# IED® • GLOBALCOM®
## 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.

GLOBALCOM 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 GLOBALCOM School Communication System

GLOBALCOM 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.

GLOBALCOM 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 GLOBALCOM system can provide classroom Amplified Learning®, ensure your student's safety, and deliver real-time audio/visual messaging and media playback that promotes accelerated learning.

GLOBALCOM includes functions that typical systems do not:

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

- Bell Scheduling and Clock Synchronization
- Utilizes IED GLOBALCOM® Technology. The Same Technology Used In The Worlds Largest Communications and Paging Systems
- District Wide and School to School Paging

- Brain of the school communication system
- Includes up to 8 fully configurable logic closure inputs
- Includes up to 8 fully configurable relay outputs
- Digital audio interface distributes audio, bell and prerecorded messages to the system
- Includes built-insupport for VoIP based telephone interfacing using SIP technology

IED1200ACS
Announcement Control System

# Emergency Messaging and Mass Notification

Student and faculty safety is one of the most important issues facing the education system today. This safety relates to events that occur on campus as well as events that occur in the surrounding community. School safety can be linked to adverse weather conditions like tornadoes or hurricanes as well as incidents involving weapons or criminals on or near campuses. While items like natural disasters, school shootings, and hostage scenarios are a community's greatest fear, as recent events have illustrated, the need to have mechanisms in place to protect the student population when a threat is present has never been greater.

Unfortunately, no amount of preparedness can prevent all emergency situations, but GLOBALCOM as part of an overall administration emergency plan, goes above and beyond in effectively allowing administrators and school personnel to appropriately respond during crises.

The most critical component of any emergency plan is communication. Getting an alert and instruction to those affected is the first step to ensuring their safety. GLOBALCOM uses a web based interface that allows administrators and teachers with access the ability to launch predefined weather or safety related as well as ad-hoc messages through the schools paging system to alert students and faculty of the emergency situation facing the school. In addition to these messages, GLOBALCOM can also deliver additional pre-recorded and stored information including instructions based on the school's emergency plan and directions to areas of safety like designated tornado shelters or other secured areas.

Additionally, GLOBALCOM offers schools additional means to communicate with students, faculty, and parents when appropriate. GLOBALCOM can incorporate optional visual paging displays. These displays can provide visual confirmation of the alert for hearing impaired individuals but also reinforces the alert and gives students and faculty a secondary source of information in case they were not paying attention to the audio page. System administrators also have the ability to send SMS messages to students, faculty, and parents that are registered in the GLOBALCOM system with the same alerts so that everyone knows what is going on and panic can be avoided and student safety can be maximized.

Finally, GLOBALCOM includes an in-classroom safety feature that allows a teacher to alert the administrators or safety personnel that a dangerous or emergency situation has arisen in a classroom through a non-verbal network message ensuring the safety of all present in that classroom. GLOBALCOM is a comprehensive communication solution designed to provide instant and effective communication campus wide no matter what the emergency situation is ensuring that students and faculty on campus as well as parents off campus can remain informed and safe.

# Paging and Intercom

## Audio

Every educational facility needs a reliable paging and intercom system. GLOBALCOM 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

GLOBALCOM 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

IED528VDT-S
Digital Communication Station

- Used for initiating audio/visual announcements, messages, and page announcements
- Network appliance with dedicated IP address for easy installation and configuration
- 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

THE BUILDING IS BEING EVACUATED. PLEASE PROCEED TO EME

ALERT SYSTEM ACTIVATED

TORNADO WARNING
SEEK NEAREST SHELTER

# User-Friendly Software and Remote Access

GLOBALCOM 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

# 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
- Synchronizing GLOBALCOM's clock to your school's centralized time system.
- 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)
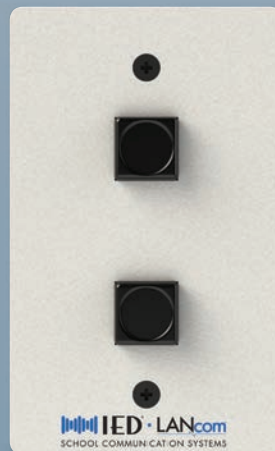
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# Diagnostics and Reporting Features

Knowing that the system is functioning properly BEFORE you need to broadcast an emergency message is absolutely vital. GLOBALCOM 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

# System Intelligibility

Engaged    Somewhat Engaged    Not Engaged

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. GLOBALCOM 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, GLOBALCOM is noticeably more intelligible compared to low bandwidth telephone-based systems.

## 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

IED · LANcom
SCHOOL COMMUNICATION SYSTEMS

# 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

LC372AVI - Audio/Video Input Plate

- Same features as LC372AI with the addition of one composite video

# 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, GLOBALCOM simplifies complete communication management. School campuses and districts can function as one integrated response/action system during emergency situations.

GLOBALCOM interfaces with:
- Fire Alarm Control panels
- Security/OPS panels
- Data-collection systems
- SCADA systems
- VoIP Telephone systems using SIP technology

# System Architecture and Installation

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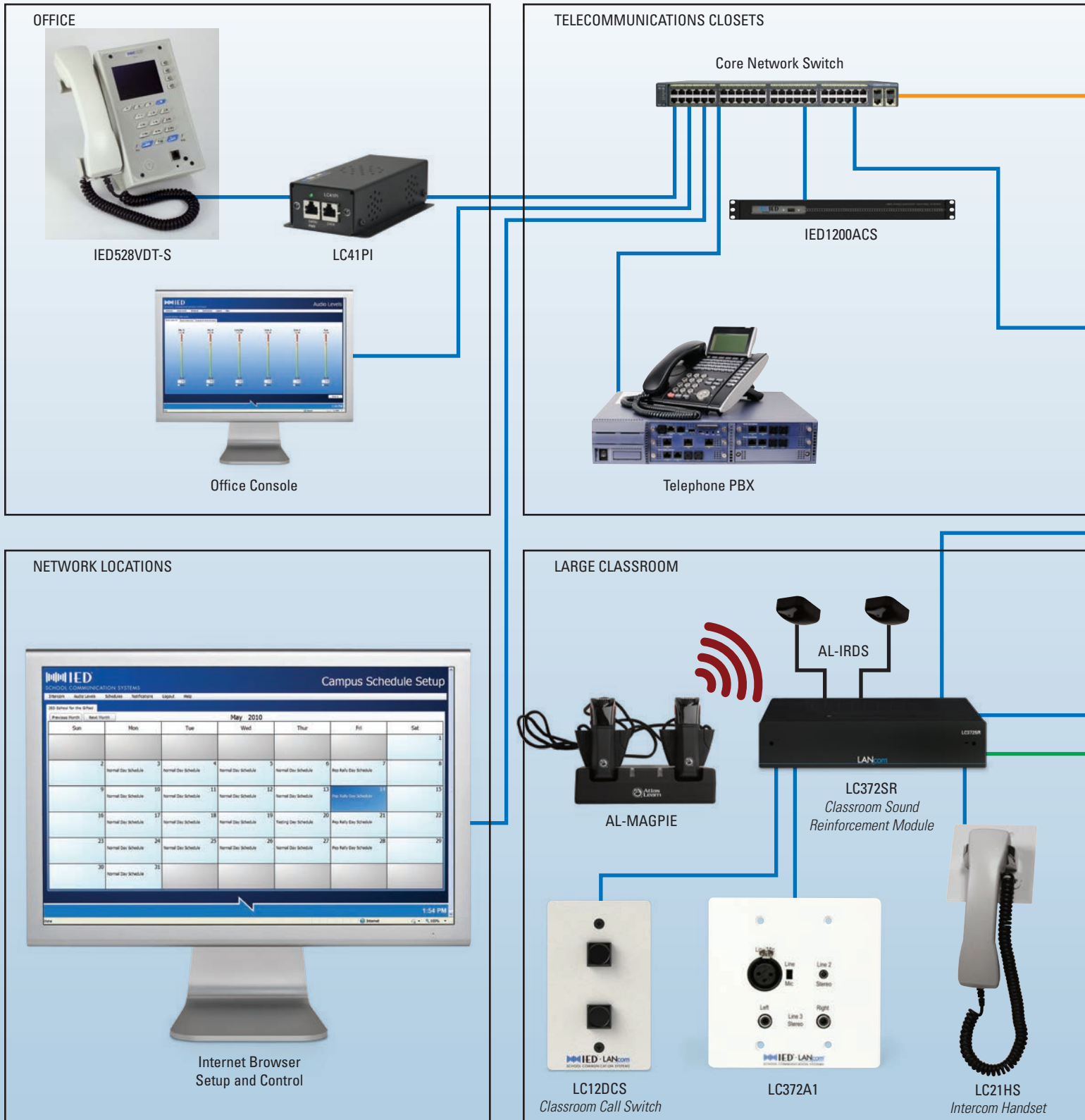
- Distributed Ethernet infrastructure greatly reduces costs
- Existing network and CAT5e or better cabling eliminates the need for expensive, dedicated wiring
- Equipment can be remotely located in communication closets in close proximity to each classroom
- Power over Ethernet (PoE) components leave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

LC48MPI – Power Injector

- Provides power via network connection to up to 8 GLOBALCOM 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 GLOBALCOM endpoint
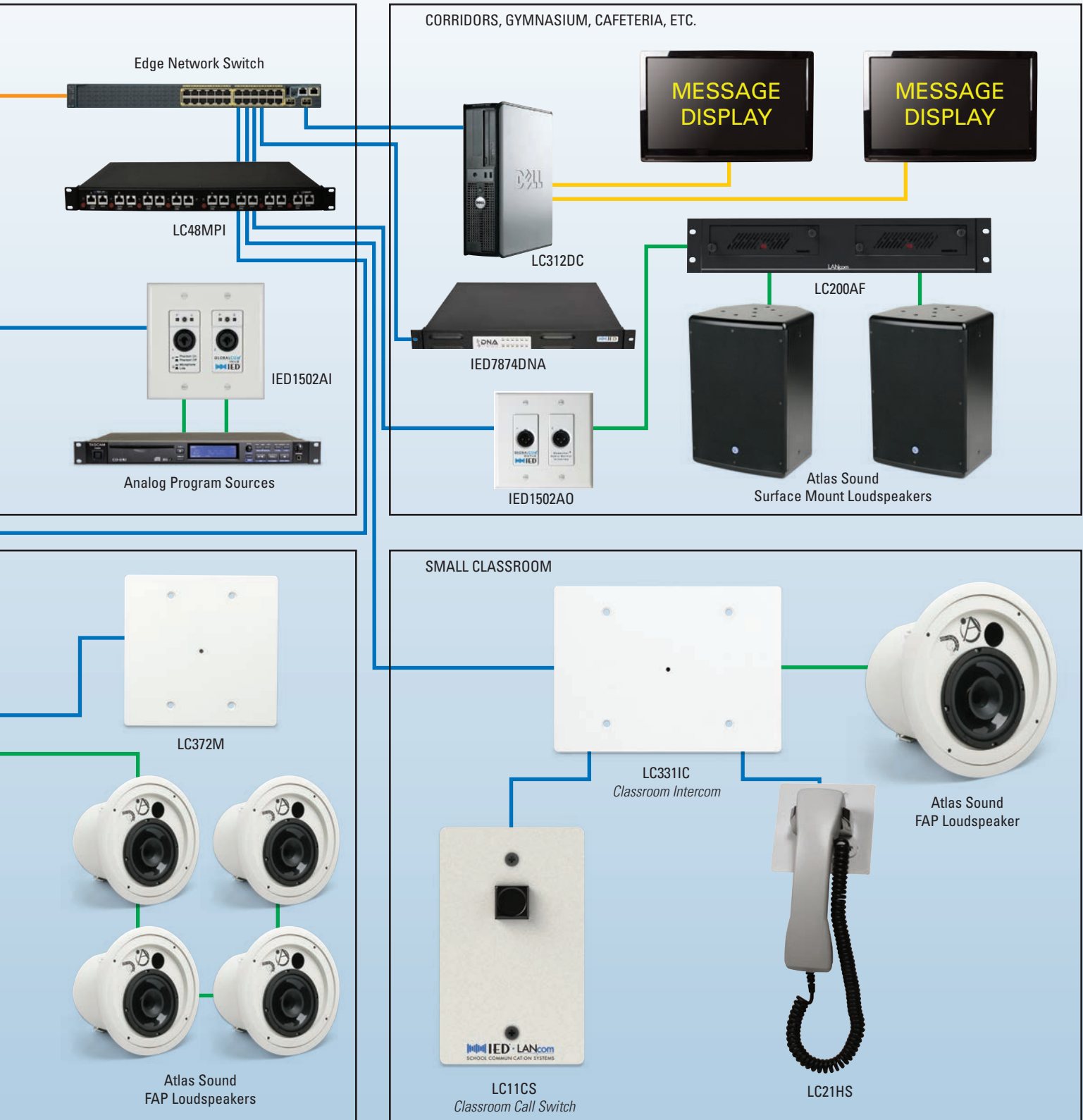
# Campus Wide Audio Solution

## OFFICE



IED528VDT-S



LC41PI



Office Console

## TELECOMMUNICATIONS CLOSETS

Core Network Switch





IED1200ACS



Telephone PBX

## NETWORK LOCATIONS



Internet Browser
Setup and Control

## LARGE CLASSROOM

AL-IRDS



AL-MAGPIE



LC372SR
*Classroom Sound
Reinforcement Module*

LC12DCS
*Classroom Call Switch*

LC372A1

LC21HS
*Intercom Handset*

GLOBALCOM 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

CORRIDORS, GYMNASIUM, CAFETERIA, ETC.

Edge Network Switch

LC48MPI

IED1502AI

Analog Program Sources

MESSAGE DISPLAY

MESSAGE DISPLAY

LC312DC

IED7874DNA

IED1502AO

LC200AF

Atlas Sound
Surface Mount Loudspeakers

SMALL CLASSROOM

LC372M

Atlas Sound
FAP Loudspeakers

LC331IC
*Classroom Intercom*

Atlas Sound
FAP Loudspeaker

LC11CS
*Classroom Call Switch*

LC21HS

GLOBALCOM 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.



GLOBALCOM 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)
- VoIP Telephone Interface Capability

- District Wide and School to School Paging Abilities
- 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

**IED®•GLOBALCOM®**
## SCHOOL COMMUNICATION SYSTEMS

To Learn More Please Visit www.iedaudio.com or Call (502) 267-7436