North Iowa Area Community College
Technology Services

REQUEST FOR PROPOSAL

SECURITY CAMERA SOLUTION

PURPOSE OF THE RFP

North Iowa Area Community College (NIACC) is planning to install a server-based digital video security camera solution at the main campus located at 500 College Drive in Mason City, Iowa. The purpose of this document is to request a proposal for a solution based on the criteria outlined in this package. We also expect each respondent to demonstrate its uniqueness in fulfilling this request.

PART 1. PROJECT DESCRIPTION

1.0 PROJECT SUMMARY

NIACC is interested in installing a server-based digital video security camera solution throughout the main college campus. This system will be used to monitor movement in and around the public entrances to buildings. The system will also be used to assist with crisis management and must be accessible to entities outside of the College.

NIACC requires a system that will be capable of satisfying its security needs for a minimum of five years, with the capacity to expand by at least 50% over that time.

1.1 DESCRIPTION OF PROJECT

The video capture, storage and distribution of images shall be done using a series of cameras and networked control and/or storage devices. Hereafter, these networked control and/or storage devices will be referred to as Image Servers. Users of the system shall be able to connect to the Image Servers across the network to retrieve both live and archive images on their local computer system. Users shall be able to access the Image Servers from any computer connected to the network including access via the Internet, using only a web browser.

The installation of cabling will be managed by NIACC; either internally or through the College's cabling contractor, and as such is not included in this RFP. The winning vendor must specify the cabling needs (type and location) and be able to work with the NIACC's chosen cabling installer. The College's network infrastructure includes 1GB connectivity via fiber between buildings and powered Ethernet switches in the designated equipment closets accessible in each building.

500 College Drive • Mason City, Iowa 50401-7299 • 641 - 423 - 1264 or 1-888-GO NIACC

http://www.niacc.edu • E-Mail: request@niacc.edu

1.1.1 Enterprise Features

The proposed solution shall have the following features:

1. Solution shall utilize existing LAN/WAN infrastructures for access to camera and Image Server user interfaces.
2. Solution shall allow an unlimited number of camera sites to be accessible as a single site to the end-user.
3. Solution shall allow for an unlimited number of servers, cameras, and user accounts to be configured into one logical enterprise implementation with a single Graphical User Interface (GUI).
4. Solution shall allow for a single management point for user ID maintenance and configuration.
5. Solution shall have a browser interface that allows users access to all system features and functions. Access to the solution shall consist of a web-browser and an Active X plug-in and should not require the installation of thick-client software at the end-user workstation.
6. Solution shall allow for an unlimited number of connections.
7. Solution shall allow for multiple capture technologies per server and site.
   Solution shall allow for multiple capture technologies to reside and function without user intervention within the same physical video server, within the same Site (multiple video servers), and any combination of these. Solution shall allow live and archived images from multiple capture technologies to be accessed with a single user GUI. Solution shall allow for field upgrades of video servers to add capabilities without the need for re-purchase or replacement of existing video servers.
8. Solution shall provide for a 'live view' of any camera included in the video network.

1.1.2 System Design Features

Architecture and Design Information

In its response, the vendor should describe the architecture used to attach to and communicate with the cameras, the video servers, and the archived images. Responses are expected to explain how the following items are managed within the proposed solution.

1. The solution provider will, with College staff coordination and approval, identify appropriate locations and technology to fulfill the stated goal of this project. Diagrams and/or maps will be provided to give guidance to the anticipated locations for the cameras.
2. The solution shall have distributed system architecture to allow Image Servers to be installed at multiple locations within a site without affecting the functionality of the remaining devices.
3. The solution shall utilize LAN/WAN, intranet, and/or Internet for delivery of interface to users using standard TCP/IP ports.
4. The solution shall provide video capture, storage and distribution of images through a series of Image Servers. Users of the system shall be able to connect to the Image Servers across the network to retrieve both live and archive images on their computer systems. Users shall be able to access the Image Servers from any computer connected to the network including access via the Internet, using only a web browser.
5. The solution shall utilize the Transmission Control Protocol/Internet Protocol (TCP/IP) to connect to the Image Servers.

6. If there is more than one Image Server used at a site or within a network, the solution shall integrate to appear as one system to the end user. Users shall be able to view all the servers at a site from one program and as one entity, allowing seamless interaction with the entire site without having to change IP addresses, settings, or repeat the log in process when viewing cameras on different servers or at different server locations.
7. The solution shall allow a high number of users to access any Image Server at any time from any location. Each user shall be able to operate and view the system independently and without interrupting or conflicting with the activities other users are performing.
8. The solution shall allow administratively manageable configurations that can limit users to one or more sites, limit users to specific system devices, limit users to specific system modules, or configure users for District access.
9. The solution shall be designed to allow HTTP control of external devices such as PTZ controls.
10. The solution shall not place any limits on the number of video inputs allowed in an implementation.
11. The *preferred* solution shall allow IP camera Capture functions to be configured to transmit images as individual frames and/or a "video stream" to maximize the efficiency of the system from affecting network bandwidth.
12. The *preferred* solution shall allow IP cameras Live View functions to be configured to minimize impact of video feed to minimally impact network bandwidth.

Captured Image Specifications

In its response, the vendor should describe the options available to view and capture images. Responses are expected to provide specifications and recommendations for the following needs related to the proposed solution.

1. The solution shall have adjustable image quality settings that allow the user to adjust the amount of image compression utilized.
2. The solution shall have the capability to distinguish when one image from the same camera view differs from the prior image (i.e. 'Differencing' as an event trigger). The *preferred* solution shall store in its image archives only those images that are "different" than their predecessors. This 'differencing' shall be a configurable setting that can be turned on/off.
3. When transmitting images over the network, the solution shall provide file sizes of each image less than 100 kilobytes with adequate quality, dependent on configured compression levels.
4. The solution shall provide 24-bit pixel depth (8 bits per color) images when captured from the video cameras. Prior to transmission, or storage, images shall be compressed and formatted to the JPEG image standard. Images shall be stored digitally, while users are able to view in 640x480 resolution.
5. The solution shall have the ability to capture images at one or more of the following resolutions, but are not limited to the following resolutions:
    a. 320 x 240
    b. 640 x 480
    c. 704 x 480
6. The solution shall provide a method to configure the image resolution by camera for IP cameras.
7. The solution shall transmit independent individual frames of video that can be viewed, saved, stored, printed, e-mailed, and shared as independent files.

Automated Trigger Specifications

In its response, the vendor should describe the automatic 'triggers' built into the cameras and or software provided in the solution. Responses are expected to provide specifications and recommendations for the following needs related to the proposed solution.

1. The solution shall be capable of providing a scope of camera responses in the occurrence of a triggered event.
2. The solution shall be able to support several input triggers per Image Server.
3. The solution shall contain video motion sensor trigger software capable of independently detecting motion anomalies within the parameters of camera focal areas.
4. The solution shall provide programmable sensitivity on each camera enabled with the video motion sensor triggers.
5. The solution shall utilize multiple programmable regions per camera focal area to differentiate and determine motion sensor trigger events.
6. The solution shall be capable of enabling every camera on the system with video motion sensor triggering capabilities.
7. The solution shall be capable of integrating with 3rd party products that can communicate to the Image Server via standard Digital I/O connections. The system shall be capable of a programmable, multiple level response to threshold events received via these connections.

1.1.3 Software Features

Image & Camera Access Software Information

In its response, the vendor should describe the software required to access the cameras and their configuration, the video servers, and the archived images. Any necessary access software shall support clients utilizing Microsoft Windows versions including and subsequent to Microsoft Windows 2000. Responses are expected to provide specifications and recommendations for the following needs related to the proposed solution.

1. The *preferred* solution will utilize a standard web browser certified by manufacturer testing for all functions. Web browsers that support standard HTTP protocols and are supported by Microsoft Windows operating systems should be utilized for system access. For browser-based access software, camera specific ActiveX controls/Java Applets may be automatically loaded on the end-user system.
2. The solution shall describe the licensing arrangements and costs for the required client-side software. The *preferred* solution shall allow for unlimited client licenses without any incremental cost for additional user access.
3. The solution shall include an 'archive extractor' software module capable of *viewing* archived images based on a specific camera, date and time specified by the user. The images will be able to be downloaded and viewed with standard multimedia players or web browser.
4. The solution shall include an 'archive extractor' software module capable of *storing and transmitting* archived images based on a specific camera, date and time specified by the user. The images will be able to be captured and stored on Image Servers, the users' workstation, or any other storage media (local or network) accessible by the user. This capability shall allow users to distribute the images to other entities, such as law enforcement or discipline officers, as independent playable video "clips."

5. The solution shall incorporate single-point authentication to allow users a single login to the enterprise solution. This access shall be based on the user's rights to each site. Users shall not gain access to sites or devices that they do not have rights to even with the single-point Authentication.
6. The solution shall provide a software 'digital video multiplexor' that will:
   6.1 support an unlimited number of cameras per site that a user can select to display in multiplexor mode in their desktop client or web-browser (*preferred*).
   6.2 allow an unlimited number of users to access the digital video multiplexor on their desktop.
   6.3 support 4, 9, or 16 camera displays that can be configured and saved by the user as Multiplexor preset. Multiplexor presets should then be accessible by the end-user for rapid display of selected cameras.
   6.4 be accessible via any standard web-browser from any internet connected.
7. The solution shall provide a software 'live view' capability that will:
   7.1 display the latest image available.
   7.2 display live streaming video of the selected camera with different frame rates up to 30 fps (based on available bandwidth).

1.1.4 Hardware Features

Server Specifications

In its response, the vendor should describe the server necessary to manage the solution. Responses are expected to provide specifications and recommendations for the following needs related to the proposed solution; including technical specifications of any proposed server(s).

1. The solution shall provide the specifications for the Image Servers (or other archival storage device) included in the proposal. It is understood that the configuration specified for the Image Server is specific to number of image resolution/compression/frame rate parameters. If these parameters change, so may change hardware configuration of the server.
2. The solution shall be capable of accepting up to forty IP camera streams to each Image Server. There shall be no limitation on camera capacity by logical site.
3. The solution shall be capable of accepting cameras that will capture/multiplex color and/or B/W camera images.

Camera Specifications

In its response, the vendor should describe the cameras planned to meet the requirements and locations outlined by the College. Responses are expected to provide specifications and recommendations for the following needs related to the proposed solution; including technical specifications of the proposed cameras.

1. The cameras proposed in the solution may be able to view or capture color and/or B/W images. Preference will be given for identifying appropriate choices for areas identified.
2. The cameras proposed in the solution shall output motion JPEG as the IP camera video standard.

3. The solution shall support a variety of cameras with differing characteristics, such as, tamper resistant with all movable parts enclosed behind a protective cover; interior models with vari-focal lenses; weather resistant for outdoor use; PTZ's with network access and control; and, auto-iris for low-light conditions. The customer shall not be limited to one choice of camera.
4. The solution shall provide the capability of controlling and viewing pan-tilt-zoom cameras over the network as well as allowing on site viewing and control. The system shall allow this control via the TCP/IP communication protocol so that the pan-tilt-zoom cameras can be controlled via a LAN, WAN, or Internet connection.
5. The solution shall support cameras that have built in video motion detection. As such, the system shall store in its image archives those images transmitted which are "different" than their predecessors. This 'differencing' shall be a configurable setting, which can be turned on/off.
6. The *preferred* solution would support camera systems with tamper notification alarm and/or notification and the ability to transition images for enhanced day/night viewing of images.

1.1.5 Support Features

Staff Support

In its response, the vendor should describe the support provided to the NIACC staff to manage and utilize the system after installation.

1. The proposed solution will include expert to expert training for at least two members of the NIACC staff.

System Maintenance Specifications

In its response, the vendor should describe the support and maintenance capabilities of the system provided in the solution. Responses are expected to provide specifications and recommendations for the following needs related to the proposed solution.

1. The solution shall be able to recover fully from a power loss to the system hardware without the aid of an un-interruptible power supply (UPS) or the intervention of an operator. Recovery will include:
    a. No loss of archived images received prior to the failure.
2. The solution shall be able to recover fully when a network connection is lost and then returned without the aid of an operator.
3. The solution shall automatically detect anomalous software and hardware conditions and attempt to recover from them via software re-start.
4. The solution shall provide the ability to remotely disable, enable, or modify configuration settings of cameras without an operator physically being present at a Site or District.
5. The solution shall automatically delete Image Archives once they expire without the aid or intervention of an operator. The number of stored Image Archives days shall be configurable per camera.
6. If utilized in the solution, in the event that an Image Server begins to run out of archive storage, the unit shall automatically purge the oldest archive per camera until enough space is available to store the current day's archives. This function shall be executed without user intervention or assistance.

7. The solution's Image Server shall be able to continue to archive images normally from any camera, for an amount of time, when the network connection to the unit is not operational as long as video system sub-network is available. This shall allow for normal network system maintenance to be executed without interrupting the archive capture function.
8. Each Image Server shall provide Time Synchronization for units to be obtained by directing the Image Server Time Synchronization function to one of the following:
    a. IP of an accepted national or international Time Server
    b. IP of a DNS server internal to the customer's network

Warranty & Upgrade Specifications

In its response, the vendor should describe the warranty and upgrade options provided in the solution. Responses are expected to provide specifications and recommendations for the following needs related to the proposed solution.

1. The solution shall provide information related to warranties for ANY camera from ANY camera manufacturer utilized in the solution.
2. The solution shall provide for System Software Maintenance Releases or "patches" on the purchased software version at no charge during warranty and/or service period.

1.1.6 Miscellaneous Items

Other Criteria

In its response, the vendor should describe how the proposed solution meets the following criteria.

1. The vendor providing and installing the 'Security Camera Solution' must be a certified partner for the products proposed as well as an authorized installer.
2. The Video Surveillance System Vendor shall make a thorough inspection and test of the complete installed system, to insure the following:
    a. A complete and functional system is delivered.
    b. Security Camera System is installed in accordance applicable codes, industry standards and manufacturer's recommendations.
    c. A test to confirm that each camera is located properly, aimed and focused for the intended coverage area shall be performed. All cameras views will be signed-off by the owner as acceptable.
3. The Vendor shall provide a warranty of the installed system against defects in material and workmanship for a period of three (3) years from the date of substantial completion. Any equipment shown to be defective shall be replaced, repaired, or adjusted free of charge within the warranty period. All labor and materials shall be provided at no expense to the Owner.
4. It shall be the responsibility of the Video Surveillance System Vendor to obtain all required approvals and certifications from authorities having jurisdiction.
5. The Video Surveillance System Vendor shall conduct formal on-site training sessions. It shall be the responsibility of the Vendor to coordinate time and location of training sessions with the Owner. Provide documented general instruction as follows:
6. Provide instruction to the maintenance personnel to include the location, inspection, normal maintenance, testing, and operation of all system components.

7. Provide instruction to designated personnel on the functions and operation of the system provided including capabilities, limitations, and the meaning of status messages. State the proper procedure for testing, routine maintenance, and request for service. Provide detailed instruction on the operation of the system operation.

PART 2. GENERAL RESPONSE INSTRUCTIONS

2.0 RESPONSE SUMMARY

North Iowa Area Community College is requesting quotes for a video security system solution at the main campus located at 500 College Drive in Mason City, Iowa. All bids must be submitted no later than 10:00AM on July 9, 2007 via sealed envelope to the address below (as noted in section in the 'Bid Submission' section below).

A physical 'walkthrough' is optional and must be made by June 29, 2007. Please contact Dennis Klemas at 641-422-4399 or KlemaDen@NIACC.edu

Before awarding the bid, a vendor may be asked to demonstrate the system to ensure it meets all of the necessary qualifications.

Upon agreement on bid and project work, final approval of work completed is required from the Project Manager for the job to be considered complete.

2.1 RESPONSE STRUCTURE

All responses should include the following sections

Vendor Information Section

All proposals must include the vendor's name and address, a contact person for bid, and the contact person's phone number and email address.

Response Section

All proposals must include a complete representation of how the proposed solution will fulfill the items described in the Project Description section, specifically addressing the features and requirements outlined and including the sections titled Enterprise Features, System Design Features, Software Features, Hardware Features, Support Features, and Miscellaneous Items.

Any solution that substantially exceeds the requirements outlined in the RFP should be clearly indicated; the additional capabilities will be taken into consideration after the basic capabilities have been met.

Cost Section

The vendors' proposals must include an itemized price list with the following;

- **Digital or Network Video Recorder (VR) systems** including features of each specific system and differences between them.
- **Cameras** listing all the different camera types available including a brief feature set for each one.

- **Installation cost for the VR system** (please include what post installation support is included in this price).
- **Installation cost for the cameras** to include physical installation, camera focusing, and testing, as needed (please include what post installation support is included in this price).
- **Cost of client(s)**, if required, to view the cameras and stored images. Any limits to the number of cameras must be included in the proposal.
- **Price for support** either by hour, day, or service contract with service level options (this should include readjusting, and re-focusing of cameras and configuration of the system as may be necessary).
- **Support response** schedule, indicating distance from the main campus and the maximum time to respond via phone and the time to arrive on campus for support needs on a normal business day.

2.2 BID SUBMISSION

All bids must be submitted no later than 10:00AM on July 9, 2007 via sealed envelope to the address below. Bids may be hand-delivered or mailed but any bids received after that date and time will be rejected and returned unopened to the vendor.

North Iowa Area Community College
Attn: Dennis Klemas, Technology Services
500 College Drive
Mason City, IA 50401

All submitted proposals become the property of NIACC. Failure to submit the proposal within the aforementioned guidelines may result in the rejection of the proposal. NIACC may request clarification on any item listed in the proposal and furthermore reserves the right to reject any and/or all bids.

If you have questions concerning this bid you may contact Dennis Klemas at 641-422-4399 or KlemaDen@NIACC.edu

2.3 PROCESS TIMELINE (Tentative)

June 20, 2007..... Release of Request for Proposal
June 29, 2007..... Last day for on-site visits
July 9, 2007..... Bid submission deadline
July 19, 2007..... College Board of Directors meeting and Recommendation
July 23, 2007..... Notification of Bid Award
August, 2007..... Implementation Begins