



Procurement Services  
Lucas Administrative Center 617  
Nunn Drive  
Highland Heights, KY 41099  
(859) 572-5265  
FAX (859) 572-6995

## REQUEST FOR PROPOSAL (This is not an order)

|                    |                                                                |
|--------------------|----------------------------------------------------------------|
| RFP NO.            | NS-34-08                                                       |
| Due:               | January 18, 2008<br>2:00 p.m. E.S.T                            |
| Commodity/Service: | Security and Network Audit<br>Office of Information Technology |
| Date Issued:       | December 21, 2007                                              |

|            |  |      |  |
|------------|--|------|--|
| FIRM NAME: |  |      |  |
| ADDRESS:   |  |      |  |
| PHONE:     |  | FAX: |  |
| DATE:      |  |      |  |

**NOTE: FILL IN ABOVE, PLEASE PRINT**

### INSTRUCTIONS

- Proposals must be received in Procurement Services, 617 Lucas Administrative Center, Northern Kentucky University, Highland Heights, Kentucky 41099, in a sealed envelope no later than the date and time stated above.
- RFP envelope shall be addressed as indicated below. No responsibility will attach to the Purchasing Department for the premature opening of or the failure to open a bid not properly addressed or identified.

### ADDRESS PROPOSAL AS FOLLOWS:

|                                                                                                                       |                                     |
|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Name and Address of Offeror                                                                                           |                                     |
| Northern Kentucky University<br>Procurement Services<br>617 Lucas Administrative Center<br>Highland Heights, KY 41099 |                                     |
| RFP No.:                                                                                                              | NS-34-08                            |
| Proposals Due:                                                                                                        | January 18, 2008<br>2:00 p.m. E.S.T |

- No offeror may withdraw his proposal for a period of thirty (30) days after the date set for the receipt of proposals. Clerical errors and omissions shall not be a cause for withdrawal of the offer. Offer may be withdrawn, in person only, prior to the closing date and time for the receipt of proposals.
- Proposals, upon their receipt, are stamped showing the hour and date received. Proposals received after the scheduled closing time will not be considered provided legal and acceptable proposals have been received.
- The right is reserved to reject any and all proposals and to waive all informalities and/or technicalities where the best interest of the University may be served.
- Telegraphic or faxed proposals are not acceptable.
- PROPOSAL MAY BE REJECTED UNLESS FILLED OUT IN INK OR TYPEWRITTEN AND SIGNED IN INK.**
- For any clarification of this RFP contact:

BUYER: **Jeff Strunk**      [strunk@nku.edu](mailto:strunk@nku.edu)

PHONE: **(859) 572-6448**

FAX: **(859) 572-6995**

**AUTHENTICATION OF BID AND  
STATEMENT OF NON-COLLUSION  
AND NON-CONFLICT OF INTEREST**

I, HEREBY CERTIFY:

1. That I am the Bidder (if the Bidder is an individual), a partner in the Bidder (if the Bidder is a partnership or an officer or employee of the bidding corporation having authority to sign on behalf (if the Bidder is a corporation)).
2. That the submitted bid or bids in response to this Invitation for Bid have been arrived at by the Bidder independently and have been submitted without collusion with, and without any agreement, understanding planned common course of action with any other contractor, vendor of materials, supplies, equipment or services described in the Invitation for Bid, designed to limit independent bidding or competition; as prohibited by the provisions of KRS 45A.325.
3. That the contents of the bid or bids have not been communicated by the Bidder or its employees or agents to any person not an employee or agent of the Bidder its surety on any bond furnished with the bid or bids and will not be communicated to any such person prior to the official opening of the bid or bids.
4. That the Bidder is legally entitled to enter into the contract with Northern Kentucky University and is not in violation of any prohibited conflict of interest, including those prohibited by the provisions of KRS 16A.390 and 45A.330 to 45A.340 and 45A.455.
5. This offer is for, at minimum, thirty (30) calendar days from the date this bid is opened. In submitting the above it is expressly agreed that upon proper acceptance by Northern Kentucky University of any or all items bid above, a contract shall thereby be created with respect to the items accepted.
- 6 That I have fully informed myself regarding and affirm the accuracy of all statements made in this Form of Proposal including Bid Amount.
7. Unless otherwise exempted by KRS 45.590, the Bidder intends to comply in full with all requirements of the Kentucky Civil Rights Act and to submit data required by the Kentucky Equal Employment Act upon being designated the successful bidder.
8. That the Bidder, if awarded a contract, would no be in violation of Executive Branch Code of Ethics established by KRS 11A.990.

**READ CAREFULLY - SIGN IN SPACE BELOW - FAILURE TO SIGN INVALIDATES BID**

AUTHORIZED SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

NAME (Please Print Legibly): \_\_\_\_\_

FIRM: \_\_\_\_\_ FED ID. OR SSN#: \_\_\_\_\_

PERMANENT ADDRESS: \_\_\_\_\_  
STREET CITY

STATE ZIP CODE TELEPHONE NO: \_\_\_\_\_ FAX NO: \_\_\_\_\_

E-MAIL: \_\_\_\_\_

**NORTHERN KENTUCKY UNIVERSITY  
BIDDER CERTIFICATIONS**

***By signing below the Contractor swears or affirms that he/she is in compliance with the following three sections.***

**1. Campaign Finance Laws** Pursuant to KRS 45A.110 and KRS 45A.115 the undersigned hereby swears or affirms, under penalty prescribed by law for perjury, that neither he/she, individually, nor, to the best of his/her knowledge and belief, the corporation, partnership, or other business entity which he/she represents in connection with this procurement, has knowingly violated any provisions of the campaign finance laws of the Commonwealth of Kentucky, and that the award of a contract to him/her, individually, or the corporation, partnership or other business entity which he/she represents, will not violate any campaign finance laws of the Commonwealth.

**2. Worker's Compensation and Unemployment Insurance** Pursuant to KRS 45A.480, the undersigned hereby swears or affirms, under penalty of perjury, that all contractors and subcontractors employed, or that will be employed under the provisions of this contract shall be in compliance with the requirements for worker's compensation insurance under KRS Chapter 342 and unemployment insurance under established KRS Chapter 341.

**3. Vendor Report of Prior Violations** The Bidder/Owner shall reveal to the University, prior to this award of a contract, any final determination of a violation by the Contractor within the previous five (5) year period of the provisions of KRS Chapters 136, 139, 141, 337, 338, 341, and 342. The Contractor is further notified this statute requires that for the duration of this contract, the Contractor shall be in continuous compliance and the Contractor's failure to reveal a final determination of a violation or failure to comply with the cited statutes for the duration of the contract, shall be grounds for the Contractor's disqualification by the University from eligibility to bid or submit proposals to the University for a period of two (2) years. Please list any final determination(s) of violation(s) including the date of determination and the state agency issuing the determination. If no violations have occurred, type **none** in the space below.

\* KRS Chapter 136 - Corporation and Utility Taxes

\* KRS Chapter 139 - Sales & Use Tax

\* KRS Chapter 141 - Income Taxes

\* KRS Chapter 337 - Wages & Hours

\* KRS Chapter 338 - Occupational Safety & Health of Employees

\* KRS Chapter 341 - Unemployment Compensation

\* KRS Chapter 342 - Worker's Compensation

KRS VIOLATION

DATE

STATE AGENCY

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
(SIGNATURE)

\_\_\_\_\_  
(TITLE)

\_\_\_\_\_  
(NAME OF COMPANY)

## **NON-DISCLOSURE AGREEMENT**

This non-disclosure agreement (this “Agreement”) is made as of \_\_\_\_\_, 20\_\_\_\_\_, (the “Effective Date”) by and between Northern Kentucky University (“NKU”) located in Highland Heights, Kentucky and \_\_\_\_\_ (“Company”), located in \_\_\_\_\_. (City, State).

### **RECITALS:**

- A. Company wishes to receive certain trade secret, confidential and proprietary information (hereinafter collectively “Information”) pertaining to Northern Kentucky University business and faculty, staff, and student personal information. This exchange includes all communication of Information between the parties in any form whatsoever, including without limitation oral, written and machine-readable form.
- B. Company wishes to receive the Information for the sole purpose of Security and Network Audit (the “Sole Purpose”).
- C. NKU is willing to disclose the Information (as “Owning Party”) and Company is willing to receive the Information (as “Receiving Party”) on the terms and conditions contained in this Agreement.

### **TERMS AND CONDITIONS:**

- 1. **STRICTEST CONFIDENCE:** That the disclosure of Information by NKU is in strictest confidence, and, thus, Company will
  - a. Not disclose to any other person the Information; and
  - b. Use at least the same degree of care to maintain the Information secret as the Company uses in maintaining as secret its own secret information, but always at least a reasonable degree of care;
  - c. Use the Information only for the Sole Purpose;
  - d. Restrict disclosure of the Information solely to those employees (“Necessary Employee(s)”) of Company having a need to know such Information in order to accomplish the Sole Purpose;
  - e. Advise each Necessary Employee, before he or she receives access to the Information, of the obligations of Company under this Agreement, and require each Necessary Employee to maintain those obligations by signing an employee non-disclosure agreement;

- f. Within fifteen (15) days following request of NKU, return to NKU all documentation, copies, notes, diagrams, computer memory media and other materials containing any portion of the Information, or confirm to NKU, in writing, the destruction of such materials; and
- g. Immediately upon sale of Company, or merger of Company with a third party, return to NKU all documentation, copies, notes, diagrams, computer memory media and other materials containing any portion of the Information, or confirm to NKU, in writing, the destruction of such materials.
- h. Although security of faculty, staff, and student data will be tested, it shall not leave the premises or be saved on any of Company's systems.

**2. NO OBLIGATION FOR INFORMATION RECEIVED:** This Agreement imposes no obligation on Company with respect to any portion of the Information received from NKU which

- a. was known to Company prior to disclosure by NKU, *and* as to which Company has no obligation not to disclose or use,
- b. is lawfully obtained by Company from a third party under no obligation of confidentiality,
- c. is or becomes generally known or available other than by unauthorized disclosure,
- d. is independently developed by Company, or
- e. is disclosed by NKU to third parties without any obligation on the third parties.

**3. NO OBLIGATION FOR INFORMATION DISCLOSED:** This Agreement imposes no obligation on Company with respect to any portion of the Information disclosed by NKU, *unless* such portion is

- a. disclosed in a written document or machine readable media marked "CONFIDENTIAL" at the time of disclosure, or
- b. disclosed in any other manner and summarized in a memorandum mailed to Company within thirty (30) days of the disclosure.

Information disclosed by NKU in a written document or machine-readable media and marked "CONFIDENTIAL" includes, without limitation, the items, if any, set

forth in Schedule A attached hereto. Schedule A is incorporated into this Agreement by reference. Company acknowledges receipt of the items (if any) listed in Schedule A.

4. **SOLE PROPERTY OF NKU:** The Information shall remain the sole property of NKU.
5. **WARRANTIES:** NKU DOES NOT MAKE ANY REPRESENTATION WITH RESPECT TO AND DOES NOT WARRANT ANY INFORMATION PROVIDED UNDER THIS AGREEMENT, BUT SHALL FURNISH SUCH IN GOOD FAITH. WITHOUT RESTRICTING THE GENERALITY OF THE FOREGOING, NKU DOES NOT MAKE ANY REPRESENTATIONS OR WARRANTIES, WHETHER WRITTEN OR ORAL, STATUTORY, EXPRESS OR IMPLIED WITH RESPECT TO THE INFORMATION WHICH MAY BE PROVIDED HEREUNDER, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. NKU SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE WHATSOEVER RESULTING FROM RECEIPT OR USE OF THE INFORMATION BY COMPANY.
6. **RIGHT TO INJUNCTION:** In the event of a breach or threatened breach or intended breach of this Agreement by Company, NKU, in addition to any other rights and remedies available to it at law or in equity, shall be entitled to preliminary and final injunctions, enjoining and restraining such breach or threatened breach or intended breach.
7. **GOVERNING LAW:** The validity, construction, and performance of this Agreement is governed by the laws of the Commonwealth of Kentucky.
8. **ASSIGNMENT:** The rights and obligations of the parties under this Agreement may not be sold, assigned or otherwise transferred.
9. **TERMINATION:** This Agreement is binding upon NKU and Company, and upon the directors, officers, employees and agents of each. This Agreement is effective as of the Effective Date and will continue indefinitely unless terminated on thirty (30) days written notice by either party. However, Company's obligations of confidentiality and restrictions on use of the Information disclosed by NKU shall survive termination of this Agreement.

**Northern Kentucky University:**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**(Company):**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Time: \_\_\_\_\_

Date: \_\_\_\_\_

**Request for Proposal NS-34-08**  
**Security and Network Audit**  
**GENERAL CONDITIONS**

**PERMITS AND LICENSES:** The Vendor shall obtain all permits, and licenses, necessary for any or all parts of the work from the authorities governing such work. The Vendor shall procure building permits, when required but no fee shall be applicable on projects for the Commonwealth. Evidence that such permits have been issued shall be furnished to the Owner before beginning work.

**INSURANCE:** The Vendor shall maintain the following minimum insurance.

|                              |                                                                           |
|------------------------------|---------------------------------------------------------------------------|
| Automobile Liability         | \$1,000,000 each accident<br>Covering owned, leased or non-owned vehicles |
| Workman's Compensation       | Kentucky State Statutes                                                   |
| Commercial General Liability | \$1,000,000 each occurrence<br>\$2,000,000 general aggregate              |
| Professional Liability (E&O) | \$1,000,000 per wrongful act<br>\$2,000,000 aggregate                     |

These coverages and limits are to be considered minimum requirements and shall in no way limit the liability or obligation of the Vendor under this contract. Vendor shall furnish a Certificate of Insurance in evidence of the required coverage prior to commencement of work.

**VENDOR PRESENCE ON CAMPUS:** Vendor agrees that all persons working for or on behalf of the Vendor whose duties bring them on campus shall obey the rules and regulations that are established by the University and shall comply with the reasonable directions of the University's officers. Vendor's employees shall not use existing areas where not required to perform the work.

Vendor shall be responsible for the acts of his employees and agents while on campus. Accordingly, Vendor agrees to take all necessary measures to prevent injury and loss to persons or property located on campus. Vendor shall be responsible for all damages to persons or property caused by Vendor or any of his agents or employees. Vendor shall promptly repair any damage that he, or his employees or agents may cause to the campus or to University equipment.

Vendor agrees that in event of an accident of any kind, Vendor will immediately notify the University's Department of Public Safety 859-572-5770 and furnish a full written report of the accident.

The University does not and will not assume any responsibility for any tools, materials, or property belonging to the Vendor, his employees or agents, which may be lost or stolen.

**USE OF FACILITIES AND STORAGE:** The Vendor providing materials and equipment shall be responsible for the proper and adequate storage of their materials and equipment in the area(s) designated by the University.

The Vendor and his employees shall have the right to use only those University facilities that are necessary to perform services under this Contract.

**EQUIPMENT DAMAGE OR LOSS:** The University will not be responsible for loss or damage to vendor's equipment, tools, or property due to vandalism, robbery, and theft or any other cause or action. The University will cooperate to the extent it deems feasible in guarding against such occurrences.

## **Request for Proposal NS-34-08 Security and Network Audit**

### **OBJECTIVES OF THE SECURITY AND NETWORK AUDIT:**

- Identification of security vulnerabilities for Northern Kentucky University
- Requirements and analysis performed to increase overall security
- Identification and prioritization of risks to the University.

NKU personnel will be available to answer questions about the network and server architecture. This will allow the auditor to attempt penetration with full knowledge. Specific Rules of Engagement and the Audit Plan will exist to ensure desired coverage is accomplished. The project manager will monitor the engagement to ensure that the Rules of Engagement are followed and the objectives in the detailed audit plan developed in Phase One are met.

### **PROJECT TIMELINE:**

|                                                                  |                                          |
|------------------------------------------------------------------|------------------------------------------|
| <b>Request for Proposal Issued</b>                               | <b>December 21, 2007</b>                 |
| <b>Mandatory Pre-Proposal Meeting</b>                            | <b>January 4, 2008 2:00 p.m. LAC 722</b> |
| <b>Last day to submit questions</b>                              | <b>January 11, 2008</b>                  |
| <b>Proposals due in Procurement Services by 2:00 p.m. E.S.T.</b> | <b>January 18, 2008</b>                  |
| <b>Final Negotiations and Award of Contract</b>                  | <b>January 21-25, 2008</b>               |
| <b>Performance of Security and Network Audit</b>                 | <b>January 28 - February 22, 2008</b>    |
| <b>Presentation of Results and final report</b>                  | <b>On or Before February 29, 2008</b>    |

**TECHNICAL PROPOSAL:** Vendors responding to the RFP shall thoroughly familiarize themselves with the RFP to ensure that their proposals are responsive thereto. The vendor's Technical Proposal shall include the following:

- 1) Cover letter explaining the Vendor's understanding of the Project(s)
- 2) Detail of how the Vendor shall achieve Northern Kentucky University's requirements of the Project
- 3) Specific listing of prior experience in security audits complete with references.
- 4) Detailed listing of additional experience and capabilities.

Offerors must send any questions regarding this RFP in writing via e-mail. Questions regarding the procurement process should be addressed to:

Jeff Strunk, Associate Director  
Procurement Services  
Lucas Administrative Center 617  
Northern Kentucky University  
Highland Heights, KY 41099  
Phone: (859) 572-5265  
Fax: (859) 572-6995  
E-mail: [strunk@nku.edu](mailto:strunk@nku.edu)

Questions regarding technical issues or the nature of the services requested should be addressed to:

Dave Renaker, Lead Systems Analyst, Security  
Information Technology  
Lucas Administrative Center 507C  
Northern Kentucky University  
Highland Heights, KY 41099  
E-mail: [renakerd1@nku.edu](mailto:renakerd1@nku.edu)

**PROPOSAL PREPARATION:** The Proposal should be prepared simply and economically, providing a straightforward and concise description of the Bidder's capabilities to satisfy the requirements of the Proposal. Emphasis should be on completeness and clarity of content. Any costs incurred by Bidder in preparing or submitting a proposal, are the Bidders' sole responsibility. The University will not reimburse any Bidder for any costs incurred prior to award.

All materials submitted in response to this Request for Proposal will become the property of NKU and will not be returned. Vendors should submit an original, three hard copies and two electronic copies in Microsoft Word format on CD.

# SPECIFICATIONS

## SECTION I: INTERNAL ASSESSMENT

**Objectives:** The purpose of the internal assessment is to test the targeted network's ability to withstand attack inside the network perimeter. The overall objective is to identify potential vulnerabilities within the internal network and weaknesses in controls in place to prevent and/or detect their exploitation by a hacker/malicious employee/contractor who may obtain access to information resources, cause system disruption or a system outage. At a minimum, the audit objectives must include:

- Network Discovery. Ascertain the internal network topology or footprint that provides a map of the critical access paths/points and devices including their Internet protocol (IP) address ranges.
- Vulnerability Analysis. Once critical points/devices are identified within the network, attack those devices given the various types of known vulnerabilities within the system and operating software running on the devices.
- Exploitation. With Company staff, determine the level of attack that the NKU desires and approves. Determine the level of attack based on the level of access obtained on the open ports and the target hosts identified by the discovery and analysis stages, or on the basis of information provided by NKU. Notify NKU if access level is achieved. Record all vulnerabilities noted and provide to NKU for immediate follow-up at the conclusion of the penetration test/vulnerability analysis.
- From an on-site location, attempt to penetrate the internal network.
- Members of the penetration team connect to the NKU's internal network and attempt to compromise the servers, workstations, routers and mainframes.
- Using compromised accounts, the penetration team uses a series of exploits to gain root or administrative access to servers, network equipment and other machines in the network. The penetration team identifies the damage that can be done (places files, harvests files, etc.) once root is captured on any of these machines.
- Once the penetration team captures root on one machine, they use that machine as a firebase to attack other machines in the network. They document all machines they are able to access, the type of capabilities they gained, and harvest some files to prove access.
- Using the root capabilities on a machine within the network, the penetration team attacks the firewall and Internet connections from the inside.
- After the penetration team succeeds in penetrating a company's network, the team attempts to penetrate other upstream client owned facilities to test connections to other client owned networks.
- Any entry points discovered by the attack are documented.
- The entry points are exploited in an attempt to penetrate the network.
- Intrusion detection response (including logs) reviewed and assessed.

## SECTION II: WIRELESS ASSESSMENT

**Objectives:** The purpose of the wireless assessment is to test its ability to withstand attack. The overall objective is to identify potential vulnerabilities within the wireless network and weaknesses in controls in place to prevent and/or detect their exploitation by a hacker/malicious employee/contractor who may obtain access to information resources,

cause system disruption or a system outage. At a minimum, the audit objectives must include:

- Network Discovery. Ascertain the internal network topology or footprint that provides a map of the critical access paths/points and devices including their Internet protocol (IP) address ranges.
- Vulnerability Analysis. Once critical points/devices are identified within the network, attack those devices given the various types of known vulnerabilities within the system and operating software running on the devices.
- Exploitation. With Company staff, determine the level of attack that the NKU desires and approves. Determine the level of attack based on the level of access obtained on the open ports and the target hosts identified by the discovery and analysis stages, or on the basis of information provided by NKU. Notify NKU if access level is achieved. Record all vulnerabilities noted and provide to NKU for immediate follow-up at the conclusion of the penetration test/vulnerability analysis.
- From an on-site location, attempt to penetrate the internal network.
- Members of the penetration team connect to the NKU's internal network and attempt to compromise the servers, workstations, routers and mainframes.
- Using compromised accounts, the penetration team uses a series of exploits to gain root or administrative access to servers, network equipment and other machines in the network. The penetration team identifies the damage that can be done (places files, harvests files, etc.) once root is captured on any of these machines.
- Once the penetration team captures root on one machine, they use that machine as a firebase to attack other machines in the network. They document all machines they are able to access, the type of capabilities they gained, and harvest some files to prove access.
- After the penetration team succeeds in penetrating a company's network, the team attempts to penetrate other upstream client owned facilities to test connections to other client owned networks.
- Any entry points discovered by the attack are documented.
- The entry points are exploited in an attempt to penetrate the network.
- Intrusion detection response (including logs) reviewed and assessed.

### **SECTION III: INTERNET ASSESSMENT & WEB ASSESSMENT**

**Audit Objectives:** The purpose of the Internet assessment is to test the targeted network for vulnerability analysis and exploitation via the Internet. The test methodology allow for a systematic checking for known vulnerabilities and pursuit of potential security risks.

At a minimum, the audit objectives should include: vulnerability analysis and exploitation. Methodology to include but not inclusively defined:

- From a remote (non-NKU) site, attempt penetration from the Internet.
- A determined Internet attack from multiple locations over an extended period is launched.
- Any weaknesses identified are exploited using non-invasive techniques to harvest files, insert files into the network (simple text files) and hop between servers to compile a network diagram and document additional exploits.

- The firewall is to be tested. In addition to non-invasive techniques, techniques that are designed to momentarily disable the firewall are used if it was improperly configured.
- The VPN is to be tested.
- NKU's wireless local area network will be tested for secure configuration including but not limited to rogue access points, encryption strength, access rights and coverage leakage.

## **DELIVERABLES**

The purpose of the audit is to report security improvements, to identify the weaknesses, develop NKU-specific recommendations to address weaknesses, and communicate results to NKU. The final deliverable will be defined prior to engagement.

- All observations will be thoroughly discussed with process owners before finalization report.
- Executive summary and overview.
- A presentation to technical and security staff.
- Report vulnerabilities in risk to the university order.
- Schedule and prioritization of actions based on risk to the university.
- Summary of reviewed policies and procedures with recommendation for changes, additions, or deletions.
- Additional technical detail will be available as support information to answer questions.
- Identification of test, tools used and results of test.
- Specific Gaps, deficiencies, vulnerabilities observed.
- In addition to the assessment and findings, make specific recommendations as to how findings can be remedied.
- List of vulnerabilities penetrated.
- Detailed analysis of strengths and weaknesses
- Recommendations for a continuous audit approach.
- Recommendations for device hardening
- Authentication and Encryption Methods

### **Section I: Internal Assessment Specifics**

- Review of architecture/topology of routers and switches
- Servers
  - Active Directory
  - E-mail
  - Patch Management

### **Section II: Wireless Assessment Specifics**

- Growth path to ensure security

### **Section III: Internet Assessment Specifics**

- Review and analysis of VPN Security
  - Site to Site Tunnels
  - Remote Access
- Review of firewall security
  - Design and Architecture
  - Identification of gaps in access list
- Vulnerability of all Internet accessible hosts.

A presentation to an executive group that would entail a summary of results with actual examples to illustrate points is required. The presentation, to include descriptions of methodologies, will be kept very brief with the focus on the overall level of risk within the network and the types of actions that will be necessary to reduce risk to acceptable levels. Descriptions of the types of vulnerabilities may be used, but where possible, specific system identification will be avoided to prevent the focus from being diverted from larger problems to more specific and familiar system-specific problems. Credit will be given where effort has been made to secure the network.

The tone of all presentations, as well as the final report itself, must be written to identify the weaknesses and lay out a roadmap to mitigate unnecessary risk in the network.

**METHOD OF EVALUATION AND AWARD:** Offers will be evaluated and scored based on the below listed criteria. Northern Kentucky University reserves the right to award any or all sections to an individual vendor and that the scope of these sections may be tailored to make best use of the project budget.

| <b>Evaluation Criteria</b>                               | <b>Points Available</b> | <b>Minimum Acceptable</b> |
|----------------------------------------------------------|-------------------------|---------------------------|
| Higher Education References                              | <b>30</b>               | <b>15</b>                 |
| Pricing (from pricing sheet below)                       | <b>25</b>               | <b>15</b>                 |
| Company Background                                       | <b>20</b>               | <b>10</b>                 |
| Qualifications/credentials of employees performing tests | <b>15</b>               | <b>7</b>                  |
| <b>TOTALS:</b>                                           | <b>90</b>               | <b>47</b>                 |

**PRICING PROPOSAL:** Pricing should be presented for the following 4 sections, including:

- 1) Hours of labor
- 2) Administrative cost for reporting, presentation, material, etc.

|                                                                            |       | <u><b>Fee or Cost</b></u> |
|----------------------------------------------------------------------------|-------|---------------------------|
| <b>I Internal Assessment</b>                                               |       |                           |
| Estimated Hours                                                            | _____ | _____                     |
| Administrative cost                                                        |       | _____                     |
| Other                                                                      | _____ | _____                     |
| Total Cost                                                                 |       | _____                     |
| <hr/>                                                                      |       |                           |
| <b>II Wireless Assessment</b>                                              |       |                           |
| Estimated Hours                                                            | _____ | _____                     |
| Administrative cost                                                        |       | _____                     |
| Other                                                                      | _____ | _____                     |
| Total Cost                                                                 |       | _____                     |
| <hr/>                                                                      |       |                           |
| <b>III Internet &amp; Web Assessment</b>                                   |       |                           |
| Estimated Hours                                                            | _____ | _____                     |
| Administrative cost                                                        |       | _____                     |
| Other                                                                      | _____ | _____                     |
| Total Cost                                                                 |       | _____                     |
| <hr/>                                                                      |       |                           |
| <b>IV Total Assessment</b>                                                 |       |                           |
| Pricing with discounts noted<br>for successfully obtaining all 3 sections. |       |                           |
| Estimated Hours                                                            | _____ | _____                     |
| Administrative cost                                                        |       | _____                     |
| Other                                                                      | _____ | _____                     |
| Discount                                                                   |       | _____                     |
| Total Cost                                                                 |       | _____                     |