

Deploying Communications Technologies to Improve Emergency Response: An Emergency Communications Utility

Executive Summary

COMCARE is a national non-profit alliance dedicated to **advancing emergency response**. It promotes the adoption of modern, interoperable emergency systems and the development of new procedures, training, and tools to maximize their value for emergency responders. It encourages cooperation across professional, jurisdictional and geographic lines, seeking to improve effectiveness through solutions that integrate emergency response professions, government, the public, and private industry. COMCARE's 100+ organizational members represent the wide diversity of the emergency response community.

COMCARE is working to design, develop and deploy a routing directory called the Emergency Provider Access Directory (EPAD) that enables emergency message exchange among disparate systems. This directory gives agencies the ability to distribute emergency messages based on geography, incident or agency type, for all types of emergency events.

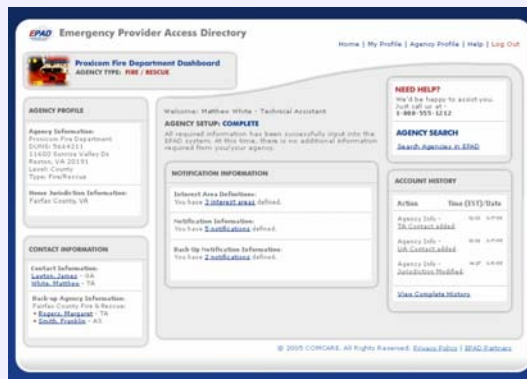
Business Challenge

The business challenge was to enable information sharing across emergency response professions and jurisdictions. There is currently no accurate, comprehensive printed or electronic directory of telephone numbers, Internet addresses, street addresses and other relevant contact information for all federal, state and local emergency response agencies in the U.S. This is a critical missing link in our emergency response infrastructure that impairs agencies' abilities to respond to individual or mass emergencies. COMCARE is leading an effort to create a nationally coordinated **Emergency Provider Access Directory (EPAD)**. This directory enables shared data exchange for emergency events ranging from public warnings and terrorism alerts to individual incidents or mass events. A prototype has already been extensively demonstrated in the field.

This phase of the effort takes EPAD from the prototype version, to a scalable, open standards based architecture, which will ultimately lead to a fully functioning production system that can be rolled out nationally. Using emergency message standards and commercial information technologies, agencies can use EPAD to geographically target and exchange vital information about an emergency event to all appropriate authorities and the public quickly and securely.

The EPAD Solution

The Web-based Emergency Provider Access Directory (EPAD) is a geospatially-enabled electronic directory that contains prioritized contact information for all emergency response agencies in the US and all authorized private entities capable of distributing information to the public. When queried, EPAD provides a list of agencies that want to be contacted during an emergency event based on incident type and geographic location so the message can be sent simultaneously to ALL requesting agencies.



The EPAD system is designed as a service-oriented, open architecture with reusable Web service components and open standard interfaces. Our solution, EPAD, resolves the communication challenge identified above, by providing the following services:

- Directory functionality independent of other functions to ensure **flexibility and robustness**. This functionality enables **multiple** emergency communications uses by multiple emergency organization users.
- Information profiles established and maintained by the **agencies themselves**. Agencies choose *what* information they receive, *when* and *how* they receive it, and *who* has access to its information
- EPAD Identity Rights Management to authenticate agencies and users and grant them permissions to perform certain actions. This module facilitates policy enforcement and audits usage so that trust is established and secure and reliable information sharing is ensured.

Project Snapshot

Industry

Public Sector
Emergency Response

Solution

Emergency Provider
Access Directory
(EPAD)

Technical Components

Software

- Red Hat Linux Enterprise
- PostgreSQL
- Sun Java System Directory Server
- ArcWeb Geocoding and Map Service
- Moxi Media IMF
- Web service (SOAP) messaging

Standards

- CAP
- VEDS
- EDXL

COMCARE

For more information about COMCARE, please call 202-429-0574, email us at info@COMCARE.org or visit our website at www.COMCARE.org.