

Fail-safe  
communication  
for everyone.

## O V E R V I E W CODESPEAR

### > Interoperable communications, alert notification and multi-agency coordination...any time, any place, any device.

Developed for first responders and other public safety personnel, the Codespear SmartMSG application suite provides a mission-critical communications and nerve center platform that supports secure communications interoperability, urgent-alert notification, incident scenario management and execution, event monitoring, and cross-agency data sharing and collaboration.

The Codespear SmartMSG “open systems” software-centric solution supports operational continuity by integrating two-way interoperable voice-, data- and video-based communications, wide-area alerting, and data sharing between agencies, first responders and citizens. Employing existing communication devices and infrastructure, Codespear SmartMSG responds to an entire range of communication requirements at a cost far more economical than hardware alternatives.

### Codespear expands the communications footprint by promoting true interoperability.

Codespear provides a seamless and comprehensive communications network for disparate radio systems (UHF, VHF and digital) as well as other devices, including landlines, cell phones, satellite phones, pagers, PDAs, PCs and more.

Although not required to achieve radio interoperability, Codespear’s IP capability allows users to extend communications locally, regionally—even nationally. Highly portable, Codespear can be controlled from a single laptop or smart phone; and requires only DC power to ensure operational continuity in the event traditional power infrastructures are unavailable.

By providing live, real-time interoperable communications and alert notification on the same platform, Codespear assures flexibility and reliability. Incident managers can instantly notify everyone from first responders to private citizens of evacuation procedures, Amber Alerts, hazmat warnings, school closings, etc.—regardless of the communications device or frequency. Codespear secures confidential data through an authenticated and encrypted application that scales support to thousands of simultaneous users with built-in redundancy and automated fail-over across servers to assure optimum survivability.

### Codespear is already on the job for a diverse range of customers.

Codespear is already being used by dozens of government agencies, including organizations collaborating with the Department of Homeland Security. Other customers include: police, fire and other first responders responsible for public safety and emergency management; public and private healthcare institutions; and commercial business enterprises such as financial institutions. Codespear’s modular, software-based platform is cost effective and versatile while offering extended system lifespan and flexibility. That’s why it’s fast-becoming the preferred solution for interoperable communications.



## SmartMSG

Codespear's flagship product, SmartMSG blends communications interoperability, alert notification, secure urgent messaging and interactive data sharing into a seamless software package for either stationary or mobile configurations.

The IP-based SmartMSG approach to interoperability provides critical communications support for emergency preparedness and response, command and control, incident response, as well as operational continuity across jurisdictions, agencies and first responders. Though the system's capabilities can be used independently of one another, when deployed as a complete package SmartMSG represents a comprehensive, highly flexible, and easily expandable approach to interoperable communications.

SmartMSG is the first alert notification and secure-messaging software that is instantly interoperable with any device over any networking medium. By taking advantage of existing hardware, the SmartMSG platform stands out as a cost-effective solution that enables users to leverage equipment investments that they've already made. SmartMSG supports public internet, wide-area network (WAN), 802.11/b/g, 802.16, virtual private network (VPN), cellular data, microwave, satellite and two-way radio, making it a highly reliable system that is not dependent on any individual type of communications device or protocol.

### SmartMSG Highlights:

- Communications interoperability for all UHF, VHF, digital band and HAM radio systems.
- Integrated and interoperable multi-device alert notification and acknowledgement tracking.
- VoIP-based convergence of multiple voice-capable devices, including radios, phones (cell, SAT, IP, PBX) and computers.
- Cellular data, satellite data and broadband wireless data access support.
- Intelligent "plug-and-play" for communications interoperability with "smart recognition" of agencies and radio types accessing the network.
- Automated incident scenario management and exercise planning tools.
- Distributed, scalable and redundant architecture.
- Wireless data and video collaboration support.
- Secure voice/data sharing across agencies.
- Geographic information system (GIS) integration and GPS support.
- Multi-lingual translation of text and text-to-speech communication.
- Secure audio/data recording and logging for all communications and alerting functions.
- "Real-time" audio buffering to accommodate radio system latency.



### > SmartMSG RIU

SmartMSG RIU features a reduced-footprint USB "plug-and-play" VoIP appliance weighing just over 12 ounces, and measuring just 4" x 6-5/8" x 1-3/8".

### SmartMSG Radio Interoperability Module

The SmartMSG Radio Interoperability Unit (RIU) employs an embedded VoIP architecture to allow simultaneous text and voice broadcast of alert notifications to two-way radios, push-to-talk (PTT) enabled devices, PCs, phones, pagers and wireless PDAs. This module also permits integrated real-time communication between two-way radio talk groups, PTT groups, phones and PCs. The Radio Interoperability module supports radios from different manufacturers, as well as communication across multiple bands/frequencies and pre-defined talk groups.

The Codespear-designed RIU consists of a compact hardware appliance attached by USB to a standard PC configuration. Once an agency radio, PTT-capable phone, mobile or base station console is "docked" into SmartMSG and the RIU appliance via "smart" cables, the VoIP



**CODESPEAR**

*Advancing security and well-being.*

architecture establishes that radio as a secure virtual repeater. The device can now communicate over a SmartMSG distributed server, while operating on either a private and/or public internet infrastructure.

### SmartMSG Scenario Manager Module

The SmartMSG Scenario Manager integrated incident planning and execution tool defines "tiered-response plans", thereby allowing incident scenarios to be chained together based on incident events and their dependencies with other tasks or procedures that must be followed in a step-by-step or "decision tree" fashion. Scenario Manager sets a new paradigm in achieving NIMS compliance and electronic execution of response plans and mutual-aid requests. Consequently, it is uniquely suited to the needs of network operations centers, emergency management/EOCs and I.T. help desks for both commercial enterprises and government agencies.

Scenario Manager integrates with SmartMSG alerting, communications interoperability and collaboration tools to automatically activate multiple forms of communication. The system can also be tailored to communicate with external systems using XML, SQL, VoIP, etc., to either "poll" external systems, or permit external events to "trigger" incident and event scenarios in the SmartMSG system.



> Scenario Manager

### SmartMSG Citizens Alert Module

The SmartMSG Citizens Alert module provides a secure and reliable method for public safety administrators to notify the mass citizenry of everything from floods, tornadoes and chemical spills, to school closings and road closures.

Citizens can "opt-in" to the database by providing information to the agency web site, or with a simple mail-in form. Notification options include any combination of home phone, cell phone, office phone, email, text message and pager. For targeted geographic alerting, SmartMSG Citizens Alert features a GIS-based mapping interface.



> Mass-Citizen Alert

## P R O D U C T S



> SmartMSG

Alert notification and secure-messaging software that is instantly interoperable with any device over any networking medium.



> Radio Interoperability

Simultaneous text and voice broadcast to radios, cell phones, PC's, pagers and wireless PDAs – regardless of platform or manufacturer.



> Scenario Manager

Incident planning and execution tool that blends together workflow, communication, alert notifications and the efforts of agencies and first responders.



> Mass-Citizen Alerting

A secure and reliable method of notifying mass citizenry.



## > The Codespear SmartMSG Platform at a Glance

- **Full Communications Interoperability** — Integrated voice and data communication; PCs, radios and phones can communicate seamlessly. Multi-band radio interoperability with support for both one-way alerts and two-way communication.
- **Scenario Management** — The Scenario Manager application provides for automating emergency and incident procedures. Agencies can pre-define automatic procedures (scenarios) for various events based on specific needs. Scenarios may include any series of actions including broadcasting alerts; evaluating alert responses; sourcing data from external systems; creating talk groups; and activating standby channels.
- **Distributed Messaging Architecture** — Scalable, redundant deployment with automated fail-over simultaneously supports thousands of users across hundreds of servers.
- **Multi-Device Notifications and Communications** — Fully integrated alert notification across PCs, wireless Pocket PC, BlackBerry, cellular phones, land-line phones, pagers, video and radios.
- **Secure and Encrypted Communication** — Applicable for alert notifications, VoIP communication, radio linked talk groups and two-way text or voice communication; system includes option for PIN-code authorization.
- **Multi-Lingual Messaging** — Real-time translation of more than 14 languages for alert notifications and multi-language secure messaging, with auto-translation between users of different native languages.
- **Seamless Immediate Recovery** — Network disruptions are handled automatically thereby providing transparent recovery for users.
- **Pre-Defined Scenarios, Ad-Hoc and System Automated Alert Notifications** — Alerts can be initiated from templates; generated ad-hoc by an authorized user; or launched by external system / event codes.
- **Custom Response Options** — Provides for pre-defined data entry forms for custom responses, real-time data gathering, data export and acknowledgement tracking options.
- **Intelligent Message Routing and Escalation** — Automatic routing and escalation of alert notifications based on pre-established rules profiles.
- **Automated Alerts** — Data integration with external systems and sensor activity enables urgent alerts to be initiated by external events such as motion, duress, heat, etc.

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