



NATIONAL INSTITUTE OF TECHNOLOGY,  
ROURKELA-769 008 (ORISSA)

No.NIT/RKL/CSNC/06/05

Dated: 5<sup>th</sup> July 2006

Corrigendum to tender enquiry no. NIT/RKL/CSNC/06/04 Dt 12<sup>th</sup> May 2006 for revised/  
enhanced scope of work.

Proposals are invited from reputed firms for administering of server infrastructure at NIT, Rourkela. The details of scope of work, available infrastructure and typical personnel/ skill set requirement are detailed below. Sealed proposal should reach the undersigned by 14<sup>th</sup> July 2006. Firms that have quoted earlier are advised to quote again. Their unopened old bids will be returned to them.

**Kindly frame your proposal in two parts, technical bid and financial bid. Both proposals should be clearly marked and individually sealed. The two sealed proposals should be sealed in a bigger envelop. This should be super scribed with "Quotation for Computer System Administration at NIT, Rourkela" and address it to "Registrar, NIT Rourkela, Rourkela, ORISSA Pin- 769 008". These can be sent to the institute be registered post or hand delivered at the time of the tender opening. Important venues and dates are mentioned at the end.**

**Available infrastructure:**

Server and Storage systems } Around 15 servers with different Operating Systems and applications

- 2 Intel Xeon / Raid Controller / 8 GB RAM / 2x 72 GB HDD / 4x 1 Gbps Lan card on a rack – 4 servers (365 from IBM)
- 2 Intel Xeon / Raid 5 Controller / 2 GB RAM / 4 x 36 GB HDD / 3 Gbps LAN card on racks – 9 servers. ( x 345 from IBM)
- 1 Intel PIV / 1 GB RAM / 2 x 36 GB 4DD / Gbps LAN ( x 205 from IBM)
- Few other servers ( less than 5)
- 1TB storage on IBM fast T.

- IBM NAS Gateway.
- IBM LTO for backup 4TB uncompressed.
- SAN switch - 2nos.
- Additional hardware can be added in future depending upon the requirement

**Network:**

- Around 1700 I/O in Campus (Additional 2000 under installation in hostels)
- Two L-3 core switches.
- Approx. 12 K.M of FO cabling
- Nearly 20 distribution switches and 70 edge switches (More under installation).
- Two Firewalls and 2 routers.
- Internet connectivity of 4Mbps and in process of enhancement to 8Mbps.

All network hardware is Avaya make. All are being maintained by Avaya Global Connect

**Other Hardware:**

- 100 Thin clients from VxL. Hardware maintenance by VxL.
- Nearly 5 to 10 PCs of different make to manage the network.
- A Lab with 60 PCs for students.
- 24X7 operation of the infrastructure.
- Diesel Generator power backup.

**Operating System on Servers: (This infrastructure will be maintained by the service provider)**

Authentication Server: One server running on Suse Linux Enterprise Server 9.0 (SLSE9.0) with Novell NNLS and e-Directory for centralized authentication and LDAP server.

Mail Server: One server with SLSE 9.0 running Netmail 5.1 (messaging solution) authenticated through NNLS and eDirectory from Novell. The server has nearly 2000 mail accounts.

File Server: One SLES 9.0 server connected to NNLS authentication server for authentication server. Provides file server storage for nearly 2000 users. The user data is stored on storage across network (SAN). The server manages 500GB of disk space.

Virtual office Server: One server with SLSE 9.0 operating system connected to NNLS authentication server. This provides a web based interface for mail, storage, discussion groups, users based bookmarks.

Proxy Server: The proxy server is Linux based proxy called Cyberoam from Elitecore Technologies. The user authentication for accessing the proxy server is made from the authentication server using LDAP.

Intranet portal: Win 2003 Server with SQL databasen. The server runs ftp for software access in the campus. The server also provides the antivirus update distribution for the institute network.

Office Automation server: Redhat Linux 3.0 ES server with Oracle database and Java application providing integrated access to institute automation. This also houses the library catalogue running on Libsys software. Data available on this server is stored on the SAN device through fiber channel storage.

Windows Terminal Server (2 nos.): Window 2003 AES with terminal services. Both of these Servers have LDAP authentication. When users login their authentication is redirected to the LDAP authentication server. These servers provide users with applications/ Software like MATLAB, Ms Office, Auto desk, Visual studio 'net. The server uses SAMBA storage to access the file server cited for user file storage.

Linux Terminal Server (2 nos.): These servers operate on Redhat Linux AS 3.0. The authentication is redirected to the LDAP authentication server. The server also has a NFS client sunning to connect to the file server. The servers are used for programming work for students.

D-space Server: – Library resource server providing storage of local publications and provides library resource archive of other International universities. It also holds the institute publications including thesis, reports etc.

License Server: Server with Windows2003 OS provides license management of software using *Flexlm*.

Antivirus Gateway sever: Server with Windows 2003 server with CA secure content manager provides internet gateway protection for mail and proxy. This server also provides antivirus and pest-petrol signature distribution in the campus.

***The hardware and software can change during the period of service.***

**Scope of work:**

Computer System Administration of servers at NIT, Rourkela. **(Scope of work does not include hardware maintenance of any of the infrastructure).** The service provider will provide system administrators for management of servers/ services at NIT, Rourkela.

**Following is the set of services to be provided by the firm.**

Sl. No.	Designations	Qualification/ Skill set	Job responsibility
1	System Administration	Experienced engineers (B Tech/ MCA or equivalent) with <b>SUPERIOR COMMAND</b> over Windows server OS, Linux, Novell Enterprise Linux Services (NNLS), Novell OES, IBM Trivoli, (MICROSOFT/ LINUX/ Novell certification desirable).	Management of the total infrastructure as detailed in the document. Ensure 24X7 service/ system availability including network protection, virus removal etc.
2	Administration support	Diploma in Computer Science/ electronics or equivalent good knowledge of Windows and Linux operating system.	Manning the server infrastructure round the clock on 24X7 basis, operating power backup (UPS and Genenerator), fault reporting and emergency system shutdown incase of need.
3	Help Desk (Academic departments)	B.Tech/ MCA or equaivalent	Provide helpdesk facility to academic departments during institute working hours by assisting the departments in installing and testing Windows operating systems, application software (like MATLAB, Fluent, Autodesk, Visual Studio.net etc); setting up local domains and account creation in local domains; setting up and monitoring antivirus and protecting software; helping departments in training their personnel in above listed activities.
4	Help Desk (Office)	B.Tech/ MCA or equivalent with	Assist the administrative sections and departmental

	Automation)	knowledge of office automation software, ASP, JSP and RDBMS.	offices in setting up WINDOWS operating system; installing the office automation software; developing smaller office automation modules, trouble shooting and training users
--	-------------	--	--

The above table indicates the work requirement. The number of personnel to be placed has to be worked out by the firms quoting. However a recommended personnel structure would be 2-3-1-1 for SI no. 1 to 4 respectively.

The total work responsibility will include the following

- Management of the proxy server including policy setting, log checking and etc.
  - Management and maintenance of the software on the servers providing internet services (mail server, intranet portal server, virtual server, dspace server, antivirus gateway and antivirus distribution server) in an uninterrupted manner.
  - Management of file server including user account management, creation, maintenance, policy setting. Attending to the user problems relating to these.
  - Taking regular backup of servers through LTO using Trivoli Storage Manager.
  - Installing and support applications/ software on Windows and Linux servers working as terminal servers.
  - Managing the licensing server to manage licenses of application.
  - Updating of software when new forms of software are available.
  - Downloading and installing freeware application as per the need NIT, Rourkela.
  - Responding to emergencies such as virus attacks and system crash.
  - Policy setting and fine tuning in antivirus gateway devices for mail and internet access.
  - Provide support to institute staff for conducting training to students, staffs and faculties.
  - Providing server administrative training to computer centre staff.
  - Any other related work assigned by the institute.
  - The system administrators will be responsible for 24X7 operation of the infrastructure.
  - They will work in the computer centre under the supervision of HOD, Computer Centre and Prof I/C Campus Networking.
- The institute will provide 3 suitable quarters and few rooms in student hostels for bachelors free of charge for the accommodation of the personnel working for the company.
  - The company will enter into service level agreement for the purpose.
  - In case of poorly performing personnel they may be replaced by the service provider at the direction of the institute.

- Services for the above are required on annual basis for which payment will be made on monthly. The firms should clearly specify the basic quoted price for the services and also state all the taxes.
- Table cum seating space will be provided at the server room.

**For further information regarding this document following persons may be contacted:**

- **Dr.J.K. Satapathy, Chairman, Computer System and Network Committee**  
(Phone: (0661) 2462414; 9437116780 (M))
- **Dr S.K. Patra, Professor I/C Campus Networking; (Phone: (0661) 2462457;**  
**Fax: (0661) 2472926; 9437116780(M))**

### **Important dates and Venues:**

Last date for receipt of tender	14 <sup>th</sup> July 2006 (10 AM)
Venue for submission of tender in Office of Computer Centre, NIT, in case of hand delivery:	Computer Centre (Till the closing day of the bid)/ Board room at the time of bid opening
Date for tender opening	14 <sup>th</sup> July 2006 (10 AM)
Venue for opening and evaluation of bids	NIT, Rourkela Board room
Technical and financial evaluation of bids	14 <sup>th</sup> July 2006

Firms are strongly advised to be present during the tender opening and finalization. They are also advised to come with one of the proposed systems administrators for the purpose.

Registrar  
NIT, Rourkela