Campus-Wide IP Surveillance System Standards

PART 1 - PURPOSE

Any person or unit of the university considering the purchase or installation of an IP Surveillance/Camera System on University premises must first consult with and receive prior approval from Facilities, Real Estate and Auxiliary Services Computing Operations and Campus & Public Safety.

Any person considering such a purchase must first submit a Request for Service – Facilities web form to initiate the project. Facilities, Real Estate and Auxiliary Services Computing Operations and Campus & Public Safety will review the physical and personal security needs of the facility and the persons who will occupy that facility, determine appropriate design parameters, and assist with the selection of the system and manage the installation of the system.

This policy applies to new construction, existing facilities, upgrading/changing system designs or specifications and any other modifications to existing or planned security systems that either report to or are monitored by the Department of Public Safety.

1.0 General

1.1 Scope of Work

1.1.1 Introduction

The IP Surveillance System (IPSS) must be designed to meet the current and future needs of the University. The IPSS will incorporate the most current and advanced technologies and capabilities. At a minimum, the IPSS must be designed to meet these minimum standards:

- Must be an open architecture system.
- Must support an IP network infrastructure.
- Must be flexible and scalable to allow for future system growth.
- Should avoid proprietary or sole source procurement systems.
- Should support H.264, H.265 or High Definition

1.1.2 System Installation and Contractors

- All contractors working on university I.P. Surveillance Systems (IPSS) shall provide, install, and program a functionally complete video surveillance system per Manufacturer’s guidelines, codes, described, and the specifications of the university and must be licensed to conduct business in the State of Delaware.

- Installation personnel shall be persons who are qualified and experienced in the installation, inspection, and testing of IPSS. Installation of systems will be supervised by University Electronics Shop and Campus & Public Safety personnel. All installation technicians must possess a valid State of Delaware Alarm Employee License via the Delaware State Police.

- All contractors must be an authorized Genetec Channel Partner.

1.1.3 System Wiring

- Any system wiring must meet all existing standards of the university.
- All system wiring shall be plenum rated.
• Video transmission cables shall be plenum rated CAT5e or greater for all camera runs. Field or “homemade” station cables are not acceptable in any case, no exceptions.

• Any exterior installations will limit the amount of exposed conduit. University Facilities Planning and Construction will be consulted where necessary and provide approval on installations, especially in cases where a university building may be subject to local or national historic designation.

• Wire gauge and shielding shall follow the manufacturer’s installation guidelines.

• All penetrations through fire rated barriers shall be provided with appropriate fire stopping materials in accordance with the National Fire Protection Agency (NFPA) and the local fire code.

• All wiring shall be installed in accordance with the National Electric Code (NEC) and the National Fire Protection Agency (NFPA).

• All wiring shall be concealed where possible. All exposed wiring shall be installed in a protective metallic housing such as conduit or Wire mold.

• Cables penetrating floors and firewalls must be routed through a metallic sleeve and properly fire stopped to meet national and local fire codes. All walls and floors shall maintain their existing fire rating.

1.1.4 System Programming

• The Contractor shall complete the initial programming of the IP cameras and will be responsible for working with Campus & Public Safety and Facilities, Real Estate and Auxiliary Services Computing Operations to ensure satisfactory system operation.

• Facilities, Real Estate and Auxiliary Services Computing Operations will complete all system programming of the Genetec networked video recorder.

• The Contractor shall adjust cameras (aim and focus) and verify with Campus & Public Safety that the field of view is acceptable.

1.1.5 Documentation

Contractor shall include the following documentation in bounded and labeled three ring binder with zipper ends which shall be delivered to Campus & Public Safety upon final acceptance of the system:

• Manufacturers Owner’s Manual
• Manufacturers Users’ Manual and instructions
• Manufacturers Programming and Installation Manuals
• Any peripheral devices cut sheets, installation sheets and instructions
• All user and programming codes
1.1.6 Training
Upon completion of the installation, the Contractor shall furnish orientation and refresher training, as needed or determined by Campus & Public Safety.

1.1.7 Guarantee of Work
All components, parts, and assemblies supplied by the Manufacturers and installed by the Contractor shall be warranted against defects in material and workmanship for a period of at least twelve (12) months (parts and labor), commencing upon date of first beneficial use of system by owner. A qualified factory-trained service representative shall provide warranty service.

1.1.8 Service and Maintenance
During the warranty period, the Contractor shall be responsible for maintenance and repair of the system including the repair of workmanship defects, free of charge (parts and labor). The installer shall correct any system defect within four (4) hours of receipt of a call from Campus & Public Safety. After the initial warranty has expired all service and maintenance of the camera must be paid for by the requesting department. Campus and Public Safety can open service requests on behalf of the department but all billing will be sent directly to the requesting department. Departments are required to keep the cameras operational at all times.

1.1.9 Building Security
Building security shall remain functional during installation. Doors and door locking shall remain operational. University Police must be notified if it is not possible to lock the doors at the end of each workday. Failure to comply will result in removal from the approved vendor list. Existing surveillance systems shall remain in operation during installation. Exceptions must be approved by Campus & Public Safety. Disruption in surveillance shall be kept to a minimum.

2.0 Video Surveillance
2.1 Video Surveillance Description

2.1.1 Any addition to the IPSS must be able to integrate seamlessly with the existing Genetec system currently in use at the university.

2.1.2 Video Surveillance Features/Capabilities
A. Cameras shall be high resolution color, day/night mini dome cameras;
B. Cameras shall have a minimum 36x optical zoom with 12x digital zoom;
C. Cameras shall be H.264 selectable;
D. The camera shall have privacy masking, the ability to select multiple regions of an arbitrary shape to block the video. This feature will support both HTTP and TFTP protocols, as well as the on-camera web interface.
E. Cameras shall have a minimum 720p HD images up to 30fps and full frame (up to 30fps) and a minimum resolution of 1,280 (H) x 960 (v) pixels up to a rate of 24 frames per second (FPS).
F. Cameras shall be equipped with lenses that have an automatic iris and a variable focal length of 4 to 8 millimeters or greater.

G. Camera shall incorporate necessary algorithms and circuits to detect motion in low light with clarity;

H. Camera shall support minimum illumination of 0.1 Lux @ F1.2 in color mode and 0 lux in b/w mode;

I. For interior cameras, the primary power source shall be Power over Ethernet (PoE) complying with IEEE 802.3af standard;

J. For exterior cameras, an independent power source is required consisting of DC Power from 12V to 48V DC or 24V AC power source.

K. Camera housings shall be vandal resistant;

L. Camera domes shall be clear unless otherwise directed and be able to maintain operational efficiency during temperature extremes;

M. Exterior cameras shall be pendant mounted;

N. The university will determine the camera housing and associated mounting devices from those available from the manufacturer’s list of available options, which may be site specific;

O. Cameras must be compatible, at a minimum, with Genetec Security Center. A current list of compatible cameras can be found here. An approved list of cameras will be maintained by Campus & Public Safety. Any substitutions must be approved by Campus & Public Safety, no exceptions;

P. Sample specifications for the existing university PTZ cameras (Panasonic WVSW396) is available for review here. These are minimum standards for any PTZ camera to be installed on campus;

Q. Sample specifications for the existing university Fixed cameras (Panasonic WVNW 502S) is available for review here. These are minimum standards for any fixed camera to be installed on campus;

R. The camera shall have a minimum 1 year warranty on all parts and labor.

End of Section