# Closest Unit Dispatching Project Management

# Scope of Work

**October 17, 2023**

**Introduction:**

In April of 2022, the Directors from Boulder Police and Fire Communications and Boulder County Communications, along with their Technical Administrators began a project to develop an improved closest unit dispatching system. This initiative has been a collaboration with Boulder Fire Rescue, Boulder Rural Fire, the City of Lafayette Fire, Louisville Fire, and Mountain View Fire. All stakeholders agreed to work toward a solution within the current CAD system while maintaining independent dispatch center operations.

This project is multi-faceted due to the volume of systems, connectivity, vendors, and governances. Automation and consolidation of CAD resources will build efficiency for operations and allow for improved response times and patient care.

There are three primary project objectives, each with their own set of tasks:

> 1) Agreements and Operations
>
> 2) New Fire CAD Configuration
>
> 3) Alerting Infrastructure

Due to the complexity and coordination of stakeholders, the project committee is seeking a Project Manager resource to assist with successful completion.

This document details the need for professional project management to oversee a multi-agency approach to streamline and improve fire agency dispatching in Boulder County, Colorado. This project includes five fire service entities, a private EMS transport provider, and two dispatch centers. The leadership team overseeing this project have a positive working relationship and have crafted cooperation agreements to support this move to improve customer service across jurisdictional boundaries. Four of the agencies are cooperators in closest unit dispatching through the County's communications center; this project aims to improve this methodology and include the City of Boulder. A detailed description of the project follows.

**Stakeholders**

Boulder County Communications (BCC) – Public Safety Answering Point (PSAP) that provides dispatch services to five Law Enforcement and 21 Fire/Rescue/EMS agencies. In 2022, BCC staff answered approximately 140,000 phone calls, 30% of which were 911 lines. These incoming calls generate close to 120,000 CAD incidents, 15,000 of which are Fire/Rescue/EMS responses.

Boulder Police and Fire Communications (BPFC)—PSAP that provides dispatch services to Boulder Police, Boulder Fire Rescue and Open Space & Mountain Parks Rangers. In 2022, BFPC staff answered just over 142,000 phone calls, 29% of which were 911 calls. These incoming calls generated just over 174,000 CAD incidents.

Boulder Regional Telephone Service Authority (BRETSA): Governing body that collects an emergency telephone charge (ETC) for the purpose of funding E911 and various supporting systems per § 29-11-104, C.R.S. The BRETSA Board oversees the allocation of ETC funds.

Boulder Rural Fire (BRF)—Special district serving 25 square miles surrounding the City of Boulder.  BRF has one staffed station with a full-time Engine and ALS ambulance crews.  There are approximately 1,000 calls for service within Boulder Rural's jurisdiction.

Boulder Fire Rescue (BFR)—Municipal fire department with eight staffed stations that respond within the city limits of Boulder for Fire, EMS and Rescue calls for service.  There are approximately 16,000 incidents annually within the city limits.

Lafayette Fire (LAF)—Municipal fire department that operates with two stations, staffed with an engine, a ladder truck, two ambulances and a Battalion Chief.  There are approximately 3,000 calls for service within Lafayette Fire's jurisdiction.

Louisville Fire (LOF)—Special district serving the City of Louisville and surrounding rural areas with three stations, staffed with two engines, two ambulances and a Battalion Chief.  There are approximately 2,700 calls for service within Louisville Fire's jurisdiction.

Mountain View Fire (MVF)—Special district serving over 250 square miles within Boulder and Weld Counties from ten staffed stations.  Mountain View operates nine engines, two ladders, four ambulances and one Battalion Chief.  Their 6,500 calls for service are dispatched out of two County PSAPs, 4,800 of which are from Boulder County Communications.

## Definitions:

Boulder Valley Fire Consortium (BVFC): Six fire departments and three comm centers that collaboratively work together to improve preparedness, emergency response and daily operations.  The following organizations will be participating in this closest unit dispatching project: Boulder Fire Rescue, Boulder Rural Fire, Lafayette Fire, Louisville Fire, Mountain View Fire, Boulder Police & Fire Communications, and Boulder County Communications.

Closest Unit Dispatching:  The closest and/or most appropriate resource(s) recommended for a given call type and location throughout five BVFC departments (Boulder Fire Rescue, Boulder Rural Fire, The City of Lafayette Fire, Louisville Fire and Mountain View Fire).

Computer Aided Dispatch (CAD) Agency: Highest level within the CAD system hierarchy

Chiefs: Chief/President from each Fire District

Project Committee: PSAP Directors, PSAP Technical Administrators, one fire service representative from LAF, one fire service representative from MVF and one fire service representative from Boulder Fire Rescue.

Standards of Cover (SOC): Predefined critical tasking that sets the framework for initial response through distribution and concentration of fixed and mobile resources.

Mobile Data Computer (MDC): Computer or tablet assigned to an apparatus that maintains CAD connectivity through cellular or satellite internet service.  MDCs are funded and maintained by each fire agency.

**Funding Sources:**

The closest unit dispatching project funding is a collective effort between PSAPs, stakeholder fire agencies and the Telephone Authority. The following funding commitments have been identified. Additional needs TBD collectively with the Project Committee.

| Project Need | Funding Source |
|---|---|
| Project Management | Fire Agencies |
| CAD Configuration | BRETSA |
| County Radio Infrastructure | Boulder County Communications |

**Primary Project Goal:**

Develop an automated closest unit dispatching system that facilitates seamless and timely dispatch of the most appropriate units based upon standards of cover, regardless of jurisdictional boundary.

**Project Objectives:**

1) Align all agreements, standard of cover and response expectations for participating agencies
2) Develop and implement a consolidated Fire CAD Agency between BFPC and BCC to meet the needs of closest unit responses
   a. This will allow the dispatch centers to maintain current operations while sharing resources for all fire responses and create concurrent visibility for responding units.
3) Develop and implement independent alerting land mobile radio channels for each PSAP that allows for seamless dispatch notifications from either center
   a. Creates simultaneous, uninterrupted alerting through three disparate radio systems
   b. Voice alerts will be more consistent in information, cadence, volume and emotion improving intelligibility and understanding of call information
   c. Maintains continuity of dispatch operations for both BVFC and the volunteer agencies
   d. Introduces IP station alerting for BCC agencies (City of Boulder already has this)
   e. Improves the continuity of patient care by reducing interruptions during the emergency medical dispatch call processing
   f. Reduces on-air time of main dispatch channels staffed by a human dispatcher allowing for better communication between field units and communication centers.
   g. Modernizes alerting infrastructure

**Initial Project Tasks for Successful Execution of Objectives:**

## 1  *Agreements and Operations*

| | Task | Complexity Level | Current Status | Responsible Party | Coordinating Party |
|---|---|---|---|---|---|
| 1a | Intergovernmental Agreement (IGA) – Confirm this document is still binding and acceptable | LOW | Not Complete | Chiefs and Legal | Project Manager |
| 1b | SOC – Review and confirm all 5 participating agencies agree to the same responses.  This includes a complete review of call types and priority responses. | LOW | Complete | Project Committee & Chiefs | Project Committee & Dispatch |
| 1c | Alignment of agency policies for response.  This includes but is not limited to cross staffing, swapping units on response, disparate radio systems creating operational challenges (such as scanning incompatibilities) and MDC use | MEDIUM | Not Complete | Project Committee & Chiefs | Project Manager |
| 1d | EMS Responses: Medic vs Ambulance (Fire-based ambulance vs contracted AMR) | LOW | Complete | Project Committee & Chiefs | Project Committee & Chiefs |
| 1e | Fire Department Training Curriculum for closest unit dispatching operational changes | Medium | Not Complete | Project Committee & Chiefs | Project Manager |
| 1f | Dispatch Training Curriculum | Medium | Not Complete | Project Committee | Project Manager |

## 2  *New Fire CAD Agency Configuration*

| | Task | Complexity Level | Current Status | Responsible Party | Coordinating Party |
|---|---|---|---|---|---|
| 2a | New/Consolidated Fire CAD Agency Configuration | VERY HIGH | Not Complete | Project Committee | Project Manager |
| 2b | Review impact to Law Enforcement (LE) agencies | MEDIUM | Not Complete | Project Committee & Chiefs | Project Manager |
| 2c | MDC reconfiguration | HIGH | Not Complete | Project Committee | Project Manager |
| 2d | Consideration of renumbering | HIGH | Not Complete | Project Committee & Chiefs | Chiefs & Ops Group |

| | Task | Complexity Level | Current Status | Responsible Party | Coordinating Party |
|---|---|---|---|---|---|
| 2e | Roll-back plan | Medium | Not Complete | Project Committee & Chiefs | Project Manager |

| **3** | **Radio System Alerting Infrastructure** | | | | |
|---|---|---|---|---|---|
| | **Task** | **Complexity Level** | **Current Status** | **Responsible Party** | **Coordinating Party** |
| 3a | Determine location for network equipment. This should include personnel access, initial configuration and ongoing support. | LOW | Partially Complete | Dispatch | Dispatch, Project Manager |
| 3b | Build BCC Alerting channels, both VHF and CCNC DTRS | HIGH | Not Complete | BCC Radio Shop & Dispatch | Project Manager |
| 3c | Build BPFC Alerting Channel | Low | Not Complete | City Radio Shop & Dispatch | Project Manager |
| 3d | Implementation of IP alerting for BCC agencies | HIGH | Not Complete | Dispatch, Radio Shop, Project Committee, FD IT Personnel | Project Manager |

**Scope of Work General Expectations:**

1. Ensure stakeholders are meeting goals and objectives
2. Coordinate completion of tasks listed for each objective
3. Manage logistics, meeting notes and execution of action items
4. Coordinate with vendors and internal technical staff
5. Create and maintain roadmap of milestone dates to meet objectives
6. Manage and assist with technical work-flow process documentation for PSAPs and fire agencies
7. Ensure consistency of standard operation policies and procedures for PSAPs and fire agencies
8. Oversee the development of training materials and the logistics of training implementation for PSAPs and fire agencies
9. Draft and disseminate timely project status reports to stakeholders
10. Ensure system testing, resiliency and redundancy is completed
11. Coordinate the development of a go-live plan
12. Coordinate the development of a roll-back contingency plan
13. Oversee creation of shared issue reporting/ticketing system
14. Assist with documenting best practices for daily business operations for PSAPs and Fire Districts

**Schedule of Completion for Deliverables**

| System or Task | Completion Date |
|---|:---:|
| Roadmap Documentation | TBD |
| Updated Legal Agreements | TBD |
| Consistent SOPs for PSAPs and FDs | TBD |
| PSAP and FD Training Materials | TBD |
| Shared CAD Agency Build (Objective 2) | TBD |
| Radio System Alerting Infrastructure (Objective 3) | TBD |
| Develop roll-back plan | TBD |
| Develop and implement go-live plan | TBD |