RESPONSE TO RFI FOR COMPUTER AIDED DISPATCH AND MOBILE SYSTEMS

RFI011316CAD



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COVER LETTER

RESPONSE TO RFI FOR COMPUTER AIDED DISPATCH AND MOBILE SYSTEMS

FEBRUARY 15, 2016

RFI011316CAD



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FEBRUARY 2016

MEETING YOUR CURRENT REQUIREMENTS AND FUTURE VISION

The County of San Mateo is in the process of obtaining information to upgrade its Public Safety data systems, technologies, and applications. Motorola Solutions, Inc. (Motorola) has read your Request for Information and has provided a response that introduces PremierOne Suite with Computer Aided Dispatch and Mobile and some of the benefits available. Just like the County of San Mateo, Motorola strongly believes in commitment, integrity and compassion when it comes to providing reliable communications to protect the citizens and visitors of the County. We look forward to this opportunity to help the County of San Mateo be equipped with the best available technology to protect the community.

A PROVEN, FUTURE-READY PUBLIC SAFETY SOLUTION: MOTOROLA PREMIERONE PLATFORM





PremierOne CAD

Motorola's robust multimedia and NG911-ready application allows the County to handle calls faster, allocate resources more efficiency and coordinate seamlessly with other departments or agencies.

PremierOne CAD gives every agency the power to change and add fields without vendor involvement. It's highly configurable by each of the individual agencies, with an easy-to-use interface that streamlines the entry and real-time distribution of mission- critical information. A true location-based, GIS data map aids resource management, enabling more efficient and coordinated responses.

PremierOne Mobile

PremierOne Mobile provides quick, on-demand access to critical multimedia information for safer, more informed decisions including the GPS portable radio unit(s) location during emergency button initiation. This allows the County to go beyond sending CAD data to the field with a fully functional mobile office. Field officers will have simplified intuitive incident management and reporting capabilities that maximize officer presence in their patrol area. Agency initiated updates such as screen changes and version updates can be sent wirelessly to the mobile unit without disruption to the mobile user and the need to physically touch the unit.

PREMIERONE'S VALUE-ADD

Motorola provides not only a modern, next-generation Public Safety data solution, but also one that can uniquely integrate to the Motorola P25 radio solution. Our PremierOne Public Safety Applications Suite is designed to integrate seamlessly with our ASTRO® 25 digital radio platform which will provide a very unique end-to-end approach to emergency response.

- PremierOne was designed from the ground up for multi-agency and multi-jurisdictional use. Offering granular flexibility for individual agencies to control the look and feel independently as well as what data is shared or secured across the agencies involved. Most other vendor systems on the market today where developed for one agency type and later added functions to address the other agencies. PremierOne offers full capabilities for ALL agencies involved.
- Motorola has partnered with the County of San Mateo and its agencies in dispatch for many years and has a strong legacy of knowledge and experience compared to other vendors. Motorola will work with the County of San Mateo to best align its current operational processes to the new PremierOne Public Safety Solution enhancing the ease of Training and reducing Change Management challenges. This will include the ability to alias many of the existing screen layouts, commands and call types further easing the transition to a new platform.
- The PremierOne applications suite has embedded, unique to any Public Safety solution, capabilities for 911 telephony call controls, radio console controls, and advanced messaging and location to and from the portable radios in the field. This will increase speed and accuracy of response and-most importantly-provide enhanced public safety for your officers in the field.

- Motorola's response includes a preview of the capabilities and of PremierOne Suite. We are eager to team with the County of San Mateo and the individual agencies to create the ideal combination of capability and price.
- Most other vendor public safety application offerings to the County of San Mateo are now 15 to 20 years old at their core. They continue to patch .NET capability and interfaces on old legacy code that is at the end of its life cycle. Motorola, like the County of San Mateo, expects public safety to be on the leading edge of technology and expect to deploy an integrated solution ready for the next 15 years. Other vendors' old, legacy systems are reaching end of life and will force agencies to go through a full and costly uplift to a next- generation system in the near future. This is a process that Motorola already undertook and accomplished seven years ago and is now offering a Next- Generation platform ready for the future.

A MICROSOFT® PARTNERSHIP PREPARES THE COUNTY OF SAN MATEO FOR THE FUTURE



Motorola and Microsoft teamed up in 2006 to create a bold, next generation platform for rich, multimedia public safety.

PremierOne is not just "certified" by Microsoft, but also co-developed by Microsoft to leverage its expertise in .NET and SQL. The result combines best practices in software and public safety technology, and delivers a highly configurable, scalable, and secure solution. This makes it easy to interface with other systems that contribute to the County of San Mateo's business workflow process.

This partnership provides a level of development that is unparalleled in the industry and will give the County of San Mateo confidence in the foundation and development of the products that will be running your critical systems for the next 15+ years.

ESRI Partnership Provides A Single GIS Database File Maintain for All Systems

Unlike older CAD systems, Motorola's PremierOne CAD does not require that GIS data be translated or converted into a flat file for insertion into the application. The CAD system actually uses the Esri data from the engine directly. Geo file updates are made on the fly, with no downtime.

High Availability

Motorola's proposed solution meets your requirement for high availability in both the hardware and software solution. Our platform was engineered to perform at the industry's highest level. With PremierOne, upgrades can be accomplished without taking the system offline, increasing operational efficiency and availability.

Future Integration Capabilities

As the County of San Mateo moves towards the use of the Motorola P25 Radio System, the County can now take advantage of unique end to end integration capabilities between Motorola PremierOne CAD, APX Radio and the MCC 7500 Dispatch Consoles.

Integration with APX Radios

- Real-time visibility to your entire operation of in-vehicle, on foot or on bike patrol personnel for better dispatch decisions.
- Provides immediate unit identification on CAD and Mobile map display when APX Radio's emergency button is pressed in field.

Extends the reach of information beyond the MDT to send messages, receive BOLO's and warrant activities and run database queries from an APX Portable Radio

MCC 7500 Dispatch Consoles (Optionally Proposed)

The proposed solution positions the County of San Mateo and its participating agencies with the ability to uniquely integrate the PremierOne CAD platform with Motorola's MCC 7500 radio console. The MCC 7500-CAD interface offers unprecedented integration: it allows quick access to key console functionality directly within the CAD application, and utilizes the same keyboard and mouse.

 MCC 7500 Consoles: Drive Radio Console commands from within PremierOne CAD. Push to talk (PTT) ID, Channels in Group List, Multi-Channel Select, and Priority Transmit from within the CAD environment.

This interface also allows for: reduced time from call receipt to call dispatch; increased accuracy of information; and streamlined operations.



MOTOROLA'S CUSTOMERS— A TESTAMENT OF PARTNERSHIP

The County of San Mateo can count on being in good company: Motorola's next-generation PremierOne platform has been chosen by many of our existing legacy CAD, Mobile, and RMS solution users as their upgrade path. We currently have hundreds of agencies using Motorola legacy solutions, with almost 50 systems that have been contracted with Motorola to migrate to the next-generation PremierOne platform.

This move to the next-generation platform shows great confidence in our technology approach—and perhaps more importantly in our ongoing relationships as we continue our long-term approach to agency partnerships. We have a deep understanding of the dynamics and nuances associated with public safety emergency dispatch systems, and will leverage this experience to help the County and supporting agencies achieve your stated goals.

INTELLIGENCE LED PUBLIC SAFETY SOLUTION

Motorola's Command Central Analytic and Predictive solution includes the ability for all agencies to see real-time information from multiple systems in an easy-to-understand "Executive Management Dashboard."

Intelligence-led policing is made much simpler by organizing complex information from the County and surrounding agencies' Records databases into visualizations that provide an instant snapshot of current activity. The entire data integration process is automated so that the information being consumed is always current. Data can be imported from any records or dispatch system and quickly viewed in several formats, including heat maps, repeat call locations, day of the week charts, and time of day graphs. These visuals allow for the rapid assessment and dissemination of critical information throughout an entire organization.

BUILDING ON OUR PARTNERSHIP

Just like the County of San Mateo, public safety is in our DNA. Motorola has the technology, deployment and service resources, and experience necessary to continue working with the County of San Mateo toward achieving your goals. As such, we are offering:

- An end-to-end public safety solution that enhances reliability, accuracy, and quality of data available to County personnel.
- A single vendor approach to service, support, and maintenance of your entire emergency response solution to be utilized in the County dispatch facilities.
- A balance of mainstream and state-of- the-art technology that prolongs the life of the new system and postpones the need for replacement.
- The latest platforms from Microsoft and Esri, and the latest justice and communications standards.
- A long-term partnership with strong and established support between the County and your chosen provider.

With PremierOne, interfaces, and the necessary systems integration, Motorola looks forward to continuing our collaboration with the County to provide a state-of-the-art solution that will serve your citizens for many years to come.

We value our partnership with the County of San Mateo and welcome the opportunity to present our solution to the evaluation team in person. We look forward to continuing our mutually beneficial relationship and invite you to review our solution in detail. The County of San Mateo has trusted Motorola for its mission critical communications in the moments that matter for over 20 years. This trust has been hard earned and will never be taken for granted and Motorola remains fully committed to build and support a world class communications system that will enable its personnel to reliably communicate in the moments that matter most and continue to keep the community in a safe environment.



WORLD LEADER IN MISSION CRITICAL COMMUNICATIONS



90 COUNTRIES



34
STATEWIDE
SYSTEMS



2M P25 RADIOS SHIPPED



350+ P25 SYSTEMS IN THE U.S.



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SECTION 1 POINT BY POINT RESPONSES

RESPONSE TO RFI FOR COMPUTER AIDED DISPATCH AND MOBILE SYSTEMS

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POINT BY POINT RESPONSES

1.1 SECTION I – INTENT

The County of San Mateo, California is interested in obtaining information concerning an integrated Commercial Off the Shelf (COTS) CAD/Mobile system. San Mateo County Public Safety has utilized the same CAD/Mobile system since 1993 and is in the process of researching functionality, features and capabilities of modern systems. All information is welcome including specific material concerning:

 The functionality of each major system (i.e., CAD, Mobile, GIS/Mapping, etc.) for Police, Fire and EMS

MOTOROLA RESPONSE

PremierOne CAD and Mobile are mission critical public safety applications that have been developed by Motorola in collaboration with Microsoft to meet the needs for next generation public safety information systems. As part of this RFI response Motorola has included the Functional Systems Description for both PremierOne CAD and Mobile. Each of these documents goes into the details of both PremierOne CAD and Mobile, including all the functionality of each major system for Police, Fire and EMS.

Major system modules

MOTOROLA RESPONSE

PremierOne CAD and Mobile includes a variety of functionality to meet the needs of Police, Fire and EMS agencies. PremierOne CAD and Mobile are also designed to be utilized in a mixed multi-agency environment so that Police, Fire and EMS dispatchers and officers can work more collaboratively together as a group. Some of the features available with PremierOne CAD and Mobile include:

PremierOne CAD Features

- E911 Integrated Call Control
- Dispatching and Incident Management
- Contractor Rotation
- Federal, State and Local Queries
- Status Monitors
- Maps
- Personnel Location
- Mail and Messaging
- Radio Integration
- Reporting Functions
- Time Synchronization
- Internationalization
- Real Time Video Integration

Security

PremierOne Mobile Features

- Mobile Client Application
- **Incident Management and Monitoring**
- **Unit Management and Monitoring**
- Federal, State and Local Queries
- Maps
- Mail and Messaging
- Offline Mode
- Mobile Browser
- **Reporting Functions**
- Security

Additional details about both PremierOne CAD and Mobile can be found in the Functional Systems Descriptions included as part of this proposal.

CAD/Mobile system integration

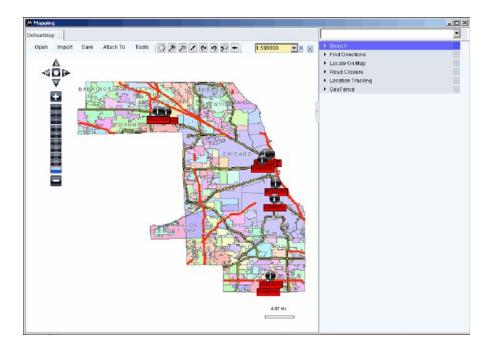
MOTOROLA RESPONSE

PremierOne CAD and Mobile are public safety mission critical applications that were designed in a suite environment along with PremierOne Records and Records Mobile. The PremierOne Suite includes seamless integration between the CAD, Mobile, Records and Records Mobile applications. Both PremierOne CAD and Mobile have similar functionality since the PremierOne Mobile application is essentially the same application as PremierOne CAD, just configured for a mobile environment.

Mapping functionality

MOTOROLA RESPONSE

PremierOne CAD and Mobile system maximizes the use of highly detailed and accurate maps to the benefit of users in both the Dispatch Center and the field and those dependent on accurate geo-spatial reports. The display of maps is an integrated component within PremierOne CAD. The map may be configured to automatically display when the user signs on to the workstation. The map display may be updated in response to user actions. For example, when a user enters an incident address, the map can automatically pan to show the location of the incident at the center of the map display.



Environmental Systems Research Institute (ESRI) produces the ArcGIS product line that provides three main software products used by PremierOne, each with different levels of functionality. These products include the following:

- ArcView ArcView is the lowest level of functionality and provides comprehensive mapping and analysis tools along with geoprocessing tools.
- ArcEditor ArcEditor includes the full functionality of ArcView with the addition of advanced editing capabilities for coverages and geodatabases. This level of functionality is the minimum level required for Motorola customers.
- ArcInfo ArcInfo extends the functionality of both ArcView and ArcEditor to include advanced geoprocessing. Although this level of functionality is not required by most Motorola customers,

Motorola supports the ArcInfo level.

The software products all share a common architecture so users can distribute their work to other users and map data can be accessed interchangeably in all three products.

ArcGIS also provides ArcSDE, a Geographic Information System (GIS) gateway to relational databases that allows management of GIS data in a relational database management system (RDBMS) and serves data openly to the ArcGIS desktop. ArcSDE supports Oracle, Microsoft SQL Server, Informix, and IBM

DB2. Customers who have large databases or customers who have a need for simultaneous multi-user map editing should purchase ArcSDE for additional functionality.

The display of maps is an integrated component within PremierOne Mobile. The map details are based on the GIS information provided by each agency. The map can display geographic information such as streets, railroads, city utilities, fire hydrants, commercial and residential buildings, and more. In PremierOne systems with ARL (Automatic Resource Location), the map also can show incidents and unit information.

PremierOne allows the map user to select a point on the map and display the feature attributes associated to that point. When the user selects a point on the map, the system provides a list of

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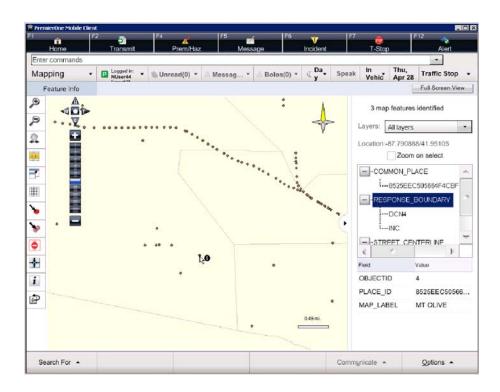
features that are within three pixels of the actual point selected. The actual distance covered depends on the current zoom level of the map when the point is selected. The system also displays the coordinates of the point selected.

The system only returns features present on feature layers of the map. Rasters, annotation layers, network layers, and so on, are not included for display of attribute information.

Users can view the features and related attribute information for only the visible layers or all layers available for the point selected on the map. By default, the system displays the visible layers.

The system displays the textual name given to the layers along with the features contained upon those layers within the pixel radius of the point selected.

- The layers and features display in a collapsible list that shows the relationship between the feature
 and the layer. For example, if a street segment for N MAIN ST exists upon the
 STREET_SEGMENT layer, then the system displays N MAIN ST nested underneath the layer
 name STREET_SEGMENT.
- When displaying the textual name for a layer, the system displays the "friendly name" assigned to the layer when one exists. If a friendly name is not assigned to the layer, then the technical layer name (SQL table name) is displayed as the layer name.



When the system displays the layers and features of a point selected on the map, the user can select a feature to display its attributes and the attribute values. Users can copy selected attribute information for pasting to another entry field (either PremierOne or another application allowing paste).

When the user selects a single feature entry, that feature is highlighted on the map. The user can have the map auto center and zoom on the features as they select them, or to have the map stay at the position and zoom level it was at when they first selected the location.

The PremierOne Mobile mapping application can pan, zoom, and rotate the map in order to see the appropriate amount of information.



The Mobile map provides a tool bar of icons that can be selected to change the activities and views of the map. These tools include:

- Zoom In
- Zoom Out
- Pan
- Point/Select*
- Erase
- Unit Tracking on/off
- Center Map
- Map Reset

The other options can be accessed from the Action Bar and Options Menu which include:

- Searching capability for Addresses, Incidents, and Units or Resources •
- Point-to-Point Directions
- Current location to selected point or specified address directions
- Reverse directions
- Map Extend
- Map Orientation (North on top, Rotate to follow unit location of travel)
- Geofencing

*The point/select tool changes the cursor to a pointer which can select units or incidents to click and open for more information.



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• System reporting capabilities

MOTOROLA RESPONSE

The PremierOne suite (CAD-Mobile-Records) was specifically built to facilitate the production of Reports and Dashboards. CAD and Records each has its own integrated Reporting Data Warehouses (RDW). These Data Warehouses allow the Agency to put its data to work. They permit complex reporting without impacting CAD or RMS operations.

PremierOne uses Microsoft SQL Server 2012 Reporting Services (SSRS) for reporting purposes. SQL Server 2012 Reporting Services is a server-based reporting platform that is used to create and manage tabular, matrix, graphical, dashboards, and free-form reports that contain data from relational and multidimensional data sources. The reports can be viewed and managed over a World Wide Webbased connection. Reporting Services include the following core components:

- A complete set of tools that can be used to create, manage, and view reports.
- A Report Server component that hosts and processes reports in a variety of formats. Output formats include HTML, PDF, TIFF, Excel, and CSV. The Report Server also supports the ability to generate graphical reports including dashboard components.
- Report scheduling with email delivery.

Visually and functionally, the reports that may be built in Reporting Services surpass traditional reporting by including interactive and Web-based features. Some examples of these features include drill-down reports that enable navigation through layers of data; parameterized reports that support content filtering at run time; free-form reports that support content in vertical, nested, and side-by-side layouts; links to Web-based content or resources; and secure, centralized access to reports over remote or local Web connections.

Some of the other advantages of leveraging this technology within PremierOne include the following:

- Central Manageability Report management, processing, and delivery are handled from one central location, providing increased consistency and improved performance throughout the reporting process
- Scalable, Enterprise-Wide Delivery On-demand report delivery may be enabled and event-based report distribution may be deployed. The automation of effective delivery of real-time information helps drive better decisions for users across the entire suite.
- Business Intelligence solution options if different than above system reporting capabilities

MOTOROLA RESPONSE

To further exploit the valuable information contained in the Reporting Data Warehouses and any other legacy data sources the agency has; Motorola has several solutions from its Intelligence-Led Public Safety Solution suite of CommandCentral cloud based analytic applications. Additional information about these products is made available in the Technical Solutions Summary Document included with this proposal.

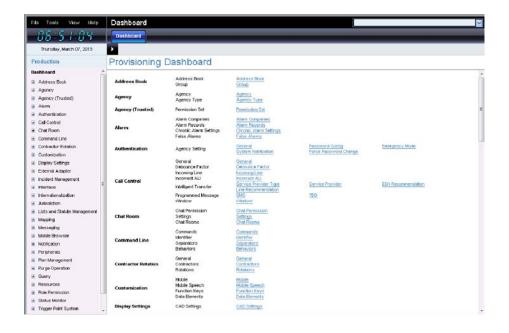
System configuration capabilities

MOTOROLA RESPONSE

The PremierOne Suite is a highly configurable public safety solution. The PremierOne Provisioning tool is the tool where the administrator, sets up and maintains the data, resources, and the business rules for all the defined agencies. Provisioning includes details such as agency types, chronic alarm settings, message folders, and query types.



The Provisioning window opens showing the Provisioning dashboard. The dashboard contains links to the various configuration items in PremierOne Provisioning.



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• Technical architecture information – Uptime, dependability, performance, continuity of operations/hot fail-over, disaster recovery

MOTOROLA RESPONSE

Motorola has included a Technical Solution Summary Documentation (TSSD) as part of this proposal. The TSSD includes all the relevant information related to the technical solution for PremierOne CAD and Mobile. This includes dependability, performance, and disaster recovery.

System interface information – Federal, state and local databases plus third party applications

MOTOROLA RESPONSE

Motorola can provide interfaces to the PremierOne CAD and Mobile solution that includes Federal, state, and local databases and third party integration. Motorola has included the different interface types that are available for integration with PremierOne CAD and Mobile. Since the RFI is not requesting any specific interface, Motorola has not included any interface descriptions at this time. Once the required interfaces are defined, Motorola can provide a more detailed approach to each interface being requested.

- Data Views. For this connection Motorola assists the interfacing product with how to access the
 appropriate sections within the RDWs to get to the information they need. Motorola does not
 create any custom view, triggers, stored procedures or transforms as part of this.
- One way data feeds (DFF). Data feeds present from the CAD environment to the target in near real time. These interfaces only allow information to be sent from CAD to the remote target however, they can be modified by the County to add additional data elements if their needs change in the future.
- One way interfaces. One way interfaces can allow information to move from or to any of the
 connected systems. These communications can occur on a real time bases or near real time
 depending upon the needs of the system.
- Two way interfaces. Two way interfaces both send and receive information from PremierOne to external systems. An example of this may be a fire station alerting system where the fire station alerting system receives a dispatch and then can return status information to PremierOne showing "Bay Doors Open".
- Application Programming Interfaces (API). An API is a method for a third party to write to standard capabilities made available by several PremierOne applications. Writing to an API, a third party can develop interface with PremierOne application(s). APIs are licensed for each instance of use on a vendor by vendor basis. Writing to a PremierOne API means that a third party is taking responsibility for interface with standard PremierOne functionality. Additional third party services may be required to write to the API and are the responsibility of the County.
- Query only interfaces. If information is needed from within CAD or RMS which is contained in an external system then a query interface is appropriate. An example would be a regional law records system.

Approach regarding legacy CAD/Mobile system data conversion and/or access to legacy CAD/Mobile system data.

MOTOROLA RESPONSE

Motorola provides legacy data conversion options with the PremierOne CAD and Mobile Solutions. The following options are available and Motorola can provide additional detail once the requirements for data conversion are provided.

- Motorola performs extraction, transformation and loading of data into the PremierOne system
- The County performs extraction and transformation of data. Motorola is responsible for loading data into the PremierOne system.
- Motorola provides a query interface to the legacy data that is stored in a separate database than PremierOne data. This query interface would be integrated to PremierOne during all searches and lookups of information. All query results would be returned within the PremierOne applications.

Support and warranty information

MOTOROLA RESPONSE

The Motorola Solutions System Support Center Operations

Motorola Public Safety Applications Technical Support personnel in cooperation with Motorola System Support Center ("SSC") provide the gateway to technical support for all of Motorola Public Safety Application systems. Accessing support through a Motorola toll free 800 number, web ticketing or email ticketing ensures accurate case handling and tracking. The goal of the Support team and SSC is to make certain systems are restored and running at peak levels as quickly as possible. This is accomplished by obtaining accurate customer and problem details and by directing requests to the right support team in a timely manner.

The System Support Center offers total call management including:

- Single point of contact for Motorola service requests
- Logging, dispatching and tracking of service requests
- System capabilities to identify pending cases and automatically escalate to management
- Database and customer profile management
- Standard reports with on-demand distribution
- Case notification

Motorola System Support Center operates 24 hours a day, 7 days a week, 365 days a year. That means you can call us anytime. Support Center personnel enter requests for service, technical assistance, or telephone messages into a database system. Every time you call us, we log information about your request into the tracking system so that the information is available for reference and analysis to better serve your future service needs. Another benefit of logging every service request is that Motorola and customers can track the progress from initial contact to final resolution.

There are three options for accessing Support at Motorola:

- 1. Motorola System Support Center Toll Free Number
- 2. eCase Management through Motorola On-Line
- 3. Email Case Ticketing

Option 1 - Call Motorola Solutions System Support Center

Call Motorola Solutions Toll free 800-323-9949

- Select from the auto attendant as follows:
 - Option 2 Technical Support of Infrastructure Products
 - Then select **Option 6** Public Safety Applications
 - Next select the appropriate system type option
 - 1. CAD
 - 2. RMS, Records
 - 3. Mobile Applications
 - 4. Jail Management Systems
 - 5. Law Records (LRMS)
 - 6. Customer Service Request System (CSR)
 - 0. All Other Applications

Upon contact with the SSC personnel, you will provide the name and phone number for Customer contact and your agency and product specific Site Identification Number. Providing a brief problem description will assist in defining the severity level and determine proper case routing to the appropriate Motorola Technical Support Team Member. A unique tracking number will be provided to your agency for future reference.

Generally customers calling the toll-free 800 number will access Public Safety Applications technical support directly. For heavy call times or after hours the caller will be directed to Motorola System Support Call Center Operations. Once the logging process is complete customers are transferred directly to a Technical Support Analyst 24/7/365.

Please refer to Exhibit B of the Maintenance and Support Agreement for the complete Customer Support Plan.

Warranty

REPRESENTATIONS AND WARRANTIES

SYSTEM FUNCTIONALITY. Motorola represents that the System will perform in accordance with the Specifications in all material respects. Upon System Acceptance or Beneficial Use, whichever occurs first, this System functionality representation is fulfilled. Motorola is not responsible for System performance deficiencies that are caused by ancillary equipment not furnished by Motorola which is attached to or used in connection with the System or for reasons or parties beyond Motorola's control, such as natural causes; or Customer changes to load usage or configuration outside the Specifications.

EQUIPMENT WARRANTY. During the Warranty Period, Motorola warrants that the Equipment under normal use and service will be free from material defects in materials and workmanship. If System Acceptance is delayed beyond six (6) months after shipment of the Equipment by events or causes within Customer's control, this warranty expires eighteen (18) months after the shipment of the Equipment.

Motorola Software Warranty. Unless otherwise stated in the Software License Agreement, during the Warranty Period, Motorola warrants the Motorola Software in accordance with the terms of the Software License Agreement and the provisions of this Section 9 that are applicable to the Motorola

Software. If System Acceptance is delayed beyond six (6) months after shipment of the Motorola Software by events or causes within Customer's control, this warranty expires eighteen (18) months after the shipment of the Motorola Software. TO THE EXTENT, IF ANY, THAT THERE IS A SEPARATE LICENSE AGREEMENT PACKAGED WITH, OR PROVIDED ELECTRONICALLY WITH, A PARTICULAR PRODUCT THAT BECOMES EFFECTIVE ON AN ACT OF ACCEPTANCE BY THE END USER, THEN THAT AGREEMENT SUPERCEDES THE ATTACHED SOFTWARE LICENSE AGREEMENT AS TO THE END USER OF EACH SUCH PRODUCT.

EXCLUSIONS TO EOUIPMENT AND MOTOROLA SOFTWARE WARRANTIES. These warranties do not apply to: (i) defects or damage resulting from: use of the Equipment or Motorola Software in other than its normal, customary, and authorized manner; accident, liquids, neglect, or acts of God; testing, maintenance, disassembly, repair, installation, alteration, modification, or adjustment not provided or authorized in writing by Motorola; Customer's failure to comply with all applicable industry and OSHA standards; (ii) breakage of or damage to antennas unless caused directly by defects in material or workmanship; (iii) Equipment that has had the serial number removed or made illegible; (iv) batteries (because they carry their own separate limited warranty) or consumables; (v) freight costs to ship Equipment to the repair depot; (vi) scratches or other cosmetic damage to Equipment surfaces that does not affect the operation of the Equipment; and (vii) normal or customary wear and tear.

THIRD PARTY PRODUCTS. Notwithstanding any provisions herein to the contrary, the following provisions apply to the following Third Party Products:

Microsoft Products are not fault tolerant or free from errors, conflicts, interruptions or other imperfections. Performance may vary depending upon what hardware platform they are installed on, the interactions with other software applications and each product's configurations.

Microsoft Corporation is providing the Microsoft Products "as-is" with no warranty of any kind and disclaims all warranties, express and implied, to the maximum extent allowed by applicable law. Microsoft further disclaims any liability of Microsoft for any damages, whether direct, indirect incidental or consequential, as a result of the use or installation of the Products. Additionally, to the extent permitted under applicable law, Microsoft Corporation excludes for itself and its suppliers all warranties of any kind, including:

- a. any warranties of title, non-infringement, merchantability and fitness for a particular purpose;
- b. any implied warranty arising from course of dealing or usage of trade;
- c. any common law duties relating to accuracy or lack of negligence with respect to the Microsoft Products, any Master Copy, and any Software Documentation; and
- d. that the products will operate properly in connection with the System, the Motorola products or on any Customer system(s).

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SECTION 2 TECHNICAL SOLUTION SUMMARY DOCUMENT

RESPONSE TO RFI FOR COMPUTER AIDED DISPATCH AND MOBILE SYSTEMS

FEBRUARY 15, 2016

RFI 011316CAD



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TECHNICAL SOLUTION SUMMARY DOCUMENT

1.1 SOLUTION OVERVIEW

Motorola has provided the information requested for our PremierOne CAD and Mobile solution. Based on the interests in the RFI, Motorola has also included information about the Intelligence-Leg Public Safety Solution that includes CommandCentral. Once the County has identified specific requirements for their future CAD and Mobile system, Motorola is pleased to provide a specific technical solution to meet the needs of San Mateo County.

The following applications and services are included based on the requests of the RFI:

- Motorola PremierOne
 - PremierOne CAD with Automatic Vehicle Location
 - PremierOne Integrated NG9-1-1 Call Control
 - PremierOne Mobile with Mobile Mapping
- Intelligence-Led Public Safety Solutions
 - CommandCentral Analytics
 - CommandCentral AWARE
 - CommandCentral Inform
 - CommandCentral Connections
 - CommandCentral Search
 - CommandCentral Predictive
 - CommandCentral Social
- Integration and interfaces as specified

1.2 APPLICATION DESCRIPTIONS

The following sections provide brief description of the PremierOne applications and other proposed applications. For more information regarding the PremierOne features, please refer to the product Functional System Descriptions (FSDs), included as separate documents that accompany this response.

1.2.1 PremierOne CAD with AVL

Since efficient communications coordination is necessary for effective use of field resources, Motorola has designed the multimedia PremierOne CAD application to be the central convergence point for communications from multiple sources and systems, mission-critical information and resource management.

PremierOne CAD helps agencies improve response times, efficiently allocate resources and better inform first responders. PremierOne CAD, a dynamic and intuitive application, utilizes its common services platform to compile and display precise data specific to an agency's workflow.

PremierOne CAD is proven software to manage multiple communications centers, manage multiple agency types, and multiple agencies within agency types. Sophisticated security controls provide the ability to access and control necessary information and features without jeopardizing the integrity and protection of data.

The ability for users to perform functions using a variety of methods allows an easy transition from existing applications to PremierOne CAD. Users can perform commands and functions whether using a mouse, command lines, function keys, shortcuts, or user definable right click menus.

Its user interface offers quick access to information via a true location-based, Esri standard GIS map. This powerful GPS-aided resource management tool displays the location and identity of GPS equipped vehicles and, if deploying PremierOne Responder Location, personnel through the use of GPS and data equipped radios enabling a more efficient and coordinated response while further supporting officer safety.

1.2.2 PremierOne Integrated NG911 Call Control Solution

Integrated NG9-1-1 Call Control simplifies incident management in an increasingly complex environment. Today, call takers often must swivel between numerous screens, keyboards and systems to gather all relevant details pertaining to a call. Motorola's PremierOne NG9-1-1 Call Control Solution streamlines and simplifies workflows by integrating call taking functionality with PremierOne CAD. Built from the ground up, the application handles voice calls and, as an option, citizen texts simultaneously. With it, the most common call control functions can be accessed from the NG9-1-1 Call Control interface or PremierOne CAD command line. The integrated solution minimizes keystrokes, reduces errors and speeds response. Now answering a call, creating an incident, dispatching and releasing a call can be accomplished in as few as four keystrokes. With full integration of previously disparate data sources, call takers and dispatchers maintain critical focus by accessing 9-1-1 and CAD controls from one application using a single keyboard and mouse.

1.2.2.1 Optional Text-to-9-1-1 Capability

The ability to respond to citizen texts to 9-1-1 is a growing expectation that PSAPs will need to address in the near future. With support of the FCC, NENA, APCO and the nation's leading carriers, text-to-9-1-1 capability has moved from a future possibility to a critical capability. In many cases, it is the most reliable way to communicate in a major emergency/disaster or the safest way to call for help when silent communication is required. Motorola's optional citizen text capability provides a solution for PSAPs to comply with emerging standards and meet the needs of the public by seamlessly integrating text-to-9-1-1 capabilities into their PremierOne NG9-1-1 Call Control and Dispatch solutions.

1.2.3 PremierOne Mobile with Mobile Mapping

Motorola PremierOne Mobile gives public safety personnel the ability to assess and prepare for a situation while en route to the scene through multiple applications and platforms. Users easily access information they need via a flexible screen configuration that provides quick, one-step navigation throughout the PremierOne Mobile application.

First responders have access to real-time information from computer-aided dispatch (CAD), records management systems (RMS) and other public safety and service applications including local, state and federal databases. The integrated map provides the user the ability to display call location, drive directions, premise hazards and the location of other units. PremierOne Mobile leverages the same common map platform used in PremierOne CAD, which is managed and provisioned from a centralized location and deployed to all systems remotely.

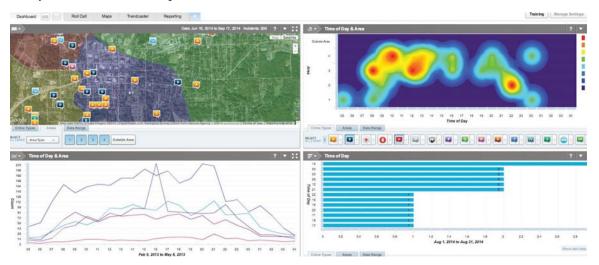
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1.2.4 Intelligence-Led Public Safety Solutions

Integrate your various data sources and apply analytics and automation to provide actionable intelligence with ILPS solutions. Your personnel in the command center or on the street now have capabilities to improve incident response, operations and strategic planning as well as investigations to improve overall intelligence and decision making. The CommandCentral Platform will enable an agency to expand capabilities as their needs grow. The CommandCentral Platform requires no onpremise equipment reducing overall costs, time to deploy, and the complexities of traditional systems integration challenges. And, with preconfigured data mappings through existing CommandCentral data sources, County can start getting value immediately.

1.2.4.1 CommandCentral Analytics

Extracting information from your Records Management System (RMS) and other disparate systems is a time-consuming process usually limited to specific personnel with specialized skills to perform required tasks. Often, the information is of limited value and difficult to share with other parties throughout your agency. You need a way to visualize, interact and analyze your data sets to quickly extract intelligence that can be shared throughout your organization. Motorola's CommandCentral Analytics solutions can help.



Use powerful data analytics, visualization, and information sharing to enable your agency to make better intelligence-led decisions at every level with CommandCentral Analytics. Your analysts and detectives can access the web-based tool from any internet-connected device to effortlessly turn crime data into intelligence, identify strategic priorities, and break down information silos. Visualize the data in heat maps, graph analytics, and geospatial views in the powerful and intuitive crime analytics dashboard. Automatically create reports for roll call, trendcasting, time-of-day (TOD)/day-of-week (DOW) reporting and more that can be shared with anyone.

Features:

- **Real-Time Analytics:** Executive-style dashboards, roll call, trendcasting, heat maps, area breakdowns, crime-type analysis, time of day/day of week analysis and more.
- **Robust, Sharable Reporting:** Create ad hoc or scheduled reports and graphics custom to your organization's needs and send them to any email recipient.
- **Data Quality and Validation:** Eliminate common data entry errors such as mismapped and misclassified crimes. The Data Quality and Validation (DQV) tool includes built-in notifications



Response to RFI for Computer Aided Dispatch and Mobile Systems

County of San Mateo. CA

regarding data fidelity, click-to-correct mismapped crimes, and rule assignments to ensure mismappings are fixed and prevented in the future.

- Interjurisdictional Data Sharing: Interjurisdictional Data Sharing is a premium module for CommandCentral Analytics. It gives users the ability to compile, review, and analyze data across two or more law enforcement jurisdictions at the same time. Switching from your agency's data to all shared data is as simple as the click of an on/off switch.
- **Shape File Support:** Segment your policing jurisdictions into separate beats or zones in order to provide staff with crime map reports detailing the criminal activity that occurred during their off time.
- Unlimited Custom Analysis Tabs: In addition to five preconfigured views, users can create an unlimited number of custom analysis tabs each allowing them to customize their preferred layout, what information they want to see, and how they want to see it.
- **Full Narrative Case Reports:** There are no restrictions on narrative length so you get a more complete and detailed understanding of incidents.
- **Vendor Agnostic:** Integrate CAD and RMS data from any existing vendor.
- **Device Agnostic:** Work seamlessly from desktop to mobile, regardless of device type or operating system used.

SECURE AND RELIABLE CONNECTION

CommandCentral Analytics is delivered as a service through a web browser for a fast setup – usually complete within 24 hours. The solution is designed and deployed to meet the highest data storage and physical security standards. No major IT initiatives required. No additional hardware to buy. No additional data entry required. And since it integrates directly with your RMS or CAD system, no additional data entry is required after set up.

1.2.4.2 CommandCentral AWARE

You need a streamlined and intuitive way to operationalize tremendous amounts of data and multimedia from disparate systems including: CAD, RMS, fixed/mobile streaming video sources, resource location, alerts, sensors, social media and more. Converting that information into actionable intelligence is vital to enhancing situational awareness and making better, faster decisions for event planning, incident response or an investigation. Motorola's CommandCentral Aware provides a real-time common operating picture for command center operations to increase situational awareness and improve operational efficiencies.



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TRANSFORM YOUR OPERATIONS

What if you could support incident response and get actionable intelligence out to first responders in seconds for safer response and safer outcomes? What if you could search multiple data sets, publish relevant information and help detectives and investigators solve cases faster? What if you could get ahead of a crime and proactively use all available data to change the trajectory of the moment? Use CommandCentral Aware in your Fusion Center, Real-Time Crime Center or other command environment to improve decision-making and achieve safer outcomes for officers and citizens.

FEATURES

- Real-Time Video Aggregation: Virtually patrol your community and view up to 16 cameras simultaneously from fixed, recorded or real-time mobile video feeds. Easily reference the video source, date, time and location.
- Threat Detection and Alerting: Receive real-time alerts from social media, sensors and video analytics to support proactive policing and faster response times.
- User-Centric Workflow and Automation: Customize the application to individual needs and workflows then create rules to perform automated actions based on event types, helping to reduce the amount of steps necessary to respond effectively. Integrate existing applications to support complete workflows.
- Unified Voice and Data Collaboration: Integrate radio consoles to monitor and communicate directly with field personnel and distribute actionable intelligence through integrated messaging. Send live video, documents, photos and other key intelligence to a secured, online workspace accessible to all personnel.
- Video Synopsis: Review hours of recorded footage in minutes for post-event analysis to quickly identify events, behavior and suspects. Filter based on color, direction, size, speed of objects and other characteristics.
- Mobile Client Streaming Video: Personnel in the field can access multiple video streams and send live video to personnel to support situational awareness.
- Advanced Search and Query: Query local RMS or a national network of records systems to gather intelligence.
- Esri-Based Geospatial Mapping: See all available data from camera locations, CAD incidents, field personnel, social media and more on an intuitive map that can be customized with your agency mapping layers.
- Activity Log: Audit all actions performed by the operator in a summary view to meet legal requirements, support training, investigations and provide transparency to the community.
- Correlation Engine: Automatically associate related data together from disparate systems to get a comprehensive picture.

EXPAND A COMMON OPERATING PICTURE TO THE FIELD

CommandCentral Aware is built on the CommandCentral platform aggregating real-time information across all capabilities for enhanced information sharing and collaboration. CommandCentral Aware works seamlessly with CommandCentral Inform to deliver enhanced situational awareness from your command center out to the field. Now command staff, officers, and any mobile personnel have quick access to a common operational picture with real-time alerts, resource location, weather, traffic, geospatial mapping and more.

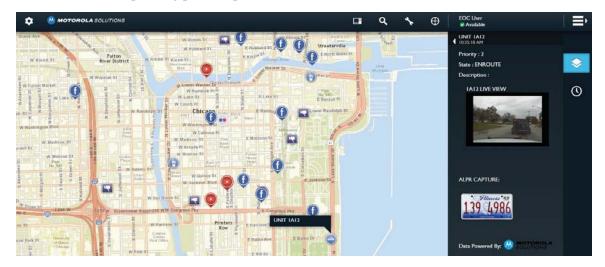


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1.2.4.3 CommandCentral Inform



As more and more data sets feed into your agency, it is increasingly difficult to follow everything that is happening in your operations and community. Multiple applications, multiple sign ons and limited mobile availability of data sources all present a challenge for staff to see a single view of operations on the go. CommandCentral Inform provides a mobile incident command tool to visualize relevant data in a common operating picture specific to a user's needs.

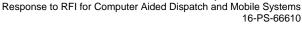


MOBILE INTELLIGENCE THROUGHOUT YOUR OPERATIONS

View geospatial information based on your location and needs in real-time with CommandCentral Inform. Integrate your data along with other CommandCentral and third-party applications for a single view of critical real-time information. And easily share this data with other agencies and across jurisdictions for quick collaboration. CommandCentral Inform works on any device with Internet access for easy viewing, fast response and improved situational awareness. By integrating every available data set and system you can get a single view of your entire operations with an efficient workflow, enabling you to take the appropriate actions to ensure the safety of first responders and the citizens more efficiently and faster than ever.

FEATURES

- Role-Based Intelligence: Role-based access to data allows you to restrict what data sources personnel see based on their needs. Users can customize their view depending on their current situation, selecting the necessary data layers from the map at any time.
- Co-Located Data: Real-time data sources are integrated into CommandCentral's common, secure
 repository. Disparate data sources are overlaid on top of each other, allowing for simple and
 straightforward visualizations of relationships. Users can also update the data with notations and
 share real-time with others.
- Integrate Public and Private Data: Add public data feeds such as weather and real-time traffic
 along with your CAD data, P25 radio location, gunshot sensors and more to gain additional value
 from your data sets and give users customized intelligence for effective response. Our extensive
 Smart Public Safety Solutions partner ecosystem provides pre-integrated data and capabilities for
 quicker deployment.
- Real-Time Video Streaming: View real-time video from fixed or mobile sources to enhance situational awareness.
- Threat Detection and Alerting: Receive real-time alerts from social media, sensors and CAD for increased situational awareness informed decision making.



1-6 Technical Solution Summary Document

County of San Mateo, CA

• Device Agnostic: Work seamlessly from desktop to mobile, regardless of device type or operating system used.

Command Central Inform experience packages are specifically designed for the role, rank and responsibility of the end user may assume at any given time. They include:

Command Central Inform CORE PACKAGE

- ESRI Basemaps (Streets and Satellite)
- Real Time Traffic (Worldwide)
- AccuWeather Static Hi-Res Radar Image
- NWS Weather Warnings
- Current Weather Conditions
- Executive Reporting Dashboard
- Local Storm Reports
- Animated Radar Loop
- Lightning Strike Layer
- Visitor Portal View

OPERATIONS PACKAGE

- Current CAD Incidents Layer
- Legacy CAD Incidents Layer
- Radio / Vehicle GPS Tracking
- Suspect Risk Scoring Layer

TACTICAL PACKAGE

- Collaboration Whiteboard Layer
- Real Time Staging Layer
- Picture / Video Viewing Layer
- 3rd Party Location Tracking

ANALYTICS PACKAGE

- Patrol Efficiency
- Calls For Service
- Response Time Metrics

ENVIRONMENT PACKAGE

- Earthquake Reporting
- Wildfire Perimeter Layer
- Hurricane Tracker
- Tropical Storm Tracker
- Flooding Impact Zones

SENSOR PACKAGE

- Radiological, Biological, Environmental Sensor
- Zephyr Bio-Monitor
- Kestral Weather Sensor
- K9 Unit Sensor

AUGMENT INTELLIGENCE WITH COMMANDCENTRAL

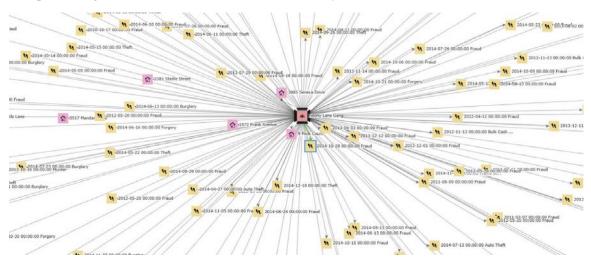
CommandCentral Inform is built on the CommandCentral platform, enabling data and capabilities to be shared across applications. The platform processes incoming data in under a second and delivers it



in real-time to enhance situational awareness, information sharing and collaboration. As a standald mobile extension of CommandCentral Aware, CommandCentral Inform provides a true common operating picture in the field to improve situational awareness. CommandCentral Aware provides a common operating picture for the command environment to support strategic, tactical, investigative and day-to-day operations. Combined, CommandCentral Aware and CommandCentral Inform ensure complete situational awareness in the command center or in the field to improve decision-making and overall safety of personnel and citizens.

1.2.4.4 CommandCentral Connections

Investigations involve extensive time collecting and processing various data — vehicle, arrest, financial, phone records, mobile phones, crime records, etc. Unifying and operationalizing that data to solve crime can be a monumental challenge. Many processes are complex, expensive, error- prone and require specialized skills to assimilate the information. CommandCentral Connections automates data processing and visualizations for faster crime analysis and case closures.



SOLVE CRIMES FASTER

With CommandCentral Connections you can detect anomalies, form relationships, identify patterns and analyze massive amounts of data easily to resolve cases faster and more accurately and prevent future crimes. Access rich data sets, fuse them together automatically, and analyze them using visualizations and advanced crime analysis. CommandCentral Connections delivers advanced crime analysis to agency personnel at an affordable cost, securely through a browser so you can generate actionable intelligence from anywhere. And CommandCentral Connections is intuitive and highly visual so you can understand the data without the need for a team of data scientists to manually analyze complex data sets.

FEATURES

- Automatic Entity Extraction: View structured and unstructured text analytics.
- Relationship Identification: Build and understand relationships between people, places, things and events using the powerful analytics engines.
- Alerts and Dashboards: Improve decision-making with customizable alerts on activities, events, relationships and other anomalies.
- Social Media Analytics: Gain additional insights with direct access to social media data for analysis.

- Advanced Search and Query: Use simple search methods or advanced techniques based on fuz logic, proximity, range and more to gather the intelligence you need.
- Historical Snapshots: Review the history of steps taken and quickly return to the graph at that point in time or right-click to start a new graph for new insights.
- Simple Filtering: Large data sets can be easily filtered and graphed based on time, number of links, strength of relationships, activity level and more.
- Timeline View: Select a person, thing or place and quickly see the locations in a timeline of related data.
- Security Controls: Fully control access to data and application functions in real-time.
- Device Agnostic: Work seamlessly from desktop to mobile, regardless of device type or operating system used

1.2.4.5 CommandCentral Search

Your agency is challenged with handling an increasing amount of data and an increasing number of data sources. There is valuable information in structured and unstructured data sets throughout public safety information systems across agencies and jurisdictions. Because the process of sharing information is often manual, time consuming and costly, criminals take advantage of jurisdictional boundaries in an attempt to avoid the likelihood of being caught for repeat offenses or reduce criminal prosecution. CommandCentral Search enables you to share and access information securely and efficiently from multiple databases across agency boundaries.

RAPID ACCESS TO ACTIONABLE INTELLIGENCE AND ANALYSIS

CommandCentral Search integrates disparate public safety information systems such as Computer Aided Dispatch (CAD), Records Management Systems (RMS), interview cards, License Plate Recognition (LPR), and more, with a nationwide data sharing network that serves as the backbone for sophisticated applications such as search and link analysis. CommandCentral Search brings added value by providing an intuitive way for you to quickly retrieve information from the vast data sharing network. Find relevant information from millions of structured and unstructured records within seconds. Use basic link analysis to quickly identify relationships between people, places, and things resulting in faster case resolutions and better crime prevention.

ELIMINATE BOUNDARIES WITH MULTI-JURISDICTIONAL NETWORK OF INFORMATION SYSTEMS

Far too often critical data is siloed between agencies and jurisdictional boundaries inhibiting law enforcement agencies from effectively investigating crime. Agencies can share information with neighboring agencies using a federated approach, but that requires agreements and IT resources that can be costly, time consuming and often has limited value. CommandCentral Search provides a nationwide, cloud-based network of public safety information systems, purpose-built for public safety use, enabling agencies to share and access information in other jurisdictions without expensive deployment costs and maintenance overhead. Integrate your system with the CommandCentral data sharing network only once and immediately get access to data from hundreds of public safety information systems at the local, state and federal level. Data sources include CAD, RMS, ALPR, Interview Cards and more. With access to a nationwide network, you see the full picture, allowing you to track criminal activity as it moves between jurisdictions and reduce crime.



FIND CRITICAL INFORMATION THROUGH A POWERFUL AND INTUITIVE SEARCH TOOL

Access to data is one thing; however, true value comes from the ability to turn that data into actionable intelligence. CommandCentral Search provides a simple and intuitive way for you to quickly find important information related to a person, property or incident, without needing to know the location or structure of that data.

Unlike queries, which require precise keywords to lookup information, CommandCentral Search derives the context and intent of the user from the search terms. You are no longer limited to specific keywords to find information. Instead search through structured and unstructured content using free text input that automatically accounts for misspelled words, homophones, and related terms to find the most relevant results for you. For example, a search for 'red baseball cap and blk leather jacket' will return incidents involving a 'red baseball cap and black leather jacket', a 'red baseball cap', or a 'black leather jacket.'

VISUALIZE COMPLEX DATA WITH LINK ANALYSIS

With basic, automatic link analysis provided for your search results, you turn rows and columns into a visual presentation. View charts for an easy, visual representation of links between people, entities, and events. Analysts gain insight into patterns and relationships between data sources that would otherwise remain hidden or require time intensive manual effort to uncover. Reduce the time spent on investigations by quickly detecting key points, anomalies and criminal associations.

SAVE COSTS AND BOOST YOUR KPI'S

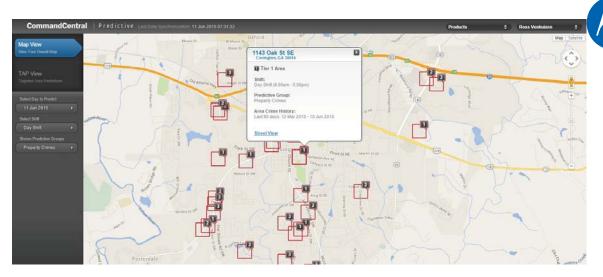
CommandCentral Search gives you more resources to fight crime effectively. Our growing network of public safety information systems gives you immediate access to data in other jurisdictions. You save time and resources that you would otherwise invest in building your own private data sharing network and benefit as it continues to grow over time.

STREAMLINE SEARCH ACROSS COMMANDCENTRAL

CommandCentral Search is integrated into the CommandCentral platform to streamline your everyday workflows. Users have immediate access to hundreds of information systems in peer agencies and neighboring jurisdictions that can be accessed from within their CommandCentral Aware and Inform workflows. Results can then be correlated with the data at hand for more intelligent and more actionable information

1.2.4.6 CommandCentral Predictive

You'd like for your agency to more proactively respond to crime, but with limited resources and crime analysis techniques, it can be difficult to consistently and accurately anticipate crimes in your community. Additionally, crime analysis intelligence is not easily shared with personnel on the street. You need a way to quickly analyze your data and turn it into actionable and sharable intelligence. Motorola's CommandCentral Predictive solution can help.



PREDICT 30% OF NEXT-DAY CRIME

Utilize the power of analytics and prediction to identify where, when and what type of crimes will occur with CommandCentral Predictive. Using your Records Management System (RMS) data, the system "learns" from historical data specific to your jurisdiction and creates a prediction model for future crime. You receive daily, targeted crime forecasts in areas that are one- third smaller than their average patrol area, field tested to accurately predict on average 30% of next-day crime. Your officers receive detailed information on each prediction area, including full narratives, giving them the information required to take action in the field.

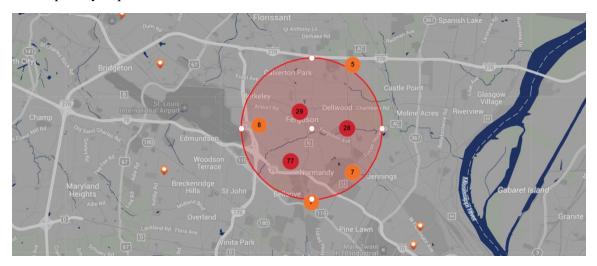
FEATURES

- Targeted Area Predictions (TAP): Focused predictions are created by day, area and shift so they are relevant for each officer. Prediction boxes as small as 500' x 500' are easy to patrol and prioritized to help officers better understand where to spend their time.
- Detailed Prediction Information: Only CommandCentral Predictive tells officers where to look, and also what and who to look for. Summary data provides crime type, time frame and location, and is paired with detailed information including area crime history and full report narratives.
- Data Quality and Validation: Eliminate common data entry errors such as mismapped and misclassified crimes without disrupting data sets and operations. The Data Quality and Validation (DQV) tool includes built-in notifications regarding data fidelity, mismapped crimes, and rule assignments to ensure mismappings are fixed and prevented in the future.
- Vendor Agnostic: Integrate Computer-Aided Dispatch (CAD) and RMS data from any existing vendor.
- Device Agnostic: Work seamlessly from desktop to mobile, regardless of device type or operating system used.
- Street View: Quickly and easily see a street-level view of prediction areas, centered at the point of the last crime, for greater situational awareness before heading out on the street.
- CommandCentral Analytics Integration: Built on the same platform with the same user interface, you can seamlessly switch between Predictive and Analytics for more efficient workflows.

1.2.4.7 CommandCentral Social

Citizens are using Facebook, Twitter, Instagram and more to communicate throughout the day, which can be a valuable source of information to help solve crimes faster and make the community safer. It

is no longer a matter of whether to embrace social media, but rather a matter of how to do it effectively. With all the social media traffic posted each day, how do you quickly sort through the abundance of data, eliminate the noise and discover actionable intelligence? With CommandCentral Social, you can monitor and analyze the flood of social media and find relevant intelligence to support efforts to aid investigations, planning and real- time operations. Discover how to maximize the value of your social efforts while maintaining the right compliance, policies, procedures and citizen privacy requirements.



DISCOVER WHAT MATTERS

Automate social media collection, processing and analysis to discover relevant intelligence and assess risk, respond to threats, solve cases and increase situational awareness. Powerful analytics, coupled with intuitive visual tools and customizable rules, speed up the time it takes to turn information into action. You can also configure alerts to proactively send real-time notifications making it easier to anticipate potential criminal activity or aid an investigation. Social media analysis enables you to better identify persons or items of interest, gain deeper insight into law enforcement challenges and solve cases.

FEATURES

Comprehensive Data Collection:

- Automatic, direct collection of social media services
- Real-time access to social media data
- Long-term data storage to search historical data up to seven years

Alerting

- Configure alerts based on keywords, phrases, events or incident types; customize any way you want or use system-suggested filters
- Receive real-time alerts based on predefined rules
- Alerts delivered in real-time to CommandCentral Aware and CommandCentral Inform

<u>Search</u>

- Search social media by incident type, location and other keywords in seconds
- Search posts by location and even view the locations of untagged posts using meta data to infer position

Common searches can be saved for quick retrieval

Analytics

- Natural language processing, heuristics and sentiment analytics engines help identify key persons of interest, potential witnesses and case-related evidence
- Intuitive social graphs and charts with multiple filter options
- Classify posts into key categories for faster, easier comprehension
- Automated correlation among disparate sources for increased results accuracy

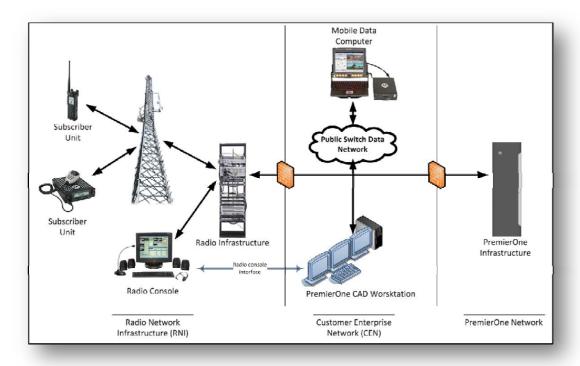
Policy Enforcement

- Social media policy enforcement controls and privacy protections
- Role-based access controls to segregate users and the content they can see
- Detailed logging, reporting, and alerting on user activity in the system

1.2.5 Motorola Radio Integration

PremierOne allows Push-to-Talk (PTT) IDs to be passed to PremierOne CAD along with Emergency Button activations. Status button assignments allow for status changes, location changes, and/or the adding of disposition to an incident.

The MCC7500 console integration enables the Channel Grouping feature from CAD. From a window within the CAD client, the user can use predefined groups or create, manage and maintain their own talk groups. These groups can be activated as multi-selects on the radio console at the discretion of the user. When the group is utilized, the CAD client will show the status and will allow the user to transmit on all the selected talkgroups. The user can make a priority transmission or may request the use of the talkgroups by alerting the other users with an audible notification. PremierOne CAD also can be provisioned to automatically load a particular channel group based on the geographical location of an incident.



CADICAD: Radio Proxy server

The PremierOne element providing the main radio infrastructure interface is the CADICAD server. This stand-alone Windows Server 2012 application utilizes SQL Server 2012 and provides proxy functions from the Radio Infrastructure to the CAD system. CADICAD can support ASTRO 25 Integrated Voice and Data (IV&D) Conventional as well as Trunking systems. There are three supported interface protocols from the ASTRO systems: CADI, ATIA, and AIS. ATIA and CADI interfaces are also supported on ASTRO 25 Trunking systems.

The CADICAD Server provides four types of data from the Radio system to the CAD system. These include specific radio initiated events as follows:

- Non-PTT Events
- PTT Events
- Emergency status
- Unit Status Change

Radio Emergency

The PremierOne CAD system supports notification and display of Radio/MDT Emergency status. An emergency situation can be triggered either by the Radio Emergency button or the Emergency icon on the PremierOne Mobile client. Once the emergency state is activated, an emergency notification will be posted to the units within the same geographic region (Area, Sector, Beat, and/or Zone) as the unit in emergency. All monitoring CAD Clients will also receive an emergency notification (pop-up window) of the event. The emergency event must be acknowledged by the CAD User before the window will close. The Emergency will be listed in multiple places such as the CAD Client Info Panel, the Unit Status Monitor, the PTT Status Monitor, and the Reset Emergency Indicator (RE) command List on the CAD Client.

When Popup notifications are given for a Unit/Device emergency, they must be acknowledged in order to clear them.

- Clearing an Emergency (RE) for one source clears the emergency state for the whole unit.
- Notification Pop-up windows in the CAD Mobile and CAD Client show the Unit and Logged in User
- The Unit Status Monitor includes last known location, shows EM status, and turns red.
- PTT Status Monitor shows the radio emergency in red.

PTT

Radio Channels that are to be monitored by CAD and have their status displayed on the PTT Status monitor must be selected by the CAD User using the CT command. This allows for a dispatcher to select only those channels that need to be monitored and may be associated with a dispatcher's

coverage area.

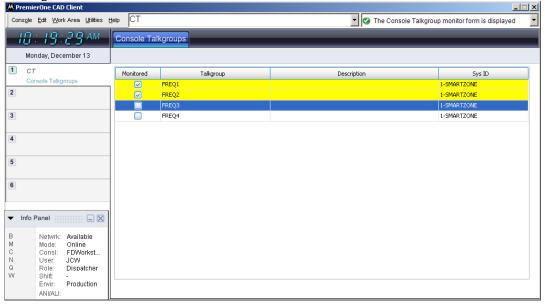


Figure 1-1: CT FORM

Once the channels are selected, enabling the PTT Status Monitor will ensure that all radio traffic on that channel is monitored and displayed.

The "CALLER" listed in the PTT Status Monitor is the highest level identification of the radio sender. This means that if the radio is assigned to a Unit, the Unit ID will be displayed; if the radio is assigned to a Person, the Person will be assigned; if no higher level assignment is made, the Radio Name (alias) will be displayed for the CALLER.

1.3 SYSTEM ARCHITECTURE

PremierOne is architected around a hardware agnostic enterprise level virtualized server configuration. Motorola supports Microsoft Server 2012 R2 Hyper-V and VMware vSphere 5.1 (or later) for the hypervisor.

Virtualization as implemented in the PremierOne solution lowers the total cost of ownership by simplifying the overall system administration. Server virtualization allows you to maximize the use of your hardware while also providing application isolation. Application isolation is the ability to isolate specific services for ease of diagnostics and hardware resource management.

Motorola's PremierOne suite of applications is built with the principles of Service Oriented Architecture (SOA) allowing separation of servers and services to modular components. This separation provides for:

- Faster performance
- Secured connectivity
- Increased service availability and uptime

PremierOne features integrated security throughout, as access and connectivity is provided only when needed. All CAD call data communicated between the client and server is encrypted to FIPS 140-2 compliance.

Due to its redundant components PremierOne has no single point of failure. Moreover, the PremierOne software design is also redundant, as database replication occurs across multiple servers. The entire solution is built on proven industry standard components from Microsoft .NET architecture using Microsoft Windows and Microsoft SQL Server.

PremierOne's tiered approach allows for scalability. As your needs grow, the system can be expanded through the allocation of additional physical or logical resources with additional application, database, and operations management servers. Plus, site-to-site replication, creating a multi-site architecture with disaster recovery has been included.

PremierOne's leveraging of SOA and virtualization simplifies your deployment and maintenance, while enhancing PremierOne's reliability, scalability and reducing Total Cost of Ownership.

1.3.1 PremierOne High Availability

Motorola has engineered PremierOne's logical architecture to be highly available. This high availability is independent of a geographically redundant disaster recovery solution. Software fault tolerance has been built into the core of PremierOne. PremierOne's active monitoring identifies problems and failures before they occur. For example, low disk space or high processor utilization will trigger an alert to be sent, to notify the recipient of a possible problems or future failure before it affects the system. During deployment, notifications are configured to be sent using your mail or mail relay server.

Application and database failovers operate independent of one another within PremierOne. This means that an application server failover does not require a database server failover. Likewise, a database server failover does not require an application server failover. In the event of a service or component failure, PremierOne will stop using the failed service or component instance. PremierOne will then automatically shift over to the secondary service or component instance without impacting operations.

The table below depicts the fault tolerant software components of the system and the type of fault tolerance within each data center.

Table 1-1. Fault Tolerant Components

	Component	Туре
Windows Server 2012 network load balancing (NLB) services to provide load balanced network traffic to the application services.		Reactive and Proactive
•	Proactive Component	
	PremierOne monitors active services and restarts them as necessary.	
•	Reactive Component	
	In the case of a server failure, the node is disabled transferring the load to the remaining servers in the NLB cluster.	
	abases across database services on different servers. Dicated in a cluster set.	Reactive
•	Reactive Component	
	In the case of the active database server's failure, the system transitions the inactive server to an active status without interruption.	

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	Component	Туре
processing on the contract of process recommendation		Reactive and Proactive
•	Proactive Component	
	If the Operating System detects unexpected behavior, such as the loss of heartbeat or loss of link, in one NIC, it will send all packets out the teamed NIC.	
•	Reactive Component	
	If a NIC fails, the Operating System will send all packets out the teamed NIC.	
SQL Server 20	12 R2 Always On to provide automatic fail-over.	Reactive
•	Reactive Component	
	In the case of a database server failure, there is no user intervention required. The clustered database becomes the active database without administrator intervention and continues processing transactions within the data center	
Redundant ope	rations servers in a fault tolerant configuration.	Reactive
•	Reactive Component	
	Servers are configured in a NLB cluster. If one server fails, the load is transferred to the remaining servers in the NLB cluster within the data center.	
PremierOne Sy	rstem Manager monitoring:	Reactive and
•	CAD application	Proactive
•	Interfaces	
•	Network Load Balanced (NLB) cluster	
•	Application failover	
•	Database failover	

The backup service (tape library and tape backup software), the Report Data Warehouse (ad hoc reporting services), and the Test/Training environments are not considered critical and are therefore not designed to meet the same high availability requirements as the production application and database servers.

1.3.2 Disaster Recovery (DR)

1.3.2.1 DR / Failover Solution

Motorola's solution includes a redundant, geographically diverse, disaster recovery/failover solution, including hardware, in an active/active "Hot Standby" configuration. Under normal operation, the primary data center is actively operating while the disaster recovery data center is in standby but, is being constantly updated. Upon the need to transition operations to the disaster recovery data center, the primary data center is placed in standby while the disaster recovery data center becomes active. The system administrator manages the transition or failover of services between the primary and disaster recovery data centers.

1.3.2.2 Process

PremierOne Systems Management software will monitor the health of the primary data center. The system management console will raise appropriate alerts when an error condition occurs. The system administrator will review the alert and determine if initiating a site failover to a backup location/server is necessary. Most alerts will be resolved without a need for a site failover.

If the severity of the fault warrants a failover, the operator (with appropriate rights) can initiate a site failover from the system management console without end user intervention; except for logging off and logging back into the application. The failover script includes the steps necessary to activate the standby site for use as the active site. A step-by-step disaster recovery process and user guide is provided to the County with other system documentation during deployment. Please note that the System Management console addresses the failover of the PremierOne solution and any network infrastructure modifications, such as DNS pointer updates, are performed outside of the PremierOne System Management console.

The failover to the backup location/server includes the execution of the following actions:

- Disaster Recovery data center will assume the identity of the failed primary data center.
- Clients access the PremierOne application servers by host name. In order to transition clients from the primary data center architecture to the disaster recovery data center architecture, the County will need to update DNS service pointer records to reflect the IP address of the disaster recovery data center. Alternatively, a script can be run on the clients to update the hosts file to point to the disaster recovery data center architecture.
- The PremierOne database servers at the disaster recovery data center will be made primary and will start processing the client requests. This process may take up to 15 minutes.
- The PremierOne application servers at the disaster recovery data center will be made active and will start accepting the client requests.
- The PremierOne application services are in a stopped state at the disaster recovery site during normal operation. These services are started using the Disaster Recovery failover process and associated failover script.
- The PremierOne database servers at the disaster recovery data center will be made active and will start processing the client requests.

The following steps will implement a fall back to the primary data center:

- Primary data center will resume role as primary data center.
- Clients access the PremierOne application servers by host name. In order to transition clients from the use of the disaster recover data center architecture to use of the primary data center architecture, the Customer will need to update DNS service pointer records to reflect the IP address of the primary data center. Alternatively, a script can be run on the clients to update the hosts file to point to the primary data center architecture.
- The PremierOne Database servers at the primary data center will be made primary and will start processing the client requests. This process may take up to 15 minutes.
- The PremierOne application on the primary application servers will be made active and will start accepting the client requests.
- The PremierOne application services are in a stopped state at the primary data center during disaster recovery operation. These services are started using the Disaster Recovery failover process and associated failover script.



Microsoft Active Directory Service 1.3.3

The PremierOne solution provides directory services through an isolated Microsoft Active Directory environment to support the secure management and operations of PremierOne. All servers provided with the solution will contain computer accounts in this Active Directory. Administrator user accounts and groups will be setup in Active Directory with the appropriate group memberships set. In order to facilitate ease of user account management, PremierOne can use the County's AD environment for authentication. Once the user account is built in PremierOne provisioning, it can then use LDAP to query the County's environment for the account authentication. By using this configuration, the County can enforce password policy, retention, and complexity requirements across the enterprise with a user having a singular identity.

1.3.3.1 Name Resolution

PremierOne provides host name resolution through an Active Directory integrated Domain Name Service (DNS). In order for systems residing outside of the PremierOne network to communicate with the PremierOne system, the County must configure their DNS servers to forward PremierOne name resolution requests to PremierOne DNS servers. This will allow devices on the County network to find systems within the PremierOne environment.

For tighter integration, the County, working with Motorola, must configure their DNS servers to allow name resolution requests from within the PremierOne systems to be processed.

1.3.4 PremierOne Common Services

PremierOne Common Services is the foundation of Motorola's Service Oriented Architecture (SOA) providing the PremierOne system and system administrators the flexibility to manage internal services throughout the platform from a single point. PremierOne Common Services include GIS, System Security, Reporting, and the system tools for provisioning.

Geographic Information System (GIS) 1.3.4.1

- PremierOne uses the power of GIS for display, location validation, and unit recommendation. Through PremierOne tools made available for ArcToolbox, you can load local data manually or through an automated model, making sure that the most up-to-date data is available to the entire PremierOne Suite.
- The PremierOne Response Boundary query is an example of how PremierOne CAD ensures high performance. Deployments that support multiple jurisdictions typically maintain response boundaries in multiple layers. The PremierOne Response Boundary Data Import Tool imports and aggregates these features into a single spatial table within the PremierOne Geodatabase. This allows the system to perform a single spatial intersect query instead of multiple spatial queries against each individual response layer. Not only does this save time in terms of command execution, it allows the user to determine all possible response boundaries for an incident's location after verifying the call location and before entering the incident. Once an incident type is entered, the CAD Client simply iterates through the collection of agency/beat information returned during the background request to find the response of an agency associated with the incident type.
- GIS data is a key component of a PremierOne deployment and one that is required for PremierOne CAD. GIS provides the mechanism for location validation and recommendation for response. A well constructed and geographically accurate Geofile is required for the proper operation of PremierOne. It is your responsibility to provide a complete and accurate Geofile for



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use in PremierOne. If desired, Motorola can provide Geofile build and/or Geofile preparation services.

- It is important to note that proper Geofile data must exist in all areas for which incidents will be created. Each agency being added to PremierOne must have their geographic coverage included in the Geofile imported into PremierOne.
- The GIS data requirements for PremierOne are available in Motorola's PremierOne Geofile Build Requirements.

1.3.4.2 System Security

- The PremierOne Suite is deployed within its own Microsoft Active Directory (AD) domain in its own local area network. Active Direction Domain Controllers authenticate and authorize users to perform actions within the domain making sure authorized users have appropriate access to data and services. The PremierOne user provisioning environment can be setup to query your AD environment (using LDAP) allowing for a single point of user and password management across all applications.
- The PremierOne network contains multiple virtual local area networks that are used to secure and segment traffic for purposes of user access as well as data storage and replication. In this way, traffic is protected and dedicated to provide network efficiency and security.
- Further, the PremierOne Suite architecture resides behind dual redundant firewalls to protect the PremierOne network from unauthorized intrusion and security threats. These firewalls are provisioned in a high availability configuration so if either of the two fails, traffic and security will remain intact across the other.

1.3.4.3 Microsoft Reporting Services

PremierOne uses Microsoft SQL Server 2012 Reporting Services (SSRS) for reporting purposes. SQL Server 2012 Reporting Services is a server-based reporting platform that is used to create and manage tabular, matrix, graphical, dashboards, and free-form reports that contain data from relational and multidimensional data sources. The reports can be viewed and managed over a World Wide Webbased connection. Reporting Services include the following core components:

- A complete set of tools that can be used to create, manage, and view reports.
- A Report Server component that hosts and processes reports in a variety of formats. Output formats include HTML, PDF, TIFF, Excel, and CSV. The Report Server also supports the ability to generate graphical reports including dashboard components.
- Report scheduling with email delivery.

Visually and functionally, the reports that may be built in Reporting Services surpass traditional reporting by including interactive and Web-based features. Some examples of these features include drill-down reports that enable navigation through layers of data; parameterized reports that support content filtering at run time; free-form reports that support content in vertical, nested, and side-by-side layouts; links to Web-based content or resources; and secure, centralized access to reports over remote or local Web connections.

Some of the other advantages of leveraging this technology within PremierOne include the following:

 Central Manageability - Report management, processing, and delivery are handled from one central location, providing increased consistency and improved performance throughout the reporting process

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Scalable, Enterprise-Wide Delivery - On-demand report delivery may be enabled and event-based report distribution may be deployed. The automation of effective delivery of real-time information helps drive better decisions for users across the entire suite.

1.4 MOTOROLA PROVIDED SYSTEM PLATFORM AND COMPONENTS

This section discusses the hardware, operating system, and system software that Motorola will provide.

1.4.1 System Configuration

The following diagrams present a logical illustration of the solution components.

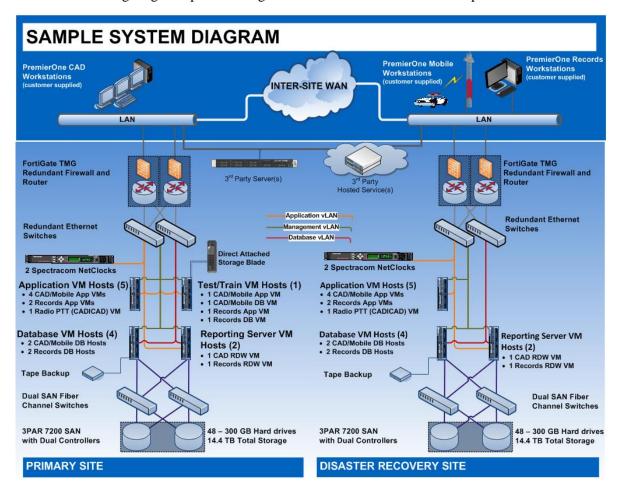


Figure 1-2. System Diagram

The configuration consists of PremierOne servers and storage area network (SAN) with a geographically separate disaster recovery site. The PremierOne architecture is provisioned in a high availability configuration so that the failure of a single server does not impact operations.

The application servers are provisioned in a Microsoft Windows Network Load Balancing (NLB) cluster that spreads the server workload during normal operations. In the event that one of the application servers fails, NLB automatically redistributes the workload among the remaining servers. Meanwhile, PremierOne attempts to restart the failed service(s) on the failed application server. Upon a successful restart of the service(s), the application server rejoins the cluster. If restarting services

does not remedy the failure of the application server, the server is issued a reboot. This process is transparent and occurs without user intervention.

The database servers are clustered using SQL Server 2012 AlwaysOn technology. In the event of a failure of the primary database server, the synchronous replication partner automatically starts processing database transactions.

Motorola provides dedicated reporting servers. The reporting servers allow users to perform complex report queries without impacting the performance of the PremierOne system. The data on the reporting servers is batch updated as updates occur on the live PremierOne servers. Data from the production environment is sent to the reporting server every thirty (30) seconds.

One instance of test and training application and database servers are included for PremierOne CAD. The test and training environment will have access to interfaces if test interfaces are made available by the County. The deployment of one test interface will be provided for each interface included in the solution.

1.4.2 PremierOne Servers

Motorola's hardware solution utilizes HP blade servers as physical hosts to offer a high-density configuration with robust and flexible management capabilities. Motorola architected the PremierOne solution to operate on HP c-Class Blade Systems, as these systems provide many integrated redundant components, ease of management, and efficient power management and cooling.

The following two sections describe components of the c-Class Blade System that are part of Motorola's solution design.

Blade Enclosure

The entire blade system is housed within a HP BLc7000 blade enclosure. Included with the enclosure are a quick view diagnostic LCD panel on the front, a gigabit switch for the various VLANs, the backbone of the system network between the server blades, and remote management of the enclosure.

Host Server Blades

Host servers are HP BL460c G9 server blades configured with:

- Dual Octa-Core Intel[®] Xeon[®] E5-2667v3 processor, running at 3.3 GHz, with a 25MB L3 Cache
- Each server blade also contains direct attached storage in the form of two 300GB 10,000RPM SAS hard drives in a RAID configuration
- Four 1 Gigabit network ports
- Each server is configured with 256GB RAM.

Ancillary Components 1.4.3

In addition to the server components listed above, PremierOne also contains supplemental components. These components access the software on the system servers and provide temporary transitional power to PremierOne in case of power failure and fluctuations.

The following sections detail each of these supplemental components.

Keyboard and Monitor

Response to RFI for Computer Aided Dispatch and Mobile Systems

Motorola will supply a rack-mounted keyboard and monitor. The HP Rack Model 10642 G2 with rack mount keyboard and monitor provides direct console access to the servers. This keyboard and



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monitor are typically used only used when a technician is working directly with the hardware in the rack; system and application software maintenance is normally performed remotely.

Server Rack

The server solution at a site is housed in a single HP 10642 G2 42U rack. The various components of the system will ship in the rack. The physical specifications of the rack are:

- **Total Cabinet Dimensions**
 - 78.9 in. x 39.7 in. x 24 in.
- Shipping Dimensions (with packaging materials)
 - 86.2 in. x 48 in. x 35.6 in.
- **Installed Weight**
 - 253 lb Rack
 - 1415 lb Equipment
 - 1668 lb Total
- Shipping Weight
 - 1868 lb Total
- Maximum Load of Rack
 - 3000 lb

Also included for deployment in the rack are HP 4.9kVA 208V power distribution units for powering various components of the system, and a sliding shelf for ease of use within the rack.

Note: It is the responsibility of the County to provide any specialized hardware and installation to ensure compliance with any local, State or Federal natural disaster safety regulations.

Rack Clearance Requirements

Front: 48 inchBack: 30 inch

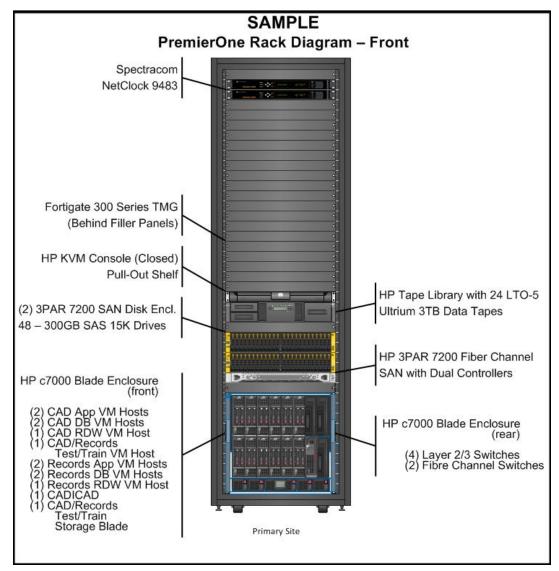


Figure 1-3. Hardware Rack Layout Primary Site

Note: This is a representative diagram only final configuration will be determined during system staging and is subject to change.

1.4.4 PremierOne Storage and Backup

PremierOne's Backup and Recovery subsystem includes online storage and a means to backup the system offline through HP Storage and Tape Arrays.

Motorola provides storage area arrays that are utilized by the host servers for storage and for online backups with near real-time data recovery. The HP 3PAR 7200 Series with Dual Controller Array Storage Area Network (SAN) contains 300 (GB) 15K RPM hard drives. Data is also replicated to the SAN at the disaster recovery site using SQL Always On replication to ensure its availability in the

event of a failure of the primary data center. This replication processes transactional changes from the production environment to the Disaster Recovery environment. The rate at which data is transferred is dependent upon the available bandwidth and network latency between data centers.

1.4.4.1 Tape Backup

The PremierOne solution includes a tape drive and library. The tape drive and library provide a means of backing up data to external media which can be taken offline and offsite. The HP StorageWorks MSL2024 Library is controlled by an application server running HP Data Protector software for the purposes of application and database server backup and recovery. This solution provides the ability to back up 36TB of raw data and 72TB of compressed data. In addition, this tape backup solution provides mechanisms for data encryption for offsite storage as needed. The solution also includes data cartridges to be used for backup and a tape-cleaning cartridge.

HP Data Protector 9.0

HP Data Protector Software automates high performance backup and recovery, from disk or tape, over unlimited distances, to enable 24x7 business continuity and improve IT resource utilization. HP Data Protector is integrated with the HP StorageWorks disk and tape family of products. Data Protector Software simplifies the use of complex backup and recovery procedures with the fastest installation, automated routine tasks, and easy-to-use features.

Backup schedules are dependent upon County tolerance for data loss balanced with performance. Motorola will work with the County to set proper backup intervals and recommends a starting point of one full backup each night, a differential backup once each day but twelve hours after the full backup, and transaction log backups every fifteen minutes.

1.4.5 Network Requirements

Motorola's solution requires the TCP/IP protocol for connectivity. All servers and workstations will connect to the County's existing network. The County will need to provide access to facilities and a dedicated resource knowledgeable on the County's WAN/LAN. Network bandwidth has been determined by the transaction volume and size of incidents and records.

The County will supply IP addresses and a mechanism for maintaining IP persistence. Desktop, Mobile, and Handheld clients require a persistent IP address from the time the application is opened to the time the application is closed. A persistent IP address can be accommodated in many ways including static IP, DHCP reservation, permanent DHCP lease, or through the use of middleware such as RadioIP and NetMotion.

PremierOne CAD Network Requirements

PremierOne is dependent on the County's LAN for client workstation performance. The estimated network requirement per CAD client with typical usage is 0.8Mbps – 1.2Mbps. The recommended built-to bandwidth for new deployments is 1.2Mbps per workstation. Peak load events (e.g. login) require higher bandwidth and higher bandwidth will generally be required for sites with higher quantities of users and greater data intensive operations such as complex map annotation sets and map manipulation if the data resides on the server. The bandwidth recommendations account for the operation of the LAN client to not exceed the values with the map data being stored locally on the client workstation. Additional bandwidth will be required for the transfer of large multi-media files, premise hazard data files and other large attachments. Network latency plays a key role in the responsiveness of CAD client operations. PremierOne has been designed for optimal use on a local network environment where latency is very low (1ms round-trip). For this reason, it is important that efforts be made to provide the lowest latency possible between the PremierOne CAD servers and each



PremierOne CAD client. PremierOne requires latency of no greater than 20ms round-trip from the client to the servers and back.

PremierOne Mobile and PremierOne Records Mobile Network Requirements

Both PremierOne CAD Mobile and PremierOne Records Mobile's enhanced functionality is designed for 3G and 4G networks. 3G network connectivity is required but, 4G connectivity is highly recommended.

Wireless providers are currently offering multiple wireless network types the most popular being 3G and 4G/LTE. It has been observed that certain wireless providers, in certain areas seem to transitioning network backbone resources from 3G networks due to a diminishing 3G device population to support the growth and popularity of 4G/LTE device population. This transition will not observably affect browsing or email applications but interactive mobile applications will be affected. Users are encouraged to test and evaluate the level of service being provided by their carriers on a regular basis.

The City will need to provide 3G/4G wireless network infrastructure and connectivity with routing between the Mobile clients and both the primary and disaster recovery data centers.

1.4.5.1 FortiGate Network Devices

Motorola will provide server component isolation from other systems within the County's data center by means of a firewall router. Component isolation ensures reliability, availability and performance. Motorola's solution is based on FortiGate devices to provide the perimeter network router, firewall and Virtual LAN (VLAN) configurations for the PremierOne solution.

1.5 SITE REQUIREMENTS

1.5.1.1 **Environmental Considerations**

In preparation for the installation and deployment of PremierOne servers, the data center requirements stated in the following sections must be satisfied. The data center requirements specify what the County must perform, provide, or ensure in order to prepare for and aid with the solution deployment.

Included in the data center requirements are various environmental considerations for the servers and supplemental equipment, power and network connectivity, access to various information and resources, and compliance with laws and specifications.

Power Requirements and Heat Output

The following tables provide representative examples of the power utilization, heat output, and the temperature ranges for the various components of the PremierOne system and the electrical circuits needed by the overall system. It is important to note that these numbers represent an estimate only. This table will be updated for the County after project kickoff and the hardware list has been finalized.

Table 1-2. Power Requirements and Heat Output

Component	Max Total Power (Watts)	Total Heat Generation (BTU/hr)
PremierOne Rack	6175	18000

It is not recommended to follow an intuitive approach to design cooling, or attempting to achieve an energy balance – that is, summing up the total power dissipation from all of the hardware. The HP servers utilize semiconductors that integrate multiple functions on a single chip with high power densities. The combination of high-power, high-density mass storage and power supplies, and the high concentration of devices in a server rack results in localized heat, and increases the potential for hotspots, which can damage the server equipment.

Cooling airflow through each server rack enclosure is front-to-back. Because of high heat densities and hot spots, the County must ensure that an accurate assessment of airflow into and out of the server equipment has been performed. This is essential for reliable server operation.

Table 1-3. Temperature and Humidity Ranges

Specification	Operating
Temperature Range	50°F to 95°F
Relative Humidity Range	20% to 80% (non-condensing)

Circuit Requirements

The PremierOne racks require a specific type of connector due to the type of equipment housed in each rack. The power circuit requirements for each PremierOne server rack are contained in the table below.

Table 1-4. PremierOne Server Rack Circuit Requirements (per rack)

Voltage (VAC)	Dedicated Branch Circuit rating (A)	Quantity	Line Cord
208	30	4	NEMA L6-30P

1.5.2 Site Readiness Checklist

This document specifies a number of requirements to successfully deploy the solution. To assist the County in preparation for the solution, requirements are summarized in the checklist below. This list may be used to confirm that any site changes have been performed prior to the installation of the system.

Table 1-5. Site Readiness Checklist

	Site Readiness Requirements	Evaluation	Pass	Fail	Unknown
1	The site readiness checklist to be reviewed with the County and all parties understand the site requirements.				
2	A site walk-through to be conducted at the time of project kickoff.				

	Site Readiness Requirements	Evaluation	Pass	Fail	Unknown
			4	1	Unk
3	The Site provides adequate space for the installation, operation, and maintenance of all computer server(s), workstation(s), and related peripheral equipment.				
4	Space as specified in the rack clearance requirements is provided to allow room for installation and maintenance of components. Proper grounding must be made available for equipment bonding.				
5	Procedures are understood and documented to ensure acceptable site access at all facilities and locations for equipment installation and system testing.				
6	Information specific to the existing the County LAN / WAN architecture and configuration to be provided by the County, including network details for all components (workstations, printers, servers, interfaced systems, etc.) connecting to the PremierOne system.				
7	The equipment room to be supplied with the required power outlets and circuit counts as specified in the Circuit Requirements.				
8	UPS and/or generator must have the required capacity, voltage stability and frequency stability for the equipment to be installed.				
9	Supplied power to equipment meets the power and heat output specifications of the solution.				
10	Sizing of A/C cooling meets the specifications of the solution.				

	Site Readiness Requirements	Evaluation	Pass	Fail	Unknown
11	Installation of all communication lines, modems, switches and routers, cabling, equipment and other components necessary for system operation and maintenance that are not identified as deliverable products by Motorola. All lines are terminated at demarcation points at locations agreed to with Motorola.				
12	Communications lines at remote sites are terminated at extended demarcation points within each facility. These extended demarcation points are located within six cable feet of the desired location of the remote Motorola equipment. All lines are clearly identified and tested.				
13	Access to the loading dock at appropriate facilities for the delivery of equipment, to receive and secure storage of equipment shipped. Hallways and doorways must be sufficient to accommodate shipping containers. A temporary staging area for the unpacking and assembly of equipment.	Name: Phone number: Email Address: Available Loading Dock: Freight Elevator: Sufficient parking space for delivery vehicle:	0 0 0	0 0 0	0 0 0 0
14	The County is to provide TCP/IP communications and connection to the equipment for any existing networks, workstations, and printers that are to have access to the Motorola applications.				

	Site Readiness Requirements	Evaluation	Pass	Fail	Unknown
15	A work area for Motorola on-site staff in the headquarters facility, located near the server room, but outside the data center and communications center. The room will be equipped with AC power to support four terminal devices and provide workspace for a minimum of 2 people. The area must have cable access to the servers and be equipped with a telephone line capable of making voice telephone calls, including long distance. This work area will be available during the course of the project.				
16	Access to dumpsters for the removal of trash and shipping containers.				

1.6 PREMIERONE WORKSTATION SPECIFICATIONS

The following specifications are provided for the County's reference.

Workstation specifications are representative of workstations used in the testing of the latest release of PremierOne software and do not take into account any other applications. Future releases of PremierOne may dictate changes to the workstation specifications. Each agency should consider their own technology replacement lifecycles and policies for specific purchase decisions.

1.6.1.1 PremierOne CAD Recommended Specifications

- 3.2GHZ quad-core processor
- 8GB memory
- 20GB available disk space
- 1Gigabit or faster Ethernet network adapter
- Three 1024x768+ pixel, 16+ bit color displays
- QWERTY Keyboard with 12 function keys
- Windows 7 Professional SP1 64-bit
- Video card with at least 256MB RAM per monitor, 24 bit capable graphics accelerator, OpenGL v2.0 runtime or higher. Latest available drivers. Shader Model 3.0 or higher is recommended.
- Adobe PDF reader (for help files)
- 2Mbps network bandwidth (to server) with 1ms or less round-trip latency



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1.6.1.2 PremierOne Mobile Workstation Recommended Specifications

- Intel or AMD 2.6GHz dual core processor
- 4GB memory
- 20GB available disk space
- One 800x600+ pixel, 16+ bit color display
- Radio / Wireless communications device, 3G or 4G network
- Standard QWERTY keyboard and Touchpad / Point Stick (or equivalent mouse device)
- Touchscreen Optional
- Windows 7 Professional SP1 64-bit
- Video card with at least 512MB RAM, 24 bit capable graphics accelerator, OpenGL v2.0 runtime or higher. Latest available drivers. Shader Model 3.0 or higher is recommended. Adobe PDF reader (for help files)

SECTION 3 MOTOROLA COMMANDCENTRAL PRODUCT LITERATURE

RESPONSE TO RFI FOR COMPUTER AIDED DISPATCH AND MOBILE SYSTEMS

FEBRUARY 15, 2016

RFI011316CAD



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3.	CommandCentral Inform Data Sheet
4.	CommandCentral Predictive Data Sheet
5.	CommandCentral Search Data Sheet
6	CommandCentral Social Data Sheet

MOTOROLA COMMANDCENTRAL PRODUCT LITERATURE

Motorola's CommandCentral Product Literature is included on the following pages.

- 1. CommandCentral Analytics Data Sheet
- 2. CommandCentral Aware Data Sheet
- 3. CommandCentral Inform Data Sheet
- 4. CommandCentral Predictive Data Sheet
- 5. CommandCentral Search Data Sheet
- 6. CommandCentral Social Data Sheet

County of San Mateo, CA

Response to RFI for Computer Aided Dispatch and Mobile Systems



COMMANDCENTRAL ANALYTICS

SIMPLE, POWERFUL, MOBILE CRIME ANALYTICS Daubboord to Daily Maps Trendselver Reporting to Daily Annes Trendselver Reporti

Extracting information from your Records Management System (RMS) and other disparate systems is a time-consuming process usually limited to specific personnel with specialized skills to perform required tasks. Often, the information is of limited value and difficult to share with other parties throughout your agency. You need a way to visualize, interact and analyze your data sets to quickly extract intelligence that can be shared throughout your organization. Motorola's CommandCentral Analytics solutions can help.

EXTRAPOLATE MEANINGFUL INTELLIGENCE QUICKLY AND EASILY

Use powerful data analytics, visualization, and information sharing to enable your agency to make better intelligence-led decisions at every level with CommandCentral Analytics. Your analysts and detectives can access the web-based tool from any internet-connected device to effortlessly turn crime data into intelligence, identify strategic priorities, and break down information silos. Visualize the data in heat maps, graph analytics, and geospatial views in the powerful and intuitive crime analytics dashboard. Automatically create reports for roll call, trendcasting, time-of-day (TOD)/day-of-week (DOW) reporting and more that can be shared with anyone.

Example: An agency develops an operations plan for an upcoming concert using CommandCentral Analytics to visualize historical concert data. During the past concerts, they discover a spike in drug-related arrests before and during each event.

The crime analyst identifies several geographic hot spots and specific timeframes when the drug-related incidents have occurred. From the RMS data included in CommandCentral, the analyst also identifies suspects involved in prior incidents which get added to a watch

list for the upcoming event. From this analysis three major initiatives were planned:

- 1) Anti-drug signage and a community campaign was launched to raise awareness and discourage drug usage.
- 2) The Chief increases patrols in the hot spots
- 3) EMS teams were staged near areas where the most drug overdoses occurred to decrease response times.

KEY USERS



Crime Analyst

Automatic reporting and custom views reduces time gathering intelligence for greater efficiencies and output.



Detective

Mobile access increases access to intelligence for faster case closure.



Officer

Roll call functionality sends actionable intelligence directly to the field for increased policing effectiveness.



Records Specialist

Automatic Uniform Crime Reporting (UCR) reduces turnaround time for requests.

REQUEST A DEMO:

Register Online at motorolasolutions.com/spssdemo

WHAT IS DESCRIPTIVE ANALYTICS?

An easy-to-access visual aid into your data warehouse that condenses raw data into smaller, more useful information.

INTELLIGENCE-LED PUBLIC SAFETY SOLUTIONS (ILPS)

Integrate your various data sources and apply analytics and automation to provide actionable intelligence with ILPS solutions.

Your personnel in the command center or on the street now have capabilities to improve incident response, operations and strategic planning as well as investigations to improve overall intelligence and decision making.

FEATURES

- Real-Time Analytics: Executive-style dashboards, roll call, trendcasting, heat maps, area breakdowns, crime-type analysis, time of day/day of week analysis and more.
- Robust, Sharable Reporting: Create ad hoc or scheduled reports and graphics custom to your organization's needs and send them to any email recipient.
- Data Quality and Validation: Eliminate common data entry errors such as mismapped and misclassified crimes. The Data Quality and Validation (DQV) tool includes built-in notifications regarding data fidelity, click-to-correct mismapped crimes, and rule assignments to ensure mismappings are fixed and prevented in the future.
- Interjurisdictional Data Sharing: Interjurisdictional
 Data Sharing is a premium module for CommandCentral
 Analytics. It gives users the ability to compile, review,
 and analyze data across two or more law enforcement
 jurisdictions at the same time. Switching from your
 agency's data to all shared data is as simple as the click
 of an on/off switch.
- Shape File Support: Segment your policing jurisdictions into separate beats or zones in order to provide staff with crime map reports detailing the criminal activity that occurred during their off time.
- Unlimited Custom Analysis Tabs: In addition to five preconfigured views, users can create an unlimited number of custom analysis tabs each allowing them to customize their preferred layout, what information they want to see, and how they want to see it.
- Full Narrative Case Reports: There are no restrictions on narrative length so you get a more complete and detailed understanding of incidents.
- Vendor Agnostic: Integrate CAD and RMS data from any existing vendor.
- Device Agnostic: Work seamlessly from desktop to mobile, regardless of device type or operating system used.

SECURE AND RELIABLE CONNECTION

CommandCentral Analytics is delivered as a service through a web browser for a fast setup — usually complete within 24 hours. The solution is designed and deployed to meet the highest data storage and physical security standards. No major IT initiatives required. No additional hardware to buy. No additional data entry required. And since it integrates directly with your RMS or CAD system, no additional data entry is required after set up.

WORLD-CLASS SUPPORT

Motorola provides training resources so officers and leadership can increase overall effectiveness quickly by unlocking the full potential of predictive analytics. Live support ensures quick resolution to questions or issues. And after hours on-call support is available for 24/7.



Street view allows users to instantly drill down to an area for better tactical planning.



The roll call tab enables officers to receive an update on occurances in their area before shift starts, for smoother shift transitions and increased officer effectiveness.

For more information about CommandCentral Analytics, contact your Motorola representative or visit motorolasolutions.com/commandcentralanalytics

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COMMANDCENTRAL AWARE

INCREASE REAL-TIME EFFICIENCY AND ENHANCE RESPONSE



You need a streamlined and intuitive way to operationalize tremendous amounts of data and multimedia from disparate systems including: CAD, RMS, fixed/mobile streaming video sources, resource location, alerts, sensors, social media and more. Converting that information into actionable intelligence is vital to enhancing situational awareness and making better, faster decisions for event planning, incident response or an investigation. Motorola's CommandCentral Aware provides a real-time common operating picture for command center operations to increase situational awareness and improve operational efficiencies.

TRANSFORM YOUR OPERATIONS

What if you could support incident response and get actionable intelligence out to first responders in seconds for safer response and safer outcomes? What if you could search multiple data sets, publish relevant information and help detectives and investigators solve cases faster? What if you could get ahead of a crime and proactively use all available data to change the trajectory of the moment? Use CommandCentral Aware in your Fusion Center, Real-Time Crime Center or other command environment to improve decision-making and achieve safer outcomes for officers and citizens.

Example: A pattern of car burglaries is exceeding the capacity of an agency's patrol unit to handle. CommandCentral Aware serves as a force multiplier, by virtually patrolling and supporting the field. When a burglary is reported via 9-1-1. CommandCentral Aware immediately maps the location and automatically displays all nearby cameras and patrol units. The intelligence operator quickly identifies and captures an image of the subject's face and stolen vehicle from the nearby cameras and shares it with local patrol along with a description using the built-in radio console. The intelligence operator provides constant updates through

the integrated voice and data applications to maintain situational awareness for first responders. As a result, the suspect is caught with video evidence, leading to a conviction and restoring confidence to citizens.

KEY USERS



Intelligence Operator

Execute planning, tactical operations and aid investigations in a single view.



Analyst

View, analyze and edit all video sources available within a custom radius of an incident.



Officer

Collaborate through a mobile workspace and watch incident video streams in real time.



Supervisor

Review activity logs and collaborate to ensure departmental continuity.

REQUEST A DEMO:

Register online at motorolasolutions.com/ spssdemo

INTELLIGENCE-LED PUBLIC SAFETY SOLUTIONS (ILPS)

Integrate your various data sources and apply analytics and automation to provide actionable intelligence with ILPS solutions.

Your personnel in the command center or on the street now have capabilities to improve incident response, operations and strategic planning as well as investigations to improve overall intelligence and decision making.

FEATURES

- Real-Time Video Aggregation: Virtually patrol your community and view up to 16 cameras simultaneously from fixed, recorded or real-time mobile video feeds.
 Easily reference the video source, date, time and location.
- Threat Detection and Alerting: Receive real-time alerts from social media, sensors and video analytics to support proactive policing and faster response times.
- User-Centric Workflow and Automation: Customize
 the application to individual needs and workflows then
 create rules to perform automated actions based on
 event types, helping to reduce the amount of steps
 necessary to respond effectively. Integrate existing
 applications to support complete workflows.
- Unified Voice and Data Collaboration: Integrate radio consoles to monitor and communicate directly with field personnel and distribute actionable intelligence through integrated messaging. Send live video, documents, photos and other key intelligence to a secured, online workspace accessible to all personnel.
- Video Synopsis: Review hours of recorded footage in minutes for post-event analysis to quickly identify events, behavior and suspects. Filter based on color, direction, size, speed of objects and other characteristics.
- Mobile Client Streaming Video: Personnel in the field can access multiple video streams and send live video to personnel to support situational awareness.
- Advanced Search and Query: Query local RMS or a national network of records systems to gather intelligence.
- Esri-Based Geospatial Mapping: See all available data from camera locations, CAD incidents, field personnel, social media and more on an intuitive map that can be customized with your agency mapping layers.

- Activity Log: Audit all actions performed by the operator in a summary view to meet legal requirements, support training, investigations and provide transparency to the community.
- Correlation Engine: Automatically associate related data together from disparate systems to get a comprehensive picture.

INVEST FOR TODAY AND THE FUTURE

CommandCentral Aware provides complete situational awareness in your command center environment leveraging your existing investments, and those in the future. By integrating all of your data and systems your agency can get a comprehensive view and streamline workflows.

EXPAND A COMMON OPERATING PICTURE TO THE FIELD

CommandCentral Aware is built on the CommandCentral platform aggregating real-time information across all capabilities for enhanced information sharing and collaboration. CommandCentral Aware works seamlessly with CommandCentral Inform to deliver enhanced situational awareness from your command center out to the field. Now command staff, officers and any mobile personnel have quick access to a common operational picture with real-time alerts, resource location, weather, traffic, geo-spatial mapping and more. To learn more visit motorolasolutions.com/commandcentralinform

For more information about CommandCentral Aware, contact your Motorola representative or visit motorolasolutions.com/commandcentralaware

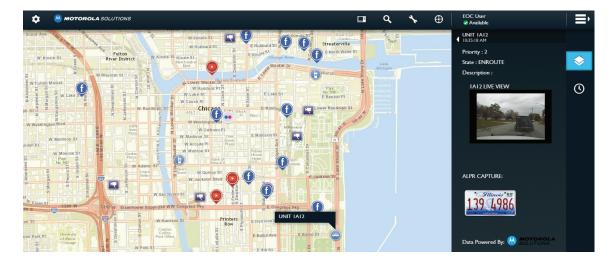
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COMMANDCENTRAL INFORM

MOBILE, CUSTOMIZABLE SITUATIONAL AWARENESS



As more and more data sets feed into your agency, it is increasingly difficult to follow everything that is happening in your operations and community. Multiple applications, multiple sign ons and limited mobile availability of data sources all present a challenge for staff to see a single view of operations on the go. CommandCentral Inform provides a mobile incident command tool to visualize relevant data in a common operating picture specific to a user's needs.

KEY USERS



Obtain continuous location-based information to better coordinate response and improve decision-making.



Incident Commander

Command Staff

Access a single overview look of multiple data sources while on the move.



Officer

View role-based information for increased situational awareness and more proactive policing.

INTELLIGENCE-LED PUBLIC SAFETY

spssdemo

SOLUTIONS

REQUEST A DEMO: Register online at

motorolasolutions.com/

Integrate your various data sources and apply analytics and automation to provide actionable intelligence with ILPS solutions.

Your personnel in the command center or on the street now have capabilities to improve incident response, operations and strategic planning as well as investigations to improve overall intelligence and decision making.

MOBILE INTELLIGENCE THROUGHOUT YOUR OPERATIONS

View geospatial information based on your location and needs in real-time with CommandCentral Inform. Integrate your data along with other CommandCentral and third-party applications for a single view of critical real-time information. And easily share this data with other agencies and across jurisdictions for quick collaboration. CommandCentral Inform works on any device with Internet access for easy viewing, fast response and improved situational awareness.

By integrating every available data set and system you can get a single view of your entire operations with an efficient workflow, enabling you to take the appropriate actions to ensure the safety of first responders and the citizens more efficiently and faster than ever.

FEATURES

- Role-Based Intelligence: Role-based access to data allows you to restrict what data sources personnel see based on their needs. Users can customize their view depending on their current situation, selecting the necessary data layers from the map at any time.
- Co-Located Data: Real-time data sources are integrated into CommandCentral's common, secure repository. Disparate data sources are overlaid on top of each other, allowing for simple and straightforward visualizations of relationships. Users can also update the data with notations and share real-time with others.
- Integrate Public and Private Data: Add public data feeds such as weather and real-time traffic along with your CAD data, P25 radio location, gunshot sensors and more to gain additional value from your data sets and give users customized intelligence for effective response. Our extensive Smart Public Safety Solutions partner ecosystem provides pre-integrated data and capabilities for quicker deployment.
- Real-Time Video Streaming: View real-time video from fixed or mobile sources to enhance situational awareness.
- Threat Detection and Alerting: Receive real-time alerts from social media, sensors and CAD for increased situational awareness informed decision making.
- Device Agnostic: Work seamlessly from desktop to mobile, regardless of device type or operating system used.

AUGMENT INTELLIGENCE WITH COMMANDCENTRAL

CommandCentral Inform is built on the CommandCentral platform, enabling data and capabilities to be shared across applications. The platform processes incoming data in under a second and delivers it in real-time to enhance situational awareness, information sharing and collaboration. As a standalone mobile extension of CommandCentral Aware, CommandCentral Inform provides a true common operating picture in the field to improve situational awareness. CommandCentral Aware provides a common operating picture for the command environment to support strategic, tactical, investigative and day-to-day operations. Combined, CommandCentral Aware and CommandCentral Inform ensure complete situational awareness in the command center or in the field to improve decision-making and overall safety of personnel and citizens. To learn more visit motorolasolutions.com/commandcentralaware

For more information about CommandCentral Inform, contact your Motorola representative or visit motorolasolutions.com/commandcentralinform

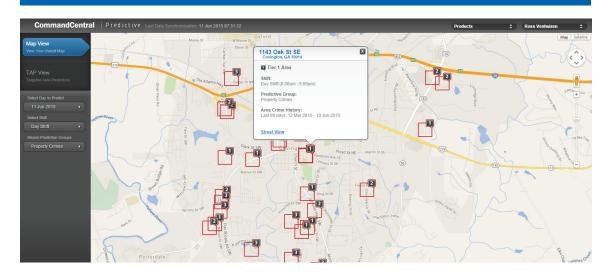
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COMMANDCENTRAL PREDICTIVE

ACTIONABLE PREDICTIONS SO YOU REACT LESS AND ANTICIPATE MORE



You'd like for your agency to more proactively respond to crime, but with limited resources and crime analysis techniques, it can be difficult to consistently and accurately anticipate crimes in your community. Additionally, crime analysis intelligence is not easily shared with personnel on the street. You need a way to quickly analyze your data and turn it into actionable and sharable intelligence. Motorola's CommandCentral Predictive solution can help.

PREDICT 30% OF NEXT-DAY CRIME

Utilize the power of analytics and prediction to identify where, when and what type of crimes will occur with CommandCentral Predictive. Using your Records Management System (RMS) data, the system "learns" from historical data specific to your jurisdiction and creates a prediction model for future crime. You receive daily, targeted crime forecasts in areas that are one-third smaller than their average patrol area, field tested to accurately predict on average 30% of next-day crime. Your officers receive detailed information on each prediction area, including full narratives, giving them the information required to take action in the field.

Example: A rash of robberies and assaults is plaguing a community over the course of a year. CommandCentral Predictive identifies that the robberies and assaults typically occur around 4 PM in specific areas. A crime analyst sees this information visualized on a map and identifies similar narratives all mentioning a white Ford vehicle for the group of robberies. The analyst

recommends directed patrol at those times. Officers in the field see the same information as the analyst in addition to past arrest records of offenders. The officers use the information provided to focus on key suspects, yielding to an arrest during a robbery.

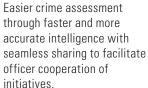
KEY USERS



Officer

Directed patrols for more effective policing with actionable intelligence delivered directly in the field.





Command Staff

Prioritized prediction boxes for improved Key Performance Indicators (KPIs) and resource allocation.

REQUEST A DEMO:

Register online at motorolasolutions.com/ spssdemo

WHAT IS PREDICTIVE ANALYTICS?

Predictive Analytics is more than just hot spotting and trending. It provides daily, focused crime forecasts that predict what crimes will occur and when, along with tactical details, so your officers can act on this information.

INTELLIGENCE-LED PUBLIC SAFETY SOLUTIONS (ILPS)

Integrate your various data sources and apply analytics and automation to provide actionable intelligence with ILPS solutions.

Your personnel in the command center or on the street now have capabilities to improve incident response, operations and strategic planning as well as investigations to improve overall intelligence and decision making.

FEATURES

- Targeted Area Predictions (TAP): Focused
 predictions are created by day, area and shift so they
 are relevant for each officer. Prediction boxes as small
 as 500' x 500' are easy to patrol and prioritized to help
 officers better understand where to spend their time.
- Detailed Prediction Information: Only CommandCentral Predictive tells officers where to look, and also what and who to look for. Summary data provides crime type, time frame and location, and is paired with detailed information including area crime history and full report narratives.
- Data Quality and Validation: Eliminate common data entry errors such as mismapped and misclassified crimes without disrupting data sets and operations. The Data Quality and Validation (DQV) tool includes built-in notifications regarding data fidelity, mismapped crimes and rule assignments to ensure mismappings are fixed and prevented in the future.
- Vendor Agnostic: Integrate Computer-Aided Dispatch (CAD) and RMS data from any existing vendor.
- Device Agnostic: Work seemlessly from desktop to mobile, regardless of device type or operating system used.
- Street View: Quickly and easily see a street-level view of prediction areas, centered at the point of the last crime, for greater situational awareness before heading out on the street.
- CommandCentral Analytics Integration: Built on the same platform with the same user interface, you can seamlessly switch between Predictive and Analytics for more efficient workflows.

FAST DEPLOYMENT

CommandCentral Predictive is delivered as a service through a web browser for a fast setup — usually complete within 24 hours. The solution is designed and deployed to meet the highest data storage and physical security standards. No major IT initiatives required. No additional hardware to buy. No additional data entry required. And since it integrates directly with your RMS or CAD system, no additional data entry is required after set up.

WORLD-CLASS SUPPORT

Motorola provides training resources so officers and leadership can increase overall effectiveness quickly by unlocking the full potential of predictive analytics. Live support ensures quick resolution to questions or issues. And after hours on-call support is available 24/7.



Tiered prediction boxes help command staff better allocate resources and officers be more effective.



View detailed narratives for past crimes in predictive areas for actionable intelligence on patrol.

COMMANDCENTRAL PREDICTIVE BETTER?
Your officers are

WHAT MAKES

provided with actionable predictions. Telling an officer to sit in an area and watch for thefts is not actionable and only serves to displace crime into other areas; however, CommandCentral Predictive provides your officers with all the situational awareness tools and access to full narrative information behind those predictions so they know who and what to look for on patrol.

For more information about CommandCentral Predictive, contact your Motorola representative or visit motorolasolutions.com/commandcentralpredictive

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COMMANDCENTRAL SEARCH

UNLEASH THE POWER OF SHARED DATA



Your agency is challenged with handling an increasing amount of data and an increasing number of data sources. There is valuable information in structured and unstructured data sets throughout public safety information systems across agencies and jurisdictions. Because the process of sharing information is often manual, time consuming and costly, criminals take advantage of jurisdictional boundaries in an attempt to avoid the likelihood of being caught for repeat offenses or reduce criminal prosecution. CommandCentral Search enables you to share and access information securely and efficiently from multiple databases across agency boundaries.

RAPID ACCESS TO ACTIONABLE INTELLIGENCE AND ANALYSIS

CommandCentral Search integrates disparate public safety information systems such as Computer Aided Dispatch (CAD), Records Management Systems (RMS), interview cards, License Plate Recognition (LPR), and more, with a nationwide data sharing network that serves as the backbone for sophisticated applications such as search and link analysis.

CommandCentral Search brings added value by providing an intuitive way for you to quickly retrieve information from the vast data sharing network. Find relevant information from millions of structured and unstructured records within seconds. Use basic link analysis to quickly identify relationships between people, places, and things resulting in faster case resolutions and better crime prevention.

KEY USERS



Intelligence Operator

Immediately access critical information related to person or property associated with an incident to ensure better decision making and the safety of officers at the scene.

Detective



Instant access to case reports and criminal history from multiple jurisdictions to quickly gather facts and build a stronger case, leading to swift apprehension of criminals and faster resolution of cases.

Crime Analyst



Sophisticated search and analysis tools to better understand patterns in crime and anticipate movement of criminal activity.

REQUEST A DEMO:

Register Online at motorolasolutions.com/ spssdemo

INTELLIGENCE-LED **PUBLIC SAFETY (ILPS) SOLUTIONS**

Integrate your various data sources and apply analytics and automation to provide actionable intelligence with ILPS solutions.

Your personnel in the command center or on the street now have capabilities to improve incident response, operations and strategic planning as well as investigations to improve overall intelligence and decision making.

ELIMINATE BOUNDARIES WITH MULTI-JURISDICTIONAL NETWORK OF INFORMATION SYSTEMS

Far too often critical data is siloed between agencies and jurisdictional boundaries inhibiting law enforcement agencies from effectively investigating crime. Agencies can share information with neighboring agencies using a federated approach, but that requires agreements and IT resources that can be costly, time consuming and often has limited value. CommandCentral Search provides a nationwide, cloud-based network of public safety information systems, purpose-built for public safety use, enabling agencies to share and access information in other jurisdictions without expensive deployment costs and maintenance overhead. Integrate your system with the CommandCentral data sharing network only once and immediately get access to data from hundreds of public safety information systems at the local, state and federal level. Data sources include CAD, RMS, ALPR, Interview Cards and more. With access to a nationwide network, you see the full picture, allowing you to track criminal activity as it moves between jurisdictions and reduce crime.

FIND CRITICAL INFORMATION THROUGH A POWERFUL AND INTUITIVE SEARCH TOOL

Access to data is one thing; however, true value comes from the ability to turn that data into actionable intelligence. CommandCentral Search provides a simple and intuitive way for you to quickly find important information related to a person, property or incident, without needing to know the location or structure of that data.

Unlike queries, which require precise keywords to lookup information, CommandCentral Search derives the context and intent of the user from the search terms. You are no longer limited to specific keywords to find information. Instead search through structured and unstructured content using free text input

that automatically accounts for misspelled words, homophones, and related terms to find the most relevant results for you. For example, a search for 'red baseball cap and blk leather jacket' will return incidents involving a 'red baseball cap and black leather jacket', a 'red baseball cap', or a 'black leather jacket'.

VISUALIZE COMPLEX DATA WITH LINK ANALYSIS

With basic, automatic link analysis provided for your search results, you turn rows and columns into a visual presentation. View charts for an easy, visual representation of links between people, entities, and events. Analysts gain insight into patterns and relationships between data sources that would otherwise remain hidden or require time intensive manual effort to uncover. Reduce the time spent on investigations by quickly detecting key points, anomalies and criminal associations.

SAVE COSTS AND BOOST YOUR KPI'S

CommandCentral Search gives you more resources to fight crime effectively. Our growing network of public safety information systems gives you immediate access to data in other jurisdictions. You save time and resources that you would otherwise invest in building your own private data sharing network and benefit as it continues to grow over time.

STREAMLINE SEARCH ACROSS COMMANDCENTRAL

CommandCentral Search is integrated into the CommandCentral platform to streamline your everyday workflows. Users have immediate access to hundreds of information systems in peer agencies and neighboring jurisdictions that can be accessed from within their CommandCentral Aware and Inform workflows. Results can then be correlated with the data at hand for more intelligent and more actionable information.

For more information about CommandCentral Search, contact your Motorola representative or visit motorolasolutions.com/commandcentralsearch

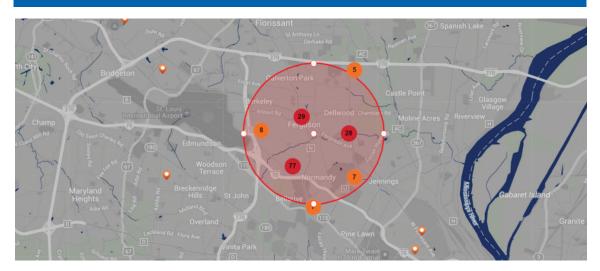
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COMMANDCENTRAL SOCIAL

ANALYZE SOCIAL MEDIA TO DISCOVER ACTIONABLE INTELLIGENCE



Citizens are using Facebook, Twitter, Instagram and more to communicate throughout the day, which can be a valuable source of information to help solve crimes faster and make the community safer. It is no longer a matter of whether to embrace social media, but rather a matter of how to do it effectively. With all the social media traffic posted each day, how do you quickly sort through the abundance of data, eliminate the noise and discover actionable intelligence? With CommandCentral Social, you can monitor and analyze the flood of social media and find relevant intelligence to support efforts to aid investigations, planning and real-time operations. Discover how to maximize the value of your social efforts while maintaining the right compliance, policies, procedures and citizen privacy requirements.

DISCOVER WHAT MATTERS

Automate social media collection, processing and analysis to discover relevant intelligence and assess risk, respond to threats, solve cases and increase situational awareness. Powerful analytics, coupled with intuitive visual tools and customizable rules, speed up the time it takes to turn information into action. You can also configure alerts to proactively send real-time notifications making it easier to anticipate potential criminal activity or aid an investigation. Social media analysis enables you to better identify persons or items of interest, gain deeper insight into law enforcement challenges and solve cases.

Example: A group begins threatening citizens and public safety personnel. Using CommandCentral Social, analysts are alerted to the threat and quickly identify individuals and related associates. Using the visual tools they identify the locations of the persons of interest. Using this intelligence they send patrols to specific locations to mitigate the threats before they become incidents.

KEY USERS



Detective

Perform complex searches by location or user to gather more evidence on an incident or suspects.



Intelligence Operator

Monitor real-time alerting to supplement CAD calls for service or proactively monitor for potential situations.



Command Staff

Geofilter posts by location or incident for additional situational intelligence.



Analyst

Pre-define alerts to detect critical issues to your community.

REQUEST A DEMO:

Register Online at motorolasolutions.com/ spssdemo

INTELLIGENCE-LED PUBLIC SAFETY SOLUTIONS (ILPS)

Integrate your various data sources and apply analytics and automation to provide actionable intelligence with ILPS solutions.

Your personnel in the command center or on the street now have capabilities to improve incident response, operations and strategic planning as well as investigations to improve overall intelligence and decision making.

FEATURES

Comprehensive Data Collection

- Automatic, direct collection of social media services
- Real-time access to social media data
- Long-term data storage to search historical data up to seven years

Alerting

- Configure alerts based on keywords, phrases, events or incident types; customize any way you want or use system-suggested filters
- Receive real-time alerts based on predefined rules
- Alerts delivered in real-time to CommandCentral Aware and CommandCentral Inform

Search

- Search social media by incident type, location and other keywords in seconds
- Search posts by location and even view the locations of untagged posts using meta data to infer position
- Common searches can be saved for quick retrieval

Analytics

- Natural language processing, heuristics and sentiment analytics engines help identify key persons of interest, potential witnesses and case-related evidence
- Intuitive social graphs and charts with multiple filter options
- Classify posts into key categories for faster, easier comprehension
- Automated correlation among disparate sources for increased results accuracy

Policy Enforcement

- Social media policy enforcement controls and privacy protections
- Role-based access controls to segregate users and the content they can see
- Detailed logging, reporting, and alerting on user activity in the system

EASY. INTEGRATED ACCESS

CommandCentral Social is built on the CommandCentral platform providing intelligence for real-time threat detection and alerting into CommandCentral Aware and CommandCentral Inform enabling data-sharing and enhanced situational awareness. Integration enables all users of CommandCentral Aware and CommandCentral Inform to realize the benefits of social media analytics, enhancing their decision making capabilities. To learn more visit motorolasolutions.com/ilps

For more information about CommandCentral Social, contact your Motorola representative or visit motorolasolutions.com/commandcentralsocial

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