

# **FMS for IT Infrastructure at IIA Koramangala Main Campus and BHASKARA Hostel, and CREST, Hosakote.**

## **Name of the proposal :**

IT Infrastructure and Management at IIA Koramangala, Main Campus and BHASKARA Hostel, Bangalore and CREST, Hosakote.

## **Introduction/background:**

Computer Support and maintenance at IIA Main Campus and BHASKARA Hostel Bangalore and CREST Campus, Hosakote. We expect the successful vendor to be a single point of contact for any IT related problems.

## **Scope of Contract :**

The scope of the proposed contract comprises of the following managements:

### **1. Web**

Vendor should depute one on-site support engineer for web related activities.

### **Responsibilities of the support engineer are as follows :**

- a. On-site support engineer should be responsible for smooth and complete migration/update of web applications with the database intact (1 production Web server & 2 Test web server) in the following scenarios:
  - Migration to a completely new hardware infrastructure
  - Hardware infrastructure upgrade
  - Whenever the next stable/secure version of CMS is available based on the status report of each web application

Scope of migration includes:

- Sharing of detailed migration plan along with the activity checklist clearly specifying the time taken against each activity.
- Thoroughly checking/testing the compatibility issues if any on the test server before carrying out the migration on the production server.
- Post migration testing of the production server for individual web applications (functionality and page availability).
- Web support engineer should provide post migration functionality test report and page availability test report (Test reports format will be share to web support engineer)

- b. Regular monitoring of web server
  - Web support Engineer/ NOC support should regularly monitor web server for any malicious program/activities like malware, bots, spyware etc., report the issues
  - Web support Engineer should take necessary preventive measures to mitigate any possible threat/attacks on the web server.
  -
- c. Keeping the web server up-to-date on a regular basis.
  - CMS configuration and updation
  - Develop and update pages without replication of pages.
- d. Periodic developmental activities.
  - On-site support engineer for web activities has to do periodic developmental activities including creation and updation of web pages/forms with latest security features included, unit testing and functionality testing of the online applications for jobs as well as students applications as per the requirement specified by the different IIA department/end users.
  - The onsite support engineer for web will be responsible for preparing proper documentation before taking up new developmental activities which must include scope of the work, which version of CMS selected, Data base structure (ER Diagram), and UML diagrams (Use case and Activity diagram are mandatory. Sequence diagrams are required only for the web applications).
  - Web support engineer should provide functionality test report and page availability test report after each new developmental activities/updation of existing web sites (Test reports format will be share to web support engineer)
- e. Database backup and maintenance.
  - On-site support engineer/NOC support will be responsible for daily backup and maintenance (including optimization) of entire database for different applications available on the web server and store it on IIA backup server.

## **2. LAN and WAN maintenance**

- a. The vendor will be responsible for maintenance of existing wired and wireless network and addition where ever necessary. It also includes maintenance and repair of LAN cables in case of any wear/tear or cable cuts, crimping new cables, checking of connections from end-to end in case of any disruption of service.
- b. Maintenance of networking equipment (routers, firewall, switches etc).The vendor will be responsible for checking the device in case of any failure and co-ordinate with the OEM to get it replaced/repared in case it is under

warranty/out of warranty. The responsibility of taking the device under warranty/out of warranty to service station for repair and transporting it back will be on IIA stores. But the vendor will be responsible for following it up with the OEM to fast track the repair. The vendor will also be responsible for installation of the newly purchased devices by IIA.

- c. Maintenance of wireless access points, routers, firewall etc. The vendor will be responsible for checking the connectivity, signal strength and configuration of existing devices as well as installation and configuration of new additions. He will also be responsible for providing viable solutions in case of weak signal strength/poor connectivity.
- d. Raise issues with ISP service provider as and when required. The vendor will be responsible for raising the ticket with the service provider like NKN, SIFY, AIRTEL, BSNL etc. and follow it up till the problem is resolved.

### **3. Hardware and software support for individual users**

- a. Mix of operating systems – largely Linux, Windows and MacOS. The vendor will be responsible for installation and maintenance of these OS on Desktops and laptops as well. Their responsibility also includes resolution of problems related to OS, networking issues, configuration of printers.
- b. Maintenance and handling of Laptops, desktops, printers and print accounting server. It will be the responsibility of the vendor to monitor and manage the print server as well as the accounting software and rectify issues in case of any problem.
- c. The vendor will be responsible for handling mix of vendors and warranties for different hardware in IIA.
- d. Hardware under warranty will be coordinated with OEM. The vendor will be responsible for checking the device thoroughly in case of any failure and coordinate with the OEM to get it replaced/repaired in case it is under warranty. The vendor will also be responsible for installation of the newly purchased hardware devices by IIA. The responsibility of taking the device under warranty to service station for repair and transporting it back will be on IIA stores. But the vendor will be responsible for following it up with the OEM to fast track the repair.
- e. Support for installing specific applications including preparation of automated installation packages. This includes preparation of documentation for the same as well.
- f. Short term visitor support as well as support for staff. The vendor will be responsible for installation of required OS, resolving networking issues, installation of necessary packages/software/applications, configuration of printers, preparing of necessary documentation related to specific software installation as well as installation of Anti-Virus on official Desktops and Laptops.

- g. Migration support (ex.Webmail to Thunderbird).This includes installing the required package on the users' laptop, perform the migration and performing final check to ensure that the migration has been done properly.
- h. Maintenance of applications and operating systems.
- i. Mandatory weekly visits to Hosakote/CREST campus and report has to be submitted to IIA, Bangalore Office (excluding call visits if required). Transportation facilities to Hosakote/CREST campus will be provided by IIA.

#### **4. 24/7 NOC support**

The vendor must provide the team structure with call logging details and escalation matrix.

- a. During regular office hours (Mon–Sat, 9 – 6), problem logging (raising of issue tickets) and reporting to IIA authorities within 1 hour and proactive involvement in problem resolution.
- b. After office hours, problem logging (raising of issue tickets) and reporting to IIA authorities within 1 hour and emergency remote/onsite support on–call basis, otherwise NBD for non-critical issues if requested.
- c. After office hours, problem logging (raising of issue tickets) and reporting to IIA authorities within 1 hour and emergency remote/onsite support on–call basis, otherwise NBD for non-critical issues if requested.
- d. 24X7 monitoring of servers and data center, which includes BMS, PAC, UPS.

#### **5. Pro-active Monitoring and Reporting (Reports to be submitted on monthly basis)**

- a. Problem reports: when taken; estimated time to resolution; when fixed has to be maintained by the vendor on a daily basis.
- b. A monthly report with number of problems filed; number resolved; time for resolution has to be produced by the vendor to IIA authorities.
- c. Monitoring of internet usage; incoming/outgoing bandwidth; web pages visited; files uploaded/downloaded has to be maintained by the vendor and produced to IIA authorities on a monthly basis.

- d.
  - i. Server and service availability of all the servers in IIA Data centers. List of all servers and access to them will be provided to check the status and if required to restart the services. The vendor will be informed of any new additions to the existing list as and when new servers are added. The vendor will also be responsible for verifying the list with IIA for any new additions every 6 months.
  - ii. Availability of all managed Switches 24/48 ports inside IIA, Bangalore campus.
  - iii. Response Time for all active devices and servers.
  - iv. Packet Loss
  - v. CPU, Memory and Disk Utilization
  - vi. Fault Management
  - vii. URL Availability
  - vii. Link Availability for public servers and ISP (NKN & Powergrid)
- e. Network and bandwidth monitoring
  - i. Availability monitoring.
  - ii. Alerts for Rx/Tx discards and errors.
  - iii. Monitor traffic for latency and utilization with threshold alerts for early detection of degradation.
  - iv. Identify highly utilized and under-utilized links.
  - v. Event log management and monitoring for network devices through Web console & logging activity for the following:
    - a. Securing the network from internal attacks.
    - b. Historical Analysis and Reports: current usage & future requirements are addressed through performance management & capacity planning. The historical graphs & reports help in understanding utilization and load patterns on servers and will assist in forecasting resource requirements well in advance. Reports for the same to be provided for each month on quarterly basis along with the invoice raised.
- f. Half-yearly submission of network audit reports to check for security issues and network bottlenecks if any.

- a. Data center resource monitoring and reporting
- b. Monitor PAC and UPS parameters through BMS software using the BMS system.

6. Value Addition Services:

- a. Configuration of VLANS, trunk ports & Ethernet channels.
- b. Configuration of IPSEC VPN.
- c. Configuration of Firewall rules & Security policies.
- d. Switches IOS up gradations.

7. Definition of similar services:

- a. Experience in Unix/Linux environment
- b. NOC support and pro-active monitoring of critical servers, active network components and services
- c. Web support & services associated to it.

## **Additional:**

- 1) The vendor should have sufficient manpower to guarantee 24/7 support. Minimum on-site manpower requirement at IIA is 2 [two], 1 [one] for system support and 1 [one] for web server.

➤ For system support, the on-site support engineers should at least have a bachelor's degree in CS/ECE/EE/IT or equivalent with at least 2 years of working experience and exposure to Linux environment. They will be working 6 days a week (office hours) including Saturdays on rotation basis. May be called to support on Sundays in case of any emergency.

➤ For web server support, the on-site support engineer should at least have a regular bachelor's degree in CS/IT or regular master's degree such as MCA, with at least 5 years experience in web development and management. The web engineer must have exposure to technologies such as Drupal (CMS), MySQL, PHP, Javascript and working experience in Linux platform is mandatory. Normal office working hours, for 5 days a week. May be called in on week-offs/holidays in case of any emergency.

b) In case if any system support engineer proceeding on a leave, the vendor should provide an alternative man power resource with proper knowledge transfer of the present responsibilities of the concerned support engineer. If on-site engineers are unable to fix the reported issues within 2 hours, then engineer(s) from the local office should be assigned to address the issue. The engineer(s) from the local office should be available on-site within two hours of reporting the issue.

c) In case of web engineer proceeding on leave exceeding 2 days, the vendor should provide an alternative on-site man power resource with proper knowledge transfer of the present responsibilities of the concerned web engineer.

d) Vendor to ensure that the on-site support engineer is well trained on all technologies related to the work required at IIA.

e) An alternative resource for on-site web server support must be identified and informed at the time of initiation of the contract, so that whenever the primary resource is unavailable for more than 2 days, the alternate resource must be present on-site for the necessary support for the required duration.

f) The vendor must provide the details of technical capabilities and experience of the resources that they have identified for staffing for this requirement including the alternative resources.

g) The vendor must provide the team structure with call logging details and escalation matrix for support, web as well as NOC services.

h) Complete verification including education, work experience etc. of the on-site engineer to be deputed at IIA should be taken care of by the vendor, before allocating on-site resources.

## **Contract Clauses :**

1. The contract period is for one year from the date of award of the contract. The contract may also be extended for further period subject to the quality of service provided by the Vendor and also ascertained by this Institute.
2. Vendor agrees to give 3 months notice before contract termination and vice versa from IIA.
3. SLA has to be agreed upon by both the parties on the accepted terms and conditions. This must include QoS to be maintained (including consistency of man power allocation/alternative resources) and penalty in case of breaches among other things.
4. On-site deputation of system support engineer requires qualified personnel with minimum 2 years of relevant experience and web server support engineer requires qualified personnel with minimum 5 years of relevant experience.
5. Transportation for Hosakote support will be provided by IIA. (IIA, Bangalore to CREST, Hosakote)

## **Payment Clause :**

### Payment Terms:

Quarterly after completion of service against recommendation from end user on submission of Invoice along with service call report.

## **Penalty Clauses :**

1. Failure in 24/7 NOC support for monitoring and reporting of the problem within 1 hr during regular office hours/after office hours will invite penalty.
  - 1 failures of similar nature in a quarter - 1% of the quarterly charges.
  - 2-5 failures of similar nature in a quarter - 3% of the quarterly charges.
  - Beyond 5 failures of similar nature in a quarter - 5% of the quarterly charges.
2. Vendor to maintain consistency in on-site man power resource allocation for computer. If in case, on-site engineers are unable to fix the reported issues within 2 hours, then engineer(s) from the local office should assigned to address the issue. The engineer(s) from the local office should be available on-site within two hours of reporting the issue.
  - 1 failures of similar nature in a quarter - 1% of the quarterly charges.
  - 2-5 failures of similar nature in a quarter - 3% of the quarterly charges.

- Beyond 5 failures of similar nature in a quarter - 5% of the quarterly charges.
3. Vendor to provide network audit service report and monthly reports as asked in the tender.
- Failure in providing monthly report for any 1 month in a quarter - 1% of the quarterly charges.
  - Failure in providing monthly report for any 2 months in a quarter - 3% of the quarterly charges.
  - Failure in providing monthly report for all 3 months in a quarter - 5% of the quarterly charges.
  - Failure in providing half-yearly network audit reports - 3% in the next quarter
4. Failure in maintenance and keeping of the Web Server up-to-date with all necessary software and security patches including executing the daily web backups will invite penalty.
- 1 failures of similar nature in a quarter - 1% of the quarterly charges.
  - 2-5 failures of similar nature in a quarter - 3% of the quarterly charges.
  - Beyond 5 failures of similar nature in a quarter - 5% of the quarterly charges.
5. Web support engineer should provide post migration test reports and test report after new development/updation the web server.
- 1 failures of similar nature in a quarter - 1% of the quarterly charges.
  - 2-5 failures of similar nature in a quarter - 3% of the quarterly charges.
  - Beyond 5 failures of similar nature in a quarter- 5% of the quarterly charges.
6. "Maximum penalty that will be imposed for various non conformances as above cannot exceed 10% of each invoice value respectively."

## **Eligibility criteria :**

### 1). Past Experience:

a) The bidder must have at least three years experience (ending month of March 2020) of providing similar type of services. Government/PSUs/ Nationalized Banks/Reputed Organizations. Services rendered with list of such Central/State/PSUs/Nationalized Banks/Reputed Organizations with duration of service shall be furnished.

b) The bidder must have successfully executed/completed similar services, over the last three years (One such service should have been executed in the financial year ending March 2020) : -

i) Three similar completed services costing not less than the amount equal to Rs,12,00,000/- ; or

ii) Two similar completed services costing not less than the amount equal to Rs. 15,00,000/- ; or

iii) One similar completed service costing not less than the amount equal to Rs.24,00,000/- ;

- 2) Must be able to demonstrate expertise with all relevant hardware and software.
- 3) Bidder should provide an undertaking of having own NOC and DR-NOC in India along with complete address on company letter head.
- 4) The NOC should be ISO 27001 certified. Copy of ISO 27001 certificates should be submitted.
- 5) The NOC should have tools deployed for Incident Management, Network Monitoring. Details of tools installed in NOC should be provided in their technical bid.
- 6) NOC Facility of the vendor must have minimum strength of 15 engineers for remote monitoring and reporting services. Details of engineers to be provided along with the bid.
- 7) Vendor's NOC should have at least two ISPs for redundancy to facilitate round the clock monitoring of infrastructure at IIA, Bangalore. Details to be provided along with the bid.
- 8) Vendor must have local office in Bangalore with minimum strength of 20 engineers with relevant certifications. Details of engineers along with their certification details to be provided with the bid.
- 9) Bidder should not have been blacklisted by any PSU/BFSI/Govt organization. Bidders are requested to provide self-declaration in this regard along with their technical bid.

10). **Financial Capability:**

- a. Average Annual financial turnover of related services during the last three years, ending 31st March 2019, should be at least Rs.9,00,000/-.
- b. Liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments which may be made under the contract, of no less than Rs.30,00,000/-