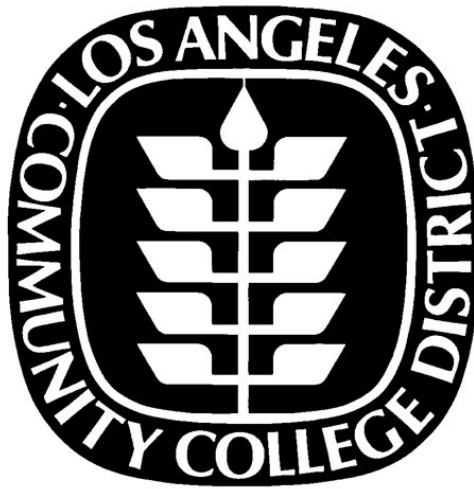


LOS ANGELES COMMUNITY COLLEGE DISTRICT

Districtwide Minimum Standards

for

Security Camera Systems



February 21th, 2019

LACCD Districtwide Minimum Standards for Security Camera Systems

Outline

The following document contains the deployment, technology, and installation standards for Security Camera Systems (SCS) within LACCD facilities.

Program managers, designers, and contractors shall review and familiarize themselves with the requirements contained herein prior to beginning any project which has a SCS component.

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Strategic Documents

1. [Blue Ribbon Panel on Campus Safety and Emergency Preparedness](#)
2. [LACCD 5-Year Strategic Plan 2018 – 2023](#)

LACCD Districtwide Minimum Standards for Security Camera Systems

1. Summary

LACCD has developed minimum design standards governing the deployment of Security Camera Systems (SCS) to provide a baseline level of security that is required within District facilities. The SCS standards were developed to meet the goals and recommendations as described within the following documents:

- Blue Ribbon Panel on Campus Safety & Emergency Preparedness, Dated December 16, 2015
- LACCD Strategic Plan 2018 – 2023, Dated January 18, 2018

These standards shall be utilized to aid in the application of current technology standards and best practices to all new construction as well as renovation projects undertaken within the District.

A Security Camera Systems documents occurrence within a camera or group of camera's fields of view through the use of video recording software. The purpose of the SCS is to provide live viewing for situational awareness as well as recorded video for forensic analysis.

The operation, oversight, and maintenance of the systems discussed herein is primarily the shared responsibility of the following departments:

- District Information Technology
- College Administration (IT and Facilities)
- Campus Safety Office
- District Safety and Emergency Response

2. Acronyms Used

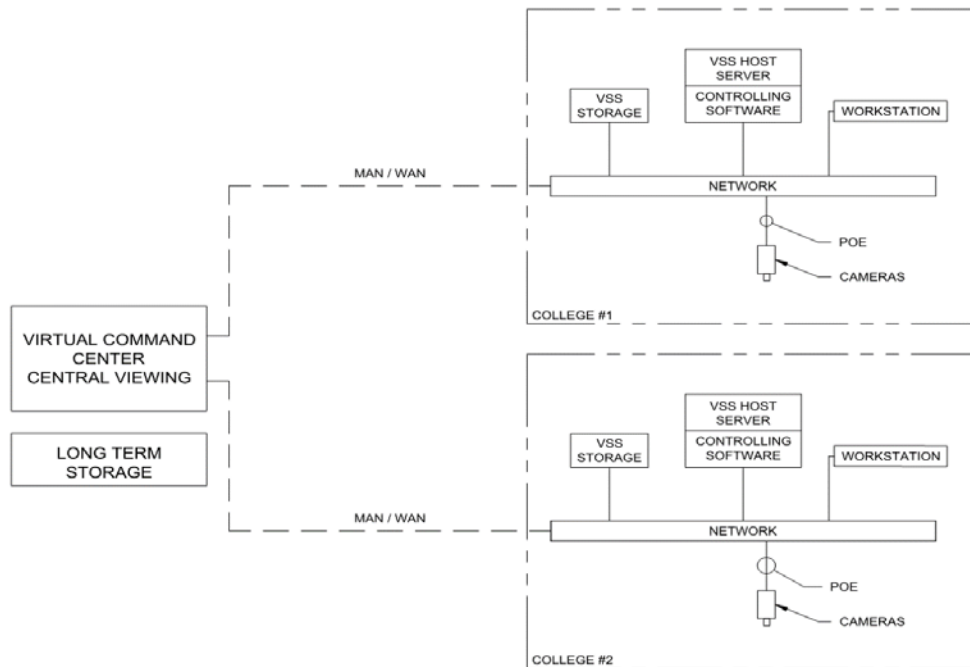
- ALPR – Automatic License Plate Recognition
- BW – Black & White
- CAD – Computer Aided Design
- CJIS – Criminal Justice Information Services
- DHS – Department of Homeland Security
- FPS – Frames per Second
- GIS – Graphical Information Systems
- ISO - International Organization for Standardization
- IP – Internet Protocol
- IR - Infrared
- IDS – Intrusion Detection System
- ONVIF – Open Network Video Interface Forum
- PACS – Physical Access Control System (Building Access Control)
- PPF – Pixels Per Foot
- RAID – Redundant Array of Independent Discs
- SCS – Security Camera Systems
- SDK – Software Development Kit
- UI – User Interface
- UL – Underwriter's Laboratory

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- VMS – Video Management System

3. Security Camera System Components

- Host Server – This is where the core system software typically resides, including the database containing the individual camera configuration, as well as the actual operating software of the system. Manufacturer of the servers shall be selected by the District IT department.
- Workstations – These are where system operators / administrators can monitor live video / review recorded video, export video for documentary / evidentiary purposes, and modify the operating parameters of the system. These workstations are typically on the robust side in order to effectively process multiple video streams with a minimum of latency. Workstations would typically be provided by the College IT departments, subject to meeting VMS manufacturer minimum specifications.
- Controlling Software – This is the actual operating system of the SCS, the Video Management System (VMS) which resides on the host server.
- SCS Storage – Recorded video data is stored here. Typically, a RAID solution is utilized for redundancy.
- Cameras – Sensors which capture and store events occurring within their field of view.



Video System Component Diagram

4. Retention Standards for Security Camera System

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Retention Period – Standard Video

- Recorded video shall be stored for a period of no less than thirty (30) days.
- Video shall be recorded at a minimum of 12 FPS

Retention Period – Incident Video

- Video associated with any security breach shall be retained according to LACCD policy.

5. Security Camera System Technical Standards

Video Management System

The VMS shall have the following basic functionality at a minimum:

- The VMS shall be part of an all-encompassing security platform and shall support integration of the following security technologies and systems:
 - a. Security Camera
 - b. Physical Access Control
 - c. Intrusion Detection
 - d. Emergency Phone System
 - e. Automatic License Plate Recognition
- The VMS shall have the following certifications:
 - a. UL 2900-2-3 Level 3 Cyber Security Readiness Certification
 - b. ISO/IEW 27001 Standard
 - c. FBI CJIS Compliance for cloud services
 - d. Microsoft Gold Certification
 - e. DHS Safety Act Certification
- The VMS shall have the ability to create and customize dynamic live dashboards for system monitoring, displaying data including but not limited to:
 - a. Health Diagnostics and Reports with Graphical Data Representation
 - b. SDK Reports
 - c. Weather Information
 - d. Live Video
 - e. Access Control Events
 - f. Panic / Duress / Intrusion Alarms
- The VMS shall have the capability of displaying interactive graphical maps with the following functionality as a minimum:
 - a. The interactive graphical maps shall provide the ability to display any type of third-party entities integrated through an SDK.
 - b. The interactive graphical maps shall be able to select which floor is to be displayed through a built-in mapping floor selector
 - c. The interactive graphical maps shall support CAD files, Vector, or GIS maps
 - d. The interactive graphical maps must be able to display intrusion and arm/disarm zones directly on the map

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- The VMS shall be capable of automatically switching the stream of video from a low-resolution stream to a high-resolution stream based upon the size of the video tile, thereby reducing the load on the network resources.
- The VMS reporting feature shall be capable of supporting:
 - a. Comprehensive data filtering for most reports based on entity type, event type, event timestamp, custom fields, and more
 - b. The ability to display results through graphics such as pie charts and bar graphs
- The VMS shall support the seamless unification of an Automatic License Plate Recognition (ALPR) system under a single platform. The user interface (UI) shall present a unified security interface for the management, configuration, monitoring, and reporting of the ALPR systems and associated edge devices.

6. Standards for Security Camera System Camera Deployment

The LACCD has determined minimum levels of camera coverage to be deployed at each LACCD College. The following areas are to be equipped with security cameras meeting the minimum required performance parameters for each type area without exception:

- Facial Recognition (50-60 PPF across the center of the horizontal field of view):
 - a. Campus Main Vehicular and Pedestrian Entryways
 - b. Main building entryways and stairwell doors.
 - c. Building and Parking Structure Elevators
 - d. Parking Structure Vehicular and Pedestrian Entryways
 - e. Cash Handling Areas
 - f. Areas containing valuable assets
 - g. Emergency Phones & Surrounding Area
- General Activity Observation (Minimum 20 PPF across the horizontal center of the field of view):
 - a. Building exterior perimeters
 - b. Campus walkways and gathering areas
 - c. Parking structure general areas

Cameras shall have the following basic functionality at a minimum. Detailed definitions of each functional requirement are included in the performance specifications.

- ONVIF Compliant
- Wide Dynamic Range
- Day/Night Capability
- Motion Detection
- Analytic Capabilities
- Standard Mounting
- The following camera types will typically be utilized on LACCD projects:
 - a. Minimum 2 Megapixel (1080p) interior wall / ceiling mount fixed dome type camera, integral IR illumination and varifocal lens, color / low light BW capable, as manufactured by Axis.

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- b. Minimum 2 Megapixel (1080p) exterior wall / pole mount fixed dome type camera, integral IR illumination and varifocal lens, color / low light BW capable, as manufactured by Axis.
- c. Specialty cameras as needed for project specific application

7. System Integration Capability

- This SCS software platform and cameras shall be compatible with, and capable of integration to, the current District-wide Lenel OnGuard PACS platform, without exception.
- The SCS software platform and cameras shall be integrated into the PACS software platform in such a fashion as to cause selected PACS user actions and policy violations as well as IDS / Duress activations to be tagged with descriptive metadata on the recorded video and activate a live viewing screen.

8. System Enterprise Capability

- The SCS system cameras shall be configured as an enterprise system using local College servers but having the capability to stream security camera data to an off-site centralized command center.
- System operators and administrators of the SCS shall only be granted access to the application and camera views using Windows Active Directory credentials. Logon and Password associated user privileges will determine operator operating levels and the ability to view live or recorded video, export video, delete video, or make operational changes to the system programming.
- Audit trail records shall be accurately maintained for a period of three (3) years of which individuals performed programming / configuration / database changes within the SCS.

9. System Performance Verification Testing and Commissioning

- A performance verification testing and commissioning report shall be completed for each SCS project, containing a checklist of all District deployment and installation standards. This testing and commissioning process shall serve to verify compliance with all features and functionality required of the SCS. If any portion of the system fails the testing / commissioning process, the issue shall be corrected, and the process shall begin again. Any system consecutively failing two (2) such testing attempts shall be retested at the Contractor's expense.
- A representative from each firm involved with any portion of the installation shall be present for the system testing in order to ensure whichever firm is responsible for the failure is present and able to resolve the issue expeditiously.

10. Training and Documentation

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- Support and training costs associated with the SCS cameras will be paid by the System Installer.
- System training shall be allocated for each project. This training shall be conducted by a manufacturer authorized and certified instructor. Training materials shall be supplied in both printed as well as electronic format and shall be specific to the project.
- Training shall not begin until the SCS has been completely tested and commissioned, in order that users may be trained on a fully functional system.
- Training shall be centric to the operational roles that the College deems necessary at the time the training takes place.
- The College shall be engaged throughout the design process to confirm the appropriate amount of training required.
- Training shall be formatted into 4-hour increments, so that multiple training sessions may take place depending upon the availability of the staff requiring the training. A minimum of two (2) 4-hour training sessions shall be included in all Security Camera System projects.

11. Warranty

- All Security Camera equipment shall be warrantied against any defects in material and workmanship under normal use for a period of five (5) years from date of official acceptance of the completed project by the Owner. The Vendor shall complete a manufacturer "Installation Certification" certifying the date on which the system has been installed to ensure the Owner receives full warranty rights from the manufacturer.

END OF SECTION