Maharshi Dayanand University, Rohtak

[Established in Act No. 25 of 1975 of the Haryana Legislative Assembly in 1976]

Tender Notice

Advertisement No PR-02 of 2014

Sealed Tenders superscribed as sSupply and Installation of the Wireless Equipment etc. are invited from the OEM/distributor duly authorized for this deal by OEM for the supply, installation and maintenance of the Wireless Equipment etc upto 07/02/2014(upto 1.30 PM). The tenders will be openend in the University Computer Centre on 07-02-2014 at 3.00 PM. Technical Specification alongwith DD of Rs 4000/- as processing fee and financial bid with earnest money @ 2% of the cost estimated by the bidder should be sealed seprately in covering enevelop . Both the DD's should be drawn in favour of the Finance Officer, M.D.University, Rohtak , For Details and downloading of tender Document may visit University website www.mdurohtak.ac.in

Registrar

MAHARSHI DAYANAND UNIVERSITY

Rohtak-124001 [Haryana]

Phone 01262-393597

TENDER INVITATION

For

Supply and Installation of the Wireless Equipment etc.

**Tender Processing Charges = Rs.
4000.00**

**Last Date of submission of Bids to the 7.02.2014 up to 3:00 PM.
M.D. University, Rohtak.**

**Opening of Technical Bids : 7.02.2014 at
3:30 PM.**

MAHARSHI DAYANAND UNIVERSITY, ROHTAK

<u>TENDER NOTICE</u>

1. The tender, complete in all respects, must reach the **Supdt. Incharge, Purchases & Stores, M.D. University, Rohtak- 124001 (Haryana)** under sealed cover by the specified date and time. The bidders or their authorized representative will be allowed at their own costs to be present at the time of opening of quotation.

2. The tender received after due date and time, without tender fee or EMD or incomplete in any other respect <u>or technically not qualifying tender</u> shall be liable to be rejected.

3. Tender document can be downloaded from the University website http://www.mdurohtak.ac.in. The copy of the tender document, duly attested by the bidder, must be attached with the bid.

4. The tender must be submitted along with the demand draft of Rs. 4000/- as tender processing fee. The bank draft should be drawn **in favour of the Finance Officer, M.D. University, Rohtak, payable at Rohtak. Bank Draft payable at any other place shall not be accepted.**

5. The security / earnest money equivalent to 2% (two percent) of the total value of the bid, in the shape of Demand Draft drawn in favour of the Finance Officer, M.D. University, Rohtak, is mandatory and must accompany the bid failing which the bid will b e rejected. The security / earnest money in other shapes will not be accepted. Earnest money of the unsuccessful bidders will b e returned as soon as the deal is finalized.

6. Technical bid and financial bit should be in separate sealed envelopes. EMD amount draft should be in the financial bid but the processing fee draft should be in outer envelope or the envelope containing technical bid. All envelopes must be in an outer sealed envelope.

7. Bidders are neither allowed to join hands to participate in the tender nor allowed to submit multiple bids. In case found otherwise, their bid is liable to be rejected.

8. A bidder is required to propose a single integrated Wi-Fi/P2P-P2MP Solution from a reputed OEM.

9. Wireless infrastructure should be conforming to IEEE 802.11n

10. The proposed System should be fully secured to avoid hacking, data leakage, unauthorized access, proper tracking of user accessibility as per Indian IT regulations

11. The vendor should provide names and references of at least two sites (Minimum 100 Access Point per site) where they have installed and implemented managed Wireless Network in the last two years.

12. The agency should have been in operation for a period of at least 3 years as on 30.9.2013, as evidenced by any certificate/document issued by the Govt./Statutory body to be attached.

13. The agency must have at least 10 (ten) network and wireless professionals on its rolls as on date.

14. The tender must be valid for a period of at least three months from the date of its opening.

15. All costs / charges must be quantified and spelt out in clear terms. Non-quantified costs/charges shall not be considered and paid.

16. The University stands registered with the Department of Scientific and Industrial Research for availing exemption from Custom Duty and Central Excise Duty. The necessary documents will be provided by the University. Octroi, if any, shall be paid by the bidder. The rates may be quoted keeping these facts in view.

17. The delivery of the material shall be FOR University Main Store, M.D. University, Rohtak.

18. The successful bidder shall deposit performance guarantee equal to 10% of total cost of the goods/equipment in the form of Bank Guarantee/FDR for the duration of the warranty period + 45 days. EMD amount will be returned as soon as the bid is finalized.

19. Earnest Money shall be forfeited if the supplier backs out after the placement of order. The bidder can also be proceeded against for other actions such as blacklisting, recovery of loss, etc.

20. No advance payment will be made.

21. The successful bidder will supply, configure and install all the equipment within 45 days from the date of letter of intent/order. If delay is caused by the circumstances beyond the control of the successful bidder, the successful bidder may request the Purchase Committee for extension of date which may or may not be granted. The Purchase Committee may impose a penalty @ 1% (one per cent) per day subject to a maximum of 10% (ten percent) in all of the cost of the bid for the delay.

22. The payment terms shall be as under :

    a. The Supplier shall raise the invoice after the supply of material and satisfactory installation. The University shall make the payment within 30 days from the date of submission of invoice, if the invoice(s) is/are found in order and inspection report found satisfactory.

    b. Service Tax and any other statutory tax / cess / levy shall be deducted at source as per Rules prevalent at the time, and deposited with the quarter concerned.

    c. Costs/charges not mentioned in the quotation/tender shall not be paid.

d. Bank charges, if any, shall be borne by the supplier.

23. The bidders must append the following documents with the bid:

    a. Copies of PAN / TAN.

    b. Copies of Sales Tax Number along with latest Sale Tax clearance certificate.

    c. Copy of Service Tax Number

    d. List of clients along with complete addresses and telephone numbers.

24. Quantity of items/equipment, as given as **Annexure I,** can be increased or decreased or even deleted.

25. The equipment, which are not found according to specifications, and are thus not accepted, shall be lifted back by the successful bidder at their own cost/risk.

26. Damage to goods or any other loss due to accident etc. during transit shall be the responsibility of the supplier.

27. Goods shall be accepted subject to satisfactory installation/assembly report of the Inspection Committee / Committee of Experts.

28. During evaluation of the tender, the Purchase Committee may, at its discretion, ask the bidder for clarification of bids. The request for clarification and the response shall be in writing, but no change in prices or substance of the tender shall be sought, offered or permitted.

29. Only OEM or their dealers authorized for this bid are permitted to participate in the bid. The bidders shall append the Certificate of Authorization in original issued by the OEM for participation in this bid failing which the bid will be rejected.

30. The authorized bidder must have a minimum annual turn over of Rs. 5.00 crores failing which the bid will be rejected. Proof of turn over may be appended with the bid.

31. The bidder must file rates for all the items. Partial bids are liable to be rejected.

32. The bidders must quote rates and other terms and conditions for all the equipment/items failing which tender will be rejected. Total cost of the bid will be one of the important deciding factor while deciding the bid in favour or against any bidder.

33. The Purchase Committee constituted for the purpose reserves the right to accept or reject any or all the bids or negotiate on any of the tender conditions/ items and to annul the bidding process and reject all the bids at any time prior to placement of order without assigning any reason thereto and without any obligation to inform the affected bidders.

34. The bidder shall append a certificate with the bid that the firm and OEM has not been debarred/ blacklisted for any reason for any period by any Central/ State Govt. Dept./ University/ PSU etc. during last 5 years. If so, particulars of the same

may be furnished. Concealment of facts shall not only lead to cancellation of the bid/order, but may also warrant legal action.

35. The dispute, if any, shall be subject to the jurisdiction of Courts at Rohtak. Any other jurisdiction mentioned in the bid or invoices or any other document shall have no legal sanctity.

36. Terms and conditions printed on bid of the firm, if any, shall not be binding on the university, except those mentioned specifically on the order, and acceptance of the order shall be construed as the firm's complete agreement to all the terms and conditions contained in the order and the tender notice.

37. The bidder will provide 05-year on-site warranty on all the equipment, and will also specify the post warranty comprehensive annual maintenance rates for another two years failing which bid will be liable to be rejected.

38. Installation and pre- and post-configuration of the equipment shall be the responsibility of the successful bidder/firm.

39. The successful bidder will provide sufficient training (with certification) to 3 persons for Management & control of the WiFi Network & NMS free of cost.

40. One network engineer/assistant should be posted on site for a duration of warranty /AMC by the firm for Facility management/onsite warranty & Maintenance

41. The technical bid will be evaluated on the basis of the following information to be supplied by the bidder:

    (i)   Submission of tender in time;
    (ii)   Tender fee appended or not;
    (iii)   Technical specifications of items;
    (iv)   Certificate of not being debarred/blacklisted/credentials of suppliers;
    (v)   Proof of annual turnover in the form of audited balance sheet;
    (vi)   Proof of implementation of three similar projects at the premises of customers with phone numbers;
    (vii)   Copy of PAN/TAN;
    (viii)   Copy of Sales Tax Number along with latest Sale Tax clearance certificate;
    (ix)   Copy of Service Tax Number and
    (x)   Authorization of OEM for the bid.

33. Please read the above terms and conditions and other information carefully before filing the bid. In case, any clarification/ other information are required, the undersigned may be contacted at Telephone No. 01262-393594/393596 on any working day (Monday to Friday) during office hours (9 a.m. to 5.00 p.m.).

Registrar

Bill of Material (BoM) for the MDU Campus Coverage:

Description	Qnty
Indoor Access Point (Medium density)	330
Outdoor Access Point (Medium density)	40
Wireless controller: Shall control 500 Access Points from day one but expandable upto 1000 Ap's	1 if required*
Mounting kits	380
FortiAnalyzer 1000D	1
Resident Engineer (8x5) for Wireless network	1

*University is having FortiGate UTM 3040B which has inbuilt WiFi controller. The proposed solution can use that controller.

This solution is a tentative estimate and has Wi-Fi deployment BoM to cover Hostels, Lecture halls/Classrooms (High density), Academic block, Residential, Library, Canteen, etc. and other key areas where Wi-Fi coverage is required.

Controller Specification for Controller supporting up to 1000 Access Points

Wireless Controller --University Already have Wireless Controller, if that can't be used Bidder need to bid new Wireless controller with below specifications

	Specification	Compliance (Yes/No)
General	Should be Rack Mountable appliance	
	Should include security features available within the controller or externally which shall operate both in "bridge mode" or "transparent mode" apart from the standard NAT mode.	
	Appliance provided must have dual redundant internal power supply	
	The controller should be web managable.	
Wireless Controller	Wireless controller shall controll 500 Access Points from day one but expandable upto 1000 Ap's	
	The appliance should support IEEE 802.11a/b/g/n standards-based wireless Access Points	
	Supports strong Authentication and Encryption Standards Include Open/ WEP64/ WEP128/ Shared, Guest Captive Portal, WPA /WPA2 802.11i Preshared key,WPA / WPA2 802.11i with Radius support	
	The wireless controller support the following types of client load balancing:	
	a)Access Point Hand-off - the wireless controller signals a client to switch to another access point.	
	b)Frequency Hand-off - the wireless controller monitors the usage of 2.4GHz and 5GHz bands, and signals clients to switch to the lesser-used frequency automatically	
	Support Fast Roaming (IEEE 802.11r) or equivalent. This includes Seamless rapid mobility across VLAN and subnets Includes 802.11i pre-auth and fast roaming	
	Support fast roaming across L2, and L3 for video, audio and voice over wireless client	
	Allow IP connectivity between the Controller and the APs for external VLAN routing where the Controller and the APs are on different VLANs	
	The wireless controller should include the following features.	
	1. Wireless guest management	
	2. Captive portal with capability to capture login credentials or identity	
	3. Wireless Mesh, Bridging Features	
	4. BYOD (Bring Your Own Device) Support	
	5. User and application control	
	6. Encrypted Remote Access point support	
	8. Traffic Rate shaping	

	BYOD should be having below features (separate appliance must be quote if wireless controller doesn't have this feature)	
	Detect client device Mac address, device type(such as windows device, Android device, Iphone, Ipad, blackberry, etc) and host name	
	controller should be able to allow or deny traffic based on device type (such as windows device, Android device, Iphone, Ipad, blackberry, etc)	
	Controller should be able controll the bandwidith based on device type(such as windows device, Android device, Iphone, Ipad, blackberry, etc)	
	The wireless Controller should support the following RF Management features	
	a) Having Automatic Channel Allocation	
	b) Having Automatic Power Control	
	c) Supporting Neighbourhood scanning of RF environment to minimise neighbouring AP interference and leakage across floors.	
	d) Having Coverage Hole Detection	
	e) Providing alerts when APs are down or compromised RF environment is detected	
	f) Having Self healing - Automatic neighbouring AP power increase to fill in for coverage losses	
	Support 802.11i/WPA/WPA2 Enterprise with standard interface to external AAA/RADIUS Server	
	Support Different AAA Server per SSID	
	Support IEEE 802.11e Media Access Control (MAC) Protocol, Wi-Fi Multimedia (WMM) and Traffic Specification (TSPEC).	
	Restrict ingress traffic to the wired network - should also allow restriction of bandwidth per user, device, SSID	
	Prioritise all traffic by a minimum of four categories (highest to low voice, video, best effort and background	
	The wireless Controller should support Rogue AP detection and Blocking	
	It should be able to detect the 3rd party wireless enabled Mobile devices with Hot spot programs and able to prevent the users from connecting those mobile devices	
	Wireless Controller should able to Block Intra SSID traffic	
	It should Include Wireless Guest Access Provisioning for Allowing non-IT staff to create Guest account,Assign Time quota, generate temp password, print, email or SMS the information to the Guest user	

	The wireless Controller should able to detect the following Wireless Intrusion Attacks such as Unauthorized Device Detection, Rogue/Interfering AP Detection, Ad-hoc Network Detection and Containment, Wireless Bridge Detection, Misconfigured AP Detection, Weak WEP Detection	
Additional Security & Features	The OS on the wireless controller or the external security device should be "IPv6 Phase II Ready" certified	
	Basic Firewall feature to prevent and block unneccsary traffic between various SSID's	
Interface and Connectivity	The Wireless controller should support two or more gigabit copper interfaces with auto sensing 10/100/1000 capability. If external security device having firewall, Gateway Anti-Virus, DLP, etc., with storage for logs is provided, then it shall have minimum 6 x 10/100/1000BaseT network interfaces.	
	Should have 1 console port	
	Should support VLAN tagging (IEEE 802.1q)	
Authentication	Should have authentication for Users/Admins (Local and Remote – RADIUS, LDAP & TACACS+)	
	Support for RSA SecureID or other Token based Products	
	Support for Native Windows Active Directory and Novell eDirectory Integration	
	Should support PKI / Digital Certificate based two-factor Authentication for all type of users	
Reporting	The Contrroller should be able to provide all reports.	

FortiAnalyzer 1000D

GB/Day of Log	25
Average Retention at 5 GB Logs/Day	2 years
Maximum Log Rate (Standalone Mode)	1,000
Devices/ADOMs/VDOMs Supported (Max)	2,000
Total Network Interfaces	6 x 10/100/1000 RJ45 Ports, 2 x SFP Ports (Fully Loaded)
Total Storage Capacity	8TB (4x 2TB)

TYPE-A: 802.11a/b/g/n - For Medium User Density Indoor Environment

Features	Specification	Compliance (Yes/No)
Architecture	The Access Point should should support IEEE 802.11a/b/g/n standards	
	Should have the dual radio option and should be able to support devices on 2.4GHz and 5 GHz simultaneously.	
	Should have at least 4 Internal or external Antennas	
	Should have 1 x 10/100/1000 Interface	
	Should support Power over Ethernet (PoE) 802.3af	
	Support 2x2 MIMO dual stream or better	
	The access Point should support aggregate throughput of minimum 450 Mbps Bandwidth	
Mobility	Should support L2 and L3 wireless controller discovery	
	Should support auto-selection of RF channel and transmit power	
	Should support Simultaneous AP and dedicated air monitor or concurrent 2.4Ghz and 5Ghz AP with background scan	
	WME Multimedia Extensions support 4 priority queues for voice, video, data and background traffic	
	Certified by the Wi-Fi Alliance's Wi-Fi Multimedia™ certification program	
	Should support 16 Simultaneous SSIDs	
	Support EAP-TLS EAP-TTLS/MSCHAPv2 EAPv0/EAP-MSCHAPv2 PEAPv1/EAP-GTC EAP-SIM EAP-AKA EAP-FAST	
	support self-healing, self-optimizing local mesh extending network availability to areas without an Ethernet infrastructure	
	Should support 802.11n tx Beam-Forming	
	Should support atleast 17dBm Transmission Power	
	Should have integrated / 3rd party locking mechanism (such as Kensington lock feature) – Cost to be included	
Management	Should be centrally managed through the wireless controller	
	Should support DNS based Controller discovery, DHCP Based Controller discovery	
	Should support web-based secured management interface	
	Command line CLI	
	Support Wall or Ceiling mounting option	
Environment	Operating Temperature - 32 – 104 ˚F (0 – 40 ˚C)	
Environment	Should include the necessary mounting kits	
Environment	Low Voltage Directive , RoHS complaint	
	Should include the necessary mounting kits	

TYPE-C: 802.11a/b/g/n - For Medium User Density Outdoor Environment

Features	Specification	Compliance (Yes/No)
Architecture	The Access Point should should support IEEE 802.11a/b/g/n standards	
	Should have the dual radio option. Frequency of one radio must 5 GHz a/n and other one should be at 2.4 GHz a/n	
	Should have 4 nos. external Antennas for better coverage with a gain of approx. 5 (2.4 GHz) to 7dBi (5GHz)	
	Should have 1 x 10/100/1000 Interface or more	
	Should support Power over Ethernet (PoE) 802.3at (30W), more power required for Point to point architecture	
	Support 2x2 MIMO dual stream or better	
	The access Point should support aggregate throughput of minimum 450 Mbps Bandwidth	
	External Access point must support Point to point and multihop Mesh	
Mobility	Should support L2 and L3 wireless controller discovery	
	Should support auto-selection of RF channel and transmit power	
	Should support Simultaneous AP and dedicated air monitor or concurrent 2.4Ghz and 5Ghz AP with background scan	
	WME Multimedia Extensions support 4 priority queues for voice, video, data and background traffic	
	Certified by the Wi-Fi Alliance's Wi-Fi Multimedia™ certification program	
	Should support 16 Simultaneous SSIDs	
	Support EAP-TLS EAP-TTLS/MSCHAPv2 EAPv0/EAP-MSCHAPv2 PEAPv1/EAP-GTC EAP-SIM EAP-AKA EAP-FAST	
	support self-healing, self-optimizing local mesh extending network availability to areas without an Ethernet infrastructure	
	Should support 802.11n tx Beam-Forming	
	Should support high Transmission power in excess of 25dBm Transmission Power	
	Should have locking mechanism (such as concrete or pole mount)	
Management	Should be centrally managed through the wireless controller	
	Should support DNS based Controller discovery, DHCP Based Controller discovery	
	Should support web-based secured management interface	
	Command line CLI	
	Support Wall or Ceiling mounting option	
Environment	External Access point must be rugged and must support extreme Temperature - -4 to 140 ˚F (-20 to 60 ˚C)	
Environment	Humidity shouldn't affect external AP working	
	Should include the necessary mounting kits	
	Low Voltage Directive , RoHS complaint	