Indiana University

Request For Proposal
(RFP)

Enterprise Wireless Architecture

November 18, 2002
PREAMBLE

Indiana University (IU) founded in 1820, is a public educational institution. The Indiana University system includes eight campuses with core campuses located in Bloomington and Indianapolis; other campuses are located in Gary, South Bend, Columbus, Kokomo, Richmond and New Albany. IU is a State supported institution that enjoys a total student population in excess of 97,000 supported by a staff and faculty of over 16,000 personnel.

Additional information on Indiana University may be seen at: http://www.indiana.edu

Our University Information Technology Services department (UITS) is charged with the mission of creating, implementing and maintaining a networking infrastructure to support scholarship throughout the University system. UITS manages this environment to facilitate the highest quality computing, voice and data infrastructure for research, teaching, learning and those administrative functions supporting the academic mission. Further efforts enhance the University's other missions of providing access to higher education for all citizens of the State of Indiana and to augmenting the economic development of Indiana.

1.0 SECTION A: RESPONSE GUIDELINES and PROCEDURES

1.1 The University will not enter into any contract or affix signatures to any document, the terms of which require the University to waive conditions or requirements negotiated via this solicitation process, provided for in this document, our purchase order, or by mutual consent. Any document containing a clause or clauses that purport to supersede all other documents included in, or arising from this solicitation process will be rejected.

1.2 If you wish your contractual document(s), in whole or in part, to comprise a portion of the final governing language of any agreement arising from this solicitation process, you should furnish such contractual documents(s) with your response. A legal review of your contractual demands in view of what is acceptable to the University as an entity of the State of Indiana shall be part of the criteria in evaluating your offer.

1.3 Notwithstanding any other provision of this RFP, the University expressly reserves the right to waive any irregularities; to reject any or all proposals in whole or in part; to select the proposal that in the sole opinion of the University best meets the University's interests; or reissue a request for proposals. The University also reserves the right to negotiate with potential bidders so that its best interests are served. Proposals will be evaluated on the assumption that the proposed costs/revenues are your most favorable.

1.4 Incorporation of Appendices: Terms and conditions for conducting business transactions with the University are listed in Appendix A, B and C of this RFP. These Appendices, and their stated provisions are hereby included complete and full in this RFP.
1.5 Your response to this RFP constitutes an offer to do business with Indiana University under (at a minimum) the terms, conditions and pricing collectively gathered by this solicitation process. In the event a contract is awarded, the University, at its option, may incorporate all or parts of your response in that contract. Any or all answers and information contained within your proposal shall become part of the final agreement between you and the University.

1.6 All proposals or offers must be signed by a duly appointed officer or agent of your company.

1.7 No part of your offer or proposal can be guaranteed proprietary or confidential. As required by the Indiana Open Records law, I.C. 5-14-et seq., submittals may become public information once a contract has been completed.

1.8 Proposals responding to this Request shall not be tied to any potential or future arrangements.

1.9 Subcontracting: The vendor must document any intent to use another vendor(s) or private individual(s) as a subcontractor(s) for any part or whole of the services they offer in response to this RFP. Indiana University reserves the right to approve or reject any subcontracting agent or reject quotations based on the use of subcontracted work if not in the best interest of the University.

1.10 The University is exempt from payment of all state and federal taxes.

1.11 Issuing Office

Responses to this document must be returned on or before close of business, Monday, December 16, 2002

Responses must be sent to:

INDIANA UNIVERSITY
Attn: Patrick L. Smith, C.P.M.
Purchasing Department
Poplars Bldg, Room 403
400 East 7th Street
P. O. Box 4040
Bloomington, IN 47402
Phone: 812-855-5037 - Fax: 812-855-7839
E-mail: plsmith@indiana.edu

1.12 Responses sent via E-mail attachment are preferred. If your response can only be provided as a paper document, six (6) copies should be sent via mail. (do not send paper copies if electronic attachments are provided)

1.13 If you wish to have an electronic copy of this RFP document, send your request via e-mail to plsmith@indiana.edu.

1.14 Those responding to this document should advise the Purchasing Department immediately of any ambiguity, inconsistency or error, which they may discover upon examination of this RFP.
1.15 Facsimile or telephoned proposals will not be accepted.

1.16 All questions regarding RFP solicitation or university competitive procedures should be directed to the Purchasing Department.

1.17 You will not be compensated for expenses incurred in your proposal preparation.

1.18 Vendor proposals should be organized in the same sequence as this RFP and should respond directly to each specification item, requirement, or questions at the level of detail at which each is presented. In addition to point-by-point responses, you may include descriptive literature if you make reference to specific contents. In reviewing the proposals, University personnel will not search through general literature. Where a question is asked, answer the question and supply any supportive detail.

1.19 Where you are requested to supply information, include that information in the body of your response or note that it is comprised of an attachment to your response.

1.20 Failure to respond to all items in this RFP may result in the respondent's disqualification at the discretion of Indiana University.

1.21 While responses should address all RFP items, it is important to note that we also encourage and solicit, and will consider any creative ideas for improvements or cost savings related to this transaction that may not be noted in this document, due to our current critical budgeting process, funding levels, and financial conditions within the State of Indiana. Functional, technical, and economic solutions beyond the confines of this RFP may also be considered.

1.21.1 Any optional arrangements should be described and priced separately.

2.0 SECTION B: CALENDAR OF EVENTS

2.1 Solicitation Issued November 18, 2002

    Suppliers Proposals Due December 16, 2003
    (on or before this date)

    RFP Analysis December, 2003

3.0 SECTION C: PROJECT DESCRIPTION

3.1 Current Environment

3.1.1 Gross Physical Facilities

    a) IUPUI Campus
       - 513 acres with 96 buildings
    b) IUB Campus
       - 1,931 acres with 490 buildings
3.1.2 Existing Wireless infrastructure

Since 2000, the University has invested in wireless access points and associated for wireless connectivity to the university local area network. We have used Orinoco AP-500s and AP-1000s.

a) IUPUI Campus
   - Approx 80 wireless access points
b) IUB Campus
   - Approx. 200 wireless access points

3.1.3 Users are required to authenticate via a VPN server – one each at Bloomington and Indianapolis. By examining the log files of these servers, we’ve seen as many as 250 and 80 concurrent users, respectively.

3.2 The Problem

As the 802.11 Wireless Local Area Network standards become more viable, Indiana University wants to take advantage of the inherent mobility provided to laptop computer and personal data assistant (PDA) users. The Graduate Business School requires new students to have access to laptops, and there is discussion in other departments to do the same. In addition, as the cost of these devices continue to decrease, more and more students will require access to the wireless network. University Information Technology Services intends to stay in front of this demand by expanding the wireless infrastructure to many areas on the Bloomington and Indianapolis campuses.

Within the 802.11 standards, 802.11b has become the dominant transmission mechanism. Defined in 1999, it is described as the “Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications: Higher speed Physical Layer (PHY) extension in the 2.4 Ghz band”. To date, 802.11b’s closest competitor is 802.11a – “Wireless Medium Access Control (MAC) and physical layer (PHY) specifications: High Speed Physical Layer in the 5 GHz band”. 802.11b offers 11Mbps per channel transmission speeds, while 802.11a offers 54Mbps per channel. 802.11a has 8 non-overlapping frequency channels, while 802.11b only has three.

In general, one would prefer the option with higher bandwidth capability. Other issues quickly come into play, though. So far, 802.11a antenna coverage is not as broad as the lower frequency 802.11b standard. In addition, 802.11a antennas have only just come onto the market, whereas 802.11b equipment has been available and highly functional for well over two years. At this point in time, Indiana University has no indication that the 11Mbps offered by 802.11b is anything less than sufficient.

Lastly, a new standard is in final draft – 802.11g. 802.11g operates in the same frequency space (2.4 – 2.483GHz) as 802.11b, and offers 54Mbps. 802.11g, like 802.11b, only has three non-overlapping channels, versus the eight 802.11a has. It is quite possible, though, that the transition from 802.11b to 802.11g will be much less difficult or costly than a conversion to an 802.11a only solution.
3.3 The Objective

It is our objective to select and acquire the appropriate set of access points and access point management tools in order to substantially increase the coverage and manageability of our wireless infrastructure.

We are seeking short-term (Phase A) and long-term (Phase B and C) proposals from key platform providers for a single vendor enterprise level system for the wireless infrastructure at Indiana University campuses.

3.3.1 **Phase A** will extend through the fall of 2003, and includes indoor and outdoor communal areas, auditoriums, large classrooms, and conference rooms. Phase A is specifically geared toward our student population.

a. Recently a site survey on several buildings and outdoor areas at both campuses was completed. The areas surveyed included Phase A locations only. It was determined that approximately 30% of buildings will need coverage for Phase A.

3.3.2 **Phase B** will most likely commence prior to the end of Phase A and will include faculty and staff offices. We estimate completion of Phase B by May, 2004.

a. From the site survey on several buildings and outdoor areas at both campuses we estimate Phase B will cover another 30-35% of the campuses.

3.3.3 **Phase C** will cover most of the other areas not addressed in Phases A and B. We estimate completion of Phase C by January, 2005. This part of the project is of course is tempered by the progression or change in wireless technology.

a. From the site survey on several buildings and outdoor areas at both campuses we estimate Phase C will cover nearly the entire area of both campuses.

3.3.4 We feel Phase A can be handled using the 802.11b standard, but we will continue to closely analyze the progress of 802.11a capabilities and the 802.11g standard development over the next year.

3.3.5 Decisions concerning Phases B and C will be based on the best and smoothest possible transition to higher bandwidth capability at the time of these phases.

3.3.6 We understand fully that the 802.11a solution may be viable at this point with some vendors, but due to our current “all b” capability, we envision a migration to a “dual” capability, versus an “a only” capability, for example.
3.3.7 Our objective is to select a single suite of product from a single manufacturer that can interoperate with our current wireless infrastructure, and to the extent possible, without sacrificing any performance, flexibility, or availability. We desire a homogenous network and will evaluate an option that includes replacement of existing equipment, if necessary. The solution must allow for all types of 802.11b client cards.

3.3.8 The traffic usage patterns via the wireless network currently in place at the University are unknown. As such, we acknowledge that capacity configurations are our "best estimates", based on information available to us. Consequently, a proposal for an infrastructure that is flexible, expandable, and can be managed and changed with ease and efficiency will be key considerations.

3.3.9 Further to our objective and through this process, is to initiate a long-term relationship with the selected platform provider.

3.3.10 Your proposal should address additional resources necessary for a phased approach, culminating in complete coverage of both the Bloomington and Indianapolis campuses.

4.0 SECTION D. DESCRIPTION OF THE WIRELESS ARCHITECTURE:

The current technical architecture is comprised of Proxim’s Orinoco AP-500 and AP-1000 access point equipment. Nearly all use the built-in, omni-directional antennas (few, if any, add-on antennas are currently used). As mentioned earlier, on the Bloomington Campus, we have seen up to 250 concurrent users. On the Indianapolis Campus, up to 80 users. There is no information available for traffic patterns, connection up-time, physical location of users, etc. These access points are currently managed by software provided by the vendor, running on our network engineers’ desktops.

4.1 Concerns and Issues:

Provide your assessment on each of these issues:

4.1.1 Scalability and ease of continually adding access points is important. In particular, we require an efficient management platform that will assist us in terms of a large, campus-wide expansion of hundreds of access points.

4.1.2 We are also extremely interested in your opinion on the 802.11 standard migration path(s). We believe 802.11b will be suitable for Phase A, but will seriously consider functionality that allows us to migrate to a higher bandwidth capability via remote firmware upgrade.

4.1.3 Security of our network resources is paramount. We are very interested in the 802.1x standard and how it will enhance our network security. We envision using our current VPN solution for at least another year. In your response, provide input and suggestions on a smooth migration path to 802.1x, should it be necessary.
4.2 Current Platform Information:

4.2.1 Indiana University currently uses Proxim’s Orinoco access points. The Orinoco AP-500 and AP-1000 models interface to the local area network via 802.3 Ethernet 10/100 Base-T. Each operate over standard 100/240 VAC at 47-63 Hz and can be powered over Ethernet Cat 5 cabling.

Further capabilities include:

a) Orinoco AP-500
   - 802.11b compliant
   - Single integrated 802.11b compliant radio, with embedded PC card
   - Supports power over Ethernet
   - Protocol filtering

b) Orinoco AP-1000
   - Dual PC card slot architecture
   - Wireless-to-wireless bridging
   - As well as similar AP-500 functionality

c) All access points are managed by the Network Operations Centers at both IUB and IUPUI. Management is performed using Client Software.

4.3 For purposes of this solicitation for proposals, the University will only accept offers providing products manufactured by Proxim (Orinoco), Enterasys or Cisco Systems. Any other branded equipment suggested will not be accepted and the proposal will be disqualified.

5.0 SECTION E: VENDOR INFORMATION REQUIRED

5.1 Minimum of five customer references, along with contact names, phone numbers, addresses, installed sites, types of business and types of application.

   5.1.1 Our preference is to obtain references for similar environments to ours as addressed in the RFP. Preferably, your references should include higher-education accounts, using your proposed platforms.

5.2 If you do not sell the product direct, provide information on your distributors a authorized to sell and support your product and that are in a reasonable geographic proximity to the Indiana University system.

5.3 Information on formal business partnerships of a significant nature, including objectives of the partnership, specifically with laptop computer makers.
5.4 Information on Customers:

5.4.1 Specify the number of customer installations currently using your equipment and products.

5.4.2 Provide specific references of customers that are using equipment that and that are the same or similar to that being proposed in your response to this RFP.

5.5 Provide the names, locations, telephone numbers, and facsimile numbers of sales and support teams that would be assigned to IUB and IUPUI:

5.5.1 Sales/Marketing Representative for this account
5.5.2 District Sales/Marketing Manager for this account
5.5.3 System/Support engineer for this account
5.5.4 System/Support Engineering Manager for this account
5.5.5 Field/Customer Engineer for this account
5.5.6 Field/Customer Engineering Manager for this account

6.0 SECTION F: PRODUCT INFORMATION

6.1 Technology Features:

6.1.1 Describe your wireless technology. (Note – for this response, please separate 802.11b from 802.11a from 802.11g. If there is dual capability – 802.11a/b or 802.11a/b/g – include those as separate items).

6.1.2 Describe your wireless technology direction over the next three years.

6.1.3 Describe a typical campus-wide wireless architecture. Include in the discussion client cards and software, access points and how they attach to the wired infrastructure, management platforms, and wireless bridging capabilities.

a) **Wireless Bridging**: Envision a wireless bridge installed on an eight story building that has direct line of sight to ten separate buildings that are not connected to the campus wired LAN. With this type of scenario as an example, provide an in-depth discussion of the deployment of wireless technology in this fashion.

6.2 Performance:

6.2.1 Describe in detail the bandwidth capabilities of each of your access points. The discussion should include bandwidth capability at differing ranges in different environments, and receiver sensitivity for each bandwidth capability.

6.2.2 Describe nominal power settings as they pertain to 6.2.1

6.2.3 Describe, if available, variable power settings and how they pertain to 6.2.1. Be specific in terms of transceiver power.
6.2.4 Provide mean-time-before-failure (MTBF) information for the access points, and for access points with client cards.

6.2.5 Describe the reset process for access points in the event of failure. Can it be done remotely?

6.3 Scalability

6.3.1 Provide information on the scalability of your wireless products.
   a) In this case, feel free to combine discussion of 802.11a, b, and g.
   b) Include discussion of viability of 802.11a versus b, and the possible transitions from b to a, b to a/b, b to g, b to b/g.
   c) If possible, b to a/b/g).

6.3.2 Provide information on the hardware/firmware upgrade potential for each of the products.
   a) For firmware, can the upgrade be done remotely?
   b) If a hardware change is necessary, discuss in detail the components affected.

6.3.3 If remote upgrades are possible, discuss in detail the ability to upgrade to an 802.1x capability. Does the capability already exist?
   a) Discuss the upgrade to an AES capability. (Include discussions of memory capability of the access point).

6.3.4 Are any of your current products scheduled to be manufacture discontinued?

6.3.5 Discuss in detail the migration path of your client cards.

6.4 Connectivity

6.4.1 Describe the network connectivity options that are supported.

6.4.2 10Mbps Ethernet

6.4.3 100Mbps Ethernet, 100Base-T

6.4.4 Power over Ethernet

6.5 Hardware

6.5.1 Describe in detail your different wireless access points and client cards.
6.5.2 Provide a list of laptop computer vendors who build their computers with your internal cards.

a) Describe these internal cards.

b) Discussions for both 6.5.1 and 6.5.2 should include detailed information on antennas.

6.5.3 If the access point can carry two different cards/antennas, describe in detail the interoperability and functionality of the two card system.

a) Must they both use one standard (both b or both a)?

b) Will they be able to use 802.11a and b at the same time?

c) How will g change or enhance this capability, if applicable?

6.6 O/S, Firmware, and Software requirements

6.6.1 What are the operating system, firmware, and other product requirements for the access points, client cards and software?

a) Specify relevant release and version information for each.

6.6.2 Which firmware version numbers and other software requirements are supplied with your proposed products?

a) Which are optional?

6.6.3 Are there any known O/S related issues as they pertain to;

1) Clients associating with access points,

2) Client cards/software and interoperability with different O/S releases,

3) Client cards/software connecting to Virtual Private Networks? (Include detailed information for Microsoft Service Packs, if applicable).

6.7 Systems Management Tools

A chief concern is our ability to manage the wireless environment, especially as it continues to expand. We must have a management platform that allows the highest level of control possible. This will be a significant consideration in evaluating your proposal.

Address your proposal to each of the following components. Indicate, for each, whether the product is being provided as part of the system proposed or if it is an optional item. If the product is optional, clearly indicate in your pricing section, the optional one-time and on-going costs associated.
Indicate additional components if they are not listed.

6.7.1 Scheduling of Operations
6.7.2 Auto-Discovery
6.7.3 Group Configuration
6.7.4 Remote Firmware Upgrades
6.7.5 Performance Monitoring for Network and Device
6.7.6 Secure Management Access
6.7.7 Rogue Detection
6.7.8 Interoperability with other Vendor Products
6.7.9 View Clients Associated with the Access Point
6.7.10 Alarm Display
6.7.11 Alarm Traps and Remote Notification
6.7.12 VLAN Tagging

6.8 Manageability

A key interest is our ability to maintain and manage the environment with effectiveness and efficiency.

6.8.1 How are customers notified of emergency hardware/firmware/software fixes?

6.8.2 How are these emergency fixes distributed?

6.8.3 How are fixes, upgrades, and releases applied to maintain high availability?
   a) Can they be applied dynamically?
   b) Can they be applied as a group?
   c) Is a system “reboot” needed for each?
   d) Describe specifically situations where reboots are or are not required.

6.8.4 How is error and alarm reporting handled?
   a) Are administrators warned in advance with predictive information before an actual component failure occurs?
6.8.5 What is the ease of installing hardware component upgrades?
   a) Can upgrades be made in a non-disruptive manner?

6.9 Physical and Environmental

6.9.1 Describe in detail the facility and environmental requirements for your access points, to include:
   a) Electrical
   b) Heating, Ventilation
   c) Air Conditioning
   d) Humidity
   e) Vertical or other physical considerations
   f) Other

6.9.2 Describe any special cables, connectors, supplies, fixtures, or otherwise, that are required for your system that are not supplied as part of the system being proposed.
   a) Clearly indicate if you offer these items, and at what cost.
   b) If you do not supply these items, please indicate where they can be obtained, and the cost (or estimated cost) if known.

6.9.3 Describe any special transportation, docking, unloading, staging, packing or any other requirements.
   a) Detail any additional cost to the University if you do not provide any component.

6.10 Compatibility.

   6.10.1 Specify whether your access points are compatible with different types of client operating systems and client cards. Be sure to include all compatible operating systems and cards.

7.0 SECTION G: TRAINING, EDUCATION, DOCUMENTATION

7.1 Training:

   7.1.1 The selected supplier shall provide University personnel all training necessary on the access point configuration and management platform operations. The supplier shall specify what training will be provided to University personnel.
a) Will there be a cost for this training? If so, specify in the cost section of your offer.

b) Is the training provided on-site or off-site?

7.1.2 The supplier will specify what further training options are available both on-site and at corporate facilities. This must include all products quoted as part of this system.

a) Is there a cost for optional training? If so, specify in the cost section of your offer.

b) Is the training provided on-site or off-site?

7.2 Documentation:

7.2.1 Along with your proposal, provide six (6) complete sets of product literature, including literature for associated product(s) from other vendors that are needed to make your product fully compliant with our need.

7.2.2 Provide two (2) complete sets of installation, operation, and user support manuals (or their equivalent) with your proposal. (These can be returned to unsuccessful bidders following the award of a contract.)

7.2.3 Describe the media options for product manuals and documentation.

7.2.4 Describe how a customer receives updates to all documentation.

7.2.5 In the pricing section, clearly indicate what media options are included in the proposed system, which are optional, and at what price.

8.0 SECTION H: WARRANTY, MAINTENANCE, SUPPORT

8.1 Warranty

Describe in detail the warranties provided by the you or the manufacturer, both hardware and software, for the wireless technology proposed.

8.1.1 Include information regarding coverage times, warranty period, and covered services, replacement requirements, etc.

8.2 Maintenance and Support

8.2.1 Describe system maintenance options available.

8.2.2 Indicate the replacement parts inventory that should be kept on-site at Indiana University (this is encouraged). State where additional parts will be kept and estimate delivery time to the Bloomington and Indianapolis campuses.
9.0 SECTION I: ADDED VALUE PARTNERSHIP REQUIREMENTS

9.1 Beyond just a commodity purchase transaction, the University’s selection of a supplier and adopted platform through this process becomes a long-term relationship. Considering the following elements, respond with your expectations for a partnership and what additional value can be created for both of us. You are encouraged to expand on this section where you feel there is added value to our relationship and to the services and applications delivered to the University.

As part of your response to this section, provide information to what the University can contribute to your organization, what information we can share, and how we might promote this joint effort.

9.2 **Hardware Configuration Planning:**
Access to experts within your organizations to work with Indiana University staff.

9.3 **Hardware Capacity Planning:**
Access to experts within your organizations to work with Indiana University staff.

9.4 **Benchmarking:**
A commitment from the partners to assign and engage staff with Indiana University staff for performance benchmarking. Sponsor visits to and access to sites within the partner organizations to perform benchmarks and stress tests.

9.5 **Support:**
Beyond the normal support structure, access to technical experts within the partner organizations for discussing approaches and for problem resolution.

9.6 **Integration:**
A commitment from the partners, provide access to technical staff, for resolution of problems with integration into the overall environment, whether the problem directly relates to the vendors’ product or not. In other words, form an “IU Support Team” to address problems regardless of cause.

9.7 **Meetings:**
All partners to meet or teleconference with Indiana University staff on a regular schedule, to be determined.

9.8 **User access:**
Partner vendors to place Indiana University staff in contact with other organizations of interest or organizations with a similar environment or project. Partner vendors would sponsor meetings, discussions, or visits to such users as needed.

9.9 **Internal Access:**
Partner vendors would provide access for Indiana University staff to your internal Human Resource departments, for purposes of learning about your internal HR practices and procedures.

9.10 **Industry Access:**
Provide access to materials and contact with experts in the wireless arena.
9.11 Migration Assistance:
Provide consulting, advice, training, planning, and any other assistance with planning and migrating applications into the Enterprise wireless environment which you propose.

9.12 Exploration:
Exploration of additional areas whereby the partners could leverage mutual interest.

9.13 Training:
In addition to any training and education provided as part of the proposal, issue “training credits” to Indiana University, for staff to receive formal training at your corporate user training facilities, at no or reduced charge, over the next 1-4 years.

9.14 Student Use of Selected Product:
Simply as additional information, you should be aware that whatever product platform is selected, there is always potential greater purchase of product base because some of our student population on our campuses will seek compliant products selected by the institution. This is not to infer that the University will be a party to promotion of private sales to students, faculty and staff, but to recognize additional potential exists and can be reached by other means.

10.0 SECTION J: PROPOSAL, COSTS, TERMS, CONDITIONS

10.1 Your Offer

Minimally, your offer should provide a two-part solution, each part addressing all element and components discussed in sections C through I. Proposals should include various types of information, including product information, technology narratives, configuration charts, migration strategies, costs, upkeep, etc.

10.1.1 Part One: This segment shall describe your offer to provide resources for delivery of wireless access points and associated products required for all Phase A locations.

a) Based on our best estimates at this time, this would include 600 access points for both campuses. Completion date for Phase A will be on or before December 2003.

b) Requires delivery of approximately 50 access points per month during this phase.

c) Based on our best estimates at this time, this would include:

- 400+ access points at the IUB campus, and
- 170+ access points at IUPUI campus.
10.1.2 **Part Two:** This segment shall describe your offer to provide resources for delivery of wireless access points and associated products required for all Phase B and C locations.

a) Based on our best estimates at this time, this would include and additional 600 access points for both campuses.

b) Completion date for **Phase B** will be on or before **May, 2004**.

c) We estimate completion of **Phase C** on or before **January, 2005**. This part of the project is of course is tempered by the progression or change in wireless technology.

d) Also, this portion of the proposal should include discussion of migration to higher bandwidth capable solution, for example, “a/b only”, “b/g only”, or “b/a/g”.

### 10.2 Pricing Scheme:

10.2.1 In your response to this Section, your hardware and associated product costs may be provided in one of three ways as specified below or a combination thereof.

a) For each one of the three Phases:
   - Cost as a fixed, delivered, unit price, for the duration of each phase.

b) For Phase A and Phase B:
   - Cost as a fixed, delivered, unit price, for the duration of each phase.

c) For each one of the three Phases or only Phase C:
   - As an ongoing and protected, flat percentage (%) discount from manufacturer’s price list (then current) for the duration of all phases.
     - If this option is selected, the percentage discount (%) quoted shall remain firm for the duration of this project through January, 2005. Only when the manufacturer changes pricing and the selected provider has given the University contacts the ‘then current’ price list will the University honor a change in pricing structure.

10.2.2 Regardless of the elected pricing scheme(s), each respondent must furnish the latest manufacturer’s price list covering wireless products proposed with their response to this RFP.

10.2.2 Regardless of the elected pricing scheme the University may decide on, we should also be allowed to participate in all future special sales, trade-in programs, upgrade offers, marketing incentives, and other product offers that provide an additional economic advantage for the purchase of your products.
a) Do you agree to this option?

### 10.3 Other Required Pricing:

10.3.1 In your pricing section, include:

- a) Hardware costs for a “b only” solution. Include pricing for site survey, installation, maintenance, and support separately.

- b) Hardware costs for an “a/b” solution, if that capability exists. Include pricing for site survey, installation, maintenance, and support separately.

- c) Include pricing for the wireless bridging scenario provided in Section 6.0, F, Item 6.1.3., a)

10.3.2 All individual software and services proposed for Parts One and Two should be priced separately.

10.3.3 Clearly identify any educational allowances or discounts.

10.3.4 Indicate any additional discounts for payments made in advance of a normal schedule.

10.3.5 Clearly separate all “one-time” from ongoing costs.

10.3.6 Itemize any and all costs related to shipping and delivery.

10.3.7 Installation: Itemize any and all costs related to installation of any component(s).

   a) **NOTE:** Site survey and installation services should be quoted as a stand-alone service and a separate part of your offer. It should not be tied to the purchase of product. The University may elect to carry out installation ourselves and thus we reserve the right to delete this particular element from any contract awarded.

10.3.8 Itemize any and all training costs discussed in Section 7.0, G.

10.3.9 Provide information on any special allowances or programs you offer for customers to trade-in existing systems. This would be particularly relevant in migrating existing applications into an enterprise level system you propose.

10.3.10 Indiana University is self-insured. Insurance costs should not be embedded in any of your pricing.
10.4 Availability:

10.4.1 Provide information on the availability of your access points and client cards/software.

a) Include discussion on distribution methods and partners, inventory, typical delivery times, replacement turn-around time for defective equipment, and any other topics that may pertain to equipment delivery.

10.4.2 What stocking options might you offer where an agreed upon inventory level of selected product is maintained in inventory by you during Phases A and B?
1. **Applicable Law**
   The Agreement shall be governed by the laws of the State of Indiana, and Contractor shall at all times comply with and observe all federal, state and local laws, ordinances, and regulations which are in effect during the period of this Agreement and which in any manner affect the work or its conduct.

2. **Agreement Assignment**
   No right or duty in whole or in part of the Contractor under this Agreement may be assigned or delegated, including by transfer of stock or ownership in Contractor, without the prior written consent of the University.

3. **Conflict of Interests**
   Private and non-profit corporations are bound by state statute regarding conflicts of interest by employees in the conduct of state agreements. A completed non-collusion certificate must accompany the signing of this Agreement.

4. **Agreement Termination**

   4.1 **Termination without Cause**
   Either party may terminate this Agreement by giving the other party 60-day written notice of termination. Written notice of termination must be given by certified letter.

   4.2 **Termination for Cause**
   Should either party breach any material terms or provisions of this Agreement, the non-breaching party shall promptly serve the breaching party with written notice setting forth the alleged breach. Unless the breaching party, within ten (10) working days of the receipt of the notice, has corrected or has taken reasonable steps toward correcting the alleged breach, the non-breaching party may terminate the Agreement by giving thirty (30) days written notice to the breaching party of its intention to terminate this Agreement. Certified letter must give written notice of termination.

   The University may cancel this Agreement for breach, as determined by the University, of any material terms or provisions, including but not limited to insufficient insurance coverage or service unsatisfactory to the University. This may also include any cessation or diminution of service including but not limited to failure to maintain adequate personnel whether arising from labor disputes, or otherwise, any substantial change in ownership or proprietorship of the Contractor which, in the opinion of the University, is not in its best interest. Certified letter must give written notice of termination.
5. **Notices**
With the exception of notice of termination, which must be made by certified mail, any written notice called for in this Agreement may be given by personal delivery, first class mail, overnight delivery service or facsimile transmission. Notices given by personal delivery will be effective on delivery; by overnight service, on the next business day; by first class mail, five business days after mailing; and by facsimile, when an answer back is received.

6. **Non-Discrimination**
In connection with the performance of work under this Agreement, the Contractor agrees not to discriminate against any student or rider of any sort, employee or applicant for employment because of age, race, religion, color, handicap, sex, sexual orientation, or national origin. This provision shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, lay-off or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor further agrees to take affirmative action to insure equal employment opportunities. The Contractor agrees to post, in conspicuous places, available for employees and applicants for employment, notices to be provided by the Contractor setting forth the provisions of the State of Indiana non-discrimination clause. If present on the campus, Contractor, including all employees and agents, shall agree to abide by, and comply with, all Indiana University, federal, state, and local policies, regulations, and laws that pertain to sexual harassment and non-discrimination. Contractor further agrees that employees and agents, while on university’s premises, shall comply with and observe all applicable rules and regulations concerning conduct on IU premises, which are imposed upon IU’s employees and agents.

7. **Excused Performance**
If, because of riots, war, public emergency or calamity, fire, flood, earthquake, act of God, government restriction, business operations at the University are interrupted or stopped, the performance of this Agreement, with the exception of money already due and owing, shall be suspended and excused to the extent commensurate with such interfering occurrence. The expiration date of this Agreement may be extended, by mutual written consent, for a period of time equal to the time that such default in performance is excused.

8. **Independent Contractor Relationship**
It is mutually understood and agreed that an independent contractor relationship is hereby established and that employees of the Contractor are not employees of the University and that employees of the University are not employees of the Contractor.

9. **Severability**
If any provision of this Agreement or its application to any party or circumstances shall be invalid or unenforceable to any extent, the remainder of this Agreement and the application of its provisions to other parties or circumstances shall not be affected and shall be enforced to the extent permitted by law.

10. **No Waiver**
The failure of University to insist in any one or more instances upon the performance of any one or more of the provisions of this Agreement or to pursue any rights here under shall not be construed as a waiver of any such provisions or the relinquishment of any such rights.
11. **Endorsement**

   Unless specifically authorized in writing by the University Purchasing Department on a case by case basis, Contractor shall have no right to use, and shall not use, the name of Indiana University, its officials or employees, or the seal or marks of the University in advertising, publicity, or promotion; nor to express or imply any endorsement of Contractor’s supplies or services.

12. **Force Majeure:**

   Neither party shall be in considered in breach of this agreement for failure to perform if such failure is caused by national or local calamity, acts of terrorism, the act or regulation of any public authority, labor difficulty or strike, war, epidemic, fire, storm, inclement weather or other act of God, or any other cause beyond the reasonable control of the non-performing party that renders that party’s performance impossible.

13. **Non-Appropriation of Funds:**

   In the event funds are not budgeted and appropriated in any fiscal year for Lease Payments [or whatever] due under this Lease [or whatever] for the then-current or succeeding fiscal year, this Lease shall impose no obligation on the Lessee as to such current or succeeding fiscal year and shall become null and void except as to the Lease Payments herein agreed upon for which funds shall have been appropriated and budgeted, and no right of action or damage shall accrue to the benefit of Lessor, its successors or assigns, for any further payments.

14. **Indemnification:**

   Contractor/Supplier shall indemnify and save harmless The Trustees of Indiana University, its officers, agents and employees from any and all losses, costs, damages, liability and expenses (including costs of defense, settlement, and reasonable attorney’s fees) in connection with claims or suits for damage to property and/or injury to persons, including death, alleged or claimed to have been caused, by or through the performance of the work or operations incidental to the work, by the Contractor/Supplier, its agents or employees, or by its subcontractors of any tier, their agents or employees, whether through negligence or willful act; and Contractor/Supplier shall at request of the University undertake to investigate and defend any and all such claims or suits against the University.
APPENDIX B
INSURANCE AND INDEMNIFICATION

1. Contractor/Supplier shall provide the University with a certificate of insurance with the required kinds of insurance and minimum liabilities as specified below, issued by an insurance company licensed to do business in the State of Indiana and signed by an authorized agent.

2. Indiana University retains right of approval of the Insurance Company(ies) indicated, based on company size, amount of exposure ratio and Best's ratings.

<table>
<thead>
<tr>
<th>Insurance Requirements</th>
<th>Statutory</th>
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<tbody>
<tr>
<td>Worker's Compensation</td>
<td></td>
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<tr>
<td>Employer's Liability</td>
<td>$1,000,000 each accident</td>
</tr>
<tr>
<td></td>
<td>$1,000,000 policy limit</td>
</tr>
<tr>
<td></td>
<td>$1,000,000 each employee</td>
</tr>
<tr>
<td>General Liability (including Contractual)</td>
<td>$1,000,000 Combined Single Limit</td>
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<td></td>
<td>OR</td>
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<tr>
<td></td>
<td>$1,000,000 each occurrence of Bodily Injury</td>
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<td></td>
<td>AND</td>
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<td></td>
<td>$1,000,000 each occurrence of Property Damage</td>
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<tr>
<td>General Liability (including owned &amp; non-owned)</td>
<td>$1,000,000 Combined Single Limit</td>
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<td></td>
<td>OR</td>
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<tr>
<td></td>
<td>$1,000,000 each person Bodily Injury</td>
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<td>AND</td>
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<td>$1,000,000 each occurrence Bodily Injury</td>
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<td></td>
<td>AND</td>
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<td></td>
<td>$1,000,000 each occurrence Property Damage</td>
</tr>
<tr>
<td>Fire Legal Liability</td>
<td>$500,000</td>
</tr>
<tr>
<td>Only required if Supplier occupies IU property</td>
<td></td>
</tr>
<tr>
<td>University as Additional Insured</td>
<td>The Contractor/Supplier shall add &quot;The Trustees of Indiana University, its officers, agents and employees&quot; as an additional insured under the commercial general and automobile liability policies only.</td>
</tr>
</tbody>
</table>

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3. These policies shall contain a covenant requiring thirty (30) days written notice by the insurer to University Risk Management, in care of the Purchasing Department before cancellation, reduction or other modifications of coverage. The insurance certificate shall be for the initial Agreement period of one (1) year and shall be extended by the Contractor/Supplier for each subsequent year of the Agreement.

4. In the event of non-renewal, cancellation or expiration, the Contractor/Supplier shall provide the University evidence of the new source(s) of required insurance within twenty-one (21) calendar days after the University's receipt of the thirty- (30) days notice. Failure to maintain the required insurance in force may be cause for Agreement termination.

5. These policies shall be primary and non-contributing with any insurance carried by the University and shall contain a severability of interests clause in respect to liability, protecting each named insured as though a separate policy had been issued to each.
6. In the event that the Contractor/Supplier fails to maintain and keep in force the insurance and worker's compensation as herein provided, the University shall have the right to cancel and terminate the Agreement without notice. The Contractor/Supplier shall advise each insuring agency to automatically renew all policies and coverage in force at the start of and resulting from this Agreement until specified coverage requirements are revised.

7. The Contractor/Supplier shall bear the full and complete responsibility for all risk of damage or loss to premises, equipment, supplies, or money resulting from any cause whatsoever and shall not penalize the University for any losses incurred related to this Agreement.

8. Appendix B is applicable and insurance required only if the Contractor/Supplier will be on University premises to perform work or duties related to the deployment of this transaction.
APPENDIX C
NON-COLLUSIVE CERTIFICATE

By submission of this document, each person signing certifies, and in the case of a joint submittal, each party thereto certifies, as to its own organization, under penalty of perjury, that to the best of its knowledge and belief:

1. The content of this Agreement has been arrived at independently without collusion, consultation, communications, or agreement for the purpose of restricting competition as to any matter relating to service or cost with any other Contractor(s) or with any competitor;

2. No attempt has been made or will be made by Contractor to include any other person, partnership or corporation to submit or not to submit a response for the purpose of restricting competition and;

3. No employee, agent or consultant of Indiana University has received or will receive any payment or any other form of compensation from Contractor as a result of award of a contract or promise of award to Contractor.

Name: ____________________________________

Signature: ________________________________

Title: ____________________________________

Company: ________________________________

Date: ____________________________________