

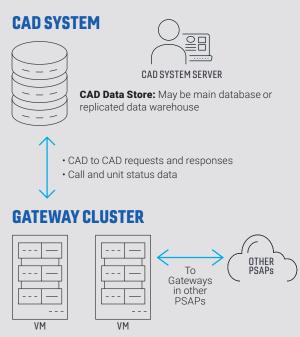
FIRST RESPONDER SOLUTIONS

COMMANDPOINT CAD TO CAD

An innovative distributed enterprise service bus (ESB) solution

INNOVATIVE ESB SOLUTION

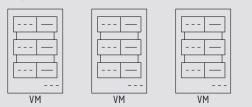
CommandPoint® CAD to CAD allows guick, efficient, and seamless connection to system components and is capable of serving every level of interoperability required to meet the vision of NG911 by interconnecting computer-aided dispatch (CAD) systems. This unique solution provides maximum flexibility for larger agencies to scale the deployment to meet their needs using lowcost commodity hardware and affordable networking technology. Implemented as a cloud-based or on-premise solution, it can be scaled based on each participating agency's call volume and level of interaction with external CAD systems. Our CAD to CAD solution is capable of connecting CAD systems through configuration and allows CAD systems from any vendor to share data in a peer-to-peer architecture without using a monolithic centralized clearing house approach.



One logical server. The gateway cluster routes request in a round-robin fashion to each VM. VMs also work with queued data in SQL. Server database and workload is thus spread across both VMs.

- Messaging metadata and audit trail
 Call and unit status
- CAD to CAD requests/responses

SQL SERVER CLUSTER



The clustered SQL server database appears to be one logical SQL server but provides scalability and reliability. A separate SQL reporting instance supports MIS needs.

CAD TO CAD CAPABILITIES

Each CAD system is interfaced to the CAD to CAD Gateway using the National Information Exchange Model (NIEM) application programming interface (API) or a CAD provided API.

Transactions the CAD to CAD Gateway Server Supports

Transaction acknowledgments: all transactions between Gateways and other components are always paired with an acknowledgment response to confirm the transaction was successful and assist in system performance monitoring. In the event that a transaction fails to be acknowledged, it is declared a "Dead Letter". It is then logged in the Gateway exception tables and an error transaction is generated back into the sending system to alert the user through any means implemented by the source system such as audible or visual cues.

Unit status update: when a unit status is updated in an agency CAD, the CAD system notifies the Gateway. The Gateway then notifies all other Gateways that are subscribed to the unit of the new status. The receiving Gateways notify their CAD of the new status.

Unit location update: when a unit status is updated in an agency CAD, the CAD system notifies the Gateway. The Gateway then notifies all other Gateways that are subscribed to the unit of the new status. The receiving Gateways notify their CAD of the new location.

Resource request: when a CAD system needs a resource that is not owned by that CAD, it sends a resource request to its Gateway. The Gateway logs and routes the request, including related incident data, to the appropriate Gateway. If the request is not answered within a configurable time, the Gateway notifies the requesting CAD system that the response has been delayed.

Resource response: when a CAD system has received a request for assistance, it can either accept the request as-is and dispatch the requested resource, substitute an alternate resource, or deny the request. If a request is denied, it is often accompanied by an incident update initiated by the dispatcher that explains why the request was denied.

Resource cancellation: when a resource is canceled from a call or preempted, the CAD sends a message to the Gateway. The Gateway then sends the update to all other subscribed Gateways or CAD systems.

Incident transfer: an incident can be transferred based on business rules, manual request, or as part of a resource request. The detailed call for service data is sent from the CAD to its Gateway. The Gateway forwards the transaction to the appropriate external Gateway.

Linked incident update: any time there is an update to an active incident, the CAD sends a message to the Gateway. If the CAD system is the owner of the incident, then all updates forward to Gateways and CAD systems that are subscribed to the incident. If the CAD is a subscriber to another agency's incident, then only allowed fields are passed back to the incident subscribers.

Messaging: a message from a CAD that has a recipient outside of the CAD domain sends a message transaction to the Gateway. The Gateway routes the message to the appropriate destination Gateway or CAD.



Situational awareness for public safety with ViewPoint[™] map integration.

CHOOSE THE LEVEL OF INTEGRATION THAT BEST FITS YOUR SPECIFIC NEED

View-Only Situational Awareness

Integration is the most common starting point for agencies due to the lower cost point and little-to-no reliance on regional governance or CAD vendor support. The View-Only capability provides a full regional situational awareness picture where agencies can pick and choose information they want to make available to support regional coordination. This picture allows agencies to anticipate and prepare for incoming aid requests and provides immediate operational benefits when dealing with large scale incidents.

The View-Only capability is accomplished by setting up readonly interfaces into local CAD and automated vehicle location (AVL) solutions to provide a real-time picture of everything happening in the region. Agencies have the option of running our CAD to CAD solution as a separate application or directly integrating it as a CAD mapping solution.

Assisted CAD Integration

With assisted CAD integration, agencies can enable two-way electronic communication with CAD systems that have limited ability to share information or handle advanced workflows that become possible with electronic cross-jurisdictional coordination. This solution provides the full benefits of real-time electronic coordination by completely removing the need for inter-agency phone calls, while also avoiding costly changes to CAD systems that are not ready for NG911.

This is accomplished by including the CommandPoint CAD to CAD client and the CommandPoint CAD to CAD Gateway as part of the CAD to CAD workflow. Workflows and data elements not supported by the agency CAD can be accomplished in the CAD to CAD client. For example, if a CAD system cannot support a request, the request can be displayed and approved in the CAD to CAD client. Once approved, the two-way interface generates the event in the agency CAD and automatically dispatches the approved units.

Full CAD Integration

Full CAD integration is the full end-to-end integration with native CAD system capabilities. It requires no additional software to be installed at the CAD workstations. The CAD to CAD Gateways handle all field mappings, business rules, data filtering, and code translations required to ensure each CAD receives only the data it needs, when it needs it.

This is accomplished by a full commitment from all vendors to be engaged and up-to-date with National Emergency Number Association (NENA) and Association of Public Safety Communications Officials (APCO) standards.

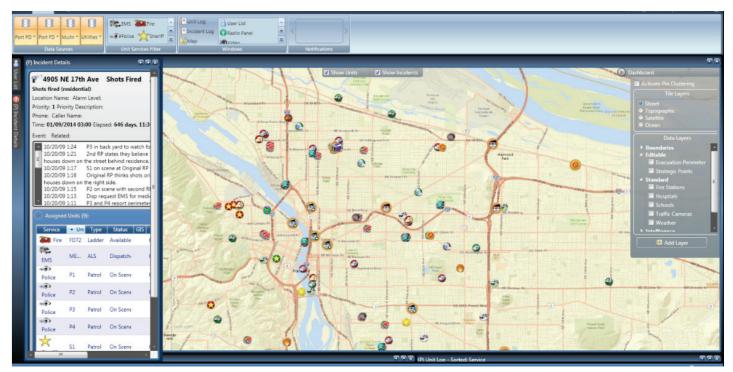
Map Integration

The CAD to CAD solution can be integrated with the ViewPoint[™] Map solution, which offers users a built-in, CAD to CAD mapping capability and provides CAD to CAD agencies with a regional view of the incidents and units from the participating agencies. Users can display incidents and units together or separately with the click of a mouse. Hovering over the incident icon reveals the incident type.

In a multi-jurisdictional response — multiple agencies (police, fire, EMS) and jurisdictions — icons represent the units and incidents from selected agencies.

Custom Interface Support

Custom interfaces can be provided to allow virtually any kind of data exchange. Adding additional systems can require adding Gateways co-located with those systems, but often only a new interface is needed. Examples can include records management systems, regional reporting systems, and Web-based Emergency Operations Center (WebEOC).



Users can easily select or unselect a specific agency to display by simply clicking the data source button representing the agency.

Code Translations

Gateways can be configured to translate codes between the local agency's codes and a common code set – allowing each agency to continue to operate with existing code configurations in their CAD systems and still share data with surrounding agencies that employ different code sets. Code translations support a wide array of fields including geospatial data, resource IDs, nature or incident types, response priorities, and cancellation codes. The system can even support the translation of key words inside incident narratives so dispatcher shorthand is usable by other agencies (i.e. "SA" could be translated to "Staging Area"). The interface actively pulls the list of each code set from each CAD system to provide a means for a system administrator to cross-link the data elements for each CAD system and the common codes.

Browser Support

The ViewPoint[™] web client is available in real-time, inside or outside of each Public Safety Answering Point (PSAP) via a browser. For desktop devices, the latest versions of Chrome, Firefox, Internet Explorer, and Safari are supported. For mobile, tablet, and ViewPoint[™] web client, the latest versions of both Android and iOS are supported.

CONTACT US

For more information, please contact: FirstResponderSolutions@peraton.com

ABOUT PERATON

Peraton drives missions of consequence spanning the globe and extending to the farthest reaches of the galaxy. As the world's leading mission capability integrator and transformative enterprise IT provider, we deliver trusted and highly differentiated national security solutions and technologies that keep people safe and secure. Peraton serves as a valued partner to essential government agencies across the intelligence, space, cyber, defense, citizen security, health, and state and local markets. Every day, our employees do the can't be done, solving the most daunting challenges facing our customers.



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