Project Name Institutional Video Surveillance Infrastructure	Request Date 3/8/13	Project Number (AGIT Use Only)
Project Sponsor Matt Dorschel	Desired Date 7/1/13	AGIT Owner (AGIT Use Only) Daniel Ewart

Short description of project / purchase (one sentence)

Identify and acquire initial software and equipment for a video surveillance system (CCTV system) that can ultimately scale to meet the needs of diverse groups of users across the institution, and provide a single institution-wide CCTV environment with a management interface that is appropriate for use by a central security office.

ALL requested and/or recommended technology projects must complete the checklist below.

Definition: A project is a temporary endeavor undertaken to create a unique product, service, change, or result. A project is different from "business as usual" activities (operational work) in that it has a number of distinguishing features: it brings about change, has unknown elements therefore create risk that must be managed, and has a defined start and end (is temporary). In contrast, "business as usual" activities are characterized by having known policies, processes, procedures or precedents which may be followed, virtually no risk is present, the activities are not new but repeated (albeit not necessarily very frequently) and therefore does not offer change.

CHECKLIST

YES	NO	CRITERIA
Χ		1. Requires new ITS and / or other departmental information technology resources (including new or increased
		support needs)
		2. List amount of initial plus five-year on-going information technology costs for the project (i.e. first time
		hardware/software acquisition, professional services, annual maintenance, staffing, etc)
		\$ <u>38,000 year one + \$5,000 annually = \$58,000</u>
	Х	3. Requires new integration with existing information technology or electronic data systems such as Banner,
		FAMIS, R25, and ITS Identity/Access Management.
Χ		4. Affects information technology aspects of multiple organizational components of the university.
Χ		5. Has information security aspects with respect to implementation of the information technology (privacy,
		confidentiality regulatory or compliance).

- IF checking 'NO' to all criteria above, submit the completed checklist to AGIT for final review and approval.
- IF checking 'YES' to <u>any</u> of the criteria above, the Proposal form (below) must be completed and submitted to AGIT for further review and assessment.

AGIT Findings

1. Criteria utilized in review process

The security of UI's central computing resources is very important to UI. The system, if implemented campus wide at a later date, will provide improved security, improved compliance with law enforcement requests and the implementation of an agreed-upon set of standards for video surveillance, providing enhance protection for UI.

2. Findings

Approved to proceed with implementation to replace ITS video surveillance system with a system that could be used as a foundation for a UI-wide system. Systems currently in production at UI must be investigated first for suitability.

3. Comments

None

Proposal

OVERVIEW

- 1. University Responsibility Identify the name, email and phone number for the following:
 - a. Sponsoring Department Department of Public Safety and Security
 - b. Executive Sponsor Matthew Dorschel, Executive Director, Department of Public Safety and Security
 - c. Project Manager Matthew Dorschel, Executive Director, Department of Public Safety and Security
- **2. Description** -- Include in the description the following: the need, opportunity and/or the problem to be solved; the project scope including the definition of success; as applicable, describe the existing process that needs to be automated or enhanced; and for medium to large requests, provide a short description of each feature comprised in the project.

This project proposes to identify and acquire the core of a CCTV system that will be scalable to meet the CCTV needs of various constituencies across campus, including existing CCTV system owners, and that will be centrally managed by the Department of Public Safety and Security in collaboration with Information Technology Services.

Currently there are over 295 CCTV cameras on the Moscow campus, operated by 8 separate departments, using 7 different CCTV systems.

This situation represents a significant duplication of technology and effort, and presents less obvious liabilities stemming from heterogeneous policies and practices regarding the acquisition, retention, and disposition of recorded video images. In some cases those video images include images of students, in which case those video images are FERPA protected university records.

A centrally provided and managed infrastructure and policy regarding these systems will provide economies of scale with regards to the system itself, will provide uniform rules, requirements, and expectations across the institution regarding CCTV cameras and system capabilities, and perhaps more importantly will mitigate liabilities stemming from inconsistent practices regarding recorded images.

A successful central institutional CCTV system will:

- 1. Interface with existing analog and IP-based digital CCTV cameras.
- 2. Accommodate multiple megapixel IP-based cameras in remote locations.
- 3. Be able to drive and manage pan-tilt-zoom (PTZ) cameras.
- 4. Support multiple networked digital video recorders (DVRs).
- 5. Be scalable to accommodate up to 1000 cameras across the state.
- 6. Be capable of storing images according to UI and state of Idaho requirements.
- 7. Be capable of exporting time-stamped video which is verifiable as unaltered to the degree that it is admissible in court as evidence. Consequently, the system must contain mechanisms to prevent and/or detect alterations to video files made while the files are stored on the system.

- 8. Be capable of accessing and managing images stored on multiple DVRs in facilities across campus and across the state.
- 9. Be capable of storing different frame rate storage for different lengths of time for different cameras or groups of cameras (e.g. store images from the Admin parking lot camera at 1 frame per second for 10 days, but store images from the Ag Biotech lab cameras at 5 frames per second for 180 days).
- 10. Support individual management user logins.
- 11. Support different management roles for image reviewers who can only view images, and others who can export images and delete stored images.
- 12. Be able to allow management users to be configured to have privileges only to a limited subset of cameras. This is meant to facilitate the management of cameras and images owned by a given department by departmental users, and still to allow a Security Office administrative group to be able to review images from all cameras.
- 13. Support video masking, where certain areas of the image can be masked and are not recorded. This is necessary for exterior megapixel cameras which may have dormitory windows or non-UI areas in view but that must not be recorded for privacy reasons.

3. Required Costs and Resources

a. Budget estimate -- *Include both one-time and ongoing for hardware, software, staff hours (both ITS and non-ITS personnel -- including within the sponsoring department and others), consulting /professional services.*

ITS intends to put out a Request for Proposals - see 3b for resource commitment information.

b. Financial commitments /resources for above

ITS has \$25,000 budgeted for the initial acquisition and implementation and first year operation of the system, and \$10,000 per year earmarked for support of the system for each of the subsequent 4 years.

PROJECT BACKGROUND

1. Context -- Describe if it is a regulatory requirement, a mandate, supportive of a local tactical/operational plan, or supportive of a specific element of the University of Idaho strategic plan.

Departments across the University of Idaho of Idaho have been using various types of CCTV since at least the 1990's. Around 2004 a number of departments who were invested in CCTV came together and agreed to use the same DVR technology (Integral Technologies), with the idea that someday they could be managed in an integrated fashion. Since that time Integral Technologies has been bought out by Pelco, and the product line has been neglected. Some departments have purchased or experimented with CCTV products and systems from other vendors with varying degrees of satisfaction, which brings us to our current heterogeneous CCTV environment.

2. Value proposition -- *Identify projected cost savings and/or efficiencies and/or profitability (if applicable) and the associated timeframe as well as related process or service improvements.*

The fact that multiple departments across campus have independently acquired and implemented CCTV systems indicates a widespread perception of value from having such systems in place. Note however that the perceived

value(s) may vary from department to department, i.e. different departments may get different benefits from having CCTV capabilities.

There are several areas in which value is realized by centralizing CCTV systems:

Redundant hardware and effort - There are currently at least 7 departments operating at least 8 different CCTV systems. This represents multiple repositories of CCTV images, and multiple systems that must be maintained, patched, secured, and periodically replaced by those departments. Centralization would provide some economies by reducing the number of servers, systems, and individuals involved, and provide a more coherent repair and replacement program going forward.

<u>Law Enforcement role and FERPA liability</u> - The Department of Public Safety and Security provides a Law Enforcement function to the University of Idaho, and in that role is able to manage FERPA protected images with less liability than other organizational units that do not serve such a role. Putting the management of all the existing CCTV functions under the umbrella of the Department of Public Safety and Security reduces the overall liability exposure of the University.

<u>Equipment Uniformity</u> – With a centralized infrastructure and standards, the equipment can be standardized and purchased centrally. Uniform equipment on the scale of hundreds of devices translates into significant savings in both initial acquisition costs and repair and replacement costs, and reduces the ongoing ownership cost of the equipment by simplifying the maintenance procedures (fewer types of equipment mean fewer maintenance procedures overall), and reduce the volume and types of spare parts required to maintain the system across campus.

<u>Standardized CCTV Operator Roles and Internal Controls</u> – A central CCTV system would allow the establishment of standardized CCTV roles, where departmental operators would have certain well-defined and overseen capabilities, and central operators would have broader but equally well-defined and overseen capabilities. Internal controls could be put into place to ensure that records are appropriately protected.

- **3. Beneficiaries** *Identify who on campus or which off-campus constituent group will directly or indirectly benefit.* Current organizational units and/or locations that operate CCTV systems include:
 - Gibb Small Animal Lab
 - SUB / Commons
 - Ag Bio
 - Ag Science
 - 6th Street Greenhouse
 - Student Rec. Center
 - Housing
 - Book Store
 - Kibbie Dome
 - Counseling and Testing

• ITS Network Op Centers

Another unit that would engage in the operation of CCTV systems if and when this project is implemented is the Department of Public Safety and Security. Although monitoring of CCTV systems is not contemplated at this time (i.e. nobody will be watching a wall full of video feeds), they would benefit additionally by being able to leverage feeds from CCTV systems to help UI Security staff better understand and respond to reported emergencies on campus.

4. Risks -- Describe all risks associated with doing as well as NOT doing this project.

Risks involved with establishing a centrally managed CCTV system primarily stem from having staff with access to all cameras across campus. This risk is offset by the fact that such individuals in a central role can be better vetted and overseen than the current environment, where multiple departments have one or more individuals who manage CCTV systems "on the side", as one of several duties.

Risks associated with NOT establishing a centrally managed CCTV system include the continued exposure to liabilities the UI already has in the manner we manage our various CCTV systems across campus.

There is also an opportunity cost to our current decentralized CCTV environment. In the absence of a centralized system, there is a relatively high cost for a department to establish a CCTV capability. For example, if they need one camera to monitor something temporarily, currently they need to purchase a system, install it, and train someone to use it. This high barrier to entry may be dissuading some departments from acquiring CCTV systems that they could derive some benefit from. A central CCTV system would lower the cost of entry for departments, since a system already exists that they can use, and expertise to run the system already exists elsewhere within the institution.

5. Alternatives Considered -- Document alternatives considered and why rejected. Changes in business processes to accommodate existing technology solutions should be considered and documented.

The first option considered was to have departments install independently owned and maintained but compatible systems. In fact this approach was pursued in the past. This approach failed over time. The various departments have varying resources that they can dedicate to their CCTV system, and so over time problems arose: from inconsistent technical support to variable funding levels for upgrades and therefore various departments had similar systems at different software version and patch levels. In addition the independent management of the various systems lead to inconsistent management and retention of video images.

We also considered the option of pursuing a course to eliminate CCTV on campus. However, upon consideration it became apparent that multiple departments have implemented and continue to maintain CCTV systems, so clearly they perceive a value to having those capabilities. Eliminating those CCTV systems without providing those perceived values another way would not be serving the needs of the institution.

6. Timeframe and Urgency -- Identify relevant timeframes or related timelines. Do we need to do this right now or can it wait? Define the level of urgency and priority compared to other work, both project and operational.

The department of Information Technology Services (ITS) has a CCTV system that is nearing obsolescence. ITS has volunteered to purchase the initial package, beta test the hardware, and to set up and provide technical support to Campus Safety and Security for the management system of a CCTV system that is capable of scaling to meet the campus needs. The funds and resources identified for this project are being provided by ITS in order to meet that departmental need.

ITS would like to proceed and have the replacement CCTV system in place by July 30, 2013.

7. Constraints -- Identify constraints such as budget, schedule, staff, equipment, facilities and infrastructure, etc.

The project has a finite amount of financial resources identified, enumerated in section 3 of the Overview, above. In order to meet the needs of campus in a timely and cost-effective manner the proposed system must also be capable of working with the majority of the existing CCTV camera and cabling infrastructure currently in use on campus.

CONNECTIONS

1. System impacts / dependencies -- Identify any prerequisite projects as well as any related or connected processes or projects that will need modification or changes as a result of this project. Describe how existing systems and processes need to be modified or extended to accomplish this project.

The central CCTV system will be capable of connecting to and recording images from most, if not all of the existing CCTV cameras on campus. It will therefore replace the existing recording and image management software and hardware maintained by departments.

2. Enterprise Systems Integration -- Requirements for interfacing to all institutional IT/ ERP systems including but not limited to: ITS Authentication (LDAPS), Banner – HR, Banner – Finance, Banner – Student, VandalCard, Document Imaging, Web Services, and Help Desk.

A desired feature of the central CCTV system is the ability to utilize our existing Single Sign On (SSO) infrastructure for authentication.

3. Stakeholders -- **impact and/or buy-in** -- *Identify* various stakeholders (both from within ITS and outside) whose support is required to make this project successful. Has their buy-in been secured? If not, what conditions or constraints have they placed on their support?)

There are two categories of stakeholders affected in this project: CCTV service consumers (i.e. departments who will use CCTV services attached to the system), and stakeholders whose services will be required to support the system.

In the first category, the current stakeholders have been identified in paragraph 3 of the Project Background, above. These stakeholders are all aware of this project and are generally supportive of it. This group also includes the Department of Public Safety and Security, and buy-in has obviously been obtained from that stakeholder.

In the second category, a specific CCTV system has not yet been identified or specified for this project, and so the specific groups required for support cannot be concretely identified. However, given the likely nature of the

products that will meet the specified requirements, this category of stakeholders will likely include the Department of Public Safety and Security, the Facilities Electrical Shop, and the ITS Server Team.