

LOS ANGELES COMMUNITY COLLEGE DISTRICT

Districtwide Minimum Standards

for

Emergency Mass Notification System



May 30, 2019

LACCD Districtwide Minimum Standards for Emergency Mass Notification System

Outline

The following document contains the deployment, technology, and installation standards for Mass Notification Systems (MNS) 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 an MNS 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 Emergency Mass Notification System

1. Summary

LACCD has developed minimum design standards governing the design and deployment of Emergency Mass Notification System components to provide a baseline capability for the dissemination of emergency information and / or instructions that is required within District facilities. This standard was developed to meet the goals and recommendations as described within the following documents:

- A. Blue Ribbon Panel on Campus Safety & Emergency Preparedness, Dated December 16, 2015 (Attached as Appendix 1)
- B. LACCD Strategic Plan 2018 – 2023, Dated January 18, 2018 (Attached as Appendix 2)

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

National Fire Protection Association (NFPA) 72 defines an Emergency Mass Notification System to be a system used to provide information and instructions to people in a building, area, site, or other space using intelligible voice communications and possibly including visible signals, text, graphics, tactile, or other communications methods.

The Emergency Mass Notification System is distinctively separate from the Fire Alarm Notification System, however recent NFPA changes allow for fire alarm notification appliances such as audible strobe / speakers to be integrated into the EMNS.

Notification capabilities of the EMNS are divided into two classifications –

- i. Immediate Notification, where alerts, instructions and / or information are broadcast in less than 5 minutes. These components of the EMNS require 6-hour emergency backup power.
- ii. Delayed Notification, where alerts, instructions and / or information are delayed 5 – 20 minutes.

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

- A. College Administration (IT, Facilities, and Public Information Office)
- B. Campus Safety Office
- C. District Information Technology
- D. District Safety and Emergency Services

2. Acronyms Used

- A. EMNS – Emergency Mass Notification System
- B. IP – Internet Protocol
- C. IT – Information Technology
- D. LED – Light Emitting Diode

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- E. NFPA – National Fire Protection Association
- F. POE – Power Over Ethernet
- G. RSS - Really Simple Syndication
- H. SMS – Short Message Service
- I. VOIP – Voice Over Internet Protocol

3. Emergency Mass Notification System Components

There are many different modalities available to effectively communicate an emergency notification. Below are several components LACCD has standardized on using to achieve mass notification, divided into immediate versus delayed notification components:

- A. Immediate Notification EMNS Components
 - i. Exterior Alerts
 - 1. High Powered Speaker Arrays
 - ii. Interior Alerts
 - 1. Mass Notification Speaker / Strobes (FACP Voice Evac tie-in, not related to Fire driven alerts)
- B. Delayed Notification EMNS Components
 - i. Exterior Alerts
 - 1. Digital Signage Kiosks
 - 2. IP-Based Loudspeakers
 - ii. Interior Alerts
 - 1. IP-Based Loudspeakers
 - iii. Wide-Area Alerts
 - 1. Email
 - 2. SMS / Text
 - 3. Voice Phone Messaging
 - 4. Social Media Posts
 - 5. RSS Feeds

4. Emergency Mass Notification System Technical Requirements

- A. The District-Wide EMNS platform and all associated components shall meet the following minimum requirements:
 - i. Shall have the capability to function as a unified system, capable of being controlled from a single location, with this location having the ability to activate identical or differing alerts simultaneously.
 - ii. Shall be capable of both local and remote control and activation from each LACCD site for users with appropriate permissions.
 - iii. Shall be capable of utilizing pre-recorded situational specific instructions (shelter-in-place, lockdown, evacuate, etc.) utilizing system dashboard “hot-key” icons that allow the message to be broadcast across all Exterior and Interior Alert modalities mentioned above with a single click activation.

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- iv. Shall be capable of utilizing a single point of contact to send live voice audible messages across the audio-based modalities listed in the Exterior and Interior Alert devices mentioned above.
- v. In case of primary EMNS failure, there shall also be an ability to manually communicate over each modality without relying on any other modality for communication to be achieved.
- vi. Shall have the ability to choose which modalities are utilized for certain pre-configured alerts and shall have the capability of activating differing alerts at different facilities simultaneously.
- vii. Shall have High Availability for the notification platform with no single point of failure and guaranteed uptime of at least 99.99%.
- viii. Notification components shall be provided with back-up power based upon the criticality of their operation. Critical system components shall be capable of a minimum of 6-hours continuous operation upon loss of primary power. Critical systems are defined as:
 - 1. Emergency Phones and supporting network infrastructure.
 - 2. Digital Signage and supporting network infrastructure.
 - 3. Audible devices and supporting network infrastructure.
- ix. Notification components that support multiple notification modalities such as devices with strobe lights, digital LCD screens, loudspeakers, or other annunciation methods shall utilize all modalities upon system activation.
- x. EMNS systems should have the capability to interface with Fire Alarm Notification Appliance Circuits.
 - 1. Fire Alarm Notification Systems shall be integrated with the EMNS whenever possible, however for existing buildings that do not currently support this functionality, IP-based speakers with digital LCD screens shall be installed to meet interior notification requirements.
- xi. All copper and fiber optic cabling shall be specified and installed in accordance with LACCD cabling standards.

5. Standards for Emergency Mass Notification System Deployment

Exterior and Interior based EMNS components shall be deployed within each campus in such a way that allows notifications to be intelligible regardless of where individuals may be located. A comprehensive design shall be developed and utilized for each site to achieve effective communication to the occupants without excessive reverberation.

6. System Integration Capability

- A. The EMNS shall be integrated with the LACCD standard Video Management System, Physical Access Control System, Voice Over Internet Protocol system and the Emergency Phone System.
- B. These integrations shall serve as a comprehensive notification system to allow pre-defined actions to be performed on any and all devices managed by these systems in the event of an EMNS activation. Example: Upon issuing a

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“Lockdown” EMNS event, cameras may be configured to raise quality and frame rate recording, card readers may be configured to change from unlocked to locked, VOIP devices may broadcast an audible pre-recorded message.

7. System Enterprise Capability

- A. The EMNS shall utilize Microsoft Active Directory for authenticating users. User permissions shall be modified by an LACCD assigned system administrator.
- B. The EMNS shall support automatic synchronization with LACCD systems and databases that contain devices that may be used for notification purposes.

8. System Performance Verification Testing and Commissioning

- A. A performance verification testing and commissioning report shall be completed for each EMNS 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 EMNS. 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.
- B. 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.

9. Training and Documentation

- A. Support and training costs associated with the MNS devices will be paid by the System Installer.
- B. 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.
- C. Training shall not begin until the EMNS has been completely tested and commissioned, in order that users may be trained on a fully functional system.
- D. Training shall be centric to the operational roles that the College deems necessary at the time the training takes place.
- E. The College shall be engaged throughout the design process to confirm the appropriate amount of training required.
- F. 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 EMNS projects.

10. Warranty

- A. All EMNS 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

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system has been installed to ensure the Owner receives full warranty rights from the manufacturer.

END OF SECTION