# US DIGITAL DESIGNS

www.stationalerting.com

# When Seconds Count

## Rely on the Phoenix G2 Fire Station Alerting System

*Helping you save lives and property with faster response times and healthier, more informed first responders and dispatchers.*

As a public safety leader, you strive to provide the best and most cost-effective service to your community. And you know that when it comes to saving lives and property, seconds count. That's why communities of every size trust and rely on the Phoenix G2 Fire Station Alerting System to help shave seconds—and sometimes minutes—off of emergency response times.

Powered by US Digital Designs (USDD), the Phoenix G2 Fire Station Alerting System can help reduce dispatch call-processing times by instantaneously alerting the right units, in the right places, so they respond more efficiently and with better information.

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## Why Choose US Digital Designs

More than a decade ago, our team of experienced mechanical, electrical and software engineers conceived, designed and manufactured the most effective, network-based, fire station alerting system in the industry for our own community. It was important to us that we made our system impeccable—to get it right every time.
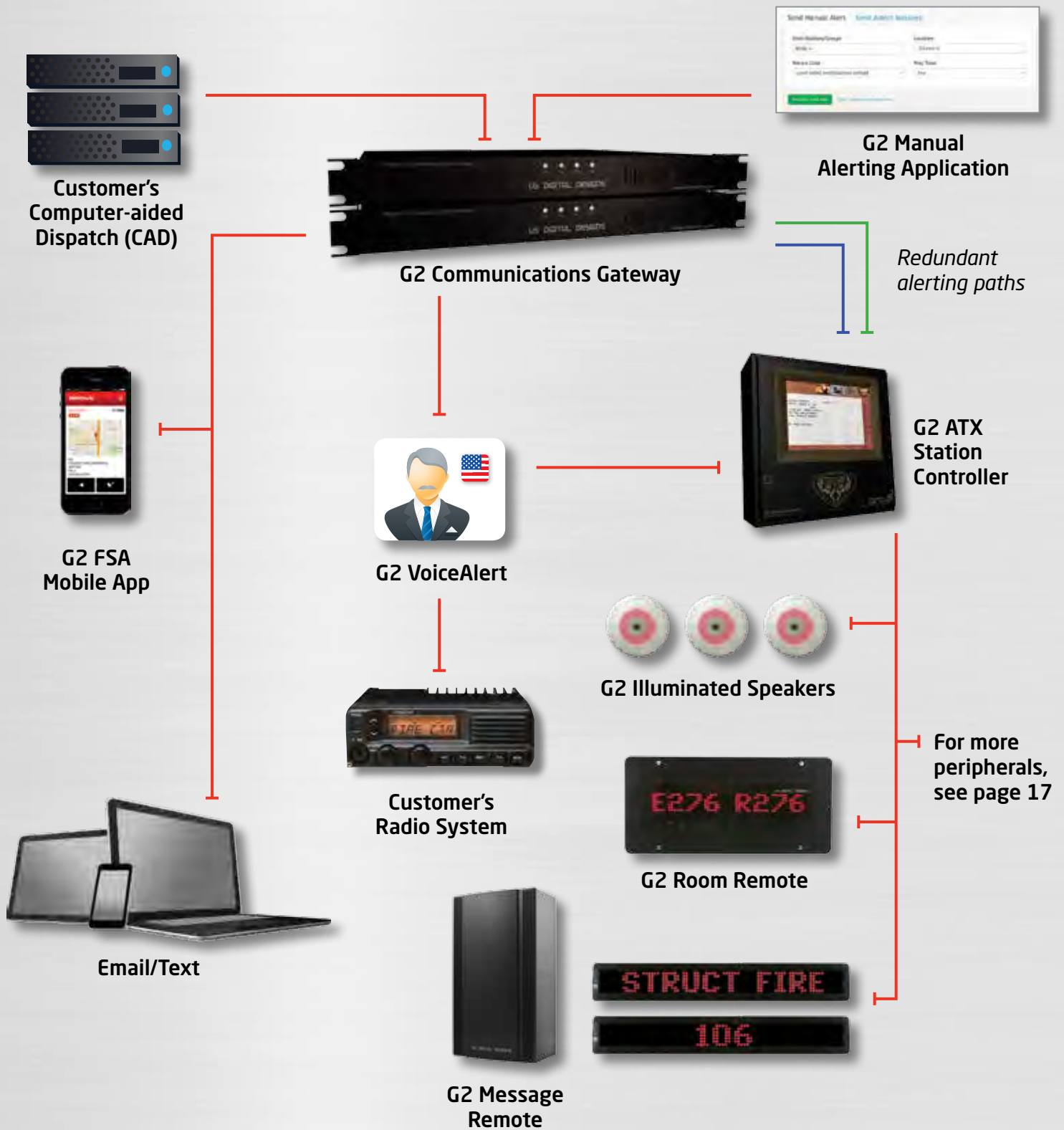
As you evaluate the best fire station alerting system for your community, we are happy to provide USDD's customer and competitor lists to assist you in your due-diligence process. We stake our reputation on delivering innovative, continuously upgraded, made-in-the-USA[1]  technology, as well as friendly, personalized customer service.

Please give us a call at 1-877-551-USDD (8733) (USA), or +1-602-687-1730 (Intl.), or visit stationalerting.com.

[1]'All' or 'virtually all' significant parts and processing are of U.S. origin.

**stationalerting.com**

# Phoenix G2 Fire Station Alerting System Overview

**Customer's Computer-aided Dispatch (CAD)**

**G2 Communications Gateway**

**G2 Manual Alerting Application**

*Redundant alerting paths*

**G2 FSA Mobile App**

**G2 VoiceAlert**

**G2 ATX Station Controller**

**G2 Illuminated Speakers**

**Customer's Radio System**

**For more peripherals, see page 17**

**G2 Room Remote**

E276 R276

**Email/Text**

STRUCT FIRE

106

**G2 Message Remote**

# System Benefits

### For the community:

- **Peace of mind.** Ensures that emergency personnel will arrive more quickly and better informed, for a more optimized response.
- **Savings.** Offers higher-quality area fire protection, which can contribute to a lower community ISO Public Protection Class rating[2], thereby helping decrease insurance rates.

### For dispatchers:

- **Speed.** Delivers automatic dispatch alerts simultaneously to one or multiple stations in less than a second, helping to reduce or eliminate dispatcher 'on-hold' time.
- **Wellness.** Dispatches alerts automatically, reducing dispatcher stress and workload, which frees them up to communicate with callers and manage the dispatch process more successfully.
- **High reliability.** Offers dispatchers a redundant system to communicate alerts if the CAD system fails.
- **Situational awareness.** Reviews the success of alerts as they are sent, and monitors the status of the system in real time.

### For public safety administrators and city officials:

- **Compliance.** Helps stations shave valuable seconds—even minutes— off of response times, helping meet or exceed NFPA 1710[3] recommendations.
- **Safety and redundancy.** Reduces the chance of missing emergency calls during grid or power failures, thanks to multiple pathway options and a backup power supply.
- **Communication.** Keeps personnel advised of ongoing incidents via USDD's industry-leading fire station alerting smartphone app, SMS text, pager and email alerts.

- **Value.** Reduces customer maintenance and management costs by integrating a reliable, proven system.

### For fire and medical personnel:

- **Preparedness.** Increases situational awareness and mental preparedness with clear, consistent vocalization of the alert, which helps units respond more quickly and efficiently.
- **Wellness.** Reduces cardiac stress, anxiety, optical shock and sleep deprivation with ramped tones and zoned alerting, thereby notifying only required stations and/or individual units.

### For public safety IT professionals:

- **Reliability and compliance.** Maximizes system uptime through multiple NFPA 1221-compliant[4] redundant alerting pathways and manual alerting options, which can keep the system running during communication failures.
- **Network friendly.** Distributes quick, low-bandwidth alerting messages that are non-disruptive, enabling the continuous operation of legacy networks and other applications.
- **Remote configuration.** Enables IT support teams to remotely configure and deploy software upgrades from any Web-enabled device, thereby reducing time and travel costs.
- **Control.** Offers agency-wide monitoring of all station peripheral equipment, and reports any failures to the host monitoring system and authorized system administrators via a smartphone app, email, text, etc.

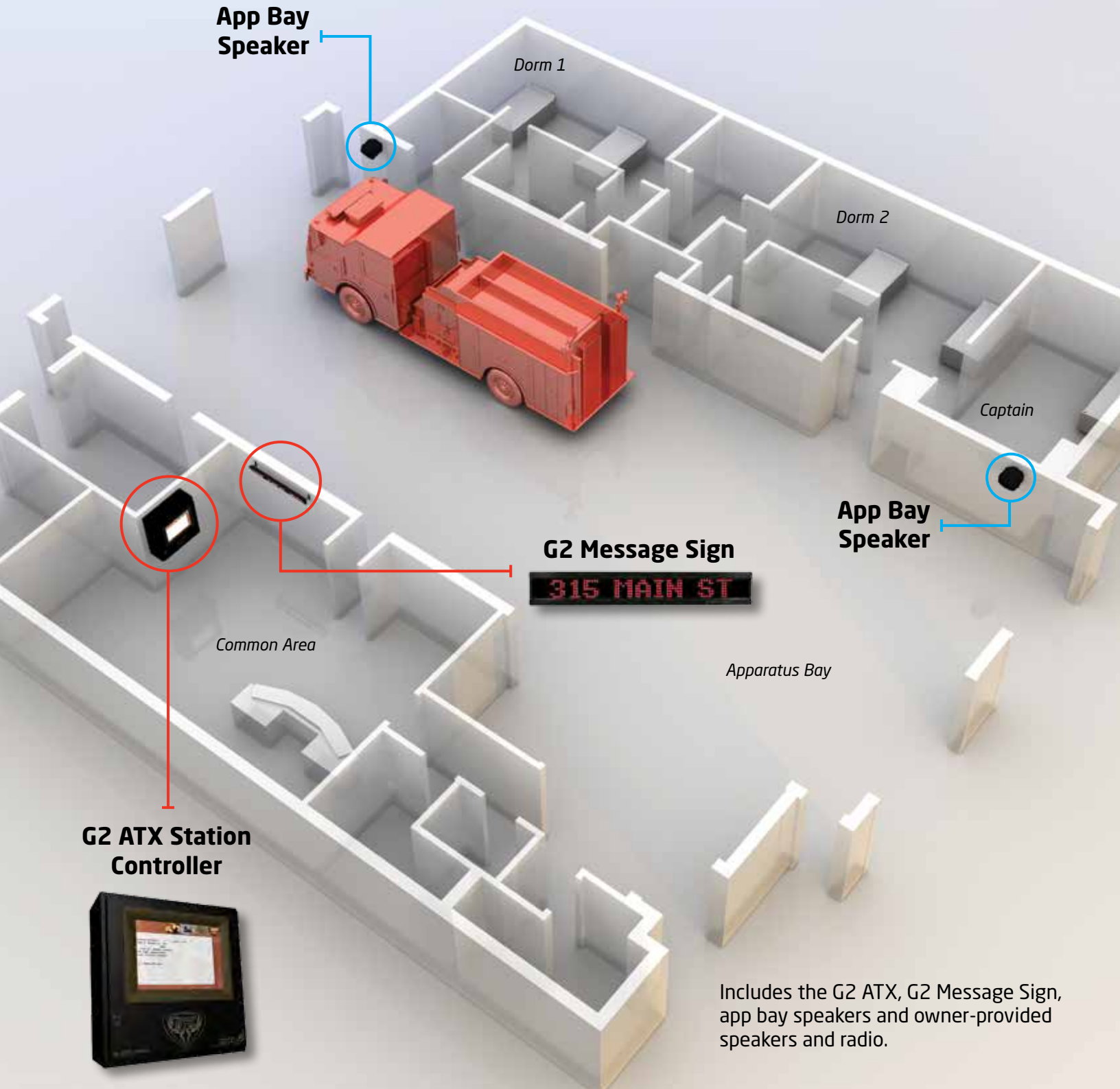[2] *Insurance Services Office Public Protection Class rating.*
[3] *National Firefighter Protection Association 1710- Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments.*
[4] *NFPA Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems.*

**stationalerting.com/benefits**

# Basic Station Design

**App Bay Speaker**

*Dorm 1*

*Dorm 2*

*Captain*

**App Bay Speaker**

**G2 Message Sign**

315 MAIN ST

*Common Area*

*Apparatus Bay*

**G2 ATX Station Controller**

Includes the G2 ATX, G2 Message Sign, app bay speakers and owner-provided speakers and radio.

# Standard Station Design

**Two Stacked
G2 Message Signs**
*Displays dispatch text
and turnout timer*

**App Bay
Speaker**

**G2 Illuminated
Speakers**

*Dorm 1*

*Dorm 2*

*Captain*

**G2 Room
Remote**

E276  R276

**G2 Message Sign**

315 MAIN ST

**App Bay
Speaker**

*Common Area*

*Apparatus Bay*

**G2 ATX Station
Controller**

# Advanced Station Design
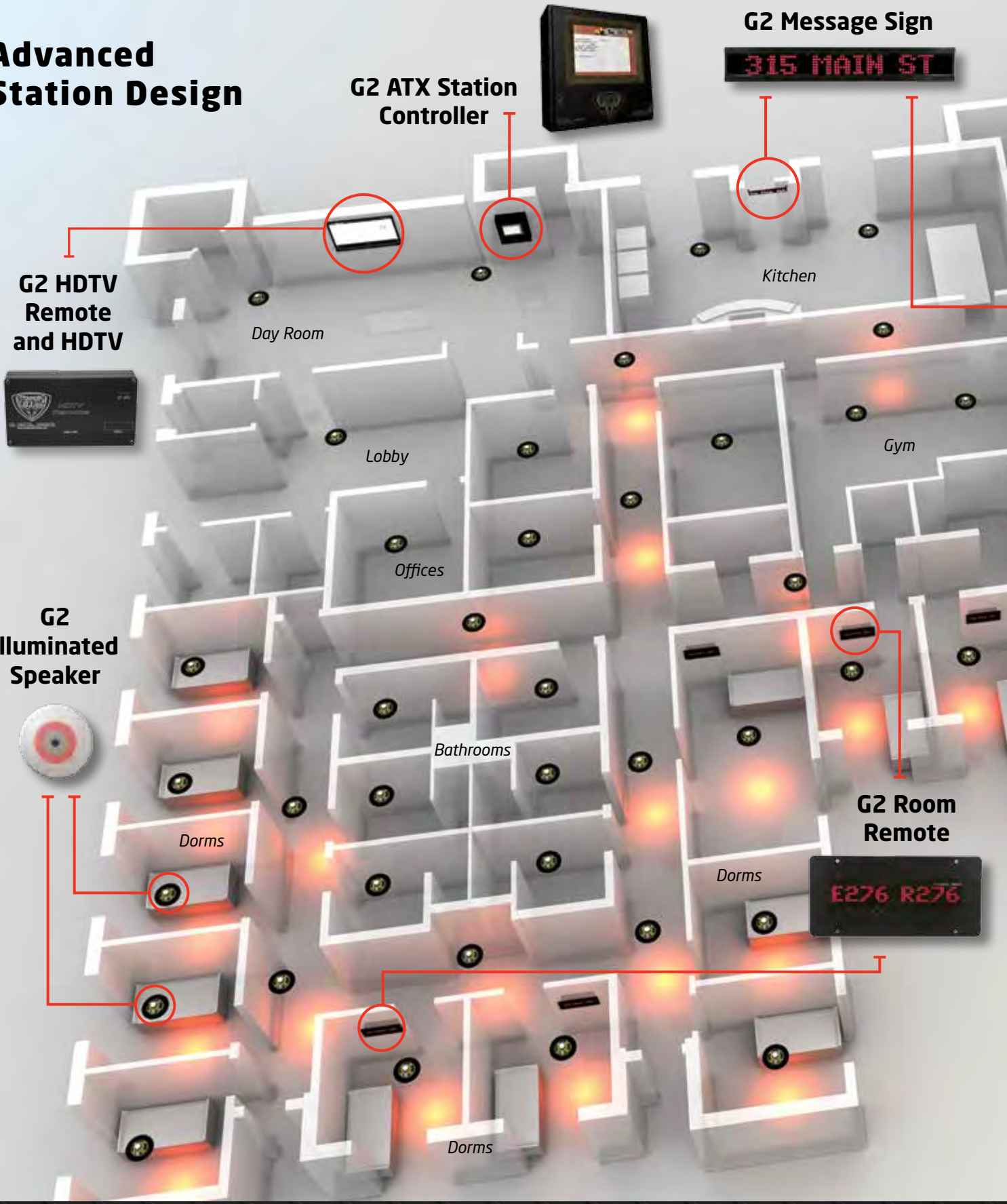
**G2 ATX Station Controller**

**G2 Message Sign**

315 MAIN ST

Kitchen

**G2 HDTV Remote and HDTV**

Day Room

Lobby

Gym

Offices

**G2 Illuminated Speaker**

Bathrooms

**G2 Room Remote**

Dorms

E276 R276

Dorms

Dorms

*Bathrooms*

*Turnout*

*Shop*

**Two Stacked
G2 Message Signs**
*Displays dispatch text
and turnout timer*

315 MAIN ST

106
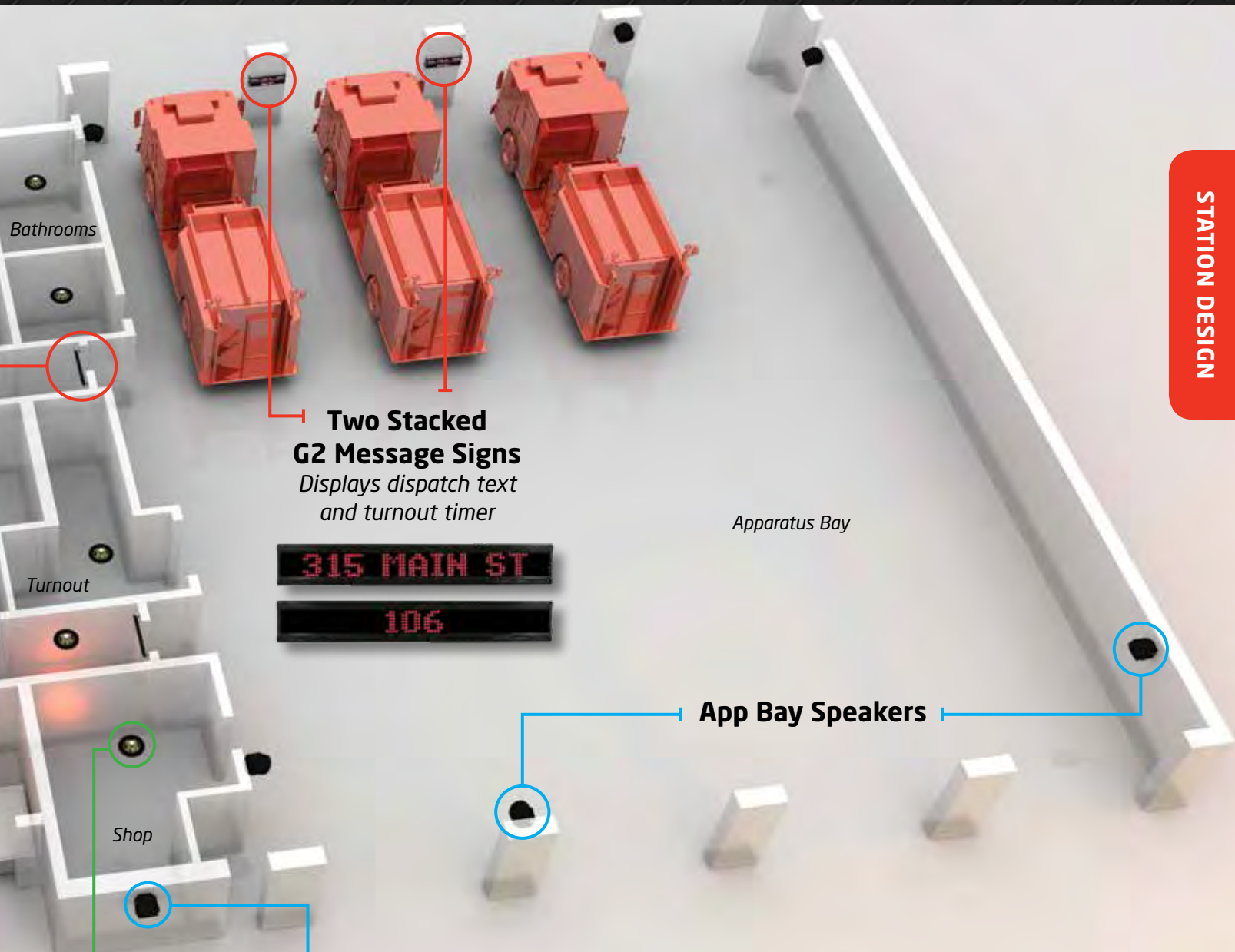
*Apparatus Bay*

**App Bay Speakers**

**Outdoor Speaker**
*May be automatically
muted at night*

**Interior
Speaker**

## No station too big or too small.

The Phoenix G2 system integrates crystal-clear text-to-speech technology and high-contrast message signs to help emergency personnel react promptly and efficiently to every call.

Fully automated dispatching awakens only on-call units with ramped tones and lighting, so non-dispatched crews remain undisturbed to receive necessary rest. Unquestionably, well-rested crews operate at peak effectiveness.

# G2 Communications Gateway

**Serves as an interface between the Station Alerting System and the customer's CAD host, radio and communications systems.**

The core of USDD's alerting system, the G2 Communications Gateway is the direct link between the CAD system at the dispatch processing center and the G2 ATX Station Controller hosted at each fire station. Using dynamic, flexible pathway options, the Communications Gateway has two redundant servers for disaster recovery and backup. Located at the dispatch center, the Gateway receives alert data from a dispatcher via an interface with an existing CAD host, or directly from USDD's interactive Web-based interface. The Gateway's design is efficient in every way, from simple network requirements and software updates to the "trainable" self-service pronunciation editor integrated into our G2 VoiceAlert software.

## Benefits

- **Optimizes a community's** investment by interfacing with new or existing voice and data systems.
- **Dispatches units automatically** over the agency's radio system—without additional dispatcher actions—using clear, automated text-to-speech VoiceAlert software.
- **Uses customer's existing** redundant alerting paths, as needed, which can keep the system running during communication failures.
- **Keeps personnel advised** of ongoing incidents through phone, text, email and paging alerts.

- **Monitors the health** of every ATX Station Controller and G2 peripheral device within the department's network, and reports communication failures to dispatch and support personnel via audible and visual alarms, per NFPA 1221 monitoring requirements.
- **Alerts stations** as well as reserve or volunteer personnel with two-tone or DTMF pages that precede the dispatch announcement.
- **Eases IT support** tasks by simplifying remote or local configuration via a Web browser.

## SPECIFICATIONS

» Embedded secure Linux operating system

» Redundant mirrored disk drives (RAID 1)

» Dual 19" 1U rack mount servers

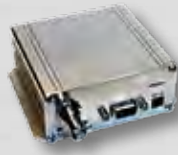*Communication links supported:*

**IP Network**

Commercial wireless, private wireless, wireline networks
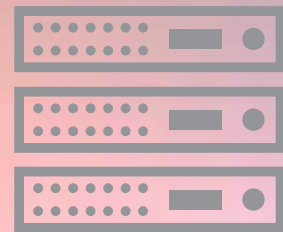
**VOIP/SIP**   **Data Radio**   **Email (SMTP) Paging**   **Two-tone/ DTMF Paging**

**USDD offers native interfaces with the following CAD providers:**

TriTech, Intergraph, Fortek, Northrop Grumman, Versaterm, SunGard,

FDM Software, ID Networks, Tiburon, Motorola, ADSI, ICS and ShieldWare.

 USDD continuously develops other custom CAD interfaces, including the

UK GD-92 standard.

# Communications Gateway Dashboard

Provides dispatchers with manual alerting, alert monitoring, radio announcement control and station alarm reporting, helping departments maintain NFPA 1221 requirements.
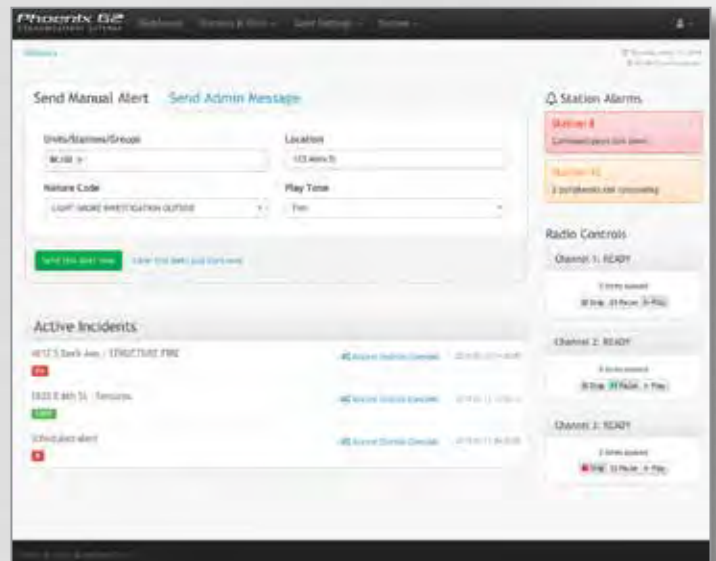
**stationalerting.com/gateway**

# G2 VoiceAlert

## Assists dispatchers during an emergency call by assuming the task of reading dispatch information aloud.

The G2 VoiceAlert software integrates with the CAD system, providing fully automated text-to-speech voice dispatching alerts. Using a calm, crystal-clear male or female voice, dispatches are delivered digitally or through a voice radio system from the dispatch center to the ATX Station Controller, and then played in specified areas of the fire station over G2 signs and speakers.

VoiceAlert is an alternative to a person speaking dispatch information for each call. The speech is generated in a fraction of a second and sent to individual stations simultaneously, relieving dispatchers of the time-consuming task of speaking with each station. This reduces dispatcher workload and oftentimes stress, enabling them to perform other time-critical tasks, such as processing the next call.

Most communities have a variety of dialects and local pronunciations. That's why our G2 VoiceAlert software comes with VoiceEditor, a user-friendly editing tool that lets you update and distribute pronunciations to all the stations and/or radios within your network.

### Benefits

- **Reduces human error** and automatically dispatches crews with a clear, accent-neutral voice, while the dispatcher continues gathering information, thereby helping crews comprehend information and respond more quickly.
- **Adjusts to dispatch workload** by truncating the dispatch announcement to accelerate radio alerting.
- **Offers the flexibility** to send alerts using multiple voices, thereby distinguishing fire calls from EMS calls or emergency dispatches from routine administrative messages.
- **Enables end-users** to easily edit and customize street names and other terms (at no additional cost) to match existing dispatcher protocols and local pronunciations, thereby minimizing the impact of adopting new technology.
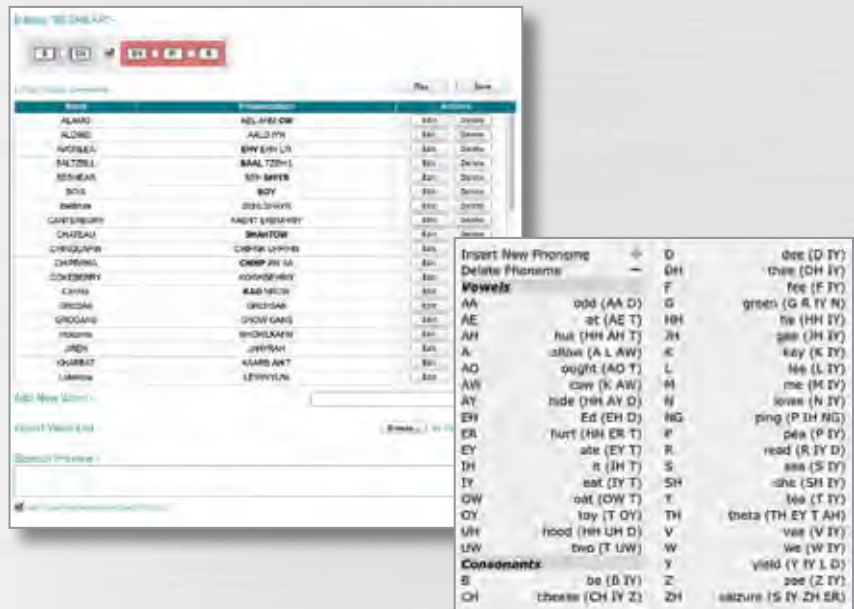
**Listen to VoiceAlert samples at stationalerting.com/voicealert**

# Gateway Audio System Interface

## Automatically transmits announcements across radio systems.

Connects the Communications Gateway and up to two radio channels simultaneously, alerting units without dispatcher intervention. Allows the Gateway to sense if the channel is busy and initiate transmission when the channel is free.

# FSA Mobile App

## Receive station alerts via your smartphone.

- **Sends simultaneous mobile** alerts, such as dispatch announcements, administrative alerts, IT support notifications and application update notifications.
- **Alerts personnel** as individuals or groups (e.g., stations, battalions, districts, etc.) wherever they are; great for volunteers and reserves.

- **Plays the same tones** as those in the station.
- **Shows incident location** using your smartphone's built-in mapping capabilities.

- **Enables users to save** notifications for future reference and search for previous notifications.
- **Provides an easy-access** email address and phone link to local IT support.
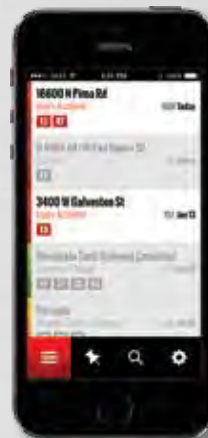
**stationalerting.com/app**

# G2 ATX Station Controller



## Powers and controls visual, audio and lighting alerts.

During a dispatch alert, the G2 ATX Station Controller processes the alert at the station and returns an acknowledgment back to the Gateway. The ATX alerts any combination of room zones with individual lighting, messaging and volume control in each zone.

The ATX Station Controller stores the station configuration and alerting locations in memory and can easily be configured and updated remotely through our encrypted Web interface, over a private network. The ATX computer features a secure, embedded operating system that runs on a high-speed flash memory. It also has a touchscreen display to provide another means of visually alerting first responders.

The fire department may add Phoenix G2 peripheral devices (e.g., signs, speakers and lighting) to the Station Alerting System located at each fire station, as needed. Devices can be integrated easily via a simple change to the Web configuration.

## Station Controller Interface

### Securely monitor, configure or update any station from a Web-based browser.

Designed for IT system administrators, the Station Controller Interface is a Web-based browser that helps you configure and manage fire station alerting from any location, at any time. It enables approved personnel to connect to the ATX Station Controller via a local- or wide-area network.

## Alerting Mode

- **Provides ramped, heart-saving** alert tones, alerting first responders in a less startling manner.
- **Enables approved personnel** to configure zones, schedules and alerting profiles, thereby providing unprecedented control when managing personnel and assets during an alert.
- **Displays system status** and last dispatch on 12" touchscreens, enabling users to confirm proper operation of the system and review dispatches for tracking and reporting purposes.
- **Permits approved personnel** to control or reassign zoned alerts to units, when necessary, via an on-screen touch selection.
- **Has built-in single-tone,** two-tone and DTMF paging decoding for integration with existing tone-based paging systems.
- **Offers remote configuration** and software updates as well as remote USDD customer support, thereby reducing the need to travel to remote sites for modifications and troubleshooting.

## Network and Peripherals

- **Reduces dispatch-processing** time by sending IP-based alert data over a high-speed network, and can notify multiple stations simultaneously in less than a second.
- **Enables each Station Controller** to work with devices, such as doorbells, lighting, appliances, doors and gates via the G2 I/O Network.
- **Offers local- and remote-system** monitoring and logging, making it easy to troubleshoot and reconfigure settings, such as volume and unit-to-zone assignments.
- **Connects to rip-and-run printers** so units can take printout dispatch information.

## SPECIFICATIONS

- » Eight Power over Ethernet (PoE) ports for zoned G2 peripherals
- » One local G2 Message Sign port
- » Audio inputs for dispatch radio, telephone intercom and auxiliary
- » VoIP audio input via network connection
- » Three configurable dry-contact inputs
- » Four Form-C relay outputs
- » Four 20-watt, 70-volt amplifier zones with Illuminated Speaker support
- » Line-level 600-ohm output for external amplifier (i.e., existing audio systems)

**FOR FIRE STATIONS**



Main Settings



ATX Station Controller Area Settings

**stationalerting.com/ATX**

# G2 I/O Network

## Controls station devices based on specific events or time of day.

The G2 I/O (input/output) Network enables station personnel to interface with external devices (e.g., station doorbells, lighting, appliances, doors and gates) and reset alerts, trigger walk-in alarms and monitor fire alarms. Based on specific events or time of day, the programmable Station Controller software can turn on/off outdoor speakers and lights. Additionally, dispatchers may access the I/O Network through the Communications Gateway to remotely signal connected devices (e.g., doors) as well as view alarms at the station.



# G2 I/O Remote

## Enables the monitoring and signaling of gates, doors, etc.

The G2 I/O Remote interfaces between the ATX Station Controller and field devices. The inputs (I) can be configured to monitor switches, such as doorbells, walk-in alert triggers and door open sensors. The outputs (O) can be used to signal automatic doors and gates, activate strobe lights and more. The I/O Remote may be installed up to 300 feet from the ATX Station Controller.



### SPECIFICATIONS

» Eight dry-contact inputs

» Eight Form-A relay outputs

# Introduction to G2 Peripherals


**G2 Message Sign**


**G2 Illuminated Speakers**


**G2 Room Remote**


**G2 Message Remote**


**G2 Sign Remote**

## Tailor your Phoenix G2 system to meet the needs of each station with optional signage, speakers and amplifiers.

The Phoenix G2 Fire Station Alerting System is comprised of a central ATX Station Controller and a network of alerting peripherals that alert first responders throughout a fire station via audio, display, lighting and auxiliary input/output (I/O) components.

Message signs can display CAD information, including the location and type of the incident, the upper and lower cross streets to the incident, map page and assigned radio channel. They can also display a turnout timer.

### Each G2 Peripheral:

- **Connects to the centralized** ATX Station Controller via a single CAT-5/6 cable for audio and Power over Ethernet (PoE) source, and will run off a battery backup during power failures.
- **Responds to many combinations** of alert conditions and station layouts, and is individually configurable by the ATX Station Controller.

- **Is enclosed with black anodized** aluminum, which increases corrosion- and wear-resistance, and makes them less likely to crack and peel. (G2 Illuminated Speakers are, however, finished with off-white enamel over a steel grill.)
- **Enables each station** to phase in alerting system upgrades and additions at any time with easy 'plug and play' installation.

### G2 Peripherals Include:

- Message Sign
- Sign Remote
- Message Remote
- Room Remote
- HDTV Remote
- Illuminated Speaker
- Color Indicator Remote
- Strobe Light
- I/O Remote

**PERIPHERALS**

**stationalerting.com/peripherals**

# G2 Message Sign

**Displays an almost instantaneous single-line scrolling alert message.**

The G2 Message Sign is by far the quickest way for responders to understand an alert. It's easy to install: just plug in the PoE cable and mount it over doorways or in hallways, kitchens, offices and app bays. System administrators or the fire department can control the type of information displayed, scrolling speed, message length, etc. Additionally, the Message Sign can be configured to display dispatch information, turnout timer or unit status (with a capable CAD system).

**Stand-alone G2 Message Sign requires no additional Sign Remote or Message Remote.**



# G2 Sign Remote

**Supplies power and data to a digital LED message sign.**

The G2 Sign Remote is a very flexible, inexpensive, general-purpose, station peripheral that supplies power, data and control to a single, non-PoE digital LED message sign. It can be hung near a message sign in a hidden ceiling area or mounted to the back of a message sign.



## SPECIFICATIONS

» One LED power and control output

» Surface mount

# G2 Message Remote

## Powers up to two message signs and up to two speaker zones.

The most flexible peripheral available, the G2 Message Remote contains two independent audio amplifiers and can power up to two non-PoE digital LED message signs. Most fire stations use a combination of both amplifier and message sign configurations.
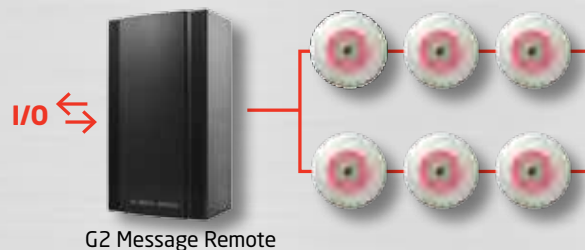
### Configurations

Two zones of G2 Illuminated Speakers



I/O

G2 Message Remote

Two zones of G2 Illuminated Speakers and one digital LED message sign



I/O

STRUCT FIRE

G2 Message Remote
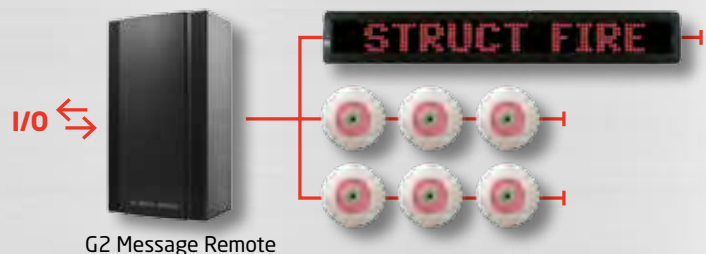
One or two digital LED message signs



I/O

STRUCT FIRE

106

G2 Message Remote

PERIPHERALS

# G2 Room Remote

## Customize messaging per-unit and per-location.

The G2 Room Remote is an all-in-one peripheral that provides the ability to easily add a unique alerting zone, such as dorm or bunkrooms, conference rooms and office areas. It can power and control local speakers to combine audible alerting, has a built-in LED digital message sign for immediate visual reinforcement of the alert and provides local control to manage alerts per shift, unit changes, move-ups, etc. Four on-screen touch control buttons make it easy for responders to adjust settings, such as the alerting schedule or volume.

# Improving Health and Wellness

*Did you know? Heart attacks account for half of firefighter deaths.*

*When a traditional station alarm sounds, a firefighter's heart rate can soar to dangerous levels for up to an hour. While a normal resting heart rate is 60 beats per minute, studies show that a heart rate increases an astonishing 60 to 70 beats per minute within 15 seconds after an alarm sounds, thereby doubling the normal heart rate.*

*Over the course of a firefighter's career, the cumulative effects of stress produced by traditional station-alerting systems have been proven to cause permanent cardiac damage, and have been linked to multiple line-of-duty firefighter deaths, permanent hearing loss and physical disability.*

*USDD's next-generation Phoenix G2 Fire Station Alerting System is purposely built to protect the health and wellness of firefighters.*

# G2 HDTV Remote

## Displays multi-line dispatch information on a HDTV monitor, TV, video wall or projector.

The G2 HDTV Remote displays dispatch information on a customer-provided high-definition television (HDTV) screen, providing another means of visual alerting. The device can be programmed to provide alert statuses for specific units as well as show a digital turnout timer so crews can continually improve their response times. Unlike other G2 peripherals, this device derives power from the same electrical source as the display.

# G2 Illuminated Speaker

## Awakens first responders with soft-start LED lighting and audio alerts.

The G2 Illuminated Speaker offers soft-start, ramped night lighting at the time of dispatch. Designed to assist first responders out of bed, out of the room and down the hall, the Illuminated Speaker incorporates a room speaker and bright, long-lasting, reliable LED lighting. Each speaker is fitted with high-intensity red LEDs, which offer exceptional luminosity without causing light blindness due to dark-to-bright transition. The Illuminated Speaker receives power from the ATX Station Controller, Message Remote or Room Remote. Recommended installation locations include dorm rooms, hallways and common areas.

### SPECIFICATIONS

» 48 VDC, 20mA per speaker
» 10,000-hour LED life span
» Surface mount or ceiling mount
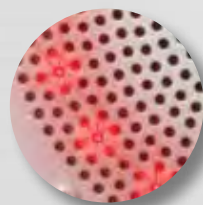


High-intensity
red LED lights

**stationalerting.com/peripherals**

PERIPHERALS

# G2 Color Indicator Remote

## Offers an alternative alerting method, featuring high-intensity LED lights.

The G2 Color Indicator Remote is instantly recognizable by station personnel, providing immediate dispatch information to the observer. Easily visible in sunlit rooms, this LED light is fully programmable by the ATX Station Controller.

# G2 Strobe Light

## Alerts first responders with a blinking strobe light in high-noise areas.

A healthy ramping up of audio alerting works wonderfully, unless your personnel cannot hear it. Support your alerting with the G2 Strobe Light, a high-intensity LED blinking strobe that visually alerts crews in areas with high ambient noise levels, such as a kitchen, shower, apparatus bay, workshop or compressor room. The Strobe's lights flash 180 degrees in a series of four per-cycle to simulate a quad-flash strobe, and with the benefit of a 100,000-hour life. Each unit has 21 LED lights, three of which burn steadily to maintain visual contact even during the off period of the flash.

# About US Digital Designs

At USDD, we design, develop and customize the mission-critical Phoenix G2 Fire Station Alerting System, which plays a major role in helping save lives and reducing property losses in emergency situations. A high-quality and high-reliability system using the latest technology, the Phoenix G2 (or "Generation II") system is 'made-in-the-USA' compliant.

- **It works.** Long before any part is manufactured, we have assembled, tested, used and abused the product in a virtual environment. This means that there are no surprises. We understand the need to get it right the first time. Exhaustive virtual and prefatory testing can save you from unnecessary frustration.

- **One size doesn't fit all.** Having worked with thousands of fire stations, we find that each location has its own unique subculture. That's why our designers will produce a custom rendering of each station's floor plan to help you visualize how the Phoenix G2 system will meet your unique needs.

- **You dream it, we'll build it.** If you envision refinement or improvements to your existing system or a completely new product, talk to us. Each part of the Phoenix G2 system was developed based on the needs and feedback of first responders around the world. We will help turn your vision into reality.

- **Don't take it from us.** Ask around. Call any of our customers and you'll find that no alerting company has a better reputation for providing a more effective solution, better value or better service. Also, view our video testimonials and see Phoenix G2's impact on communities at stationalerting.com/impact.

## Get Started

1. Take our quick survey at stationalerting.com/start

2. Email your fire station floor plans to sales@usdd.com

3. Receive a quick fire station alerting system design and budgetary assessment

## Support

The Phoenix G2 comes with built-in, upgradeable features and capabilities; multi-year, 24/7 proven reliability; easy, hassle-free installation; Web-based remote configuration and control; and almost no required maintenance. Telephone and email support are always available during normal business hours (Monday to Friday, 8 a.m. to 5 p.m., MST). Recurring annual service and support agreements are available, allowing you to continue the same worry-free operation and maintenance of all of your installed station alerting systems. And we offer complete in-house testing and repair of all USDD equipment.

## Warranty

At USDD, we warrant our products to be free from defects in material and workmanship during the one-year warranty period. If a product proves to be defective in material or workmanship within one year from date of purchase, we will, at our sole option, repair or replace the product. Replacement products or parts may include re-manufactured or refurbished parts or components. The replacement unit will be covered by the balance of the time remaining on your original limited warranty.

www.stationalerting.com