not later than 10 (Ten) days from the moment of their beginning.

(d)   Certificate of a Chamber of Commerce (Commerce and Industry) or other competent authority or organization of the respective country shall be a sufficient proof of commencement and cessation of the above circumstances.

(e)   If the impossibility of complete or partial performance of an obligation lasts for more than 6 (six) months, either party hereto reserves the right to terminate the contract totally or partially upon giving prior written notice of 30 (thirty) days to the other party of the intention to terminate without any liability other than reimbursement on the terms provided in the agreement for the goods received.

10.   **Inspection Authority**. The Inspection will be carried out by nominated officer.

11.   **Arbitration**. Any dispute between the parties shall be resolved mutually by the parties. If the dispute cannot be resolved by mutual consultation between the parties, the same shall be resolved in accordance with provisions of Arbitration and Conciliation Act, 1996 and rules framed there under as may be amended from time to time or its re-

enactment. Place of Arbitration shall be Delhi. The Arbitrator will be appointed by the Indian Navy and decision of the Arbitrator shall be final and binding on the parties.

12.   **Warranty**.   Warranty to be provided as per para 10(b) of Part II of RFP.

13.   **AMC**. AMC to be provided as per para 10(c) of Part II of RFP.

PART V – PRICE BID ISSUES

1.   **Evaluation Criteria.** The broad guidelines for evaluation of Bids will be as follows:-

(a)   **SIs Pre-qualification**.   The criteria for SIs Pre-qualification is placed at Appendix C. Details sought are to be submitted as part of the Technical Proposal.

(b)   Only those Bids will be evaluated which are found to be fulfilling all the eligibility and qualifying requirements of the RFP, both technically and commercially.

(c)   The technical Bids forwarded by the Bidders will be evaluated by the Buyer with reference to the technical characteristics of the equipment as mentioned in the RFP. The compliance of Technical Bids would be determined on the basis of the parameters specified in the RFP and Notice Inviting Tenders published in newspaper. The Price Bids of only those Bidders will be opened whose Technical Bids would clear the technical evaluation.

(d)   The Lowest Bid will be decided upon the lowest price quoted by the particular Bidder as per the Price Format given **Appendix D**. The consideration of taxes and duties in evaluation process will include all taxes and duties (including those for which exemption certificates are issued) quoted by the Bidders. The ultimate cost to the Buyer would be the deciding factor for ranking of Bids.

(e)   The Bidders are required to spell out the rates of Customs duty, Excise duty, VAT, Service Tax, etc in unambiguous terms; otherwise their offers will be loaded with the maximum rates of duties and taxes for the purpose of comparison of prices. If reimbursement of Customs duty / Excise Duty / VAT is intended as extra, over the quoted prices, the Bidder must specifically say so. In the absence of any such stipulation it will be presumed that the prices quoted are firm and final and no claim on account of such duties will be entrained after the opening of tenders. If a Bidder chooses to quote a price inclusive of any duty and does not confirm inclusive of such duty so included is firm and final, he should clearly indicate the rate of such duty and quantum of excise duty included in the price. Failure to do so may result in ignoring of such offers summarily. If a Bidder is exempted from payment of Customs duty / Excise Duty / VAT duty up to any value of supplies from them, they should clearly state that no excise duty will be charged by them up to the limit of exemption which they may have. If any concession is available in regard to rate/quantum of Customs duty / Excise Duty / VAT, it should be brought out clearly. Stipulations like, excise duty was presently not applicable but the same will be charged if it becomes leviable later on, will not be accepted unless in such cases it is clearly stated by a Bidder that excise duty will not be charged by him even if the same becomes applicable later on. In respect of the Bidders who fail to comply with this requirement, their quoted prices shall be loaded with the quantum of excise duty which is normally applicable on the item in question for the purpose of comparing their prices with other Bidders. The same logic applies to Customs duty and VAT also.

(f)   If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price will prevail and the total price will be corrected. If there is a discrepancy between words and figures, the amount in words will prevail for calculation of price.

(g)   The Lowest Acceptable Bid will be considered further for placement of contract / Supply Order after complete clarification and price negotiations as decided by the Buyer. The Buyer will have the right to award contracts to different Bidders for being lowest in particular items. The Buyer also reserves the right to do Apportionment of Quantity, if it is convinced that Lowest Bidder is not in a position to supply full quantity in stipulated time.

(h)   Any other criteria as applicable to suit a particular case.

2.   **Price Bid Format**. Bidders are required to fill up price bid format correctly with all details as per format at **Appendix D**.

CONFIDENTIALITY AND NON DISCLOSURE AGREEMENT

The Indian Navy and the SIs shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following termination of the Contract. Notwithstanding the above, the SIs may furnish to its Subcontractor(s) such documents, data and other information it receives from the Navy to the extent required for the Subcontractor(s) to perform its work under the Contract, in which event SIs shall obtain from such Subcontractor(s) an undertaking of confidentiality similar to that imposed on this SIs under this Clause. SIs also undertakes not to use any information gained by virtue of this project, in any form, to prepare, develop, market or sell any system or product for utilization by any other client. The provisions of this Clause shall survive termination, for whatever reason, of the Contract.

COMPLIANCE MATRIX BY THE SIs

Ser No	Clause	Compliance	Yes/No	Refer Page No
01	Para 11 Part I of RFP	Validity of Bid – 180 days from bid submission date		
02	Para 13 Part I of RFP. Documentary proof of VAT/CST/GST Registration, TIN No or any other registration by any government organisation mandatory for executing the contract should be enclosed.	Self-attested documentary proof attached		
03	Para 14 Part I of RFP	Bids submission under 2 Bid system		
04	Para 15 Part I of RFP – EMD In case SIs is registered with DGS&D, NSIC or any other govtorganisation, please enclose self-attested copy of valid registration certification	Self-attested documentary proof attached		
05	Para 16 Part I of RFP	Cost of Bid - ₹ 1000.00		
06	Para 4, 5 Part II and Annexure I of RFP. (Hardware Specifications)	Please specify variations if any clearly in the technical bid.		
07	Para 6 and Annexure II of RFP	Please specify variations if any clearly in the technical bid		
08	Para 9 Part II of RFP	Acceptance of Training clause.		
09	Para 10, 11,12 Part II of RFP	Service support		
10	Para 18 Part II of RFP	Acceptance of SIs Responsibility Clause		
11	Para 22 Part II of RFP	Acceptance of Delivery Period, Clause		
12	Para 14 Part II of RFP	Acceptance of Backup and Recovery clause		
13	Para 19 Part II of RFP	Acceptance of Patches and Upgrades clause		
14	Para 21 Part II of RFP	Acceptance of Ownership of Application clause		
15	Para 26 Part II of RFP	Acceptance of New Release Version clause		

16	Para 27 Part II OF RFP	Acceptance of Personnel to be deployed by the SIs		
17	Para 23, 24 Part II of RFP and Para 4 Part IV of RFP	Acceptance of E-payment and Payment terms		
18	Para 8 part III	L D Clause		
19	Para 1 Part IV of RFP	Performance Guarantee		
20	Para 2 Part IV of RFP	Option Clause		
21	Para 3 Part IV of RFP	Tolerance Clause		
22	Para 7 Part IV of RFP	Fall Clause		
23	Para 8 Part IV of RFP	Risk & expense clause		
25	Acceptance of Standard Conditions of Contract as per DPM – 09	Standard Conditions of Contract as per DPM – 09 have been read and understood in all aspects and acceptable, and there is no objection to including		
26		the same in the Contract Agreement.		
	Appendix 'A'	Confidentiality and Non-disclosure Agreement		
27	Annexure III	Acceptance of Support Manpower Clauses		
28	Appendix C	SIs Pre-qualification Criteria. All document as sought for SIs Pre-qualification criteria.		

Office Stamp   **Signature of Bidder**

SIs PRE-QUALIFICATION CRITERIA

Sr. No	Criteria	Complaint?(Yes / No)	Supporting Documentation	Ref. Page No.
1.	The Prime Bidder should be registered under the Indian Companies Act, 1956 or LLP and should be in existence. Prime Bidder individually or jointly with Consortium partners, should be a company (incorporated in India) with an Average annual turnover of Rs.10 (ten) Crore or more during each of the previous three financial years, i.e. 2014-15, 2015-16, 2016-17 The turnover refers to Prime Bidders (Individual company) and not the composite of its subsidiaries/sister concerns etc. **Or** In case, the bidder is an existing CCA certified CAs the above clauses are not applicable (Suitable proof to be submitted)		Certificate of Incorporation. MOA and Articles of Associations (AoA), CA Certificate, Audited balance sheet and P&L statement of Bidder for the last three financial years, 2014-15, 2015-16, 2016-17	
2.	Prime bidder should have valid ISO 27001:2013 certification or ISO- 27001:2005 or ISO 9001:2008 **or**		Copy of ISO certificate	

	In case, the bidder is an existing CCA certified CAs the above clauses are not applicable (Suitable proof to be submitted)			
3.	The Prime Bidder should have a valid sales Tax Number/ VAT Number, Service Tax Number, PAN Number, GST and PF code.		Copy of Relevant Registration Certificates	
4.	Prime bidder should submit adequate proof from all the applicable OEMs confirming the following: (a) Give an undertaking confirming that the products quoted are not "end of life & Indian Navy will continue to get Support during the next 5 years from date of Go live". (b) Undertake that the support including spares, Update, Upgrade & patches for the quoted products shall be available for next 5 years in India.		Undertaking with suitable proof from OEM or OEM resources available online	
5.	Prime bidder or its promoters should not be involved in any prosecution for financial fraud / irregularities or suppression of facts / Incorrect reporting of IS review / audit findings.		Self-declaration signed by the Authorized Signatory of Bidder.	
6.	Prime bidder is not involved in any legal case that may affect the solvency / existence of the firm or in any other way affect Prime Bidder's capability to provide / continue the services to Indian Navy. The company should not be a blacklisted company by any Govt. agency in India		Self-declaration signed by the Authorized Signatory of Bidder.	

7.	Prime Bidder individually or jointly with Consortium partners should have experience of having successfully associated with a PKI project or a e-sign project during last 5 years ending last day of month previous to the one in which bids are invited. **or** In case, the bidder is an existing CCA certified CAs the above clauses are not applicable		Suitable proofs to be provided.	
8	Bidder should be capable of deployment and onsite support for hardware/Solution at New Delhi and Vishakhapatnam.		Self-declaration signed by the Authorized Signatory of Bidder.	
9	The SI must have successfully implemented at least two IT projects.		Order Copies and ATP details/ Certificates to be attached.	

Technical Specifications for Hardware

Rack Servers

S No.	Component	Description
Specification of Rack Server		
1.	CPU	Server should be populated with Intel E5-2600 v4 Series or later Processor with minimum 32 Cores
2.	Memory	Server to be populated with minimum 128 GB DDR4 Memory or higher 2400MT/s RDIMMs expandable Up to 384GB
3.	RAID Supported	Hardware storage RAID controller to support RAID 0,1,5,10
4.	Hard Disk & Drives	Provision of 2x600 GB 10K RPM SAS 12 Gbps. Disks should be capable of running in RAID 0,1 and 2.5" Chassis with up to 8 Hot Plug Hard Drives
5.	Display	Integrated Graphics Controller with min 8 MB memory
6.	Optical Drive	DVD-RW
7.	Ethernet Port	Four10 GBE portson minimum two cards
8.	Fiber Port	Each Rack Server should be configured with two quantities of 8/16 Gbps FC Ports with transceivers. FCoE ports may be also provided in a different configuration as long as overall connectivity requirements are satisfied.
9.	Diagnostics	Pre Failure Alerts for all active and important components like processors , memory, hard drives
10.	Booting	Boot from SAN should also be supported
11.	Remote Management	• SIs should provide embeddedfeatures that helps to manage Servers in physical, local and remote environments, operating in-band or out-of-band, with or without a systems management software agent.
		• Should include Power Management, necessary licenses should be included.
		• Power Management should give historical data for atleast 72 hours.
		• Should also support IPv6
		• Should support remote scripted reconfiguration tools.
		• Should be able to monitor all systems components (BIOS, HBA's, NICs, CNA's).

S No.	Component	Description
	Specification of Rack Server	
12.	Redundant Power Supply	Dual, Hot-plug, Redundant Power Supply (1+1), 550W
13.	Failure Alerting Mechanism	The server should be able to alert impending failures on maximum number of components. The components covered under alerting mechanism should at least include Processors, memory, PCIe slots, VRMs, power supplies, fans, hard disk drives
14.	Form Factor	Not more than 1U
15.	OS Support	Microsoft Windows Server® 2008/2012 SP2, x86/x64 (x64 includes Hyper-V®) or later
		Microsoft Windows Server 2008/2012 R2, x64 (includes Hyper-V) or later
		Novell® SUSE® Linux Enterprise Server or later
		Red Hat® Enterprise Linux or later
		VMware vSphere or later
16.	Server Management	• Smart Embedded Systems Management should be able to automate task like discovery deploy monitor and update.
		• Should not be dependent on agents to for life cycle management.
		• Should be OS Agnostic.
		• Should be able to provide Single console to manage Servers.
		• Power management tool – Single interface to optimize ad control every usage for servers and Racks.
		• Should be able to integrate to 3rd party management tools.
17.	Rails	Must be supplied with cable management arms and rails to rack mount the servers
18.	OEM Qualification	Server OEM must be in Leader's quadrant for Modular Servers in latest Gartner Magic Quadrant.
19.	Support / Warranty	As per Part II of RFP.
20.	Support	OEM should have direct support presence in India. Defective Disks will not be returned.

SMART RACK – FOR SERVER FARM AND DR SITE

Specification of Rack		
Sl No.	**Component**	**Description**
1.	Description	At least 42U Rack with inbuilt non-condensing Air-conditioning based cooling arrangements through built-in cooling hardware. Cooling hardware should not reduce available rack space.
2.	Caster	The rack should be supplied with suitable castors for easy movability of the rack even when it is fully loaded. Jacking feet should also be provided to avoid accidental movement when engaged.
3.	Front Door	Perforated 16 gauge Mild Steel Single Panel with lock and key.
4.	Key	Dual half-height Split Side Panels non-perforated of 18 gauge Mild Steel on each side with individual lock and key
5.	Environmental Compliance	Should confirm to RoHS standards and should not contain any SVHCs
6.	Cable Entry	The Top or Bottom of the rack should be provisioned with overhead cable entry
7.	Electrical Grounding	The roof, side panels and front and rear doors should be grounded to the frame of the enclosure. Additional electrical grounding inserts should be located on the frame for external grounding.
8.	Installed Intelligent Rack PDUs	The rack should be supplied with two numbers of Zero U Power Distribution Units with minimum of 6 Nos. IEC 320-C13 and 4 Nos. IEC 320-C19 power outlets. Each PDU should be able to handle upto 32 Amps of current at 220V AC 50Hz
9.	Additional Features	Cooling : Should have inbuilt Rack cooling of capacity of 3 Ton or more UPS Capacity: Should be supplied with Min 12 KVA rack-mounted UPS with Minimum backup 20 Min backup at full load. SMF Batteries Intelligent Rack PDU LCD TRAY with populated LCD / LED Screen Keyboard / Mouse to be supplied in a Keyboard Tray. Compatible with the supplied KVM Switch
10.	Support / Warranty	As per Part II of RFP.
11.	Temperature Sensor	Minimum 2
12.	Water Leak Detection	Yes
13.	Door Access Sensor	Yes, biometric with management console
14.	Safety Standards	EN60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013

15.	Audible Noise	< 50dB (excluding outdoor unit)

TECHNICAL SPECIFICATION FOR HSM

HSM Specifications		
Sl. No.	**FEATURES**	**REMARKS**
1.	**Related Hardware. – (Linked Technical Specification may be referred for ensuring compatibility.)**	**Smart Rack, Networking Switch**
2.	Physical Security	• Tamper Evident Chassis • Tamper Detection Envelope Surrounding the Cryptographic Module • Support for Active Zeroisation of data • Protection against Side-Channel attacks
3.	OS Support	• Windows Server latest version • RHEL Latest version • VMWARE
4.	Keys	Should support onboard secure key and application storage / processing.
5.	Key lengths supported	1024 to 4096
6.	Key Storage	Storage of key values should be more than 2000
7.	Console Operation	GUI / CLI Facility
8.	Software upgrade	The offline upgrade through web service is preferred.
9.	Symmetric algorithm support	3DES, AES support Capability to store certificates and not less than 1500 symmetric keys within tamper resistant memory
10.	Hash/message digest	SHA-2 (224, 256, 384, 512bit)
11.	Asymmetric algorithm support	Should be available, RSA (2048, 4096), ECC. Key Generation, Signature and Verification
12.	Random Number Generator	NIST/FIPS certified/approved Random Number Generator
13.	Key Exchange Mechanism	AES Algorithm, Cloning Protocol
14.	Protection of keys and key transport from one HSM to other HSM.	Keys should always remain in Hardware and never reside in software in any form/ As per CCA Guidelines.

	HSM Specifications	
Sl. No.	**FEATURES**	**REMARKS**
15.	Signing speed	at least 1500 transaction per second with RSA 2048 bit
16.	Operating System	Windows, Linux,
17.	Supporting API	PKCS#11 v2.01 or latest, Open SSL latest version, Java (JCA/JCE/JSSE and JCPROV wrapper), MS CryptoAPI 2.0 or latest,
18.	Connectivity	Redundant 10G or Gigabit Ethernet or FCOE or equivalent Ports. Ports should be compatible with Network Switch and Blade Chassis.
19.	Safety, Security and Environmental Compliance	FIPS 140-2 Level 3, Common Criteria EAL4+ optional ROHS, FCC part 15
20.	Sys log support	Yes
21.	Inbuilt Diagnostics	Tamper and Error Indication including syslog. Background and user invoked diagnostic tests
22.	Other Features	Secure Key wrapping, backup(As per CCA Guidelines), replication and recovery
23.	High Availability	Should support Key escrow in HA mode between two HSMs over network
24.	Operating Temperature	0°C to 35°C
25.	Storage Temperature	10 °C to 30 °C
26.	Relative Humidity	10% - 90% (non-condensing)
27.	Power	Dual Hot swap power supply with power strip with inbuilt surge protection
28.	Input Voltage	230V $\pm$10% AC
29.	Device Management	• The package must include a single management (Device Manager) application to install and configure of all the HSM devices. • All the top level key components should be held on smart cards / dongles under PIN control. • The Device manager has to have the provision for creating multiple levels of access control for configuration and operational tasks. • There should be provision for multiple security devices clustering under single cluster for overall management of the security platform. • Functions have to be secured using public key technology and functions have to be executed within tamper resistant hardware. The hardware design should allow for programmable cryptography and custom functions
30.	**Compliances**	**The HSM must comply with current CCA guidelines for setup of CA Infrastructure. Any**

HSM Specifications		
Sl. No.	**FEATURES**	**REMARKS**
		additional features expected by CCA must be included in the offered hardware. The offered hardware shall not be accepted if it does not comply with CCA guidelines / requirements.
31.	Support / Warranty	As per Part II of RFP.

Specification of USB Tokens / Dongles

Specification of USB Tokens / Dongles		
Sl No.	**Component**	**Description**
1.	**Related Hardware. – (Linked Technical Specification may be referred for ensuring compatibility.)**	**HSM**
2.	Certification	FIPS 140-2 Level 2 or as per CCA Guidelines CC / EAL 4+
3.	Asymmetric Key Operations	• PKCS#11 compliant • RSA signature: 2048 bit or higher • Secure hash: MD5, SHA -1, SHA-256, SHA -512 • ECC P-Curves
4.	Memory	64 KB or more
5.	Credential Storage	• X.509 V3 certificates, • secure symmetric key storage • Microsoft Windows Credentials
6.	Platform Support	Windows7, 10, Windows Server 2012and higher server OS, Linux OS
7.	Random Number Generator	ANSI X9.31 PRNG or NIST DRBG SP 800 90 CTR mode
8.	Data Transfer rate	125 Kbps or more
9.	Support / Warranty	• As per Part II of RFP.

Network Switch

Specification of Access Switch (L3)		
Sl No.	**Component**	**Description**
1.	Physical Ports	The switch should have at least 24 nos. of 10/100/1000BaseTx interfaces and at least 4 numbers

		of 1000 Base LX gigabit uplink fiber ports. All the interfaces should be activated simultaneously and shall operate at line rate. The 24 port switch should have at least 48 Gbps full duplex usable backplane with at least 70 Mbps of forwarding capacity (64 byte).
2.	Stacking	The Switches should be capable of stacking of minimum 4 switches together using dedicated stacking ports with wirespeed stacking bandwidth 48 Gbps.
3.		The switch should be capable of mirroring the routed VLAN interface or routed interface.
4.		The switch should support Static route, RIPv2, OSPF, routing protocols, IPv6 routing and OSPFv3
5.	Performance	The switch should support RADIUS based authentication to restrict unauthorized users from altering the configuration and capable of supporting multiple AAA (running RADIUS or TACACS) servers, configured for its operation so that in case it doesn't get a response from the first server, the second server would be tried for. Support of TACACS as per RFC 1492
6.		The switch should support dynamic ARP inspection, DHCP snooping and IP Source guard
7.		The switch being provisioned by the bidder should be fully populated with appropriate SFPs and there should not be any empty slots
8.	Cables	All associated cables, patch cords, pigtails etc. to be provided.
9.	Support / Warranty	As per Part II of RFP.

TECHNICAL SPECIFICATIONS FOR CA SOFTWARE

Digital Certificate Lifecycle Management Enterprise License		
Ser No	Technical Specification	Compliance (Yes/No)
A	**Platform support**	
1	The base OS used for the PKI solution should be running on top of the latest OS versions only (Linux server OS/ Windows Server 2012 R2 or later)	
2	If the solution architecture uses a data base/ RDBMS Solution Software must support MS SQL 2012 and Oracle 11g, if an RDBMS is used to store user, credential, configuration, log or other data.	
3	Solution must support LDAP v3 directories, if user data is stored in an X.500 directory.	
4	A High Availability configuration should be supported with redundancy throughout the server systems.	
5	The solution must be properly scalable up to 1 million of users.	
6	There should be a mechanism for monitoring. Active monitoring of the services is a plus.	
7	Each component should create error logs with configurable log level and a well-defined syntax.	
B	**CA features**	
8	It should be possible to run any number of CAs in any hierarchy in the same system. The CAs should possibly have different CA policies.	
9	It should be possible to assign registration officers to individual CAs or user domains and visibility/usabillity of user data should be limited to assigned CA or user domain	
10	The CA should be able to publish CRLs and certificates in any number of distribution points using LDAP/HTTPS protocol. The publication address must be configurable for each CA.	
11	CRLs should be supported with configurable format, issuing period etc. It should be possible to use indirect CRLs, which are not signed by the CA, but by a delegated instance.	
12	OCSP should be supported with "immediate" revocation information, i.e. revocation information should be available without latency.	
13	End entity certification according to individual policies.	
15	Attribute certificates should be supported according to RFC3281.	

16	Signature algorithms: RSA, RSASSA-PSS and ECDSA should be supported with SHA-2 of 256, 384 and 512. Key algorithms should be supported with key lengths as SHA-1, SHA-224, SHA-256, SHA-384, and SHA-512	
17	Key Algorithms: DSA, ECDSA, RSA and RSASSA-PSS.	
18	End entity key management: It should be possible to encrypt, archive and recover end entity private keys (typically encryption keys).	
19	Support of multiple HSMs (over PKCS#11 and JCE) for storing CA private keys and all other system keys.	
C	**CA management**	
20	The product must offer centralized, secure management of CAs, policies and configuration data with GUI support.	
21	CA key management, Root-CA and Sub-CA certification, CA policy management: It should be possible to manage any number of CAs in any hierarchy in the same system. The CAs should possibly have different CA policies	
22	It should be possible to define the CA policies with high granularity: certificate and CRL formats and contents, validity, revocation services (OCSP an d/or CRL and/or deltaCRL, distribution point address), algorithms.	
23	It should be possible to define an individual policy for each CA.	
24	Cross certification should be supported in both directions: internal CA to certify external CA and vice versa in PKCS#10 procedures.	
25	Policies for end entity certification (validity, certificate formats and contents, algorithms etc.) should be defined with high granularity for maximal flexibility. It should be possible to add private extensions.	
26	Multi-tenancy, delegated CA management: it should be possible to define administration domains with separation with respect to visibility and access to CAs, policies, roles, CA users, logs etc.	
D	**Certificate management interfaces**	
27	SCEP should be supported. Only authorized (registered) SCEP devices should be granted with a certificate. Renewal over SCEP should be possible without an additional registration. It should be possible to run different SCEP services for different CAs.	
28	CMP should be supported – System should support certificate enrollment part of Certificate Management Protocol (CMP) v2 as profiled by 3GPP TS 33.310 version 9.5.0 (ETSI TS 133 310 V9.5.0).	
29	There should be a powerful API (preferably Web Services protocol) that supports certification, revocation, delayed publication for any end entity as well as to retrieve user and certificate information. The API should be access	

	controlled and multi-tenant capable.	
E	**Certificate and (Credential Management)**	
30	The system must support storing keys and certificates on smart cards, smart USB token, in PKCS#12 files or import them into the Windows certificate store of the end user device.	
31	The system must support generating certificates based on PKCS#10 requests.	
32	Smart card and token products of leading card/token OEM should be supported. SIs lock-in must be prevented by multi-card / token support	
33	The input fields displayed in the Registration Authority client should be configurable so that selecting a different Token procedure can change the fields displayed and/or the look of the input field's panel.	
E	**Security**	
34	With GUI support, it should be possible to define roles with various permissions (CA management, end entity management, audit, registration, publication, revocation, key recovery, etc.) and assign users to role.	
35	Access to data and services should be controlled according to the roles.	
36	Users are required to authenticate with certificate-based strong two-factor authentication	
37	All relevant user actions (e.g. registration, certification, revocation etc.) should be logged in a digitally signed revision safe audit trail (transaction log), which is audit-able. Relevant actions require commitment signatures of the user(s). Critical actions (e.g. CA management) require commitment signatures of more than one officer.	
38	The CA security architecture must underlie a successful security evaluation (like Common Criteria).	
39	System credentials should be confidentiality and integrity protected.	
40	System configuration should be integrity protected.	
41	All sensitive tasks should require 4-eyes-principle	
F	**Scalability and Reliability**	
42	Should be scalable to multiple of hosted CA with support to multiple concurrent HSMs	
43	Should support Active-Active type of high availability ensuring sub components that can be multiplied to match performance and fault tolerance needs.	
44	Should allow distributing Certificate Management services (certificate issuing, CRL generation, LDAP distribution, DB) to different physical/logical servers for greater	

	scalability	
G	**Interoperability**	
45	Support for all relevant PKIX standards PKCS #1, #5, #7, #8, #9, #12, #15	
46	Support for different certificate profiles based on X.509 Public Key Certificates, Attribute Certificates, Card Verifiable Certificates (CVC) (e.g. ePassports), Tachograph Certificates, Wireless TLS (WTLS) Certificates in conformance with the Wireless PKI (WPKI) specifications	
47	Support Cross certification and CA hierarchies with all major CA SIs and service providers	
48	SDK to customize certificate enrolment, certificate revocation, to fit own environment	
H	**Interfaces**	
49	Web Services - Common interface (SOAP) to enable easy integration	
50	SDK - client API with Registration authorisation, all registration functions available	
51	SCEP - Simple Certificate Enrolment Protocol for network devices (Router, VPN)	
52	Certificate Management Protocol support for both Initial enrolment request and update requests for certificate renewal.	
53	Auto Enrolment interface for Windows clients in Microsoft domains	
54	Interface to external modules for secure communication with server applications	
55	The proposed CA Solution should have been implemented and running live in one of the CA's globally or should be a CA under Root CA of India.	
56	Letter from the organization where the Solution has been implemented, confirming that CA Solution has been implemented in their organization and working satisfactorily	
57	CA OEM should have local support centre in India or should be should be supported by any of the GOI agency	

OCSP Responder Enterprise License

Ser No	Technical Specification	Compliance (Yes/No)
1.	AR CA shall support an OCSP capability using the GET or the POST method for DSC issued	

Ser No	Technical Specification	Compliance (Yes/No)
2.	AR CA SHALL operate OCSP capability to provide a response time of ten seconds or less under normal operating conditions	
3.	OCSP responses MUST be signed by an OCSP Responder whose Certificate is signed by the CA or its sub CA that issued the Certificate whose revocation status is being checked	
.4.	OCSP responder certificate and subscriber certificates shall comply with latest version of interoperability Guidelines for Digital Signature Certificates issued under Information Technology Act	

Time Stamping Server Enterprise License

Ser No	Technical Specification	Compliance (Yes/No)
1.	The AR CA shall not issue a Time stamping certificate other than for its own time stamping service.	
2.	Time stamp tokens shall be in compliance with RFC 3161.	
3.	The time values the Time Stamping services used in the time-stamp token shall be traceable to a Standard Time Source in India	
.4.	Audit log files shall be generated for all events relating to the security of the Time Stamping services.	

SUPPORT MANPOWER

1. **Support Manpower**.   Following support personnel are required to be positioned during all phases of support:-

(a)   **Resident Engineer (Junior Engineer)**. The Engineer will be resident at the CA setup at Datacenter at Delhi. The engineer should be preferably from the implementation team. The qualifications and duties of the engineer are as follows

    (i)   Bachelor's degree and 3 years' experience
    (ii)   Experience of the deployed Server OS and Database
    (iii)   Capable of taking backups as per the policy
    (iv)   Undertake DC/DR drills as promulgated
    (v)   Manage the PKI setup as promulgated in the policy
    (vi)   Capable of handling PKI and Certificate related issues at CA location.
    (vii)   Must be capable of handling all issues related to PKI integration with other naval applications as mentioned above.
    (viii)   Excellent written and verbal communication skills.

(b)   **PKI Consultant (Senior Engineer)**. The consultant should be available with Navy on Call basis for the contracted period. The qualifications and experience of the PKI Engineer are as follows:-

    (i)   Bachelor's degree and 5 years' experience.
    (ii)   CISSP qualified
    (iii)   GIAC preferable
    (iv)   3 years of hands-on PKI experience.
    (v)   Understanding of Cryptography and Key Management.
    (vi)   PKI experience including hands on experience with the deployed solution
    (vii)   Certificate Authority Administration
    (viii)   Certificate Enrollment Web Service & Policy Web Service
    (ix)   Active Directory Certificate Services (ADCS) monitoring
    (x)   Disaster Recovery
    (xi)   Windows Server 2003/2008/R2 and Windows 7/XP
    (xii)   Understanding of:
        (aa)   Cryptography Next Generation (CNG)
        (ab)   Key archival
        (ac)   Must be able to obtain a Position of public Trust Designation
        (ad)   Experience troubleshooting digital certificate issues
        (ae)   Familiarity with browser and application keystores
        (af)   Certificate Management System (CMS)
        (ag)   Key Management System (KMS)
        (ah)   Understanding of PKIX, PKCS, SSL, TLS, S/MIME standards

(ai)   Experience with UNIX or Linux

Removal and / or Replacement of Support Personnel

2.   If the Indian Navy finds that any of the SIs's personnel have

(a) Committed serious misconduct or have been charged with having committed a criminal action

or

(b) has reasonable cause to be dissatisfied with the performance of any of the personnel.

3.   Then the SIs shall at the IN's written request specifying the grounds therefore, forthwith provide as a replacement person with qualifications and experience acceptable to the purchaser. The SIs shall have no claim for additional costs arising out of / or incidental to any removal and / or replacement of personnel.

4.   The resident engineer would be interviewed by the Navy at IHQ MoD (N) / DIT prior to acceptance. The proposed candidates would need to be deputed for interviews within 15 days of the effective date of contract as the contract would commence from date of acceptance of all personnel. The Navy reserves to the right to reject any or all of the personnel.

BOQ/ Price Bid Format

Sl. No	Items	Qty	Unit Cost (Rs)	Basic Price (Rs)	Sales Tax (Rs)	Service Tax (Rs)	Other Taxes/ Levies/ Octroi (Rs)	Total Cost (Rs) (W/o taxes)	Total Cost (Rs) (inclusive of taxes)
(a).	**Hardware (as per Part II para 4)**								
(i)	Rack Servers	04							
(ii)	Smart Rack	02							
(iii)	HSM	02							
(iv)	PKI Containers/ Tokens	5000							
(v)	L3 Networking Switch	02							
(b)	**Software (as per Part II para 6)**	-							
(i)	CA Software (DC-02, DR -02)	04							
(ii)	Work Flow Software (e-forms)	01							
(c)	**Services (as per Part II para 7)**								
(d)	Audit**(as per Part II para 8)**								
(e)	TRAINING**(as per Part II para 9)**								
(f)	Installation and Commissioning								
(g)	**Support (as per Part II para 10)**								
(i)	Warranty (Year 1)								
(i)	Warranty (Year 2)								
(iii)	AMC(Year 3)								

Sl. No	Items	Qty	Unit Cost (Rs)	Basic Price (Rs)	Sales Tax (Rs)	Service Tax (Rs)	Other Taxes/ Levies/ Octroi (Rs)	Total Cost (Rs) (W/o taxes)	Total Cost (Rs) (inclusive of taxes)
(iv)	AMC(Year 4)								
Grand total of ser ((a) to (g)) will be considered for L1 determination									
Optional AMC(02 Years)									
Cost of PKI Consultant (Per Month) (Annexure III para 1(b)									

Note : - This is a Turn-key project and L-1 will be determined based on total of basic prices of SL (a) to SL (g)(not including levies, taxes and duties levied by Central/State/Local governments such as excise duty, GST, VAT, Service tax, Octroi/entry tax, etc. on final product) of all items/requirements (not each line item cost) as mentioned above.

Additional information in Price Bid on Taxes and Duties (not in scope of L-1 determination)-

(a)   Is excise duty extra?

(b)   If yes, mentioned the following:-

Total value of items on which Excise Duty is liveable (Indicate the Serial Nos of items in table at Para 2(a) above)

Rate of Excise duty (item-wise if different ED is applicable)

Surcharge on Excise duty, if applicable

     (iv)   Total value of excise duty payable

(c)   Is Excise Duty Exemption (EDE) required?

(d)   If yes, then mention and enclose the following:

     (i)   Excise notification number under which EDE can be given

(e)   Is VAT extra?

 (f)   Is VAT extra? If yes, then mention the following:-

(i)   Total value on which VAT is leviable. (Indicate the Serial Nos of items in table at Para 2(a) above)

(ii)   Rate of VAT.

(iii)   Total value of VAT leviable.

(g)   Is Service Tax extra?

(h)   If yes, then mention the following:-

(i)   Total value of Services on which Service Tax is leviable (Indicate the Serial Nos of items in table at Para 2(a) above)

(ii)   Rate of Service Tax leviable.

(iii)   Total value of Service Tax leviable.

(j)   Any other Taxes / Duties / Overheads / Other costs (Indicate the Serial Nos of items in table at Para 2(a) above)

Please note the following:

1.   All applicable taxes and duties prevailing on the date of proposal submission should be mentioned.

2.   Since the price proposal is in INR (₹), Indian Navy shall not consider any upward variation/ fluctuation on account of any foreign exchange at any time during the currency of the contract.

3.   Warranty will commence from the date of signoff.

4.   The project is to be supported for a minimum period of 2 years warrantyfrom the date of Project Signoff.

5.   Continuationof AMC will be at the sole discretion of the Indian Navy.

CERTIFICATE OF FALL CLAUSE

(It is mandatory to submit this Certificate, failing which

the bids will be rejected)

"We certify that there has been no reduction in sale price of the stores of description identical to the stores supplied to the Government under the contract herein and such stores have not been offered/sold by me/us to any person/organisation including the purchaser or any department of Central Government or any Department of a state Government or any Statutory Undertaking of the Central or state Government as the case may be up to the date of bill/the date of completion of supplies against all supply orders placed during the currency of the Rate Contract at price lower than the price charged to the government under the contract.

Office Stamp   **Signature of Bidder**