TENDER FOR WI-FI ACCESS POINTS
FOR PERMANENT CAMPUS OF THE INSTITUTE AT
OKHLA, PHASE-III NEW DELHI-110020

(Tender no. IIITD/S&P/09/2013-14)
NOTICE

Indraprastha Institute of Information Technology Delhi (IIITD), a State University created by an Act of the Govt. of NCT of Delhi having its permanent campus at Okhla Phase-III New Delhi-110020, invites sealed bids under Two Bids System (Technical & Financial Bids) for supply of Wi-Fi Access Points as per requirement stated below:

Requirement

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Product Name</th>
<th>Quantity (Nos.)</th>
</tr>
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<tr>
<td>1</td>
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The document containing terms and conditions can be downloaded from the Institute's website http://www.iiitd.ac.in/tenders. Hard copy of the document along with non-refundable tender fee of Rs.1,000/- (Rupees One Thousand Only) in the form of demand draft in favor of “Indraprastha Institute of Information Technology Delhi” payable at Delhi must reach IIITD Okhla Phase-III New Delhi-110020 by registered post / speed post only.

The last date for submission of tender is 25.11.2013 by 3:00 PM. The Tenders will be opened on the same day at 3:30 PM in the presence of present bidders. Tenders received after last date of submission will not be considered. The tender document should be addressed to:-

Assistant Manager (S&P)
Indraprastha Institute of Information Technology Delhi,
Okhla phase III,
(Near Govind Puri Metro Station),
New Delhi – 110020.

Guidelines on Bid submission:

1. All bids to be submitted in two envelopes in separate covers.
   i) Technical Bid: - “Envelope-A” should be super scribed with Tender No., title of the tender i.e. “Tender for Wi-Fi Access Points for IIITD” and word “TECHNICAL BID” along with earnest money (prescribed hereinafter).
   ii) Financial Bid: - “Envelope-B” should be super scribed with Tender No., title of the tender i.e. “Tender for Access Points for IIITD ”and word “FINANCIAL BID” containing rate quoted by the party duly signed by authorized representative.

2. These two bids to be placed in separately large envelope super scribed with Tender No. and title of the tender i.e. “Tender for Access Points for IIITD”.

Assistant Manager (S&P)
Indraprastha Institute of Information Technology Delhi,
Okhla phase III,
(Near Govind Puri Metro Station),
New Delhi – 110020.
3. **Earnest Money Deposit:** Rs.15,000/- (Rupees Fifteen Thousand) only by way of demand draft in favor of Indraprastha Institute of Information Technology payable at Delhi, to be submitted along with Technical Bid in Envelope-A. Envelope-A not containing earnest money shall be rejected and Financial Bid shall not be considered further.

4. **Security Deposit:** 10% of the total bill value shall be retained as Security Deposit during performance warranty period which is one year. Same shall be released after expiry of warranty period if no outstanding complaint is on record on performance of the system. Penalty against non-performance shall be realized from the security deposit.

**Terms and Conditions:**

- The Financial bid should be valid for a period of not less than 30 days from the date of opening of bid.
- The items are to be supplied within a period of 2 weeks from the date of issue of purchase order by the Institute.
- Bids will be opened in the presence of bidder’s representatives, who chose to attend on the specified date and time. Only one representative shall be allowed to attend.
- Sealed bid can be sent either by post or by messenger. The responsibility of delivery of bid lies entirely with the bidder.
- Payment will be released after successful commissioning as certified by officer in charge of the Institute.
- In the event of dispute, Director, IIIT- Delhi shall be the sole arbitrator and his decision shall be final and binding on both the parties.
- IIIT- Delhi does not bind itself to accept the lowest or any other offer and reserves the right to accept or reject any or all the offers either in full or in part without assigning any reason.
- In case the vendor is not able to execute the order, EMD amount of Rs. 15,000/- (Rupee Fifteen Thousand only) shall be forfeited.
- Standard LD clause for delay in supply/completion of job @ 2% per week subject to max 10% will be applicable.
- Receipt of material is subject to inspection.

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**TECHNICAL PART (ENVELOPE - A)**

The technical specifications are covered in two parts namely:-

1. **Wi-Fi Access Point**
2. **Wi-Fi Access Point Controller with 30 Licenses**

Details of each are as given below. Bidder should ensure that the equipments he bides should meet all necessary features as mentioned below:-

1. **Wi-Fi Access Point**
   1. Dual Band and Dual Radio, controller based 802.11 a/g/n AP
   2. Standards support –
      a. IEEE 802.11n
      b. 802.11g
      c. 802.11b
d. 802.1X (secure authentication)
e. 802.1Q (VLAN)
f. 802.11i (WPA2 security)
g. 802.11e (Wireless QoS)
h. IPv4 (RFC 791)
i. IPv6 (RFC 2460)

3. Ports PoE Gigabit Ethernet

4. Cabling type Category 6 or better

5. Antennas Integrated internal antennas optimized for wall, ceiling, or desktop placement.

6. Power 802.3af PoE and support for 12V DC Adapter (No adapter is required to be supplied)

7. Lock slot Slot for Kensington lock

8. Network Capabilities VLAN support, Number of VLANs (1 management VLAN plus a minimum of 8 VLANs for Service Set ID (SSID))

9. Multiple SSIDs Up to Eight BSSID per Radio; total of 16 SSIDs 802.1x supplicant, SSID to VLAN mapping, Auto channel Selection, Spanning tree, Load balancing

10. IPv6 IPv6 host support

11. Authentication RADIUS, Syslog, Network Time Protocol (NTP), etc. and Logging

12. Data Rates Up to 300 Mbps (MCS 0-15) with automatic rate adaptation.

13. Modulation Type DSSS, OFDM

14. Dynamic Channel DFS and DFS2

15. Security WPA/WPA2 (802.11i) with TKIP or AES-CCMP encryption and PSK or 802.1x authentication

16. WIPS Integrated WIPS background scanning and Rogue AP detection / prevention. Wi-Fi presence monitoring and analytics. Ability in APs to do packet capture on all channels
### 17. 802.11n Support

| 2x2 multiple-input multiple-output (MIMO) with two spatial streams, 20 and 40 MHz channels, PHY data rates up to 300 Mbps, 802.11 dynamic frequency selection |

### 18. Data Rates Supported

| IEEE 802.11a: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps |
| IEEE 802.11g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54 Mbps |
| IEEE 802.11n data rates (2.4 GHz and 5 GHz): up to 300 Mbps. |

### 19. Channels

| 20 MHz and/or 40 MHz |

### 20. Frequency Bands

| IEEE 802.11n: 2.4 – 2.484 GHz and 5.15 - 5.875GHz |
| IEEE 802.11a: 5.15 – 5.85 GHz |
| IEEE 802.11b: 2.4 – 2.484 GHz |
| IEEE 802.11g: 2.4 – 2.484 GHz |

### 21. RF Output Power

| Maximum 23 dBm for both 2.4 GHz and 5GHz; Country specific Power settings should be configurable |

### 22. Statistics

| LAN, wireless, and associated stations |

### 23. Auto AP Software Updates

| Through Controller or FTP or TFTP |

### 24. Rate Limiting

| Supported per SSID |

### 25. Mounting Kit

| Supply of Mounting Kit is necessary for all Access Points |

### 26. Secured Lock

| Kensington lock has to be supplied with each AP |

### 27. Warranty

| Limited Life Time warranty |

### 1.2 Wi-Fi Access Point Controller with 30 Licenses

Access Point Controller can be either software based (which can be installed on a VM) or hardware appliance based. It should support the following features:

1. The WLAN Controller must have support for up to a minimum of 200 Access Points.
2. Appliance based controller must have Dual Gigabit Ethernet interface and Dual Power Supply
3. Configuration via Web User Interface or other Management Software
4. Must support Auto AP Software update
5. Support for Guest Access
6. VLAN Support 802.11q (per BSSID)
7. Embedded DHCP Server
8. AP Discovery & Control on Layer 2 or Layer 3

9. Support for up to 16 SSID
10. Wireless Security WEP, WPA-TKIP, WPA2-AES, 802.11i
11. Authentication support through 802.1x, Local Database, External AAA Servers - Active Directory, RADIUS server
12. Support for 802.11e
13. Support for per client, per traffic type software queues
14. Auto Classification based on Heuristics/Rules
15. Support for Rate Limiting
16. Should support SNMP traps
17. Should support comprehensive reporting like Rogue AP/Client list, currently Associated Clients devices with IP address, mac address etc.
18. Should allow export of configurations and Reports in text, pdf or equivalent formats

**FINANCIAL PART (ENVELOPE - B)**

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**Total**

We accept that the rate quoted above shall remain valid for a period of 30 days from the date of mentioned below. The items shall be supplied within a period of two weeks from the date of placing purchase order on us.

(Signature of Authorized Representative with seal of the Company)

Date: