CENTRAL LIBRARY

GURU GHASIDAS VISHWAVIDYALAYA, BILASPUR (CG)

(A central university established by the central universities act, 2009 no.25 of 2009)

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Expression of Interest for UHF RFID

Sealed applications are invited from the reputed Manufacturers, Authorized Distributers, Suppliers, and Vendors for installation, training and warranty of UHF Radio Frequency Identification System (RFID System) to run on the SOUL platform for our Central Library. The bid application on company letter head along with a nonrefundable DD of Rs 5,000/ as a processing fee issued in favour of the Registrar, GGV, Bilaspur payable at Bilaspur (CG) should reach to the Librarian, Guru Ghasidas Vishwavidyalaya, Koni, Bilaspur-495009 (CG) on or before 04th March, 2013 up to 4.00pm by registered/ speed post or courier, giving name of the firm, address with Ph. No. and email, PAN card no, places where you have supplied/installed the UHF RFID system earlier with proof, and any other information in the support of your claim. Received applications will be opened on the same day by a committee in the central library building. This EOI will be valid for one year from the date of issue.

Librarian

Terms and Conditions for UHF-RFID System

1. All expenses of packing, forwarding, freight, insurance in connection with delivery, repairs and replacement made within the warranty period should be borne by the vendor.

2. Wherever packing cases are received in damaged condition, the vendor shall be responsible for any loss, damage, breakage etc, in transit and shortages.

3. Installation, Integration, Implementation, Commissioning & Training of the proposed system shall be undertaken immediately by the vendor within 30days of receiving of firm order.

4. The warranty period shall be effective from the date of having completed successful Installation, Integration, Implementation, & Training on the system at the Institute premises.

5. Rates shall be quoted for comprehensive three years warranty on supplied hardware & software including spares and AMC charges for software & hardware upgrades.

6. The Bidder should have experience in the field of application software conceptualization, design, development, deployment, customization and maintenance in the Higher Education Industry since the last 5 years. It should also have at least Rs.25 Crores of Turnover as on 31st March, 2012.

7. Bidder will be fully responsible for the performance of all components of the RFID materials and any malfunction/defective materials should be replaced free of cost during the warranty period.

8. Proposal for comprehensive AMC of the system including Hardware and software upgrades after three years warranty period should be quoted. The University shall have the liberty to terminate/discontinue the AMC with the successful bidder at any point of time if not satisfied with the performance or are able to handle the system with own manpower/staff. However, bidder shall be willing to constantly work & support the library to resolve any RFID functionality and integration problems if any.

9. Bidder must be ISO 9001: 2000 certified Company. Bidders shall ensure that proposed RFID system are compatible with ISO180006B for smart card integration including future standards.

10. Principal Manufacturer /Bidder shall integrate the Middleware with existing ILMS using NISO recommended NCIP V2.0 protocol.

11. Overall system configuration shall be open in terms of Modularity, Expandability and Upgradeability for future expansion/requirements.

12. The proposed system shall offer web-based remote monitoring and diagnostics which must include instant email notification, monitoring of check-in and out rates, web-based troubleshooting, and the ability to obtain statistics for each machine from any location.

13. All equipment required to be install/replace and maintain for smooth operation of the RFID System shall be available in India so that whenever required, shall be made available by the vendor.

14. Supplied hardware shall have provision to upgrade their firmware .online.

15. Bidder shall clearly mention the responsibility and requirements if any from Library side.

16. Principal Manufacturer /Bidder shall ensure that the proposed RFID System is compatible and should integrate with Integrated Library Management System, Integrated University Management System material management/delivery automated system and surveillance/security system using CCTV/Webcams to ensure possibility of expansion/modification in the operating environment in future

17. Bidder should recommend an overall installation plan in co-ordination with the Library related with placement of hardware, accommodating network infrastructure, power and ventilation requirements, building restrictions, etc., so as to maximize the workflow and minimizing disruption of user's services including staff related daily work activities.

18. The tender is liable to be ignored if complete information is not given therein or if the particulars and date (if any) asked for in the terms and conditions is not given.

19. All the pages of the bid should be signed along with company's seal.

20. The Institute reserves the right to reject any or whole quotations without assigning any reasons thereof and does not bind itself to accept the lowest quotations whatsoever.

21. The bidder shall have to practically demonstrate integration of proposed solution before the order is placed.

22. The rates quoted should preferably be net, inclusive of all taxes and duties, packing, forwarding, freight, Insurance and all other incidental charges. In case these charges are quoted extra in addition to the quoted rates, the amount there of or Advolerum rate must be specified.

23. The Bidders are requested to give detailed tender in their own forms in two Bid systems. Part - 1 Technical Bid. Part - 11 Financial Bid.

24. Only Bidders qualifying in Technical evaluation will be eligible for Financial bid evaluation.

25. Bids should be valid for one year period from the date of publication.

26. Approved bidder has to deposit refundable EMD amount as per the GGV tender rules.

27. Judicial jurisdiction will be at Bilaspur (CG) only.

28. Envelope should bear the inscription:-

   Quotation for UHF-RFID (Radio Frequency Identification System)
    -Tender Enquiry No. :
    -Due Date & Time:
    -Due Date & Time for Opening of Bids:

Librarian
GGV, Bilaspur (CG)

UHF based RFID Solution

RFID Hardware Specifications:

1. UHF RFID tags for book:

Description	Specifications	Compliance (Y/N)	Remarks
Compliance	EPC Gen 2 Class 1		
Operating frequency	UHF (865-867 Mhz), as per Indian standards		
Size of tag	97 x 11 mm		
Type	Adhesive type		
UID Memory size	96 bits		
Additional user memory	512 bits		
Read/write	Read & write tag UID optional locking feature		
Data re-write	100,000 times		
Anti-theft	Security bit		
Anti-collision	For multi-read		
Data retention	> 10 years		
Add-on labels	Add-on paper sticker with customer color logo		

2. UHF RFID Membership Card

Description	Specification	Compliance (Y/N)	Remarks
Compliance	EPC Gen 2 Class 1		
Operating frequency	UHF (865-867 Mhz), as per Indian standards		
Size of tag	Standard credit card size		
Colour	White		
Type	PVC – printable		
Memory capacity	96 bits, 512 bits user memory		
Read/write	Read & write tag UID optional locking feature		
Data re-write	100,000 times		
Anti-theft	Security bit		
Anti-collision	For multi-read		
Data retention	> 10 years		

3. UHF Staff Station / Table Top Reader

Description	Requirement	Complianc	Remarks
Compliance	EPC Gen 2, ISO 18000-6C with Anti Collision Support.		
Operating frequency	UHF (865-867 Mhz), as per Indian WPC standards		
Dimension	190 mm x 140 mm x 40mm (approximate)		
Functioning	Read and Write		
Host Interface	USB		
Read Rate	Over 100 Tags/sec		
Read Range	Upto 60 cm		
Antenna	Internal		
Visual indicators	Red Indicator, Green Indicator		
Mounting	Floor/Desktop Mountable		
Audio Indicator	Internal buzzer		
Pedestal Width	1-2m		
Operating Temp.	-20 °C to +60 °C		
Storage Temp.	-20 °C to +60 °C		
Charging Temperature	0 °C to +40 °C		

4. UHF RFID Gate System

Description	Specification	Compliance (Y/N)	Remarks
Protocol	EPC Gen 2, ISO 18000-6C with Anti Collision Support. Full		
Operating frequency	UHF (865-867 Mhz), as per Indian WPC approved RFID band		
Dimension	450 mm * 100 mm * 1200 mm		
Functioning	Standalone operation, based on status stored on tag memory (security bit)		
Host Data Interface	Ethernet 10 Base T, TCP		

Enclosure	Electro plated Steel		
Antenna	2 pedestals with 4 inbuilt Circular Antenna of 8dbi each		
Read Zone	1ft above ground upto 6.0 ft		
Visual indicators	Red Indicator, Green Indicator		
Color	Anodized Metal Surface		
Operating Mode	Single Interrogator Multiple Interrogator Dense		
GPIO	Digital Input /Output Port 4 – optically coupled inputs, 25V max. Controllable input reference 4 – open-collector outputs, 3-40V, 100mA max, 1W max		
RF Power	+31.5 dBm, conducted		
Regulatory	Compliant to RoHS, ETSI EN 301 489, ETSI EN 302 208 and IEC 60950		
Mounting	Floor Mountable		
Enclosure	Electro plated Metallic Finish MS		
Transmitting Power	5dBm to 23dBm Configurable		
Visual Indicators	Red Indicator, Green Indicator (Can be controlled by Application Software)		
Audio Indicator	Internal Piezo Siren, Audible up to 20 meters.		
Read range	1.5 - 2 meters, distance b/w 2 pedestals		
Read Rate	Over 100 Tags/Sec		

5. Kiosk - Self Check Out/In Station

Description	Specification	Compliance (Y/N)	Remarks
Inbuilt Reader	Reader EPC Gen 2, ISO 18000-6C with AntiCollision Support. Can read upto 10 books at a time		
Operating frequency	UHF (865-867 MHz), as per Indian WPC approved RFID band		
Dimension	600 mm * 600 mm * 1500 mm		
Printer	Thermal Printer with Auto Cutter, 80 mm paper width.		
Host Data Interface	Ethernet 10/100/1000 Mbps, IEEE 802.11b/g		
Enclosure	Steel		
RF Antenna	Internal		
Display	18.5" Touch screen 1366 x 768		
Cache Memory:	1 MB		
Processor Name:	Atom Dual Core		
Chipset:	Intel NM10 Express Chipset		
Processor Brand:	Intel		
Processor Frequency:	1.8 GHz		
Operating System:	Windows		
Processor Model:	D525		
System Memory:	2 GB DDR		
Integrated Graphic Processor:	Intel Onboard Graphics		
Storage	250 GB SATA		
Kiosk Application	Front end software application for issue/renew/return of books to be integrated with LMS for tagging, monitoring, sorting etc		
Reading Distance	Reads Tags kept on Tray up to 60 cm		
Read Rate	Over 100 Tags/Sec		

6. Shelf Management Reader or Portable Handheld Reader

Description	Specification	Compliance (Y/N)	Remarks
Protocol	EPC Gen 2, ISO 18000-6C with Anti Collision Support		
Operating frequency	UHF (865-867 Mhz), as per Indian WPC approved RFID Band		
Dimension	186.5*75*48 mm		
Weight	< 500 g (with battery)		
Antenna	Integrated antenna, min. 3 dbi		
Battery	rechargeable li-ion polymer battery (3.7 V/4,000 mAh)		
Host interface	WLAN 802.11 b/g, USB 2.0;		
Read range	50cm - 75 cm for books		
Read rate	Over 1000 Tags/Minute		
Power:	+10dBm ~ +30dBm		
Processor	Samsung ARM920T@533 MHz		
Operating System	Microsoft Windows CE 6.0		
Display	3.2" QVGA backlight TFT-LCD, 65 K glass analog resistive touch		
Input Method	Touch input and keyboard input		
Display Resolution	320 x 240 pixels (QVGA)		
Keypad	Numeric, full alphanumeric		
Memory	128 MB RAM/1 GB Flash		
Operating Temp.	-20 °C to +60 °C		
Storage Temp.	-20 °C to +60 °C		
Charging Temperature	0 °C to +40 °C		
Laser source-1 D Barcode	GS1 Data Bar		
Standard Accessories	battery, charger/adapter, data cables, stylus, hand strap, 2G micro SD (TF) card, protective film with Cradle for charging		
Rugged	1.5-meter drop test on six sides (concrete floor, under operating temperature range)		

7. Book Drop Box

Description	Specification	Compliance (Y/N)	Remarks
Compliance	EPC Gen 2, ISO 18000-6C with Anti Collision Support		
Operating frequency	UHF (865-867 Mhz), as per Indian standards		
Dimension	700 mm * 1250 mm * 1550 mm (approximate)		
Read Rate	Approx 100 Tags/sec		
Host Data Interface	Ethernet, Ethernet 10/100/1000 Base T, TCP, IEEE 802.11b/g		
Enclosure	Metallic finish silver grey MS enclosure		
Application	Front end software application for issue/renew/return/ book receipt post user authentication integrated with existing LMS		
Operating Temp.	-20 °C to +60 °C		
Storage Temp.	-20 °C to +60 °C		
Charging Temperature	0 °C to +40 °C		
Book Bin	Receiving cart & Internal bin to hold upto 120 books at a time		
Display	18.5" Touch screen 1366 x 768 Pixel		
Cache Memory:	1 MB		
Processor Name:	Atom Dual Core		
Chipset:	Intel NM10 Express Chipset		
Processor Brand:	Intel		
Processor Frequency:	1.8 GHz		
Operating System:	Windows		
Processor Model:	D525		
System Memory:	2 GB DDR		
Integrated Graphic Processor:	Intel Onboard Graphics		
Storage	250 GB SATA		

8. **Middleware Software**

Description	Specification	Compliance(Y/N)	Remarks
1) The integrated Software should be able to perform the following necessary actions when deployed on various equipment Kiosk, DropBox, HH reader, Desktop Station and Gate Monitoring system. It should be integrated with existing LMS.	(i) Tagging, Retagging and Untagging of the books using current barcode/manual. (ii) Check out, check in, and renewal of multiple books/CD's/loose issues/journals on desktop, kiosk and drop box (iii) Monitoring information on tag. (iv) Locating a book(HH) (v) Sorting a book. (vi) Stock Verification.(HH), Searching a book(HH) 2) The software should be able to generate tagging, check out, check in, renewal stock verification reports with the help of existing LMS etc. 3) Gate Monitoring system to give details of all books that are being moved out of library on daily basis. 4) The software shall be compatible with Windows 5) The software should have inbuilt keyboard functionality for kiosk and drop box.		