

# IED • LANcom®

SCHOOL COMMUNICATION SYSTEMS



## Comprehensive Solutions for School Communication

Amplified Learning®

Public Address • Emergency Notification

Intercom • Bell Schedule • Clock Synchronization

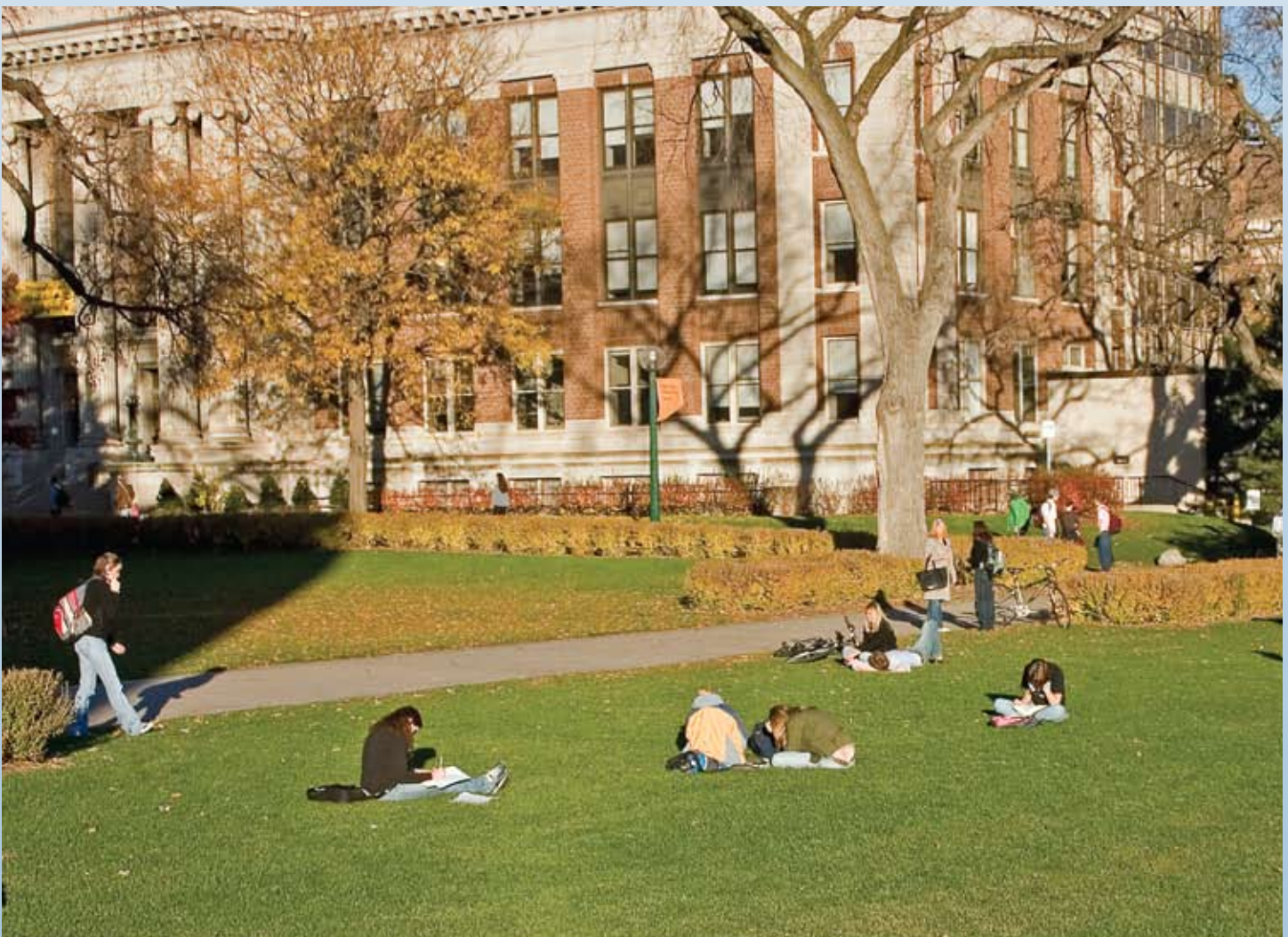


# Innovative Electronic Designs - Over 30 Years of Mass Communications Expertise



Innovative Electronic Designs (IED) has been a leader in mass communications for over 30 years. With systems installed worldwide in airports, convention centers, healthcare facilities, government complexes, and industrial buildings, IED is familiar with and understands the primary needs of any messaging system. Reliability is essential, with simplified user interfaces and system flexibility for future changes and expansion being critical elements as well. IED's ability to consistently achieve these goals, combined with their unmatched experience in the audio industry, has placed them in a position to provide messaging systems that exceed customer expectations.

LANcom SCS was designed to meet the ever-increasing technical needs of educational facilities, providing campus-wide communication systems with just the right features to benefit students, faculty, administrators, and the education system as a whole.



# Introducing the **NEW IED LANcom SCS School Communication System**



The LANcom SCS is a family of complete technology solutions that are designed to improve student engagement, increase the safety and security of your school and its students, and simplify campus-wide communications. Each system is completely scalable with features that meet the needs of any size school.

LANcom SCS offers unique features that are unmatched in the industry:

- Network based, all digital solution that utilizes existing or new network infrastructure to eliminate costly separate classroom systems.
- Professional, full bandwidth, CD-quality audio is featured in all endpoints for optimum intelligibility
- Intuitive software centralizes and configures schedules, zones, messages, and bell tones
- Multi-layered security structure allows authorized user access in defined zones from any web enabled work station
- Standard CAT5e or better and fiber optic cabling offer tremendous cost savings for schools with existing organized cable infrastructures

Whether your school has as few as twenty classrooms or as many as five hundred, the LANcom SCS system can provide classroom Amplified Learning<sup>®</sup>, ensure your student's safety, and deliver real-time audio/visual messaging and media playback that promotes accelerated learning.

LANcom SCS includes functions that typical systems do not:

- Mass and Zone-Controlled Notification
- Amplified Learning<sup>®</sup>
- Full-Duplex (Open Line), Two-Way Intercom
- Multifunction Messaging (Audio and Video)
- Bell Scheduling and Clock Synchronization
- Integration with Emergency (Fire, Tornado, Security, Etc.) Signals



LC3124CM – Connection Module

- Signal interface brain of the LANcom SCS
- Includes up to 8 monaural program audio inputs
- Computer audio interface distributes audio, bells, and prerecorded messages to the LANcom SCS system
- Includes two-line telephone hybrid for analog (POTS) loop start lines



# Emergency Messaging and Notification



Student and faculty safety is one of the most important issues facing the education system today. School shootings and hostage scenarios are a community's greatest fear, and recent events have illustrated the need to have mechanisms in place to protect the student population when a threat is present. Emergency situations cannot be prevented, but LANcom SCS goes above and beyond in effectively allowing administrators and school personnel to appropriately respond during crises.

- Predefined and ad-hoc message capabilities for a variety of situations (including lockdown, weather-related, et al)
- Effectively notify and direct students and staff to safe locations
- Visual paging displays (optional component) can provide directional messages to better facilitate evacuation or other required student actions
- Unique in-classroom panic function alerts office staff and first responders via non-verbal network messages when dangerous and/or emergency situations arise

# System Intelligibility



The ability for students to properly hear and understand what teachers are saying in the classroom is essential. More than just a factor of volume, the quality of the audio presented is critical to student comprehension and safety. LANcom SCS provides the highest quality audio of any educational sound system on the market. This improved level of student understanding and system intelligibility is possible because of the unique use of dedicated structured wiring. In utilizing the full bandwidth available for the audio signals, LANcom SCS is noticeably more intelligible compared to systems that piggyback on shared networks.



LC12DCS – Call Switch

- Dual button in-classroom intercom call switch
- Buttons can be configured for specific function
- Functions include Place Intercom Call, Emergency Call, and Situation Acknowledge
- Call switches can be daisy-chained to allow multiple switches in the classroom

# Amplified Learning® / Classroom Sound Reinforcement

Expanding class sizes make it vital for a teacher's voice to be evenly distributed throughout the classroom, allowing all students to clearly hear the lessons. This feature is known as Amplified Learning® or Sound Reinforcement and is an increasingly valuable teaching tool that engages students and reduces teacher voice fatigue. Amplified Learning not only improves student focus, comprehension, and retention, but it helps eliminate distractions as well.

- Sound reinforcement modules easily manage all classroom audio sources to keep technology-rich lessons running smoothly
- Infrared microphones are easy to use, comfortable to carry, and impervious to cross-talk (interference) between rooms
- Web-based interface simplifies installation and use, and it eliminates external knobs/switches to prevent tampering and inadvertent system changes
- Teachers can easily manage master volume, muting, and other audio functions
- Audio from any room with a sound reinforcement module can be used as a program source for any other zone in the school



LC372SR – Sound Reinforcement Module

- Integrates paging, intercom, emergency message and multimedia systems
- Includes 30W, 25V amplifier/receiver, Atlas Learn infrared microphone, IR sensor and microphone charging station
- Stereo aux input on rear-mounted Euroblock connector
- Line output provided to feed audio to additional power amplifiers for use in larger spaces including cafeterias, libraries and learning centers
- Logic input provides local mute function for page override
- CobraNet's CD-quality digital audio on program channels and intercom improves intelligibility
- Works in conjunction with LC372AI audio input plate for additional source inputs
- Can be rack mounted, wall mounted or pole mounted with optional mounting kits
- Powered by either the LC41PI or LC48MPI with no in-classroom 120V outlet required



LC372AI – Audio Input Plate

- Works in conjunction with LC372SRM Sound Reinforcement Module
- Allows convenient connection to local audio sources for remote use in classrooms
- Supports up to 3 local audio sources
- No power outlet required; unit receives power through structured network cabling

# Paging and Intercom



LC108MSW-HS  
Digital Communication Station

- Used for initiating audio/visual announcements, messages, and page announcements
- Network appliance with dedicated IP address for easy installation and configuration
- 8 software configurable, touch selection buttons with LED "active" light
- Buttons configurable to initiate live page or stored message to one or more designated zone groups
- Utilizes standard Power over Ethernet (PoE) technology to power itself resulting in only one wire connecting to the unit
- Also available in wall mount, hand held and desktop, gooseneck microphone configurations

## Audio

Every educational facility needs a reliable paging and intercom system. LANcom SCS provides dependable, day-to-day paging functions that can be preconfigured to exceed each school's individual needs.

- Full-duplex intercom capabilities enable staff members to converse normally through an open line
- A wide variety of available microphone paging stations (including headset, handset, gooseneck, or hand-held mics)
- Ability to initiate page announcements, place intercom calls, and trigger prerecorded messages from any mic station or remotely by telephone
- Ability to page into any zone or combination of zone groups
- Paging stations are "Powered over Ethernet" (PoE) by remote network switches decreasing installation time and cost

## Video

LANcom SCS offers visual paging capabilities (to TVs, text bars, computer screens, etc.) for all messaging types.

- Fully ADA-compliant for hearing and visually impaired students and staff
- Supports live and pre-recorded messages in multiple languages
- Synchronizes with audio message for increased delivery options
- Design and input messages easily through an intuitive web-based software interface



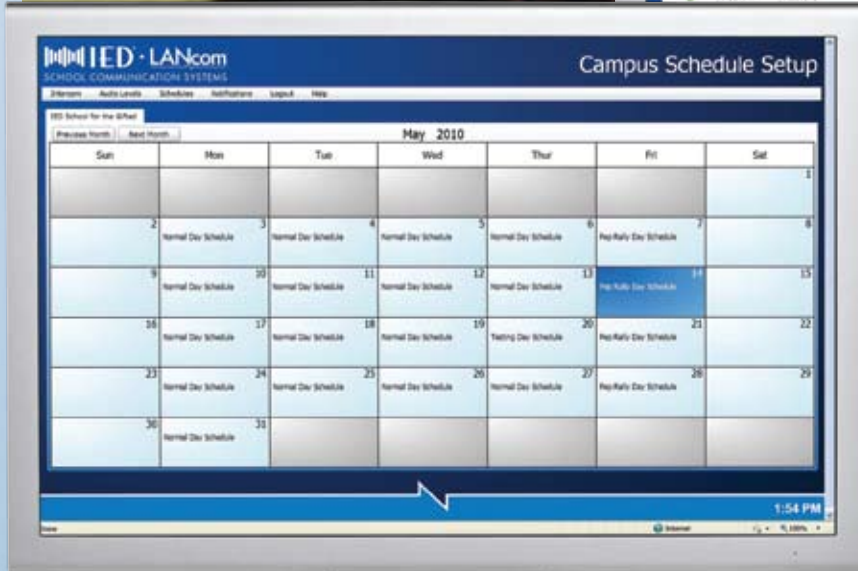
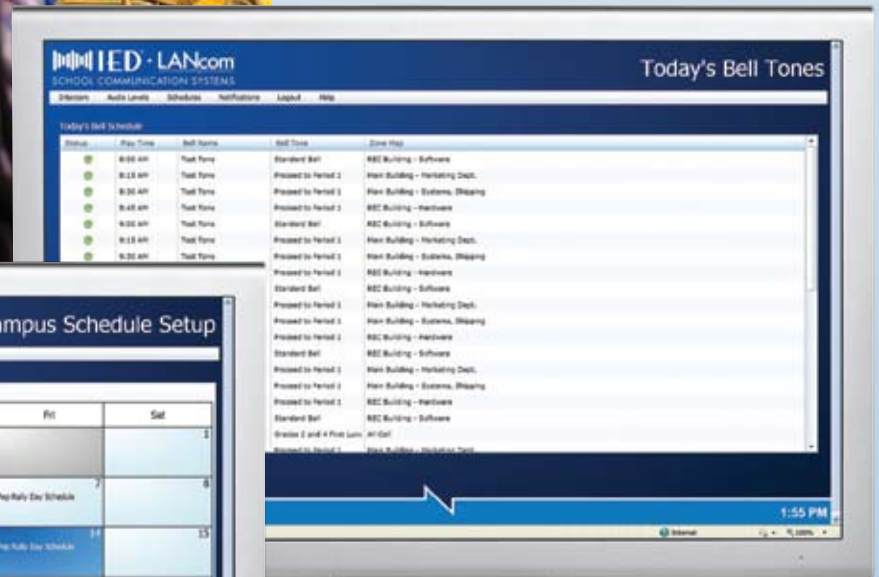


# Bell and Event Scheduling



The daily bell schedule is an integral part of any school's communication system needs.

- Create and manage all schedules via a user-friendly web interface with multiple schedules active simultaneously in different zones
- Schedule templates can be used to create weekly, monthly, or yearly bell schedules
- LANcom SCS clock synchronization to your school's centralized time system eliminates confusion and adds consistency to bells and clocks
- Utilize tone, voice, or music .wav files for scheduled announcements (e.g. play different tones for different schedules or school "spirit songs" to announce pep rallies or special events)



## System Interfaces



Stand-alone systems are a thing of the past. Today's systems require the capability to share information, status conditions, and trigger specific functions via system interfaces. With integration to installed life safety and many ancillary systems via simple hardware connection and software control, LANcom SCS simplifies complete communication management. School campuses and districts can function as one integrated response/action system during emergency situations.

LANcom SCS interfaces with:

- Fire Alarm Control panels
- Security/OPS panels
- Data-collection systems
- SCADA systems

## System Architecture and Installation



LANcom SCS utilizes standard CAT5e or better and fiber optic cabling to eliminate the need for special wiring and media converters. Installation of the system has been streamlined to take advantage of the all-digital topology.

- Distributed Ethernet infrastructure greatly reduces costs
- Existing network and CAT5e or better cabling eliminates the need for expensive, dedicated wiring
- Equipment can be remotely located in communication closets in close proximity to each classroom
- Power over Ethernet (PoE) components leave AC outlets available in the classroom



LC48MPI – Power Injector

- Provides power via network connection to up to 8 LANcom SCS endpoint devices
- Eliminates the need for dedicated electrical outlets in classrooms for endpoints
- Eliminates the need for PoE outlets or PoE network switches reducing costs
- Also available in single configuration for powering a single LANcom SCS endpoint



# User-Friendly Software and Remote Access



LANcom SCS features an easy-to-use software interface, which enables bell schedules, recorded messages, and system settings to be easily created and updated. System settings and functions can be set in advance including volume levels, daily schedules, tones, and page/announcement zones. When changes are needed, they can be saved as a new event, permanently replace other schedules, or implemented for special one-time uses.

- Entirely web-browser based solution allows many settings to be remotely accessed (quickly assist new or substitute teachers)
- Remotely trigger special incident messages like weather alerts, shelter-in-place directives, or evacuation messages
- Ensure student safety whether the district office is ten feet or ten miles away

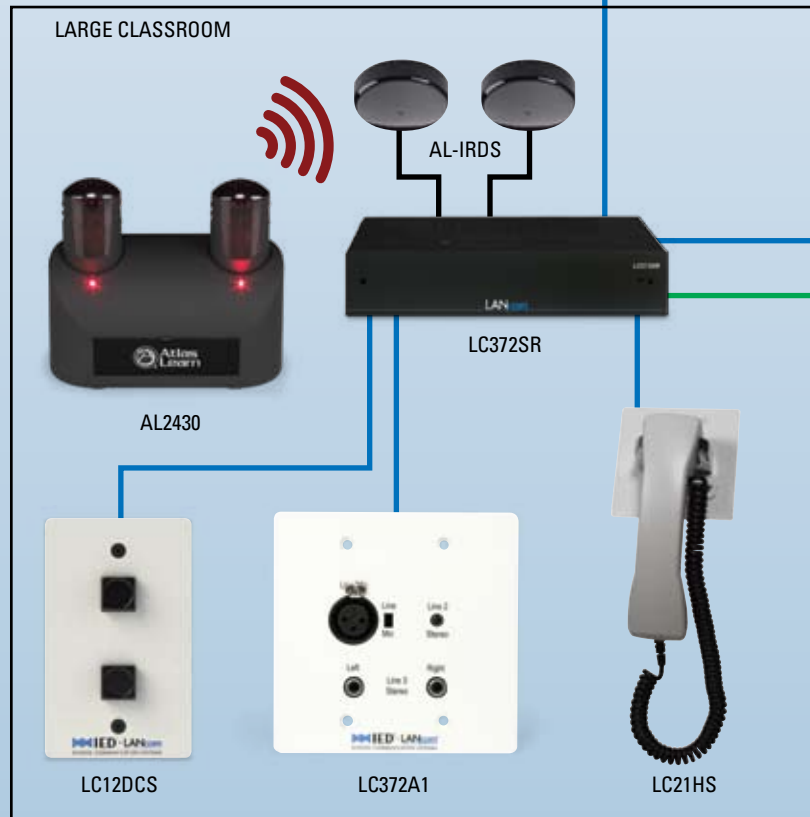
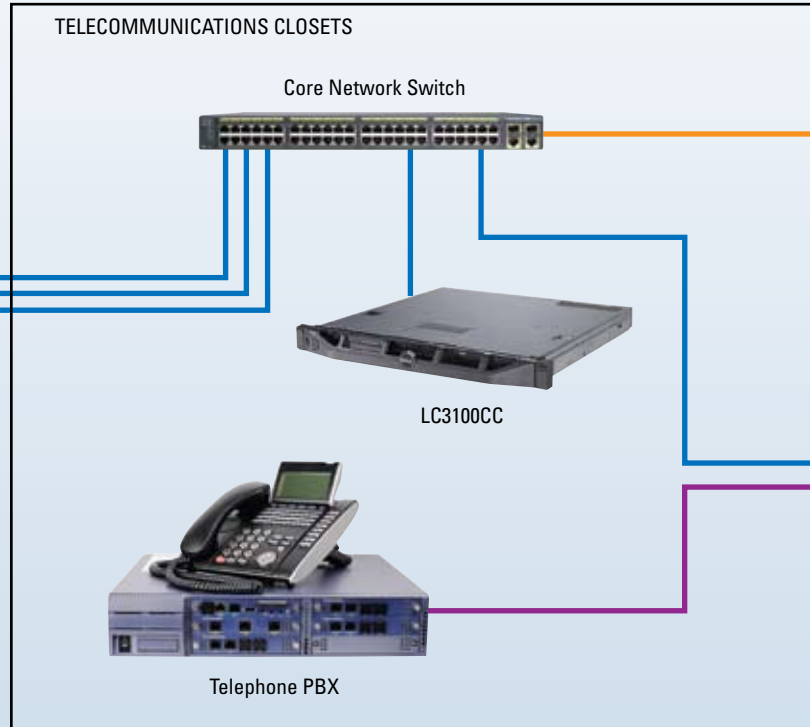
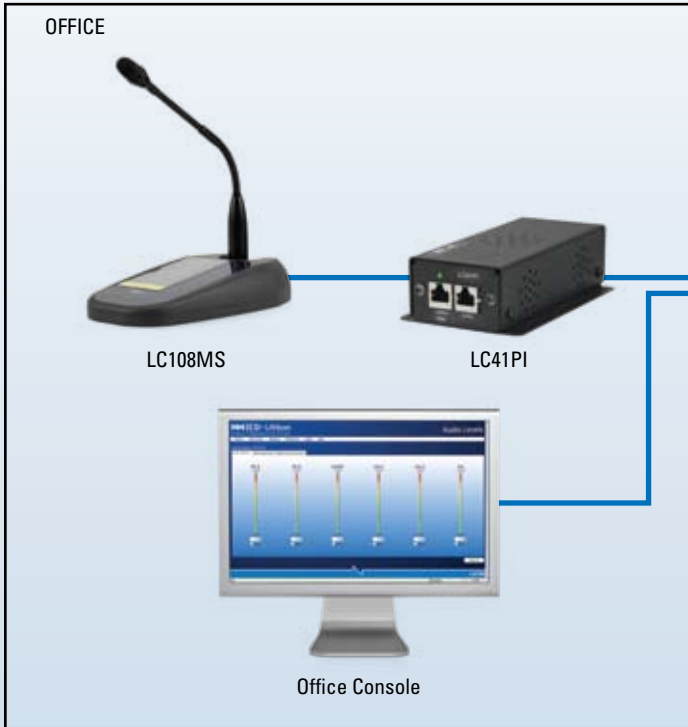
## Diagnostics and Reporting Features



Knowing that the system is functioning properly BEFORE you need to broadcast an emergency message is absolutely vital. LANcom SCS includes a comprehensive supervision feature so virtually every system component is tested and monitored regularly for proper performance.

- Daily testing is performed on all system components including microphone paging stations, signal processing equipment, power amplifiers, and loudspeakers
- A “fault” status alert is generated and reported to the system’s server with detailed information as to the type of fault, the location, and time/duration of the fault
- Minimizes costly troubleshooting time

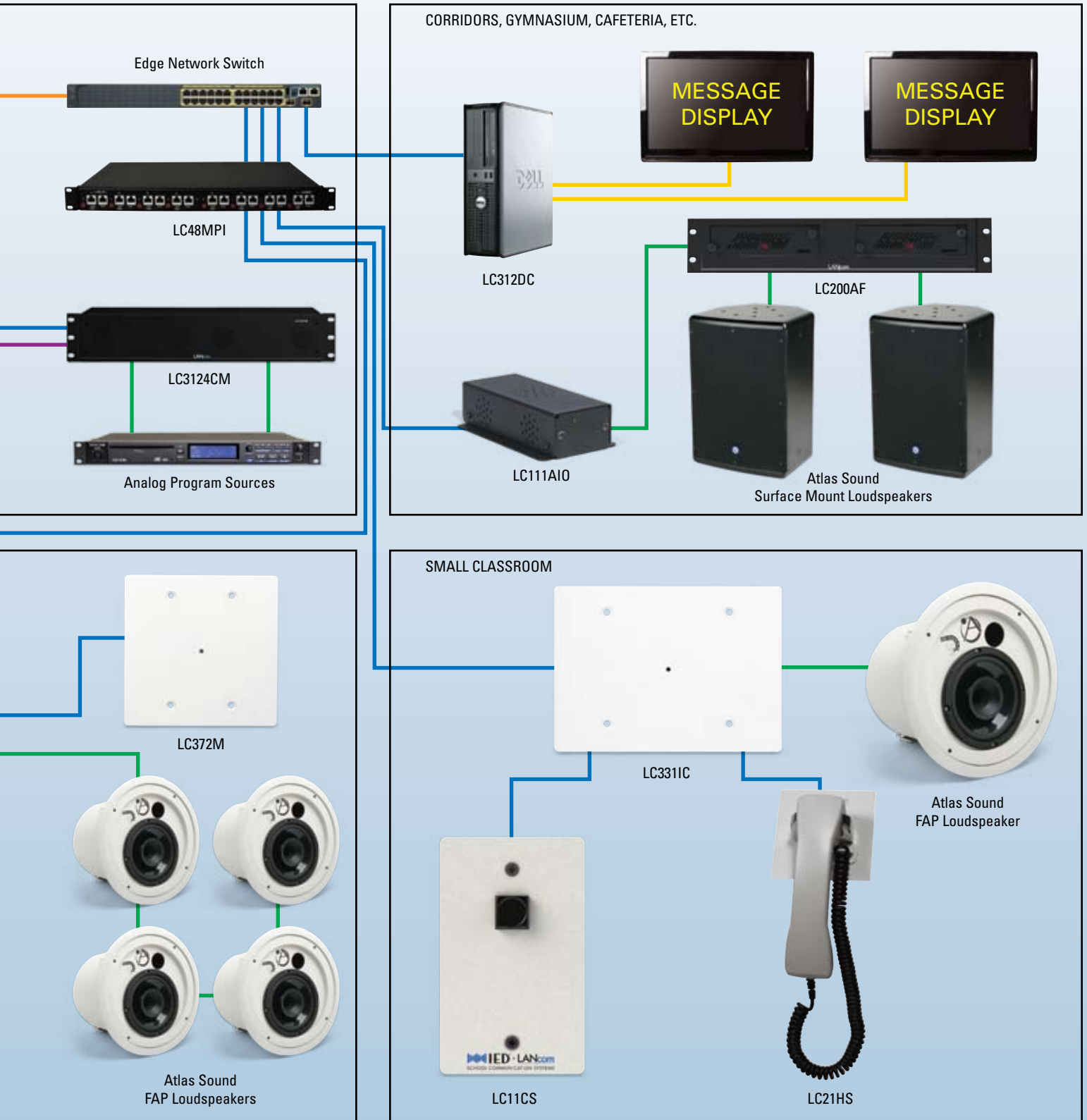
# Campus Wide Audio Solution



LANcom Technologies is a product of Innovative Electronic Designs, a member of the Mitek Communications Group family of companies. Mitek Communications Group serves as the commercial audio and communications arm of Mitek Corporation. Mitek Corporation and its companies have more than 75 years of experience delivering commercial, residential, and mobile communication solutions.



# Example System Architecture



LANcom utilizes the experience of the other Mitek Communications Group companies, Atlas Sound and Innovative Electric Designs, as well as our consumer focused companies to deliver synergy in sales, marketing, and support. The Mitek Communications Group members are committed to delivering enduring solutions to the global commercial audio and communication markets.

# Rethink School Communications.

## IED introduces a comprehensive, network-based approach.



### LANcom SCS features:

- Full-duplex Classroom Intercom
- Sound Reinforcement in Each Classroom (with wireless microphones and media playback)
- Audio and Visual Paging (fully ADA-compliant)
- Synchronized Clock System
- Cost-effective Network Topology
- Web Browser-based Software (allows local and District Office access)
- Complete System Monitoring and Testing
- Logging and Reporting Functions
- 500+ Connection Points (to serve even the largest schools)
- 16 Intercom and Program Channels
- Emergency Announcement Override of Classroom Audio
- Bell and Message Playback using .wav Files
- Virtually Unlimited Audio Zones
- Time of Day Volume Control of Each Zone
- Ability to Manage Several Systems from One District Location
- Secure Classroom Monitoring
- Classroom Lockdown Acknowledgement
- Unlimited Bell Schedule Events
- Systems for Large and Small Classrooms



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To Learn More Please Visit [www.iedaudio.com](http://www.iedaudio.com) or Call (502) 267-7436