

DUKANE[®]

SMART. FLEXIBLE. RELIABLE.

Life Safety Communications for
Education, Healthcare, Correctional, and Industrial/Commercial Applications.

WWW.CAREHAWK.COM

THE CH1000(LT) PLATFORM

The CH1000(LT), a life safety communications platform, is a level above contemporary paging/intercom systems available today.

Most communication systems sold today are of 1990's technology with limited features, and no feature expansion capability. Unlike most communications manufacturers,

Dukane® designed a life safety communications platform that focuses on providing life safety features and superior audio intelligibility.

WHAT IS THE PLATFORM?

The CH1000(LT) platform enables Dukane to shape the system design to fit our customers' needs rather than

customers fitting the product. If the CH1000(LT) does not fit your needs today, then ask us, and we will adjust it to fit.

The design of the CH1000(LT) began in 2006 and continues to this day. This continual design philosophy keeps the CH1000(LT) fresh and relevant as **all new features are backward compatible.**

The key to the platform is not limiting the processing power of the system to the needs of today. By using a powerful microcontroller with storage and memory expansion capability, new features and accessories can be added without the need for a forklift upgrade. **The same platform with market specific software and accessories can be tailored for education, healthcare, corrections, or industrial/commercial needs.** Our customers have the confidence the CH1000(LT) will continue to grow with their needs as their requirements change helping to future-proof their choices.



LIFE SAFETY FEATURES



The most important feature in a life safety communications system is audio intelligibility.

The message must be not only loud enough but understandable by the listener. To achieve superior audio intelligibility the CH1000(LT) uses modern Class D amplifiers with a built-in Digital Signal Processor (DSP) to process and filter the audio. **This processing filters non-voice frequencies that generate noise usually picked up from other building systems or lighting. No latency or jitter will distort the message.**

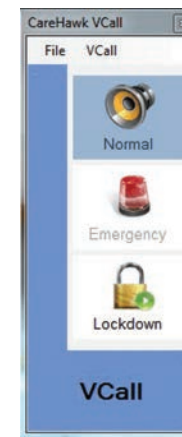
When the CH1000(LT) is connected to the facility's telephone system, users can initiate pages and intercom calls via a desk phone or even from a cell phone. This can allow police a communication tool without entering the facility. The CH1000(LT) supports 25-Volt, 70-Volt, and 45-Ohm audio signals with the use of user configurable 64 speaker zones.

In an emergency, speed is important. The CH1000(LT) allows users to add pre-recorded WAV files. Emergency announcements can be pre-recorded in a calm, clear, and concise manner. **Users can then trigger these announcements via push buttons, security sensors, PC apps, telephone codes, or cell phones.**

Security devices and cameras can be added to the CH1000(LT). Using motion sensors or door contacts, doors and rooms can be monitored while the buildings' traditional security system is turned off. The CH1000(LT) can warn people when they violate an area of the building that is off limits. This warning can be in the form of a pre-recorded message, security personal notification, initiating a dormant camera, or triggering a call to authorities.

Users can call for help in several ways.

Call switches or panic buttons can be used to initiate emergency calls back to a security office or administrative location. **Virtual call switches or panic buttons (VCall) can be used from a PC when telephones or other call means are out of reach or compromised.**



Using our available Audio Level Switch (ALS16) users can "scream" for help.

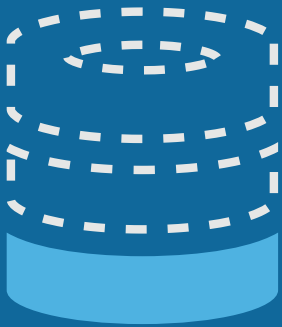
The ALS16 can monitor audio levels in an area for elevated noise. **This noise detection can be adjusted to filter out everyday noise and also allows for different day/night levels.**



FLEXIBLE DESIGN

The CH1000(LT) is a hybrid design that can be installed in a distributed way or centralized as part of a retrofit replacement.

The Security Switching Cards (SS16/32) can be located up to 2700 feet away from the central cabinet over a single CAT5(e) cable. **By distributing the SS16/32's 2/3rd less wire is needed, thus reducing the installation costs.**



The CH1000(LT) central cabinet provides power for the SS16/32's eliminating the need for remote power supplies and UPS's. These same SS16/32's can be located centrally in a retrofit replacement. **The CH1000(LT) is designed to use CAT5, CAT5e, CAT3, shielded or unshielded cable. This means there is no need to replace existing cabling.**

Each SS16/32 port can be used with speakers, call switches, security sensors, and cameras simultaneously. The CH1000(LT) supports up to 64 audio ports. The CH1000 supports up to 256 audio ports in a single cabinet and 2048 ports in a network configuration.



SS16

The CH1000(LT) can interconnect to your facility's Local Area Network. **Users can control the CH1000(LT) using our Assistant™ PC application giving them a visual tool that simplifies complicated tasks.** Configurations and system diagnostics can be monitored or changed via the internet with no need to visit the site of the installation saving labor hours. **Remote support or access is available from anywhere.**



The built-in calendar provides a place to schedule events now or in the future. **Play pre-recorded messages, distribute music, activate cameras, activate relays to lock doors or signal other systems on a schedule.** Schedule events days, weeks, months, or years in advance using an easy to use scheduling tool and the available unlimited schedules. Sync the CH1000(LT) with a time server to keep it on track. **Use the built-in master clock to keep your secondary clocks on track.**

RELIABILITY

Reliability is one of the most important characteristics of a life safety communication system.

Dukane's design philosophy means continually improving the design for reliability. We back up this statement with an **industry leading five year warranty and world class customer support.**





GREEN SOLUTIONS

The CH1000(LT) is one of the greenest communications systems available today. The CH1000(LT) uses less material than contemporary communications systems, in some cases hundreds of pounds less.

The power consumption of the CH1000(LT) is kept low by using 90% efficient class D amplifiers and by shutting down the amplifiers when they are not in use. A modern design with modern low power electronic components adds to the low power consumption. A fully loaded system idles at around 1 Amp with a maximum power draw of 3.5 Amps when the amplifiers are in use.

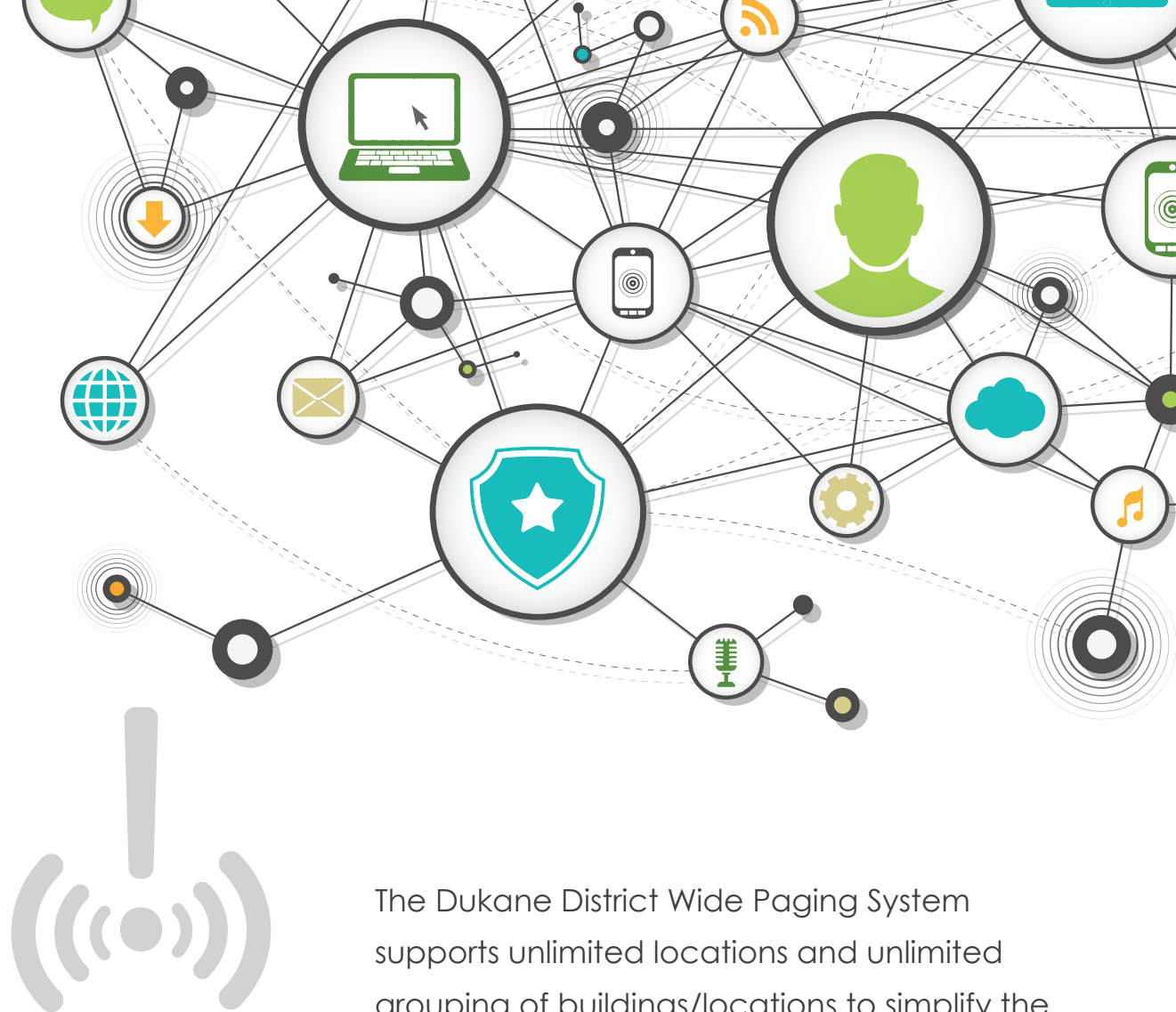
DISTRICT WIDE SOLUTION

Dukane offers an IP based District Wide Paging system.

The system enables users the ability to initiate live pages, live emergency pages, or trigger up to 10,000 pre-recorded messages broadcast across any number of facilities on a private Wide Area Network.

School districts can quickly and easily alert local schools of weather emergencies or lockdowns. Universities, ports, corporate campuses or **any group of buildings can be linked to ensure emergency notifications are heard everywhere people are working.** Quickly warn people of industrial accidents, environmental accidents, tornados, or security issues. **All communication is priority based ensuring non-emergency communications do not block emergency communications.**

The District Wide Paging System can be used with the CH1000(LT) system or with any legacy communication system. By using the Dukane Symbiont™ network bridge, legacy systems can be forced into an all-call mode allowing the IP audio to stream through. Symbionts can be used with simple amplifiers and speakers when no legacy system is available. Connecting a Symbiont to a 2-way radio system ensures maintenance staff, security personnel, and other roaming personnel receive the same message.



The Dukane District Wide Paging System supports unlimited locations and unlimited grouping of buildings/locations to simplify the user experience.

All parts of the system are supervised providing maintenance staff with email alerts in the event of a failure. **All system events and tasks are logged including a recording of any live announcements for 30 days.**

EDUCATION FACILITIES

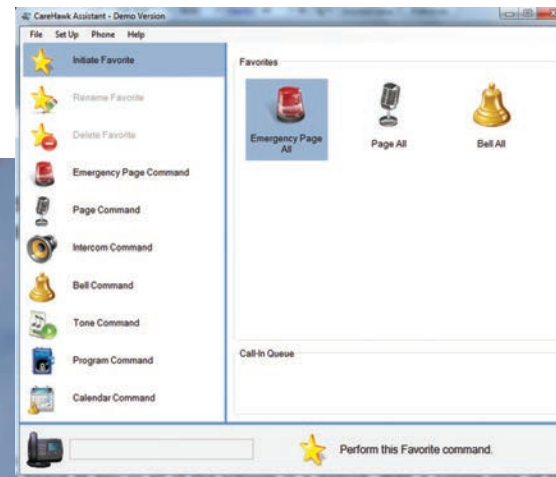
Schools can count on the CH1000(LT) life safety platform providing flexible easy to use feature rich solutions to their everyday needs.



Schools use time tones or "bells" to move students. With WAV file based tones, administrators can use one of the



many factory tones or add their own. Many of our customers use specific music or the school fight song as a bell. There is no need to call a technician to setup bell schedules or a WAV file. **The CH1000(LT) provides an easy to use software tool for scheduling and WAV file management. This tool is specifically designed for the non-technical user.**



Assistant™ software

Send background music to any one of 64 zones or any group of zones with the administrative phone (DA1) based software wizard or by using the available **Assistant™ software**. Quickly and easily exclude rooms from non-emergency communications during exam week. Automate schedule changes allowing staff to focus on other tasks. Keep all of the clocks in sync with the built-in master clock.



Fully integrate your access control, and security system to streamline emergency functions.

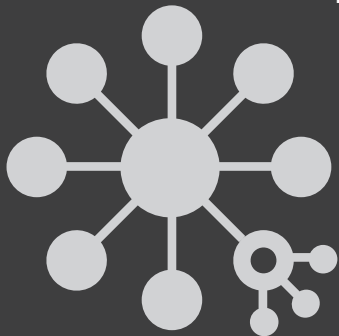
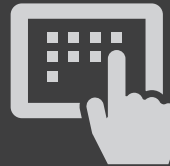
Trigger lockdowns that not only alert staff and students but automatically lock the doors and signal a central monitoring station.



CORRECTIONAL FACILITIES

Correctional facilities gain a first class communications system and a productivity tool to help manage their facilities. The CH1000CR(LT) is the corrections version of the CH1000 platform.

Manual routine announcements can be automated by adding pre-recorded messages or tones scheduled on a calendar for things like meal time or time tones for yard access. **Emergency announcements like lockdown can be initiated via a touchscreen interface with AssistantCR™** automatically broadcasting instructions while guards move on to their next task.



Large facilities can be set up with a system hierarchy to allow a “Central Command Center” POD or Unit takeover capabilities. Each unit or POD can have an independent CH1000CR(LT) system that can be scaled to fit the local needs. A separate command center can take over the local system, in the event of staff shortages or an inmate takeover, and maintain the ability to overhear what is happening or communicate directly with any cell. **If the local CH1000CR(LT) system is compromised by inmates the command center can still communicate through to the POD or unit.**

Using the Dukane ALS16, local paging/intercom speakers turn into “scream sensors”. This means the CH1000CR(LT) can monitor ambient noise levels. These levels can be adjusted based on the local needs for both day and night. Detect yelling as a fight breaks



out or a call for help from a guard. Inmates often try to disable local speakers to avoid being overheard.

The ALS16 will detect the absence of noise when the speaker has been disabled. The flushing of a toilet in a cell is not a cause of concern but the repeated flushing of a toilet may be an attempt to flood the cell. The ALS16 can distinguish between these two conditions and report back to security.

Control doors and cameras by using the remote relays and inputs available. **Dukane can provide any number of relays and inputs to fully integrate a correctional facility.** Relays are available to switch loads as high as 30 Amps at 120 Volts. Relays and inputs can be remotely located via RS485, Ethernet, or ZigBee.



HEALTHCARE FACILITIES

A nurse call system is only one half of the communication equation in a hospital or nursing home setting. The CH1000(LT) provides the other half with features like general paging, door video/intercom, reminder tones, and emergency alarms; these features help staff better manage facilities.

Staff can direct pages by using the built-in zones paging feature. Set up to 64 zones of paging by floor or wing or any way you like.

Play a lullaby whenever a baby is born, send out reminder tones for nursing, and automate with pre-recorded messages for routine announcements like visiting hours. Broadcast background music in waiting areas or common areas.

The CH1000(LT) will always be ready in an emergency with its priority based communications. **No matter what function is in use or how many users are accessing the system, emergency events are always given priority.**



Extend emergency communications to other buildings within a campus with District Wide Paging. Broadcast tornado warnings, dangerous persons, and any other emergency messages to all staff.

Provide emergency call boxes in isolated areas like parking lots for visitors and staff.

Call stations with built-in cameras provide security personnel the eyes and ears to help staff and visitors.



INDUSTRIAL / COMMERCIAL FACILITIES

Improve productivity
while providing
enhanced
communications.

Using inputs from industrial
machinery, refrigeration, or flow
valves the CH1000(LT) can be used to
notify workers of exceptions.

Notify workers automatically as machinery is turned on to avoid
accidents. Broadcast pre-recorded messages as paint vats run low, notify
maintenance staff automatically when a machine stops running. Turn on
flashing lights in noisy environments to get workers' attention.

Ensure emergency communication is heard by everyone. Accidents,
chemical spills, security breaches, and weather emergencies can be
quickly and easily broadcast to those at risk.

**Provide workers with panic buttons or call boxes with
hands-free communications to supervisors.** Parking
lot call boxes provide added security in large parking
structures or lots.



Add the optional line supervision modules, and now you
have the assurance that all speaker points and amplifiers are
monitored for faults. A failure of an amplifier can be detected
and replaced with a spare automatically. Detect and report
speaker and speaker line faults to maintenance staff.

Use the built-in scheduling tool to generate
shift change and lunch hour alerts based on
a real calendar.





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